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# PRAGMATIC LANGUAGE ABILITY IN A GROUP OF ADOLESCENTS WITH TRAUMATIC BRAIN INJURY

**Dissertation submitted in fulfilment of the requirements for the**

**Master's Degree in Communication Pathology KMP890**

**in the Faculty of Humanities**

**in the Department of Communication Pathology**

**UNIVERSITY OF PRETORIA**

**by**

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**Submitted: March 2009**

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# ACKNOWLEDGEMENTS

Thank you to the adolescents, their parents and teaching staff who participated in this study.

Many thanks to my supervisor, Alex Stipinovich, for guidance, advice and many hours of her time.

Thanks also to Katinka Baker, Julian Somers and Jean Jacoby for contributing their expertise to different aspects of this study.

Thanks too to colleagues at The Children's Trust, Tadworth for their practical assistance.



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# ABSTRACT

Traumatic brain injury (TBI) can result in a wide range of physical, cognitive, perceptual and communication consequences. When the TBI is acquired in childhood or adolescence, not only can existing abilities be affected, but the further development of abilities may be also be disrupted. Therefore the effects of a childhood TBI can reach far into the future.

Pragmatic language refers to the social use of language, and includes the communication behaviours needed to interact effectively with others. The main aim of this study was to describe the pragmatic language abilities of a group of adolescents with TBI. Using a descriptive, retrospective, cross-sectional design, the pragmatic language abilities of a group of five adolescents with TBI were analysed in-depth, in the context of reports of their executive function. A combination of existing and adapted, standardised and non-standardised assessment techniques was used to assess the adolescents, as well as elicit the views of parents and teachers regarding the adolescents' pragmatic abilities.

The standardised assessment tools revealed pragmatic language deficits for all of the adolescents. The non-standardised assessment tools enhanced the descriptions of the adolescents' pragmatic abilities, providing additional insights into the adolescents' difficulties as well as useful starting points for intervention. The pragmatic difficulties were discussed in terms of the executive deficits reported for all the adolescents.

The study strives to broaden the understanding of the effects of pragmatic language deficits on the adolescents and those around them. For adolescents with TBI, detailed descriptions of their pragmatic language abilities can lead to a deeper understanding of both their pragmatic strengths and weaknesses, which in turn can result in more meaningful assessment, more successful intervention, and better outcome measurement.



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**Key Terms**

*Pragmatic language, social use of language, communication, traumatic brain injury, TBI, adolescent, parent, teacher, insight, standardised assessment, non-standardised assessment, executive function*



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# LIST OF CONTENTS

page

**Chapter 1** 1

Introduction

**Chapter 2** 20

Pragmatic Language Abilities in Adolescents with Traumatic Brain Injury

**Chapter 3** 37

Research Method

**Chapter 4** 71

Results and Discussion of Results

**Chapter 5** 149

Conclusions and Recommendations

**Reference list** 168

**Appendices**



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# LIST OF TABLES

**Chapter 3**

| | | page |
|---|---|---|
| Table 1 | Description of participants: adolescents | 45 |
| Table 2 | Description of participants: parents | 46 |
| Table 3 | Description of participants: teaching staff | 46 |
| Table 4 | Open questions: parent interview | 59 |
| Table 5 | Open questions: adolescent interview | 62 |
| Table 6 | Description of pilot study children and adolescents | 64 |
| Table 7 | Description of pilot study teachers | 64 |

**Chapter 4**

| | | |
|---|---|---|
| Table 8 | BRIEF results: Parent Form | 73 |
| Table 9 | BRIEF results: Teacher Form | 74 |
| Table 10 | BRIEF validity scales: parents | 74 |
| Table 11 | BRIEF validity scales: teachers | 75 |
| Table 12 | Participants' performance on the BPVS-2nd Edition | 81 |
| Table 13 | Participants' performance on the TLC-E: Level 2 | 85 |
| Table 14 | Participants' performance on monologic narrative discourse | 94 |
| Table 15 | Participants' performance on the Pragmatic Protocol | 103 |
| Table 16 | Description of Pragmatic Protocol results | 103 |
| Table 17 | Interview themes shared by all of the parents | 112 |
| Table 18 | Interview themes shared by four of the five sets of parents | 118 |
| Table 19 | Interview themes shared by three of the five sets of parents | 121 |
| Table 20 | Most common interview themes across the adolescents | 130 |
| Table 21 | Adapted PODA results | 140 |
| Table 22 | Adapted PODA summary | 140 |



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# LIST OF APPENDICES

page

A. Ethical Clearance: National Health Service Committee for Research and Ethical Clearance in East Surrey, England 179
B. Ethical Clearance: University of Pretoria 181
C. Information sheet: adolescents 182
D. Information sheet: parents 184
E. Consent form: adolescents and parents 187
F. Letter to school 188
G. Information sheet: teaching staff 189
H. Consent form: teaching staff 191
I. Letter to general practitioner 192
J. Narrative one: picture stimuli- baseball story 193
K. Narrative two: picture stimuli- snow scene 194
L. Narrative instructions 195
M. Structured Multi-dimensional Assessment Profile (S-MAP) for Focused Holistic Rating of Picture Elicited Narratives 196
N. Pragmatic Profile (CELF-4UK): parents 197
O. Adapted Pragmatic Profile: adolescents 199
P. Adapted Pragmatically Oriented Discourse Analysis (PODA) 201
Q. BRIEF results: Jack 203
R. BRIEF results: Leo 205
S. BRIEF results: Carla 207
T. BRIEF results: Luke 309
U. BRIEF results: Kim 209
V. Narrative transcription: Jack 211
W. Narrative transcription: Leo 212
X. Narrative transcription: Carla 213
Y. Narrative transcription: Luke 214
Z. Narrative transcription: Kim 215



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# LIST OF APPENDICES *(cont.)*


| | | page |
|---|---|---|
| AA. | Pragmatic Protocol: Jack | 218 |
| BB. | Pragmatic Protocol: Leo | 220 |
| CC. | Pragmatic Protocol: Carla | 222 |
| DD. | Pragmatic Protocol: Luke | 224 |
| EE. | Pragmatic Protocol: Kim | 226 |
| FF. | Parent interview transcription: Jack | 228 |
| GG. | Parent interview transcription: Leo | 258 |
| HH. | Parent interview transcription: Carla | 275 |
| II. | Parent interview transcription: Luke | 293 |
| JJ. | Parent interview transcription: Kim | 312 |
| KK. | Parent interview themes: Jack | 327 |
| LL. | Parent interview themes: Leo | 329 |
| MM. | Parent interview themes: Carla | 331 |
| NN. | Parent interview themes: Luke | 333 |
| OO. | Parent interview themes: Kim | 335 |
| PP. | Adolescent interview transcription: Jack | 337 |
| QQ. | Adolescent interview transcription: Leo | 344 |
| RR. | Adolescent interview transcription: Carla | 351 |
| SS. | Adolescent interview transcription: Luke | 362 |
| TT. | Adolescent interview transcription: Kim | 369 |
| UU. | Adolescent interview themes: Jack | 382 |
| VV. | Adolescent interview themes: Leo | 383 |
| WW. | Adolescent interview themes: Carla | 384 |
| XX. | Adolescent interview themes: Luke | 385 |
| YY. | Adolescent interview themes: Kim | 386 |
| ZZ. | PODA: Jack | 387 |
| AAA. | PODA: Leo | 389 |
| BBB. | PODA: Carla | 391 |
| CCC. | PODA: Luke | 393 |
| DDD. | PODA: Kim | 395 |




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# CHAPTER 1

Introduction

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The language of friendship is not words but meanings.

*Henry David Thoreau*

## 1.1 INTRODUCTION

The purpose of this chapter is to orientate the reader by presenting the background to, and rationale for, this study as well as a statement of the research problem. The need for detailed descriptions of the pragmatic language abilities of adolescents with traumatic brain injury (TBI) is explored and the usefulness of both standardised and non-standardised procedures in order to formulate these descriptions is also presented. Outlines of the chapters included in this dissertation, as well as definitions of the terminology used within the dissertation, are provided at the end of this chapter.

## 1.2 BACKGROUND TO THE STUDY

### 1.2.1 Rationale for the study

***Traumatic brain injury***

TBI results in damage to the brain tissue of the injured person and can have lasting effects on his / her functional skills. Neuropsychological consequences include difficulties with attention, language and communication, impaired memory, visuo-motor and visuo-spatial abilities and executive functioning, as well as behavioural and emotional disturbances (Ewing-Cobbs, Levin & Fletcher, 1998). Physical difficulties often include problems with movement, balance, coordination and stamina (Powell, 2004).

The prevalence of TBI amongst children in the United Kingdom (UK) is high, with reports of up to 280 per 100 000 children being admitted to hospital with brain injury each year (Hawley, Ward, Long, Owen & Magnay, 2003). The majority of



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TBI survivors are reported to be adolescents (Kraus, Rock & Hemyari, 1990), but there is a paucity of research into the exact numbers of adolescents affected by TBI in the UK. Brain injury is, however, the most frequent cause of death and acquired disability in children and adolescents in industrialised countries (Ylvisaker & Feeney, 1998).

Love and Webb (2001) state that in TBI the principal type of injury is an acceleration-deceleration injury, in which the head is accelerated and then suddenly stopped, as in a road traffic accident (RTA). The linear acceleration forces produce focal coup injuries, i.e. damage at the site of the impact, as well as contrecoup damage, i.e. damage in the area opposite the point of direct impact (Ylvisaker & Feeney, 1998).

Often more damaging than the aforementioned linear acceleration forces, however, are the rotational acceleration forces, which cause both focal injury and diffuse axonal injury. Rotational inertial forces occur when the person has reflexively started to turn his / her head away from the point of impact: the skull is suddenly halted by the impact but the brain continues to rotate in the skull. These forces cause vulnerabilities in areas where the brain tissue is adjacent to bony ridges on the interior surface of the skull. Hence, damage to the pre-frontal cortex and anterior and inferior temporal cortex is frequent in TBI (Ylvisaker & Feeney, 1998).

In TBI there is often no evidence of focal lesions (Love & Webb, 2001). Diffuse brain injury, however, has very commonly occurred at the molecular level. The impact forces cause acceleration, rotation, compression and expansion of the brain inside the skull. Brain tissue is stretched, torn and sheared against the bony skull's prominences. Such injuries are known as diffuse axonal injury (DAI) and cause permanent changes in both white and grey matter (Love & Webb, 2001). DAI is commonly associated with 'slow processing of information in any modality, difficulties with alerting and focusing attention, slow and laboured gait and



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speech, easy fatigability, and difficulty integrating and organising large amounts of information' (Ylvisaker & Feeney, 1998, p. 46).

Focal and diffuse brain lesions, including DAI, result in many of the children who survive TBI having multiple, long term impairments (Michaud, Duhaime & Batshaw, 1993; Tennant, Macdermott & Neary, 1995). More specifically, impairments across many aspects of communication are associated with TBI (Turkstra, McDonald & Kaufmann, 1995). Of these communication impairments, pragmatic language impairment may represent one of the most pervasive communication problems in the chronic stage after TBI (Sohlberg & Mateer, 1989). This view gives impetus for pragmatic language to be further studied, assessed in detail and understood, with the ultimate aim of effective intervention.

***The effects of TBI on communication***

People who have sustained a TBI often have intact speech; expressive language which is reasonably fluent and grammatically correct; as well as language comprehension that is adequate to support interaction (Ylvisaker, Szekeres & Feeney, 2001). They do, however, often present with communication deficits, which are described by the American Speech-Language-Hearing Association as 'cognitive-communication impairment' (ASHA, 1988).

Long-term cognitive-communicative difficulties are numerous. They include disorganised and tangential discourse (i.e. going off the topic), imprecise language and word-retrieval problems. Disinhibited, socially inappropriate language and hyperverbosity (talking too much) are also features, as are the ineffective use of social and contextual cues, restricted output and lack of initiation. Difficulty comprehending extended language, spoken or written, especially under time pressure, is prevalent, as well as difficulty detecting main ideas. Other cognitive-communicative deficits are difficulty following rapidly spoken language, and difficulty communicating in distracting or stressful environments, as well as difficulty reading social cues and flexibly adjusting interactive styles to meet situational demands. Other common problems include



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difficulties understanding abstract language, including direct and implied meaning, as well as inefficient verbal learning and verbal reasoning (ASHA, 1988.

A cognitive-communication disorder therefore involves a breakdown in a range of cognitive and language abilities including, in particular, pragmatic language abilities, with pragmatics referring to 'interactive competence in social context' (Ylvisaker, 1993, p. 375).

***The effects of TBI on communication and interaction during adolescence***

Many aspects of communication are developing during adolescence. These include semantic development (to do with the meaning of words); syntactic development (referring to sentence structure); metalinguistic development (having the language to talk about language), as well as pragmatic language development (social use and understanding of language). In addition, further psychosocial and intellectual development occurs. As a result, adolescence is a time when sophisticated social communication skills are evolving (Spano, 2003; Turkstra, McDonald & DePompei, 2001; Turkstra et al., 1995).

A brain injury acquired during childhood or adolescence not only affects previously learned skills but also impacts on the development of further skills (Ylvisaker & Feeney, 1998). Therefore, its effects are not only immediately evident but also reach far into the future, impacting on a person's function in everyday life. Clinical evidence tends to support that deficits may only become apparent several years post trauma when social and academic demands exceed the young person's abilities (Turkstra et al., 1995). Therefore, not only adolescents who have acquired their TBI in adolescence, but also those who acquired them in childhood, require monitoring and support from communication specialists.

Social interaction is affected following a TBI. The reasons for breakdown in this area are varied. Prolonged hospitalisation means that the child or adolescent is



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separated from his / her peer group for a significant period. Disinhibited, aggressive or impulsive behaviour, common sequelae to TBI, impede social interaction (Hawley, 2004; Ylvisaker & Feeney, 1998). Behavioural issues such as poor anger management and violent outbursts often lead to permanent exclusion from school (Hawley, 2004), thus excluding the adolescent from his / her peer group and limiting their opportunities for social interaction. In a study by Burke, Wesolowski, Buyer and Zawlocki (1990), most of the adolescents who had sustained a TBI were described as having poor self-esteem, inappropriate social skills and non-compliance, which emphasises the social disadvantage which he / she experiences. Poor social judgment and problem-solving skills make the brain-injured adolescent vulnerable in social situations (Ylvisaker & Feeney, 1998) and him / she is open to others taking advantage of him / her or influencing him / her in negative ways.

Inflexibility in reasoning in adolescents who have sustained TBI was also reported by Didus, Anderson and Catroppa (1999), which by implication makes social interaction difficult. If the adolescent has long-term physical disabilities, their participation in sports activities, which often are opportunities for social interaction, is curtailed or ceases (Jacobs, 1993). Because of compromised pragmatic language abilities, the adolescent may lack the skills to maintain old friendships or establish new ones. Ylvisaker (1993) reported the possibility that reduced initiation or over-initiation of communication causes significant social disability. Compromised non-verbal communication skills, as well as a more concrete understanding of language and humour can make social interaction difficult (Ylvisaker & Feeney, 1998). While peers are starting to gain increased independence, adolescents with TBI often have their independence restricted in order to maintain their personal safety, with resulting limitations on their social interaction with others.

Reduced self-awareness following TBI commonly leads to the adolescent having difficulty identifying his / her strengths and limitations. Ylvisaker and Feeney (1998) report that realistic goal setting is affected in this population. As a result



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they may not be able to choose academic subjects realistically. This will affect their academic outcome as well as career planning. Vocational options are also often limited as a result. Due to acquired cognitive and communication difficulties, options previously available to the adolescent may no longer be appropriate.

***The effects of TBI on school reintegration in adolescence***

Reintegration into school after TBI is often a difficult process for the adolescent. This reintegration process can be hampered by many factors. Hawley (2004) reported that students with TBI are at a significant risk of developing behavioural problems, which may affect performance in school. Fatigue, both physical and mental, following brain injury is common (Jacobs, 1993) and means the adolescent is not necessarily able to participate in a full school day. Acquired cognitive challenges, for example with attention, memory and information processing, mean that academically they are unlikely to achieve to previous levels. Difficulties with new learning are often reported, particularly with learning abstract concepts (Ylvisaker & Feeney, 1998). Pragmatic language demands, such as using context to infer meaning and understanding figurative language, increase in secondary school. However, these skills are often compromised in TBI (Chapman, Levin & Lawyer, 1999). Thus socially and academically, the adolescent with a TBI is faced with many obstacles to successful reintegration.

Reintegration into school post TBI can also be affected by teachers' knowledge of, and attitude towards, the students. Significantly, not all teachers in a particular health region in the United Kingdom (UK) were reported to have been made aware that a child in their class had suffered a TBI, especially if it had taken place in school holidays or when the child was younger (Hawley, Ward, Magnay, & Long, 2002). In this study, the researchers reported that 80.4% of parents stated that teachers knew of the injury on initial school return. By the time that the survey was conducted, however, which for a number of respondents was some time after their child's TBI, only 39.4% of parents stated that teachers were aware of their child's injury. Hence, information regarding the injury had not been communicated from teacher to teacher at times of transition. Only 20.2% of the



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cases reported special provision being made for their child on initial school return. These statistics would suggest inadequate therapeutic involvement in both planning school reintegration and providing training for teachers on the effects of TBI. Therapy provision for this population was indeed reported to be sparse; only 7.6% of the group reported receiving any therapeutic support for their children. The reason for this low percentage was not provided, but given the strong likelihood for cognitive, communication and resulting academic difficulties post TBI, the need for therapeutic support, including speech and language therapy, would appear obvious. Because the findings of Hawley et al. (2002) represent only one health region in the UK, the results cannot be extrapolated to all the health regions, but could be interpreted as a red flag for potential shortfalls in therapy and education provision for the TBI population of school-going age.

In the light of this information, the role of the speech and language therapist in assessment and description of communication, including pragmatic language abilities, needs to be highlighted. Increased awareness of the extent of pragmatic disability in adolescents post TBI could help to justify increased involvement of speech and language therapists with this population in the UK, particularly with the reintegration process into home, school and community.

***Research into adolescent pragmatic language in TBI***

Having described the potential impact of impaired communication skills, and specifically pragmatic language difficulties, on social relationships, academic performance and future vocational options, there is clearly still need for further research into the effects of TBI in adolescence.

Much of the research into pragmatic language function has focused on the adult brain-injured population, as opposed to the adolescent population. Research with the adult population includes studies on narrative discourse (Body & Perkins, 2004); conversation-based assessment of social cognition (Turkstra, 2008); narrative and procedural discourse (Hartley & Jensen, 1991); descriptive discourse (Hough & Barrow, 2003); narrative and conversational discourse



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(Coelho, Youse, Le & Feinn, 2003), and conversational discourse (Coelho, Youse & Le, 2002; Snow, Douglas & Ponsford, 1998). Milton, Prutting and Binder (1984) discussed communicative competence in head-injured adults, while microlinguistic deficits in narrative discourse were investigated by Coelho, Grela, Corso, Gamble and Feinn (2005), and Mentis and Prutting (1991) discussed topic analysis. Other studies covered topics such as a clinical tool for pragmatic language testing (McDonald & Pearce, 1995); cohesion in discourse (Mentis & Prutting, 1987), and meeting the informational needs of listeners (McDonald, 1993).

Some studies have examined areas of pragmatic function in children, but not in adolescents. For example, a study by Morse, Haritou, Ong, Andersen, Catroppa and Rosenfeld (1999) examined pragmatic and syntactic language performance in children between the ages of four and six years, and Chapman, McKinnon, Levin, Song, Meier and Chiu (2001) studied verbal discourse in children five to ten years old.

Several studies with brain-injured adolescents have investigated aspects of language function, not including pragmatic abilities. Wide-ranging topics have been covered, including verbal memory and learning (Ylvisaker, 1989); speed of processing (Ylvisaker, 1989); verbal fluency and naming (Ylvisaker, 1989), as well as syntax and semantics (Jordan & Ashton, 1996). Turkstra and Holland (1998) investigated the effects of stimulus presentation rate on syntax comprehension, and the effect of working memory on syntax has also been examined (Turkstra, 1999). Language testing in the adolescent TBI population has been discussed (Turkstra, 1999). These studies, although yielding important information, focused on linguistic competence as opposed to pragmatic abilities.

According to Turkstra et al., (1995), few studies have investigated the incidence and nature of pragmatic language disorder in the adolescent brain-injured population. They discuss possible reasons for this lack of research. Firstly, pragmatic deficits in daily interactions are difficult to capture in a quantified,



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systematic way. Secondly, most research has focused on short-term outcomes, as the long-term outcome on communication is underestimated. Thirdly, when researchers have addressed pragmatic aspects of language, they have typically reported group data. Given the heterogeneous nature of the TBI group, informative individual differences have not been recorded. Finally, there is a lack of available data which gives detailed descriptions of pragmatic language abilities in uninjured adolescents and so comparisons with the norm are difficult to make.

Snow et al. (1998) also describe the difficulties with pragmatic language assessment as including paucity of information regarding the range of normal pragmatic behaviours across different communities. In addition, McGann and Werven (1995) note the lack of published normative data on the subject. Added to this, it is accepted that normal performance is subject to large variation, so it is difficult to quantify deficits after TBI (McGann & Werven, 1995).

In the intervening years since Turkstra et al. (1995), Snow et al. (1998), and McGann and Werven (1995) made these assertions, a small number of studies have been completed, examining various aspects of the pragmatic language abilities of normally developing adolescents (Ciccia & Turkstra, 2002; Turkstra, 2000; Turkstra, 2001; Turkstra, Ciccia & Seaton, 2003). The results of these studies are helpful indicators of normal adolescent pragmatic behaviour, but due to small sample sizes and a focus on the American culture, remain preliminary findings. Normative data, however, also needs to be treated with caution when it comes to pragmatic language. McGann and Werven (1995) argued that it unlikely to be possible to develop normative data with regard to pragmatic behaviours, such as eye-gaze, topic selection and body posture, because of the 'enormous variety that exists within and across the variables relevant to those behaviours' (1995, p. 95). These variables include factors such as role and context, social background, communicative relationship and individual differences. Thus research into pragmatic abilities should not await complete normative data; it has to proceed, taking into account the aforementioned variables.



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There are a small number of studies which have targeted specifically pragmatic aspects in adolescents. Many of these have focused on one particular aspect of pragmatic language, even though by definition pragmatic language is not a unitary concept. Pragmatic language includes a range of abilities and behaviours that are interdependent. For example, in order to use sarcasm effectively, a person needs to understand sarcasm, judge if it is appropriate to use sarcasm in a particular situation, adjust his / her communication style to suit the communication partner, use appropriate non-verbal communication to convey intended meaning, and finally judge how the conversation partner is reacting to the sarcastic remark. Examining individual aspects of pragmatic language in isolation is a practical way of approaching this complex field, but it must be acknowledged that by doing so, the full complexity of pragmatic language is not reflected.

Jordan and Ashton (1996) reported compromised pragmatic language function in children and adolescents with closed head injury, as measured by one formal test. In the light of the preceding argument, it could be argued that this measure examined limited aspects of pragmatic language, leaving others unaddressed. Further research is therefore indicated. Similarly, some have focused specifically on narrative discourse (Biddle, McCabe & Bliss, 1996; Chapman et al., 1992), again yielding useful outcomes but not capturing a holistic picture of individuals' communication abilities and, particularly, pragmatic function. The role of working memory in proverb comprehension (Moran, Nippold & Gillon, 2006) was investigated, with significant links being found between working memory and figurative language comprehension. Limitations in this study were the small sample size involved, the test situation not being representative of real-life environments, and the narrow focus on one aspect of pragmatic language.

Dennis, Purvis, Barnes, Wilkinson and Winner (2001) reported on the ability to understand literal truth, ironic criticism and deceptive praise in children and adolescents with closed head injuries. The findings showed that these skills were impaired in participants with both mild and severe brain injuries, which was a



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useful outcome, but the study used a small number of participants and targeted only receptive pragmatic abilities.

These studies have all yielded significant information, but there is also call for capturing a wider range of pragmatic language function, to allow for a full pragmatic language profile to be described. Such descriptions have scope to detail individual differences in the heterogeneous TBI population.

Other studies which investigated a broader range of pragmatic function have also produced important findings, but with the limitation of not having taken place in ecologically valid settings. Moran and Gillon (2004) reported on language comprehension and working memory in adolescents following TBI, which included some high-level language and pragmatic testing. This study provided important findings regarding the variability of the language and pragmatic profiles of the adolescents, but only reported on skills which were tested in the clinical setting and not situations reflecting real-life communication demands. Turkstra et al. (1995) examined pragmatic abilities, viz. the brain-injured adolescent's ability to negotiate, hint, describe a simple procedure and understand sarcasm. This usefully covered a number of issues within the communication dyad but took place in structured clinical settings. Thus performance in real-world settings was not captured. Docking, Murdoch and Jordan (2000) found that head-injured adolescents had difficulty interpreting linguistic humour, as measured by a 'humour' test. Again, this was useful information, but was gained in a clinical setting, not taking into account real-life variables.

There are gaps, therefore, in the literature regarding the description of pragmatic language function in the adolescent population, particularly in ecologically valid contexts, and taking into account a fuller range of pragmatic function. Further research can bring new perspectives to the existing knowledge base and can contribute to refining assessment procedures and implementing intervention approaches, as well as to developing meaningful outcome measures for this age group.



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***Views of significant others and adolescents on their pragmatic abilities***

Assessment of pragmatic abilities needs to include the views of those people who know the adolescent in a range of contexts, so as to gain a more holistic view of the adolescent's abilities. It would be unrealistic for a speech and language therapist to expect to see a full range of pragmatic behaviours during an assessment period. In addition, if the adolescent is only judged in terms of their conversation in a clinical setting with a clinician, the outcome could be criticised on ecological validity grounds (Turkstra, 2001). Gaining the views of others can increase the reach and reliability of the assessment.

Despite this, there is little research pertaining specifically to parents' views on their children's communication skills, and in particular their pragmatic language abilities. Recent research with parents has concentrated instead on other issues. For example, Prigatano and Gray (2007) reported on parental concerns and distress following their child's TBI; Man (2002) conducted interviews with family care-givers to assess coping and stress reactions, and Wade et al. (2004) studied parental adaptation following paediatric TBI. Eliciting the views of both adolescents and their parents on a topic following TBI has occurred even less frequently. One study which has taken place, by Gagnon, Swaine, Champagne and Lefebvre (2008), focused on service needs following mild TBI, but not on the impairments of the adolescent. Parent-adolescent interactions have also received attention (Wade et al., 2003), but do not include measures of pragmatic language ability.

A study by Hawley et al., (2002) did elicit some views from parents on aspects of communication function, but this was not its primary focus. A population-based postal questionnaire survey was conducted with parents of children who had suffered TBIs between the ages of five and 15. Information was collected across a range of categories, such as the type of follow-up services received, reintegration into school and changes in the child following brain injury. Although this type of study was able to gather useful information regarding facts, such as the length of time the child was off school, or the amount of therapy received, a



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postal questionnaire survey was not the most effective manner in which to establish the nature of the changes in the child. For example, parents were asked to state whether they thought their child was 'more outgoing', if their child had undergone a 'personality change', if they had noticed a 'change in their sense of humour', and if their child was 'more sociable' (Hawley et al., 2002, p. 979). Many of the recently injured children were described by their parents as being 'more sociable' and 'more outgoing', characteristics described by Hawley et al. (2002) as not being problematic. Given the co-occurrence of disinhibited behaviour in TBI, however, it would have been useful to have explored these comments in more detail with parents in an interview context. This would have established whether the outgoing or sociable characteristics were indeed positive or were in fact indicative of underlying communication difficulties. Hence, interviews with parents could have gleaned more detailed information and allowed for any potential misunderstanding of terms to be clarified.

Similarly, teaching staff have rarely been consulted regarding their views on the pragmatic language abilities of adolescents with TBI, in the school context. Recent research has focused more on behaviour and school performance, such as Hawley (2004) who reported on behaviour and school performance in children and adolescents, and Hawley's (2005) single case study of an adolescent in school. Other studies involving teachers have focused on aspects such as emotional and behavioural adjustment, and classroom performance in younger children (Yeates & Taylor, 2006). Although behaviour and school performance are closely related to communication, these studies were not specifically concerned with gaining teachers' views of their students' pragmatic language function.

Research into self-awareness of adolescents regarding their communication skills is also lacking. Given the relevance of good self awareness in the success of rehabilitation (Manchester & Wood, 2001), this also represents a gap in the brain injury literature.



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As a result, there is a need for research with a strong focus on eliciting the views of adolescents with TBI, as well as their parents and teachers, in order to form an integral part of the description of the adolescents' communication, and specifically their pragmatic language abilities.

***Assessment procedures***

In the absence of a large choice of standardised pragmatic language assessments, the use of non-standardised measures in the adolescent TBI population is imperative (Coelho, Ylvisaker & Turkstra, 2005). Standardised procedures are particularly lacking for assessment of abilities in real life or ecologically valid settings, thus also necessitating non-standardised approaches. There is a paucity of research regarding non-standardised procedures, particularly when used in conjunction with those standardised procedures which are available, such as the Test of Language Competence-Expanded (TLC-E; Wiig & Secord, 1989). Further research is therefore necessary in order to consider these topics.

### 1.2.2 Research Question

Pragmatic language impairment cannot be summarised neatly by a number or be plotted on a graph. Its very nature – dealing with the subtleties and complexities of human communication and interaction – demands detailed description in a heterogeneous population as opposed to superficial comment. Quantitative diagnoses can aid description but not replace it. Detailed descriptions of this nature can facilitate understanding of the individual's strengths, needs and preferences, as well as bring treatment priorities into focus. For the adolescent with pragmatic language difficulties following TBI, this can result in more meaningful assessment, more successful intervention, and better outcome measurement.

Turkstra et al. (1995) maintain that researchers have typically reported group data when addressing pragmatic aspects of language, despite the heterogeneous nature of the TBI group, and the resulting implication of diversity.



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They state that informative individual differences have not been recorded. This study, however, aims to record such individual differences. Standardised assessments of pragmatic language ability in this population are lacking (Turkstra, Coelho & Ylvisaker, 2005), thus the use of non-standardised procedures is essential in order to uncover these individual differences.

This study therefore sets out to describe the pragmatic language abilities of a group of adolescents with TBI. It is a preliminary study which explores in depth both the skills and the views of the adolescents regarding their pragmatic language abilities, as well as the views of their parents and teaching staff. Using standardised and non-standardised, existing and adapted, instruments to gather information from the adolescents, their parents and teaching staff, the study aims to give insights into the effects of TBI on the adolescents and those around them.

### 1.2.3 Definition of Terms

**Adolescent:** according to the Oxford Dictionary-Revised Edition (Waite, Ed., 1998), an individual who is between childhood and adulthood is described as an adolescent. A child becomes an adolescent at the time puberty begins. According to Spear (2002), several researchers consider the adolescent period to start at about age 11 and carry on into the twenties, because based on physiological research, brain development continues until this time. For the purposes of this study, 'adolescent' will refer to young people of secondary school age in the United Kingdom.

**Assessment:** the Oxford Dictionary-Revised Edition (Waite, Ed., 1998) describes assessment as the process of estimating size or quality of an entity. Paul (2007) states that the assessment process, when working in the medical model, can be divided into two processes, i.e. appraisal and diagnosis. The appraisal involves collecting data from case history and available records, from interviews and questionnaires completed by the parent, as well as from direct examination of the child. The diagnosis results from the study and interpretation



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of all the information, and involves identifying the problem, often with some suggestion regarding its cause.

**Behaviour:** the Oxford Dictionary-Revised Edition (Waite, Ed., 1998) describes behaviour in terms of manners or conduct. In the context of this study, however, it extends to include the sum collection of actions and reactions displayed by a person.

**Discourse:** a unit of language that conveys a message. Although usually defined as a series of related sentences, it may be any length, depending on the communicative function it sets out to achieve (Coelho, 1999).

**Discourse analysis:** the analysis of 'language in use' (Brown & Yule, 1983, p.1). The process involves investigating the purpose for which language is used. According to Brown and Yule (1983), language function may be transactional, i.e. language expressing content, or interactional, i.e. language expressing social attitudes and personal attitudes. In this study, discourse analysis is primarily used to study the interactional function of language.

**Executive function:** an umbrella term for a collection of related functions which are responsible for purposeful, goal-directed, problem solving behaviour (Gioia, Isquith, Guy & Kenworthy, 2000). These functions include inhibiting actions, restraining and delaying responses, selective attention, goal setting, planning, organising and maintaining actions or shifting actions flexibly in order to achieve goals (Singer & Bashir, 1999). Ylvisaker and DeBonis (2000) also include self-awareness of strengths and limitations in any domain, as part of executive function.

**Insight:** the extent to which an individual accurately judges his / her own strengths and difficulties. The term 'self-awareness' is also used to describe this concept. It is common for people with brain injuries to overestimate their strengths and underestimate their difficulties. Insight can exist at various levels,



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starting with objective knowledge of injury-related deficits, progressing to awareness of the implications of these deficits on everyday function, and finally, to the ability to set realistic goals and predict one's future state accurately (Fleming & Strong, 1995).

**Narrative:** an important communicative structure used to accomplish specific communicative purposes (Paul, 2007). A narrative is a monologue that is tied into 'cohesive units by linguistic markers and thematic unity' (Paul, 2007, p. 175).

**Non-standardised assessment:** an assessment which has not been standardised on a normal or clinical sample (Coelho et al., 2005b). The procedures are not prescribed in the same way as standardised assessment procedures. Non-standardised assessments can measure function at all of the levels described by the International Classification of Functioning, Disability and Health (ICF) reported by the World Health Organisation (WHO, 2001) viz. impairment, activity or participation, levels of disability, as well as personal or environmental factors.

**Pragmatic language:** this refers to the social use of language. It includes the language & communication behaviours needed to interact effectively and appropriately with others. It involves taking into account the context in which communication is occurring and adjusting communication styles accordingly. It also includes using contextual information to aid understanding of language being used.

**Standardised assessment:** a test or measure (such as a checklist or questionnaire) in which procedures for administration are well defined and prescribed (Coelho et al., 2005b). A standardised test is often norm-referenced, i.e. 'scores are interpreted with reference to the scores of a normative sample' (Turkstra et al., 2005, p. 216). From the ICF perspective, standardised assessments can measure 'impairments, limitations in activities and participation, and personal or environmental factors' (Turkstra et al., 2005, p. 216).



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**Traumatic brain injury:** damage to living brain tissue caused by an external force. The major distinction is between an open head injury (penetrating brain injury) and a closed head injury (non-penetrating head injury). The injury is usually characterised by a period of amnesia or coma, i.e. altered consciousness, which can last from minutes to an indefinite time period. The term does not include brain injuries that are caused by congenital disorders, birth trauma, insufficient blood supply, toxic substances, malignancy, or degenerative processes (Ylvisaker & Feeney, 1998).

### 1.2.4 Chapters

**Chapter One: Introduction.** The background to the study is described and reasons for conducting the research are offered, in light of research already presented on the subject. Definitions of terms used in the dissertation are provided, and a summary of the layout of chapters is given.

**Chapter Two: The pragmatic language abilities of adolescents with TBI.** Theoretical perspectives on pragmatic language, pragmatic language assessment and the context in which pragmatic language exists, are discussed.

**Chapter Three: Methodology.** The research methods used in the study are discussed in this chapter. The aim of describing the pragmatic language abilities of adolescents with TBI is described further. The rationales are given for the research design, as well as for the inclusion of the test instruments used. Ethical considerations are also addressed, as well as the validity and trustworthiness of the collected data.

**Chapter Four: Presentation and discussion of results.** The results of the research are presented and discussed in this chapter. Interpretations of the results are offered and potential reasons for the findings proposed. The significance of the results for assessment and intervention is explored.



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**Chapter Five: Conclusions and recommendations.** The conclusions of the research are discussed, with implications for the field of communication pathology. The weaknesses and the strengths of the study are expanded upon, and recommendations for future research in the area are made.

## 1.3 CONCLUSIONS

In this chapter, the context for the study is set. It is evident that research into the pragmatic language abilities of adolescents with TBI is necessary, given the significant functional implications of pragmatic language impairment. There are gaps in current literature, particularly regarding pragmatic language in the adolescent TBI population, as much recent research has focused on the adult brain-injured population. In order to provide richer descriptions regarding the adolescents' pragmatic language abilities, there is a need for the views of parents, the adolescents with TBI and their teachers to be taken into account. The use of both standardised and non-standardised procedures in pragmatic language assessment is important, due to the lack of comprehensive, published assessments focusing on adolescent pragmatic abilities.

## 1.4 SUMMARY

In this chapter the background to this study has been expanded upon. The need for further research focusing on the description of the pragmatic language abilities of adolescents with TBI, using both standardised and non-standardised assessment tools, has been justified. Important terms used in this study have been defined and an outline of the study has been provided to orientate the reader and give an overview of how the information will be presented.



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# CHAPTER 2

Pragmatic language abilities in adolescents with traumatic brain injury

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## 2.1 INTRODUCTION

In this chapter, the concept of pragmatic language is expanded upon. Theoretical perspectives on the study of pragmatics and its application to the brain injured population are explored, as well as the need to assess communication competence within the communication dyad, as opposed to assessing the speaker's linguistic skills outside of the social context. Standardised and non-standardised pragmatic language assessment of adolescents with traumatic brain injury (TBI) is considered in the light of the World Heath Organisation's (WHO) International Classification of Functioning, Disability and Health's (ICF) levels of health outcome, viz. Body Structure and Function, and Activity and Participation, taking into account contextual factors (WHO, 2001). Finally, the relationship between high level cognitive skills, or executive function, and pragmatic abilities is discussed.

## 2.2 THEORETICAL PERSPECTIVES ON PRAGMATIC LANGUAGE AND ASSESSMENT

### 2.2.1 Pragmatic language defined

Pragmatics is 'interactive competence in social context' (Ylvisaker, 1993, p. 375). Pragmatic language has been defined as 'the area of language function that embraces the use of language in social contexts; knowing what to say, how to say it and when to say it - and how to be with other people' (Bowen, 2001, http://members.tripod.com/Caroline_Bowen/spld.htm). Pragmatics therefore is concerned with the way language is used to communicate as opposed to the way language is structured (Owens, 1996).



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Pragmatic language is complex as it applies a range of skills including social skills, socio-cultural awareness, inferential ability and general knowledge (Body, Perkins & McDonald, 1999). Indeed, it is considered the 'most complex aspect of linguistic functioning' (Martin & McDonald, 2003, p. 451) precisely because it involves so many knowledge bases and interacting cognitive systems.

Fromkin and Rodman (1998) state that pragmatics looks at the interpretation and use of language in context. The context refers to both the linguistic context, i.e. the discourse that precedes the utterance to be interpreted, and the situational context, i.e. knowledge of the world. Pragmatics in this way is distinct from grammar, syntax and semantics, but is also interrelated. It is essential to understand the structure and meaning of a sentence or phrase as well as be able to interpret the broader context. Similarly, not only is it important to be able to construct linguistically meaningful utterances; it is crucial to use them in the appropriate contexts and to realise the importance of what is *not* said.

### 2.2.2 The development of pragmatic language

Pragmatic language development begins during the first year of a child's life. Before infants understand or utter their first words, they have already started understanding and using some sophisticated communication skills. These include turn-taking, modifying facial expressions and interpreting non-verbal requests (Owens, 1996). They master the use of vocalisations and gestures in order to achieve a function such as requesting or refusing an object, commenting on something or engaging in communicative games. Only then do they start using words to achieve these same purposes (Chapman, 2000). Language learning, it is fair to say, takes place in a context, as a child interacts with that context.

By two years, a toddler is starting to use language to answer questions and acknowledge others, as well as to request information (Chapman, 2000). The two-year-old takes part in short dialogues and starts to introduce and change topics of discussion (Owens, 1996). At this age though, contingent speech - speech connected to preceding comments - remains more difficult than



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spontaneous speech (Owens, 1996). Some polite forms, such as 'please' emerge, and the two- to three-year-old becomes able to talk about objects not in the immediate vicinity and starts misrepresenting reality, for example with simple lying or teasing. Narratives start as descriptions but then develop into basic sequences with themes but no plots. By three years of age, primitive narrative forms are emerging, with the child able to organise and relate some information on a theme. At this stage too, indirect requests emerge (Chapman, 2000) as the child learns to veil their intentions to try to direct their partner's behaviour (Owens, 1996). Three- to four-year-olds begin to understand more of their listener's assumptions and starts to use more elliptical responses, realising that it is not always necessary to refer to shared information (Owens, 1996). The use of register develops from an early age too, with children as young as four years displaying different styles of speaking, particularly in their play (Owens, 1996).

Other important pragmatic functions develop in the pre-school period, including using language to reason, predict outcomes and express empathy as well as to maintain interactions (Chapman, 2000).

In early school-aged children, narrative forms continue to evolve, with five to seven-year-olds being able to relate a story with a central focus, high point and resolution (Chapman, 2000; Owens, 1996). Deictic terms are both understood and used by seven-year-olds (Owens, 1996) and over the next two years or so, the child starts to consider others' intentions more, and take their perspectives in certain contexts (Chapman, 2000). Eight–year-olds have been shown to understand some linguistic ambiguity of idioms in the context of humour (Spector, 1996). By nine years, all elements of story grammar are produced and conversation skills have become more sophisticated as the child starts not only to sustain a topic through a number of turns but also addresses sources of breakdown. By eleven years of age, the child starts to deal with abstract topics in conversation (Owens, 1996).



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A view exists that language use constitutes the most important area of linguistic growth during the school years and into adulthood (Owens, 1996). Ylvisaker (1989) also refers to adolescence as a time of significant metalinguistic and pragmatic language development. During adolescence the use of language and effective use of sarcasm, jokes and double meaning develops further (Shultz, 1974). Deliberate use of metaphors emerges (Owens, 1996) and by late adolescence sophisticated social perspective-taking has also developed; the adolescent is aware of his / her communication partner's perspective and knowledge (Owens, 1996). Several studies describe emergent adolescent pragmatic language abilities. These abilities include increasing ability to understand and use the figurative function of language (Nippold, Moran & Schwarz, 2001; Qualls, O'Brien, Blood & Hammer, 2003). Adolescents use puns and learn to understand and use metaphors, proverbs and idioms (Paul, 2007). Importantly, they begin to use slang and 'in-group' language, the appropriate use of which helps to determine group membership (Nippold, 1998). Adolescents also become skilful at using language for a range of communication purposes, such as persuasion, negotiation and establishing social dominance (Nippold, 1994). A highly significant shift also occurs around this time, because the basis of friendship is no longer mediated as much by sharing an activity, like in childhood, as it is by talking. Communication is enjoyed for its own sake (Raffaelli & Duckett, 1989).

Disruption at any time to a child or adolescent's development, for example due to brain injury, will have far-reaching consequences, possibly affecting the acquisition of some or all of the pragmatic abilities described. This is significant as these are the skills which lay the foundation for successful social interaction.

This study is concerned with the pragmatic language of a group of adolescents with TBI. However, it is important to know about the development of pragmatic language from childhood through to the adult years. This is relevant because brain injury can occur at any stage of development. The brain injury not only disrupts that particular developmental stage, but can reach back and rob a child



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or adolescent of pragmatic language abilities they have already acquired, as well as reach into the future and hinder further development in this area (Ylvisaker, 1993).

### 2.2.3 The study of pragmatics

It is significant that pragmatic language has drawn comment from many fields of academic study over the years, emphasising its complex nature. Kelman (2004) noted that, historically, interest in the analysis of conversation and interaction grew from a range of disciplines, including communication pathology, psychology, philosophy, sociology, anthropology and linguistics. Although Elizabeth Bates was the first person to apply the term 'pragmatics' to the field of communication pathology in 1976, defining it as the rules which govern the use of language in context (Bates, 1976), much groundwork in developing this concept had been done over the preceding century.

The word 'pragmatics' is rooted in the Greek *πpama*, meaning 'action'. Prutting (1982) stated that the purpose of the Pragmaticism Movement, mainly fuelled by philosophers from the 1870's onwards, was to reinterpret knowledge as function. Charles Peirce in the 1870's was followed by William James and Ludwig von Wittgenstein, in the early to mid twentieth century, who all furthered the view that language meaning was in its use. It was not, however, until the 1960's and 1970's when a paradigm shift occurred in the field of Communication Pathology, that the focus moved from a linguistic paradigm to the philosophical one (Prutting, 1982). This was in the face of child language research expanding to include pragmatics and phonology, in addition to syntax and semantics (Paul, 2007).

The linguistic paradigm significantly influenced the emerging field of Communication Pathology. This paradigm was fuelled in turn by the transformational grammar theory of Chomsky, which proposed an innate disposition to learn language (Prutting, 1984). The focus was on the speaker learning a set of rules. Language was a set of sentences, the purpose of which



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was to express thought. Competence was rated in terms of the production, comprehension and judgment of grammatical accuracy.

In contrast to the linguistic paradigm, the philosophical, or speech act theory, moved the focus to speakers and listeners and what they do in a range of communicative interactions. The focus was now on the dyad, not purely the speaker. Language, it was proposed, was an instrument for social interaction, with communication as the function. The criteria for competence therefore also changed, to focus on social competence; on the ability to initiate, maintain and terminate social relationships (Prutting, 1984).

### 2.2.4 Applying theory of pragmatics to the field of TBI

Prutting (1982) suggested that, because of this shift from the linguistic to the philosophical paradigm, there would be implications for communication pathology assessment and treatment. The unit of measurement for assessment would naturally become the communication dyad, because judging competence would take place in the context of relationship. Assessment would have to take place with these relational parameters intact (Prutting, 1982). Treatment too would develop a different focus. It would be based on facilitating relevant, functional communicative interactions. It would involve linguistic, rule-governed behaviour as well as social conventions and cognitive knowledge.

The TBI population is one in which linguistic ability is often adequately preserved, but breakdown in communication in the social context is a prominent feature. Hence the philosophical paradigm, as opposed to the linguistic paradigm, is of particular relevance when considering assessment and treatment in individuals with TBI.

McGann and Werven (1995) argued that, despite Prutting's assertions in 1982 of the need for a holistic approach to the client apart from the diagnosis, Communication Pathology in particular and brain injury rehabilitation in general, moved in a different direction. This direction was one in which assessment and



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therapeutic intervention were driven instead by 'the need for explicit diagnoses derived from standardized quantitative diagnoses' (McGann & Werven, 1995, p. 93). In this process, the individual's unique strengths, limitations, preferences and differences were lost. The complexity of communication, and specifically pragmatic ability, within the communication dyad, was not acknowledged.

In the light of McGann and Werven's statements, there continues to be a need to look holistically at the individual when examining social interaction and specifically pragmatic language. The process needs to take care not just to classify the individual in terms of the brain-injured stereotype, but to examine communication in functional and contextually relevant situations. Detailed descriptions of the abilities of the brain-injured population, exploring their individual profiles of strengths and limitations within the communication dyad, are therefore essential.

Both standardised and non-standardised assessment procedures play a part in the formulation of such descriptions (Coelho et al., 2005b; Turkstra et al., 2005). Given that most standardised procedures take place in clinical settings which are not representative of the test-taker's real-life communication dyad, there is place for well-thought-out non-standardised procedures which can assess function outside of the clinical context. Used in tandem with the standardised procedures, the findings of these non-standardised procedures could contribute to a deeper understanding of pragmatic ability.

### 2.2.5 Assessment of pragmatic language following TBI

#### *2.2.5.1 Purpose and process of assessment*

Hartley (1995) stated that there are a number of reasons to carry out an assessment: to understand an individual's skills; to judge the impact of these strengths and weaknesses on the individual's functioning; to determine if intervention will be beneficial, and to inform treatment planning and education of the person and their significant others regarding the outcomes of intervention. It is also important to establish reliable baseline information about the client's



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pragmatic language abilities (Hartley, 1995). This can be used to determine progress in intervention. Therefore, in order for treatment of pragmatic language disorders in the brain-injured adolescent population to be meaningful, relevant assessment procedures, resulting in description of pragmatic abilities, are required.

The emphasis on assessment and intervention taking place within the communication dyad, as proposed by Prutting in 1982, remains valid. It is not sufficient to assess the speaker in isolation. In addition, it is not sufficient to assess the speaker only in situations which are highly structured and do not resemble real life, as this masks many of the communication difficulties associated with the pre-frontal brain injury commonly associated with TBI (Ylvisaker & Feeney, 1998). In practice this is not always straightforward as the process is time-consuming, requiring the assessor to look beyond the formal diagnosis, assess the individual in a range of settings and obtain information from a range of communication partners.

#### *2.2.5.2 Standardised and non-standardised assessment procedures*

The definitions of standardised and non-standardised assessment, as provided by Turkstra et al. (2005), and Coelho et al. (2005b) are used in this study. Standardised assessment procedures refer to those which have clearly defined procedures for administration. Many of these assessments are norm-referenced. Conversely, non-standardised assessment procedures refer to those which have not been standardised on a normal or clinical sample. The procedures are not prescribed in the same way as standardised assessment procedures.

Although it is accepted that the language and communication challenges which result from TBI frequently impact negatively on social relationships and academic performance (Ylvisaker, 1993), Turkstra et al. (1995) reported that there were few published, standardised tests designed to assess pragmatic abilities in the adolescent age group. In fact, the lack of published communication assessments



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for the TBI population as a whole, and not just for adolescents, was reported by Turkstra et al. (2005).

Ylvisaker (1993) advocated investigating pragmatic language abilities in contextually realistic situations and predicted that pragmatic language procedures for identifying strengths and weaknesses in interactions would become more ecologically valid, i.e. they would take place under real-world social conditions, instead of highly structured conditions. A small number of more ecologically valid standardised tests have been reported and some published in recent years.

A study by McDonald, Flanagan, Rollins and Kinch (2003) described the usefulness of The Awareness of Social Inference Test (TASIT) for detecting difficulties with recognition of emotional expression and comprehension of sarcasm in adults with TBI. Usefully, the assessment was more representative of real-life situations than other formal assessments, because it used video clips of people in everyday situations. The limitations of this assessment for adolescents, however, were the age and accents of the actors, as well as the fact that it was standardised only on an adult population.

MacDonald (2005) developed an assessment for cognitive-communication skills, including pragmatic abilities, viz. the Functional Assessment of Verbal Reasoning and Executive Strategies (FAVRES). Although designed to be ecologically valid and recording both qualitative and quantitative aspects of performance, it was developed for and standardised only on an adult population. Turkstra (2008) reported on a conversation-based assessment for social cognition, the Video Social Inference Test (VSIT). Limitations of this were that it investigated only aspects of pragmatic aspects of language ability, and once again focused only on the adult TBI population.

Another assessment, an online video test of emotion recognition and judgment of conversation skills, did however focus on the adolescent population (Turkstra et



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al., 2001). It used amateur actors who were Caucasian, African-American and Hispanic American adolescents who acted out a range of social scenarios. On a positive note, like the TASIT, it was more representative of real life situations and so more likely to give information regarding functional communication skills. It was also developed specifically for the adolescent population and tapped into pragmatic processing skills, as opposed to merely observing expressive pragmatic behaviours. Although adolescents with TBI achieved significantly lower scores on the assessment compared with typically developing peers, there were a number of weaknesses in the study, including the small sample size as well as difficulties with the test instrument itself. These included the difficulties the amateur actors had in portraying inconsistent messages of emotion, as well as the test items failing to assess more subtle pragmatic processing abilities. Therefore the test material required further refinement.

There remains, therefore, a lack of published, standardised pragmatic assessments for the TBI, and particularly, the adolescent TBI population. Thus it is necessary for speech and language therapists to use a battery of assessments in order to report on the range of pragmatic behaviours. This battery should include those published tests which are available, such as the Test of Language Competence-Expanded (TLC-E; Wiig & Secord, 1989), as well as non-standardised and unpublished measures, such as narrative discourse assessments, questionnaires and observation protocols.

The Pragmatic Protocol (Prutting & Kirchner, 1987) has proved an enduring non-standardised assessment procedure, used in the neurogenic population. Research using this descriptive taxonomy of pragmatic parameters has been extensive, particularly in the field of adult aphasia (Holland, 1982; Goldblum, 1985; Prutting & Kirchner, 1987; Penn, 1988; Avent & Wertz, 1996). Avent, Wertz, and Auther (1998) investigated the relationship between language impairment and pragmatic performance in aphasia, and Irwin, Wertz and Avent (2002) went on to investigate the relationship between pragmatic performance, functional communication and language impairment. Milton, Prutting and Binder



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(1984) concentrated on the head-injured as opposed to the aphasic population, discussing communicative competence in head-injured adults, using the Pragmatic Protocol (Prutting & Kirchner, 1987). Studies of this nature with the adolescent population have not been as extensive. Thus further information would be useful on pragmatic abilities in the adolescent TBI population, using the Pragmatic Protocol (Prutting & Kirchner, 1987) as a non-standardised assessment procedure.

There are advantages and disadvantages related to the use of both standardised and non-standardised types of procedures. Standardised tests can measure functioning in everyday life, but because of prescribed administration procedures, they are limited in their ability to capture accurately the individual's unique communication characteristics (Turkstra et al., 2005). Many standardised tests used with the TBI population do not have strong construct validity, i.e. they do not measure what the manual claims to measure, according to Turkstra et al. (2005). In addition, ecological validity, i.e. the relevance of the assessment context to the individual's everyday communication is also not measured. On a positive note, many standardised assessments used by speech and language therapists are strong in face and content validity, i.e. the purpose of the assessment is clear to the test-taker, and the test is well described with theoretical and empirical underpinnings (Turkstra et al., 2005). In addition, performance on standardised assessments can be compared with the norm, which is useful for building up a profile of communicative strengths and limitations.

In practice, non-standardised assessments are often more functional and context-sensitive than standardised procedures. Individuals with TBI often perform better under structured conditions, but struggle with everyday activities. Therefore non-standardised procedures can identify these real-life communication difficulties more effectively than standardised assessments, and can better inform intervention and outcome measurement (Coelho et al., 2005b). Both standardised and non-standardised procedures should therefore be considered when assessing individuals with TBI.



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### 2.2.6 International Classification of Functioning, Disability and Health (ICF, WHO, 2001)

In 2001, WHO published the ICF, which is a manual that 'classifies health-related function and dysfunction in the physical, psychological and societal arenas' (Bilbao et al., 2003, p. 240). The ICF (WHO, 2001) describes health in two parts which include four components.

Part One (Functioning and Disability) consists of Body Functions and Structures, and Activity and Participation (Ma, Threats & Worrall, 2008). The Body Structures are anatomical parts of the body, e.g. brain cortex, and the Body Functions are the physiological aspects of the body systems, e.g. working memory. Any loss to the structural or functional elements of the body is referred to as impairment. Activity is defined as 'the execution of a task or action by an individual' (WHO, 2001, p. 14). Loss at this level is referred to as 'limitation'. Participation is 'the involvement in a life situation' (WHO, 2001, p.14), with loss in this dimension described as 'restriction'. Activity and Participation are referred to together in the ICF (WHO, 2001), due to difficulties distinguishing between these levels in the earlier WHO classification system. When assessing the Activity and Participation constructs, assessment can focus on what the person is doing in their current environment (Performance), as well as the highest level of function of which they are capable in a neutral environment (Capacity). When applied to the field of brain injury rehabilitation, Bilbao et al. (2003) stated that capacity level referred to assessing skills that have implications for real life tasks, such as cognitive, physical and language skills, in the clinical setting. Performance level referred to what the person was doing functionally, in their day-to-day life.

Part Two (Contextual Factors) comprises Environmental and Personal Factors (Ma et al., 2008). Environmental Factors include features of the physical, social and attitudinal world which can impact on an individual's performance, and Personal Factors include internal variables that influence function, such as age, lifestyle, personality traits, coping styles and educational level (Bilbao et al., 2003; Threats, 2006).



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According to the ICF (WHO, 2001), a person may experience communication difficulties 'due to impairment of body function or body structure, activity limitations or participation restrictions, barriers in the physical, social or attitudinal environment and/or barriers specific to the individual' (McCormack & Worrall, 2008, p. 9).

There are difficulties with using the ICF (WHO, 2001), not least due to the fact that there is potential overlap of concepts due to broad terminology or ambiguity. For example, Reed et al. (2005) reported that it might be difficult to distinguish between different codes despite conceptual differences; for example, 'attention' and 'thought' as body functions are distinguished from 'focusing attention' and 'thinking' as activities. However, the ICF (WHO, 2001) does provide a useful framework from which to consider pragmatic language assessment and description, particularly as it takes into account contextual factors. For the purposes of this study, pragmatic abilities fall under the Activities and Participation dimension, but component linguistic skills fall under the body function, and hence impairment, level. Ability in the clinical setting versus real world contexts is differentiated by assessing according to 'capacity' and 'performance' respectively.

Theoretically it is possible for both standardised and non-standardised assessment measures to be applied across the different categories of function, i.e. Body Structure and Function, Activities and Participation, and Contextual Factors. Thus standardised assessments are not necessarily always non-functional assessments.

Significantly, from the ICF (WHO, 2001) perspective, there are no standardised pragmatic measures which compare capacity, i.e. ability in ideal circumstances, with performance, i.e. ability in real-life situations (Turkstra et al., 2005). Therefore non-standardised procedures must be employed to assess the presence and nature of such a gap. There is also a paucity of research in the field of adolescent TBI, and indeed TBI in general, which has examined such



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comparisons. In addition, standardised procedures do not exist for investigating the personal and environmental factors which affect the communication ability of the TBI individual; thus non-standardised procedures are used in this area. Again, there is dearth of adolescent TBI literature regarding this.

Few standardised assessments incorporate the views of significant others (Turkstra et al., 2005). One which does, the American Speech-Language-Hearing Association Functional Assessment of Communication Skills in Adults (ASHA-FACS), applies only to the adult population. Measures which apply to the adolescent population need to be developed and reported on.

Thus the aforementioned areas all require further research and development, in order to improve the assessment and subsequent treatment of pragmatic difficulties. Such research could include reporting on the use of non-standardised measures to collect such information.

It is important to establish in brain injury rehabilitation whether assessment and subsequent intervention occur at the same level. Activity and Participation limitations might be assessed and treated at the capacity level, but with the aim of effecting change at the level of performance. Alternatively, impairments at the body structure or function level might be identified in assessment, but treatment might take place at the Activity and Participation levels. Therefore knowledge of the different ICF (WHO, 2001) levels of health outcome is necessary to ensure that assessment procedures are selected which can result in accurate descriptions of individual's pragmatic abilities, and thus can meaningfully inform intervention.

### 2.2.7 Executive functions and pragmatic language abilities

Executive functions, according to Stuss and Benson (1986), are a set of related functions used for intentional problem-solving. They include anticipation, goal selection, planning, monitoring and use of feedback. Their model differentiates between executive or cognitive control functions, and more basic cognitive



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functions such as language, visual-spatial and memory skills. The model also highlights elements of executive functions which relate to the highest levels of cognition, such as anticipation, judgement, self-awareness and decision-making. (Gioia et al., 2000). Working memory capacity is an important part of executive function, as is regulatory control of behaviour and emotional response (Gioia et al., 2000). The executive function system, it is argued, drives motivated and adaptive behaviour, and mediates responses to novel and demanding tasks (Martin & McDonald, 2003).

The frontal lobes and closely associated limbic regions of the brain are accepted to be most vulnerable in closed head injury, which is the most common cause of TBI (Ylvisaker & DeBonis, 2000). Crucially, frontal lobe function is widely accepted to be fundamental in executive functioning. However, executive functions are not seated only in the frontal lobes of the brain. A significant characteristic of the frontal lobes is their dense connectivity with other cortical and sub-cortical regions. It is useful to consider a frontal system as opposed to simply frontal lobes, because of this connectivity. There are bi-directional connections between the pre-frontal system in the frontal lobes, and limbic system, which regulates motivation; the reticular activating system, which regulates arousal; the posterior association cortex, which is responsible for perceptual and cognitive processes and knowledge base, and the motor regions of the frontal lobes. Executive dysfunction can therefore result from damage to the pre-frontal regions as well as damage to any of the posterior or sub-cortical areas which are densely inter-connected with the pre-frontal regions (Gioia et al., 2000).

Ylvisaker and DeBonis (2000) classify communication disability associated with executive system impairment into four overlapping categories, including reduced social-interactive competence or pragmatic language disorders; difficulty with organisational demands of discourse; inefficient deliberate, strategic memory and retrieval, and impaired strategic thinking. Godfrey and Shum (2000) also discuss executive dysfunction affecting social skills, and conversation in particular,



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because of the breakdown in ability to apply behaviour flexibly to rules. Executive functions are therefore important in the overall understanding of pragmatic language abilities.

Thus, when considering pragmatic abilities, measures of executive function are a useful adjunct to assessment. These can aid understanding of underlying causal factors in communication, and specifically pragmatic disorders, and therefore inform intervention in individuals with TBI. Despite the relevance of executive function in understanding pragmatic ability, there is a limited amount of research in this area. No studies have taken place in which measures of pragmatic ability have been interpreted in the light of measures of executive function.

For these reasons further research into the use of assessment measures of executive function is necessary, as part of pragmatic language assessment in TBI.

## 2.3 CONCLUSIONS

The philosophical paradigm of communication is of particular relevance to the TBI population. In this paradigm, the focus in communicative competence is on the communication dyad, as opposed only to the speaker's linguistic competence. In order to measure this competence, both standardised and non-standardised assessment is called for at the ICF (WHO, 2001) levels of Impairment and Activity and Participation, taking into account contextual factors. A broader understanding of the cognitive context, specifically executive function, in which pragmatic ability exists, is also necessary. Paucity of research in these areas regarding adolescents calls for the reporting of the use of both standardised and non-standardised assessment measures. Resulting descriptions of pragmatic abilities can inform intervention and form the basis of outcome measurement.



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In this study, results from a range of assessments are used to describe the pragmatic language and executive skills of a group of adolescents with TBI. In order to gain information about pragmatic and executive skills, information given in interviews with parents as well as information from questionnaires filled in by the parents and teaching staff of the adolescents, is analysed. This combination of assessment methods aims to gather information across both Impairment, and Activity and Participation levels, taking into account certain contextual factors.

## 2.4 SUMMARY

In this chapter theoretical perspectives on pragmatic language and assessment were provided to support the purpose of the study, which is to describe the pragmatic language abilities of a group of adolescents with TBI, using a battery of standardised and non-standardised measures.



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# CHAPTER 3

Research Method

## 3.1 INTRODUCTION

Aspects of pragmatic language ability in people with traumatic brain injury (TBI) have been researched in the past. Much research has focused on the adult population and has investigated only one specific facet of pragmatic function at a time. Further research with the adolescent population is necessary, in particular looking at more than just one area of pragmatic function and including the views of parents, teachers and adolescents themselves. There is also the need to use a range of assessment tools to probe pragmatic language ability. Thus the pragmatic language abilities of a group of adolescents with TBI were investigated in this descriptive study using both standardised and non-standardised procedures. The adolescents' parents and teaching staff were involved in the process. In this chapter the aims of the study are described, and the research design explained and justified. Details are provided regarding the research sample and the materials and procedure used for data collection are described. Ethical aspects of the research are considered, as are the validity and trustworthiness of the findings.

## 3.2 RESEARCH METHODS

### 3.2.1 Aims

The main aim of this study was to describe the pragmatic language abilities of a group of adolescents with TBI.

The following sub-aims were formulated to facilitate achievement of the main aim:

i. to use standardised assessment tools to determine:
- the language and pragmatic abilities of a group of adolescents with TBI



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- the perceptions of parents regarding the executive function of the adolescents with TBI
- the perceptions of teaching staff regarding the executive function of the adolescents with TBI

ii. to use non-standardised assessment tools to determine:
- the language and pragmatic abilities of a group of adolescents with TBI;
- the perceptions of parents regarding the executive function and pragmatic abilities of the adolescents with TBI
- the perceptions of teaching staff regarding the executive function and pragmatic abilities of adolescents with TBI
- the perceptions of the adolescents regarding their pragmatic language abilities;

### 3.2.2 Research design

A retrospective, cross-sectional research design was selected for the purpose of this study. In a cross-sectional design, the focus is on relationships 'between and among variables in a single group' (Robson, 2002, p. 157). There is no intention of having different groups of participants. The information in such a study is gathered over a short period of time. This is a cross-sectional study, as the pragmatic abilities across one group of adolescents with TBI, at a point in time, are described. Retrospective research is described by Corsini (1999) as a technique for investigating prior events or phenomena that have already occurred. This study is retrospective as the information was already collected and the participants were not being investigated as the study progressed.

Descriptive research, according to Coolican (2004), is research that 'aims to find out what is happening' (p. 7), and 'explores the measurement of phenomena without testing hypotheses' (p. 24). The purpose of this study was to describe in detail the pragmatic language abilities of a group of adolescents, hence a descriptive research design was used. In order to do this data was collected by both qualitative and quantitative means.



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There are both advantages and disadvantages to a descriptive research design. An impetus to explain the findings may develop from this data, but the primary emphasis is on gathering data about the chosen topic (Coolican, 2004). The richness and complexity of pragmatic language means that it cannot be summarised by a numerical score, but needs detailed description. The advantage of a descriptive research design is that it gives opportunity to explore pragmatic themes in detail and investigate the experiences of a group. It is a useful approach to use when wanting to consider an area in more detail (Coolican, 2004) and may well lead to hypotheses being formed from the data; both these statements apply to this study. Moran and Gillon (2004) state that descriptions of individuals with TBI are important, as they lead to the identification of how variables may influence individuals' language performance. A descriptive research approach facilitates this process.

There are disadvantages to a descriptive design and certain caveats need to be in place when embarking on a descriptive research project. Qualitative approaches emphasise the relativist nature of knowledge. Much qualitative research is concerned with the recognition of different perspectives and interpretations of reality. It therefore must make clear from whose perspective it is reporting (Coolican, 2004). In this study, the researcher has clarified who the person is whose views are being described, i.e. parents, teaching staff, adolescent or researcher. In addition, the researcher has suggested a number of perspectives from which to interpret some of the findings, not claiming to have the definitive explanations.

There is the also the danger of reporting findings as anecdotal accounts and not grounding the work in existing or emergent theory (Coolican, 2004). In this study, existing theories are used to expand upon findings and place observations in a context. For example, reference is made to Crosson, Barco and Veloza's (1989) theory regarding the development of self-awareness in brain injury.



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Although inter-participant comparisons are prominent in the brain injury literature and can be useful for recognising patterns in performance, Moran and Gillon (2004) note that these comparisons 'do little to explain variation in language performance across and within the TBI individual' (p. 282). In the light of this statement, the detailed descriptions of the individual adolescents in this study are a useful starting place for further analysis of their skills.

### 3.2.3 Sample

#### *3.2.3.1 Population*

The participants were a group of five adolescents with TBI, one or both of their parents, as well as a member of their teaching staff such as a teacher or learning support assistant (LSA).

The population from which the five adolescents were selected had sustained a TBI and had accessed services at the place of the researcher's employ. They had all accessed an assessment service, with four of the five adolescents going on to receive either inpatient neuro-rehabilitation or outpatient rehabilitation.

#### *3.2.3.2 Criteria for selection*

The adolescents were selected according to the following criteria:

**Inclusion criteria for adolescents**

**Age:**

Adolescents were aged between 11 and 16 years with a history of TBI, as this age group captures the secondary school aged population in the UK. It is also a time when advanced pragmatic language abilities are developing (Turkstra et al., 1995).

**Duration post-injury:**

Adolescents were required to have sustained their injury 12 months or more prior to data collection. This time span ensures that most of the



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expected spontaneous recovery would have taken place and the individual is considered to be in a post acute phase of stage of recovery (Giles, 2001). Deficits identified were more likely to reflect longer term difficulties (Ylvisaker, 1993). There was no upper limit for time post injury as it is accepted that brain injuries acquired in childhood and adolescence continue to affect people into their adult years (Chapman et al., 1999).

**Severity of TBI:**

Severity of the TBI was not a criterion for selection. However, this information was recorded as part of the background information of the adolescents.

**Language proficiency:**

Adolescents were required to be first language English speakers, as the standardised assessments were based on the English language.

**Exclusion criteria for adolescents**

**History:**

Adolescents with a history of language or communication difficulties, including hearing loss prior to the TBI, were excluded. A neurological disease or disorder, with the exception of those directly resulting from the TBI, also served to exclude participants, as did a history of developmental delay.

Adolescents were excluded on these bases to ensure that the identified language or communication difficulty could be attributed to the TBI and not to pre-existing developmental issues.

**Inclusion criteria for parents**

**Relationship:**

Parents were included in the study by virtue of their relationship with their child. They were required to be living with their child.



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**Language proficiency:**

The parents were required to be proficient English speakers, as the interview was conducted in English, and the questionnaire they were required to complete was in English.

**Inclusion criteria for teaching staff**

**Relationship:**

Teaching staff were included by virtue of their relationship with the adolescent. They were required to be familiar with the adolescent, by either being one of their teachers or their LSA.

**Language proficiency:**

Teaching staff were required to be proficient English speakers, as the questionnaires they were required to complete were in English.

**Culture:**

Snow et al. (1998) comment on the complications associated with pragmatic language assessment in different communities. They state that there is a significant paucity of information regarding how normal pragmatic behaviours differ across various cultures. This issue of culture remains significant for this group of adolescents, particularly as there are no published pragmatic norms for the specific communities from which they come. However for the sake of expediency, they were considered as part of the broader British culture with regards to language use and convention. All of the participants were British. Four of the adolescents, their parents and teaching staff were English. One adolescent, his parent and LSA were Welsh. All of the teaching staff were British. All adolescents, parents and teaching staff were first language English speakers.

### *3.2.3.3 Procedures followed in the selection of adolescents with TBI*

Records of patients, who had accessed the neuro-rehabilitation services over the previous five years at a paediatric neuro-rehabilitation facility in England, were studied. Adolescents who were accessing an assessment service at this facility



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between January and December 2006 were also included. A list of adolescents who fulfilled the inclusion criteria for the study was made.

Prior to data collection, ethical clearance was given by the National Health Service Committee for Research and Ethical Clearance in East Surrey, England, to carry out the study, as part of a work-based project in the Speech and Language Therapy Department at the paediatric neuro-rehabilitation facility (Appendix A). In order to use the data in fulfilment of a master's degree in Communication Pathology, ethical clearance was given by the Faculty of Humanities Research Proposal and Ethics Committee of the University of Pretoria, South Africa (Appendix B). The researcher approached the potential candidates and their parents, and provided them with a written explanation of the nature and purpose of this study (Appendices C and D). Written consent was obtained from the adolescents and their parents to participate in the assessment (Appendix E) and for the data generated to be used in any resulting studies.

Letters were sent to the adolescents' schools (Appendix F), requesting that a staff member familiar with the student participates by filling in a questionnaire. Written information regarding the nature of the study was also given to the teaching staff involved (Appendix G) and written consent was received to use the information they provided in any resulting studies (Appendix H). Verbal permission from teaching staff was also gained to observe the adolescents in their school settings.

Letters to the adolescents' general practitioners were sent to inform them of their patient's participation in the study (Appendix I).

#### *3.2.3.4 Description of participants*

All of the adolescents attended mainstream schools, and with the exception of Jack, were all supported by fulltime 1:1 LSAs. Jack received intermittent support from a teaching assistant who supported the whole class. All of the adolescents' mothers took part in the study; one father also took part. Three LSAs and two



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teachers participated in this study. Summaries of the participants' details are in Tables 1 to 3. All participants were given fictitious names for confidentiality reasons.



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**Table 1: Description of participants: adolescents**

| Partici-pant | Sex | Age in years | Age at injury in years & months | Time post injury in months | Prim-ary langu-age | Nature of accident | Brain injury site | Concomitant injuries | GCS | Hospital stay in weeks | Inpatient rehabili-tation | Community rehabili-tation |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Jack | male | 11.0 | 9.5 | 18 months | English | RTA car vs pedestrian | Left frontal lobe<br>Left parietal lobe<br>Mid brain<br>Diffuse axonal injury | Left femur fracture | 3 | 13 | N/A | Assessment over a period of 6 days |
| Leo | male | 16.10 | 14.5 | 29 months | English | RTA car vs bicycle | Haemorrhagic contusions to both frontal lobes<br>Frontal fracture extending into floor of anterior cranial fossa | - | 3 | 11 weeks 3 days | 49 weeks | N/A |
| Carla | female | 16.1 | 9.7 | 78 months | English | RTA car vs pedestrian | Diffuse axonal injury<br>Haematoma of right temporal lobe | Fractures of: left sacro-iliac joint, right femur, left superior and inferior pubic rami | 5 | 6 | N/A | 32 days over a year period |
| Luke | male | 12.9 | 10.11 | 22 months | English | RTA car vs pedestrian | Diffuse axonal injury<br>Right frontal lobe<br>Right temporal lobe<br>Left frontal lobe<br>Right thalamus | Fractures of: left body of the pubis, right inferior pubic ramus, right upper humerus, right fibula | 6 | 14 weeks 2 days | N/A | 35 days over a year period |
| Kim | female | 15.7 | 11.1 | 53 months | English | RTA car vs bicycle | Intra-parenchymal haemorrhage in left thalamus<br>Blood in posterior horn of right lateral ventricle | - | 3 | 11 weeks 3 days | 24 weeks | N/A |



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**Table 2: Description of participants: parents**

| Participant | Parent ID | Primary language |
|---|---|---|
| Jack | Mother: Glyn<br>Father: Kenny | English |
| Leo | Mother: Jill | English |
| Carla | Mother: Kathy | English |
| Luke | Mother: Lily | English |
| Kim | Mother: Gina | English |

**Table 3: Description of participants: teaching staff**

| Participant | Title of Teaching staff | Sex | Length of time familiar with adolescent | Primary language |
|---|---|---|---|---|
| Jack | Teacher | Female | 3 months | English |
| Leo | Teacher | Female | 4 years 4 months | English |
| Carla | Learning Support Assistant | Female | 3 years 3 months | English |
| Luke | Learning Support Assistant | Female | 3 months | English |
| Kim | Learning Support Assistant | Female | 13 months | English |

### 3.2.4 Materials and apparatus for data collection

Traditional assessment of language and communication skills includes an evaluation of receptive and expressive language skills. This includes assessment across a range of skills, including morphology (grammar), syntax (sentence structure), semantics (meanings of and relationships between words) and pragmatics (understanding and use of language in a social context). Assessment can be of verbal or written language skills.

For the purposes of this investigation, the adolescents' pragmatic language abilities were assessed. Their broader language skills were not investigated in detail as these skills are commonly relatively intact in people with cognitive-communication disorders (Ylvisaker, Szerkeres & Feeney, 2001). A receptive



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vocabulary measure, however, was included in the test battery as a measure of general language ability.

The assessment of clients with cognitive-communication difficulties following TBI can be challenging. Clients with cognitive-communication difficulties following TBI form a heterogeneous group and have complex combinations of strengths and limitations (Turkstra et al., 2005). They typically perform differently in structured versus unstructured settings (Turkstra et al., 2005). Therefore it was deemed necessary to assess across a range of settings, using both standardised and non-standardised procedures (a standardised assessment referring to tests or measures of performance in which the procedures for administering items are prescribed and well defined) (Coelho et al., 2005b).

A combination of non-standardised and standardised assessment techniques was used in the assessment of the adolescents. Standardised tests have been identified as important measures to use, with caveats, in the brain-injured population. If the tests have good face validity, content validity, ecological validity and predictive validity, they form a useful part of an assessment battery (Coelho et al., 2005b). They can identify cognitive and linguistic functions which might influence communicative performance (Coelho et al., 2005b). The standardised measures used in this study were the British Picture Vocabulary Scale-2nd Edition (BPVS; Dunn, Dunn, Whetton & Burley, 1997) and the Test of Language Competence-Expanded (TLC-E; Wiig & Secord, 1989), assessing receptive vocabulary and aspects of pragmatic and language understanding respectively. A standardised measure of executive function was also included, viz. the Behavior Rating Inventory of Executive Function (BRIEF; Gioia, Isquith, Guy, & Kenworthy, 2000) which was completed by parents and teaching staff.

Standardised tests, although useful in identifying certain aspects of dysfunction, do not necessarily reflect the functional difficulties experienced by people with frontal lobe injury, a common sequela to TBI (Ylvisaker & Feeney, 1998). The structured nature of standardised tests compensates for the planning and



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organisational difficulties associated with frontal lobe injuries. For example, because of the manner in which they are administered, standardised tests do not give information regarding the person's ability to initiate a task and cope with distractions. Thus standardised tests will always be limited in their ability to reflect all aspects of an individual's communicative ability due to the prescribed administration procedures (Turkstra et al., 2005). They are also limited in that most standardised tests are at an impairment level and thus do not necessarily reflect the real life communication needs of clients outside the clinical context (Coelho et al., 2005b).

Non-standardised assessments are commonly used by therapists working with individuals with TBI (Coelho et al., 2005b). Coelho et al. (2005b) state that there are several assessment purposes served by non-standardised tools, including determining competencies in areas, such as discourse, for which there are no standardised tests; describing 'performance in real-world settings and activities' (p. 223); identifying the cognitive and communication demands of functional situations, as well as describing the 'communication and support competencies of communication partners' (p. 224). Non-standardised measures used in the assessment of the adolescents in this study included analyses of monologic and conversational discourse, interviews with parents and adolescents, and a questionnaire completed by teaching staff.

#### *3.2.4.1 Standardised assessment tools*

##### *3.2.4.1.1 Assessment of perceptions of parents and teachers of the adolescents' executive function: Behavior Rating Inventory of Executive Function (BRIEF; Gioia et al., 2000)*

Executive function refers to the collection of processes that are responsible for 'guiding, directing and managing cognitive, emotional and behavioural functions' (Gioia et al., 2000, p. 1). It is an umbrella term which includes inter-related functions which control goal-directed, purposeful and problem-solving behaviour (Gioia et al., 2000). These functions include inhibiting actions, restraining and delaying responses, selective attention, goal setting, planning, organising and



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maintaining actions or shifting actions flexibly in order to achieve goals (Singer & Bashir, 1999). Ylvisaker and DeBonis (2000) also include self-awareness of strengths and limitations in any domain, as part of executive function. Communication and executive function are inter-related. Singer and Bashir (1999) state that, as a child develops, the self talk that characterises mature self-regulation uses increasingly sophisticated language. On the other hand, efficient executive function is needed to organise complex language tasks or language use in demanding social situations.

Ylvisaker and DeBonis (2000) classify communication disability associated with executive system impairment into four overlapping categories, viz. (1) reduced social-interactive competence or pragmatic language disorders, (2) difficulty with organisational demands of discourse, (3) inefficient deliberate, strategic memory and retrieval and (4) impaired strategic thinking. Godfrey and Shum (2000) also discuss executive dysfunction affecting social skills, and conversation in particular, because of the breakdown in ability to apply behaviour flexibly to rules.

Executive system impairment is common in people who have sustained TBI (Ylvisaker & Feeney, 1998) and so, by implication, some or all of the above-mentioned difficulties were likely to be evident in the group of adolescents being studied. For these reasons, the BRIEF (Gioia et al., 2000) was included in the assessment battery in order to set the adolescents' difficulties in a broader context of impairment. Rating scales which are completed by parents and teachers and which measure behaviour are commonly used to assess various domains of social, emotional and behavioural functioning (Gioia et al., 2000). Turkstra et al. (2005) include the BRIEF (Gioia et al., 2000) in their list of candidate tests for standardised assessment in TBI, stating it is useful as it takes into account the views of relevant others in the brain injured individual's life.

A potential limitation of the BRIEF (Gioia et al., 2000) is that it does not measure executive function directly, but is only a measure of reported function. However, standardised tests, by their very nature, often compensate for the very executive



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impairments being assessed, by providing the goal, structure and direction the test-taker struggles to generate, with an examiner helpfully initiating the process. Thus the questionnaire format could be considered a useful method of eliciting information regarding executive function in real life, as part of the assessment process.

The BRIEF (Gioia et al., 2000) comprises two questionnaires, one completed by parents, the other by teaching staff, on the adolescents' executive functioning. These were sent to parents and teachers with the request to complete them.

Seven of the eight BRIEF (Gioia et al., 2000) clinical scales measured areas of executive function which were directly applicable to communication function.

Inhibitory control was measured on the **Inhibit scale.** Examples of disinhibited or impulsive features of communication are interrupting or blurting things out in conversation, tangential conversation, changing abruptly from one topic to another, or using inappropriate physical responses in non-verbal communication. Rude or abusive remarks may also be as a result of inhibitory difficulties.

The **Shift scale** measured ability to move freely from one situation, aspect of a problem or activity. Examples of communication difficulties associated with the Shift scale are difficulties moving off topics of interest, as well as perseverative behaviour such as repetitive enquiries. Barriers to learning better communication routines, associated with shift deficits, include difficulty using feedback from others and adjusting behaviour accordingly.

The **Emotional Control scale** measured the ability to modulate emotional responses. This included exaggerated responses to apparently minor events, or lack of emotional response to events. In the communication context this could manifest as hysterical or inappropriate laughing, exaggerated or dampened verbal and non-verbal responses, or the use of language deemed inappropriate or offensive for a particular context.



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The **Initiate scale** evaluated ability to begin a task as well as generate ideas, responses or problem-solving strategies. Types of communication difficulties associated with this scale are failure to initiate conversation and failure to use language for different functions such as requesting, greeting, commenting or giving instructions.

The **Working Memory scale** measured the ability to hold information for the purpose of completing a task. This is important for following complex instructions, as well as keeping track of what another person is saying in conversation. It has bearing not only on understanding, but also on ability to make contributions to conversation at appropriate times, stay on topic, make contingent remarks, and relay information.

On the **Plan/Organise scale**, the plan component assessed ability to develop a goal and work out the most effective steps to attain it, which often require sequencing a number of steps. The organising component dealt with bringing order to information and appreciating key concepts when learning or communicating information. Information organisation can play a critical role in how information is learned, remembered and retrieved. According to Ylvisaker and Feeney (1998), underlying cognitive-organisational impairment, often associated with frontal lobe injury, results in difficulties at the discourse level. This is manifested expressively through tangential and disorganised monologues, conversation and written texts, reduced output and initiation, as well as imprecise language. Word-finding difficulties are caused by the same organisational deficit. At the receptive level, difficulties at the organisational level result in difficulties comprehending large amounts of text or spoken language, problems detecting themes or main ideas, as well as challenges following fast-flowing, spoken language.

The **Monitor scale** assessed work-checking habits and personal monitoring function, i.e. the extent that someone kept track of how their behaviour affected others. Difficulties on this scale result in communication difficulties such as the



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individual not realising when mistakes are made or what impact their words are having on others. Failing to ask for clarification or not attempting to self-correct would also suggest monitoring deficits. The Monitor scale gives an indication of the extent of the person's awareness of his / her deficits. In the absence of such awareness, it is anticipated that the application of strategies to aid communication skills is lacking.

The **Organisation of Materials scale**, not associated with communication function, examined orderliness of work, play and storage spaces.

The three indices which were derived from the clinical scale scores were the Behaviour Regulation Index (BRI), the Metacognition Index (MI) and the Global Executive scale (GEC).

The BRI comprised the **Inhibit, Shift** and **Emotional Control** scales, representing ability to shift cognitive set and modulate emotions and behaviour. Direct pragmatic language implications were evident for all three scales on the BRI. The MI comprised the **Initiate**, **Working Memory**, **Plan/Organise**, **Organisation of Materials** and **Monitor** scales, representing ability to initiate, plan, organise and sustain problem-solving in working memory (Gioia et al., 2000). The **Initiate**, **Working Memory** and **Monitor** scales could be implicated in pragmatic language function. The GEC was a summary score that incorporated all of the eight clinical scales of the BRIEF (Gioia et al., 2000). A GEC score, however, was only an accurate summary if there was no significant difference between the BRI and MI scores. *T*-score differences of less than 13 on the Parent Form and less than 19 on the Teacher Form were acceptable for the GEC score to be considered an accurate summary. Greater differences in scores resulted in a GEC score which was likely to obscure significant differences between the two index scores (Gioia at al., 2000).



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*T*-scores for all the scales and indices which were at or above 65 were of clinical significance. The *T*-score of 65 represented 1.5 standard deviations above the mean, and the point at which the score became abnormally elevated.

#### *3.2.4.1.2 Assessment of language and pragmatic abilities*

##### *3.2.4.1.2.1 BPVS-Second Edition (Dunn et al., 1997)*

The BPVS-2nd Edition (Dunn et al., 1997) investigated understanding of single word vocabulary and is standardised on the British population. The BPVS-2nd Edition (Dunn et al., 1997) tests vocabulary by having the participant listen to a word then point to one of four black and white drawings. It took between five and 15 minutes to administer.

The BPVS-2nd Edition (Dunn et al., 1997) has good face validity, i.e. it is obvious to the test-taker what the test is measuring. In addition, it is a brief test in which items are administered over the test-taker's critical range, so it is in effect neither too easy nor too difficult. These two factors were considered to be potentially motivating for test-takers with reduced attention capacities as a result of TBI, to participate fully in the assessment.

The BPVS-2nd Edition (Dunn et al., 1997) has good construct validity in that it evaluates the area of language (i.e. receptive vocabulary) that it sets out to evaluate. The black and white illustrations have been shown to be clear even to test-takers who have visual perceptual difficulties (Dunn et al., 1997). The test requires no reading or writing so participants whose literacy skills have been affected by TBI are not disadvantaged.

Tests of receptive vocabulary are recognised as useful screening tests of scholastic aptitude (Dunn et al., 1997) and therefore have some predictive validity. Word-finding difficulties are relatively common post TBI therefore test results are useful to confirm if word-finding difficulties are not in fact as a result of limited receptive vocabulary. Ylvisaker (personal correspondence, September 2006) also recommends that vocabulary tests be administered at six-monthly



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intervals post TBI as an indication not only of vocabulary knowledge but also as a measure of whether new learning is taking place. No studies have specifically investigated receptive vocabulary using the BPVS-2nd Edition (Dunn et al., 1997) in this particular population.

The test results gave quantitative information. However, useful qualitative information was also provided by the manner in which adolescents responded to the test items, the time taken to respond, and the adolescents' perceptions of the level of difficulty of the test.

#### *3.2.4.1.2.2 Test of Language Competence-Expanded (TLC-E) Level Two (Wiig & Secord, 1989)*

The TLC-E (Wiig & Secord, 1989) assessed aspects of pragmatic language function as well as aspects of expressive and receptive language function. It took between 30 minutes and 1.5 hours to complete. All sub-tests were administered. They included (i) **Ambiguous Sentences** in which the adolescents' understanding of structural and semantic ambiguities in sentences was assessed; (ii) **Listening Comprehension: Making Inferences** in which the adolescents were given short scenarios and asked to draw inferences about information not stated but implied; (iii) **Oral Expression: Recreating Sentences** which required the adolescents to create sentences given specific contexts and words, and finally (iv) **Figurative Language** in which the adolescents had to interpret figurative expressions and match figurative expressions by intent.

Moran and Gillon (2004) state the need for using tests, such as the TLC-E (Wiig & Secord, 1989), that target high-level language skills such as inference comprehension and figurative language. Turkstra et al. (2005) reviewed 31 standardised tests for children, adolescents and adults with TBI. The TLC-E (Wiig & Secord, 1989) met the criteria for reliability and validity and was considered to be a candidate test as part of standardised assessment. The TLC-E (Wiig & Secord, 1989) was developed for, and standardised on, an American population. Thus the published standardisation sample does not match the present



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adolescent group. There is currently no British equivalent. The adolescents' responses to the materials indicated familiarity with the linguistic aspects and cultural references in the test items. None of the test items were modified in administration, reflecting that the test items had good face validity. Eight years of clinical experience of the researcher in the British setting supports the usefulness of this assessment tool in this population. Although the test is based on American English, the content validity is arguably good for the two sub-tests. This is because the sub-tests set out to assess the ability to use context to work out the meaning of ambiguous or non-literal language, and therefore do not necessarily require familiarity with the actual phrases to ensure success.

The assessment yielded quantitative information. Useful qualitative information was also noted, such as the time taken for the adolescents to give their responses, strategies they used to help themselves, such as repeating the stimuli aloud to themselves, statements regarding the difficulty of the task, as well as ability to use additional contextual information to aid working out the answers.

#### *3.2.4.2 Non-standardised assessment of language and pragmatics*

##### *3.2.4.2.1 Monologic discourse analysis*

Coelho et al. (2005b) note that discourse analysis is often applied to the brain injured population in order to describe difficulty with language function beyond the single word and sentence level. They identify two primary types of discourse, viz. monologic and conversational.

In order to sample monologic discourse, Coelho et al. (2005b) report that most of the authors they reviewed used the following elicitation tasks: story retelling, story generation, personal event retelling, procedural discourse and picture description. Two story telling tasks using picture stimuli to elicit narrative accounts were used in the assessment of the adolescents in this study. The two stories, depicted by a series of cartoons without words, were presented to the adolescents who were asked to relate the series of events (Appendices J and K). The visual presentation of such sequential pictures portraying a series of events



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provided a basic structure for the adolescents to follow and elaborate upon. Compared with a narrative task of retelling a story presented verbally, this task placed fewer demands on memory. The instructions to the adolescents were standardised (Appendix L). The narratives elicited were five sentences or more, as recommended by Coelho (1999).

The adolescents' accounts were recorded on video and transcribed. They were all rated by the researcher and a second speech and language therapist, who had extensive experience in assessment and treatment of narrative disorders with children with specific language impairment.

The Structured Multi-dimensional Assessment Profile (S-MAP) for Focused Holistic Rating of Picture Elicited Narratives (Wiig & Story, 1993) was used as a scoring matrix for the narratives. Four dimensions were used in the matrix, according to Wiig's (1995) suggestions for people with TBI.

The four dimensions assessed were: (i) **Organisational structure***:* this included assessing whether a recognisable narrative structure was followed, if there was a clear beginning, middle sequence and ending, and whether characters, setting and time were identified. (ii) **Recall and elaboration**: this included assessing if there was sufficient detail and elaboration to support the narrative structure and sequence, e.g. creation of details, relationships, cause-effects, emotions and reactions. (iii) **Coherence, cohesion and conventions***:* this covered whether details and descriptions were logically connected and marked in surface structure, i.e. use of a range of conjunctions, appropriate reference, identification of the main idea and inferences as well as whether linguistic conventions for structure and content and use were followed, i.e. no semantic, grammatical, pragmatic errors. (iv) **Evaluation, monitoring and revision**: this assessed whether there was need for revision, and if a revision was indicated, whether it was smooth and transitional. It also looked at the frequency and duration of pauses.



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The matrix provided by Wiig and Story (1993), was used and adapted, as recommended by Wiig (1995) to suit the picture stimuli used (Appendix M). In order to achieve accurate scoring of the narratives, the researcher and speech and language therapist who acted as the second rater did preliminary preparation before rating the narrative samples. The raters' preparation involved familiarisation with the scoring protocol, discussion and clarification of the definitions used.

Inter-rate reliability was established for all ten of the narrative samples, using Cohen's kappa (Pring, 2005). The formula was as follows, in which $P_o$ is the observed probability of agreement and $P_c$ is the chance probability of agreement:

$$K = \frac{P_o - P_c}{1 - P_c}$$

Fleiss (1981) suggested that values between 0.40 and 0.60 are fair, values between 0.60 and 0.75 are good and above 0.75 are excellent. The inter-rater reliability of the narrative scores was calculated to be 0.75 which, according to Fleiss' definitions, reflects good reliability.

The narratives were scored across the four dimensions as being good (3), acceptable (2), marginal (1) or unacceptable (0). A description of these ratings is provided in Appendix M.

#### *3.2.4.2.2 Conversational discourse analysis*

The Pragmatic Protocol (Prutting & Kirchner, 1987) is a descriptive taxonomy of 30 pragmatic parameters, completed by the clinician, which describes the participant's pragmatic language abilities (Adams, 2002). The protocol is divided into three sections: the **Verbal Aspects** section covers a range of verbal behaviours such as topic selection, turn-taking and lexical specificity; the **Paralinguistic Aspects** section investigates speech parameters such as intelligibility and prosody, and finally the **Non-verbal Aspects** section deals with non-verbal behaviours such as body posture, facial expression and eye-gaze.



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Such a taxonomy describes communicative performance in real-world settings and activities and is thus a qualitative measure of conversational discourse. Coelho et al. (2005b) report that the Pragmatic Protocol (Prutting & Kirchner, 1987) is a commonly-used instrument for analysing conversational discourse. Using the structured observation of this protocol ensured that similar communicative competencies were examined across all the adolescents. The usefulness of such a taxonomy is that it can identify functional, everyday communication difficulties (Coelho et al., 2005b) and inform intervention. The Pragmatic Protocol (Prutting & Kirchner, 1987) has been used to investigate the functional communication skills of adults with acquired neurogenic communication difficulties (Mentis & Prutting, 1987; Mentis & Prutting, 1991; Milton, Prutting & Binder, 1984; Prutting & Kirchner, 1987). The Pragmatic Protocol (Prutting & Kirchner, 1987) has not, however, been used to document the pragmatic abilities of adolescents with acquired neurogenic communication disorders.

The researcher observed the adolescents throughout the assessment period, during interviews with the adolescents, as well as for one to two hours at school. Based on these observations, the Pragmatic Protocol (Prutting & Kirchner, 1987) was completed, covering three domains, viz. (i) verbal aspects, including speech act pair analysis; variety of speech acts; topic selection, introduction, maintenance and change; turn-taking; lexical selection and stylistic variation; (ii) paralinguistic aspects, including vocal quality, intensity, prosody, intelligibility and fluency, and (iii) nonverbal aspects, including facial expression, body posture, physical proximity, physical contacts, foot/leg and hand/arm movements and eye gaze. The researcher described these aspects as ‘appropriate’, ‘inappropriate’, or ‘no opportunity to observe’. These judgments were made taking into account the context as well as any communication partner who was involved. Paralinguistic ratings were discussed and agreed upon with the speech and language therapist who completed the narrative ratings, as she had opportunity to listen to speech samples of all the adolescents.



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#### *3.2.4.2.3 Assessment of parent perceptions of the adolescents' pragmatic abilities*

An interview with the parents of the adolescents with TBI was conducted. Information was elicited in two ways. Firstly a series of open-ended questions were posed in a semi-structured interview format. These questions were formulated by the researcher, and were used clinically by the researcher in order to encourage parents to engage in a discussion about their children's skills. The open questions and reasons for asking them are recorded in Table 4.

**Table 4: Open questions: parent interview**

| Question | Justification |
|---|---|
| 1a. How would you describe your child's personality?<br>b. Is this different from before the injury? If so, how? | To give an opportunity for parents to use their own words to describe their child.<br>To elicit a description of changes which parents have noticed since the child's injury, to gives the clinician an idea of pre-injury skills. |
| 2a. How would you describe their conversation skills now?<br>b. Is this any different from before the injury? If so, how? | To gain an understanding of the parents' insight into their child's social use of language.<br>To probe the parents' understanding of the phrase 'conversation skills'.<br>To distinguish between pre- and post-injury behaviour, in order to ascertain whether changes have taken place. |
| 3a. How would you describe their ability to make and keep friends?<br>b. Is this any different from before the injury? If so, how? | To elicit information about the child's interaction skills, as good pragmatic abilities are necessary for making and keeping friends (Didus et al., 1999; Yeates et al., 2004).<br>To gain an impression of the parents' insight into their child's friendships, to compare later with those of the clinician and school staff.<br>As for 1b and 2b. |

In addition to the above, the same set of questions was posed to every parent from the Pragmatics Profile (Semel et al., 2003; Appendix N), which is part of a published assessment measure, the Clinical Evaluation of Language



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Fundamentals 4UK (CELF 4UK; Semel, Wiig & Secord, 2003). The CELF 4UK investigates the language skills of children and adolescents and has been standardised on the UK population. Although the Pragmatics Profile (Semel et al., 2003) is a questionnaire and the questions are closed, the interview was conducted in a semi-structured way, allowing the parents to be encouraged to expand on their responses, explain their reasoning as well as give examples to illustrate their point.

This procedure was chosen in order to allow the respondents to express their views in greater detail as opposed to filling in a written questionnaire. The interview was intended to be flexible but still provide some structure to the conversation. The process was not standardised because the dynamic interview format led to a variation in some questions, as the interviewer reacted to responses given by the parents.

When analysing the transcripts, principles from Interpretative Phenomenological Analysis (IPA) were used (Willig, 2001). IPA is an approach to data analysis which aims to 'capture the quality and texture of individual experience' (Willig, 2001, p. 53). It accepts that it is impossible to gain direct access to a research participant's life world; hence the researcher's analysis is always an interpretation of the participant's experience. IPA aims to investigate a research participant's experience but recognises such exploration does implicate the researcher's world view as well as the nature of the relationship between researcher and participant (Willig, 2001). The process comprised the following stages:

- Every transcript was read several times.
- Themes from the parents' comments were identified.
- For organisational purposes, the themes were examined in relation to one another and provisional codes were identified. Six codes emerged, viz. adolescent's difficulties (AD), adolescent's positive points (AP), neutral statements about the adolescent (AN), parent's difficulties (PD), parent's positive points (PP) and neutral observations made by the parent (PN).



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- All of the identified themes were coded alphanumerically, falling under one of the above six codes.
- The most frequently occurring themes were identified.
- The information was recorded in table format.

The main analysis of the transcripts was conducted by the researcher. Thus there was a possibility of researcher bias influencing the identification of themes. In order to enhance the trustworthiness of this analysis, the transcripts and themes were reviewed by a final-year psychology student. Use of a second coder in interview analysis was recommended by Silverman (1993) and described in Crichton-Smith (2002). The student was familiar with qualitative research methods and IPA in particular and had experience in interviewing as well as coding data, but no experience of TBI. In order to protect the anonymity of the participants the transcripts contained no identifying data. The psychology student identified themes from his reading of the transcripts, many of which overlapped with those identified by the researcher. Differences in opinion were resolved in discussion and the observations were integrated into the analysis.

#### *3.2.4.2.4 Assessment of adolescents' perceptions of their pragmatic abilities*

An interview, using questions from an adapted version of the CELF 4UK Pragmatics Profile (Semel et al., 2003; Appendix O), elicited information from the adolescents regarding their view on their pragmatic abilities and social functioning.

The adolescents were first engaged in general conversation by being asked one or more open questions. This form gave the adolescent scope to give as little or as much information as desired, which was useful to assess initiation and inhibition in conversation. The researched regularly used these questions clinically to establish rapport. The questions and justification for including them are included in Table 5.



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**Table 5: Open questions: adolescent interview**

| Question | Justification |
|---|---|
| 1. How are things going at school? | To engage in conversation about a topic familiar to the adolescent.<br>To provide opportunity to describe current experience in school. |
| 2. What were you doing at the weekend? / How was your holiday / What are you going to do /have you been done in your holiday? | To elicit a basic narrative of a past event/ familiar, non-threatening topic. |

The adolescents were then posed a series of questions from the adapted Pragmatics Profile (Semel et al., 2003) (Appendix O). This format was selected in order to structure the conversation and give the adolescent opportunity to describe issues from their perspective.

The Pragmatics Profile (Semel et al., 2003) was selected so that the question items would overlap with those posed to the adolescents' parents, for comparison purposes. It was adapted to include fewer questions, in order to make it shorter and maintain the adolescents' interest. The questions were rephrased in order to be more accessible to adolescents. A number of the questions were included on the basis of research by Turkstra et al. (2001). They ascertained in adolescent focus groups and classrooms that some of the skills most associated with social success included attentive listening behaviour, perception of non-verbal cues, detection of sarcasm, and adjusting communication style to suit the listener. These skills were also identified in the literature as being impaired in adolescents with TBI (Hartley, 1995; McDonald & Pearce, 1995; McDonald et al., 2003; Turkstra et al., 1995).

A face-to-face interview, rather than a written format, was chosen as it allowed for a more dynamic approach as well as more opportunities to elicit information from the adolescents. Written language demands would also have disadvantaged some adolescents due to difficulties with handwriting or written language formulation.



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The interviews were transcribed. Themes from the interviews were identified and an analysis was conducted, as detailed above for the parent interviews. The themes which occurred with the greatest frequency were judged to be significant. Correlations between the adolescents' and their parents' and teachers' comments were noted as significant. Differences in opinions between the adolescents, parents and teachers were also recorded.

#### *3.2.4.2.5 Assessment of teacher perceptions of the adolescents' pragmatic abilities*

A questionnaire on pragmatic language abilities, the Pragmatically Orientated Discourse Analysis (PODA), which uses a four-point scale for responses, was adapted from Damico (1985) and sent to teaching staff (Appendix P). The 27 questionnaire items were divided across three sections, i.e. **Rituals and Conversation** Skills, **Asking For, Giving and Responding to Information**, and **Non-verbal Communication.** These sections mirrored the organisation of items on the Pragmatics Profile (Semel et al., 2003), in order to facilitate comparisons across the two questionnaires.

A questionnaire format was chosen because in clinical practice this proves to be an effective method of gathering information from teaching staff who, from the researcher's clinical experience in the UK, are not always able to meet for long periods to discuss the students. Themes from the questionnaires were identified, giving qualitative information on the adolescents' pragmatic abilities.

### 3.2.5 Procedure

#### *3.2.5.1 Pilot Study*

In addition to the standardised test instruments, a number of non-standardised or adapted test instruments were used in this study. These test instruments were trialled prior to the study to assess their suitability for inclusion in the assessment battery.

In order to assess if the narrative tasks would be suitable, they were piloted on a group of unimpaired children and adolescents, to assess their task



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comprehension and picture interpretation. The task proved to be realistic, with the youngest child tested, who was nine years old, being able to complete the task successfully. The adapted Pragmatics Profile (Semel et al., 2003) was also piloted on this group, to assess their understanding of the questions. No difficulties were noted. The details of the pilot study participants are found in Table 6.

**Table 6: Description of pilot study children and adolescents**

| Age | Sex | Schooling | Primary language |
|---|---|---|---|
| 9.0 | Male | Primary | English |
| 9.3 years | Female | Primary | English |
| 12.9 years | Female | Secondary | English |
| 12.9 years | Male | Secondary | English |
| 14.1 years | Male | Secondary | English |

Prior to being used with the adolescents, the adapted PODA for teachers was piloted with teachers who taught adolescents with TBI. No difficulties with the language or content were reported. All of the teachers reported the questionnaire took no longer than fifteen minutes to complete. Details of the teachers are in Table 7.

**Table 7: Description of pilot study teachers**

| Sex | Primary language | Years of teaching experience | Age group taught |
|---|---|---|---|
| Female | English | 17 | Primary and secondary |
| Male | English | 2 | Secondary |
| Female | English | 7 | Secondary |
| Female | English | 11 | Secondary |

### *3.2.5.2 Data collection procedures*

The aforementioned assessments were administered in a therapy room in a paediatric neuro-rehabilitation facility, or in the participants' home or school environment. The adolescents were assessed for 30-45 minute periods at a time, and offered regular breaks and refreshments between these periods.



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An interview with the parents took place without the adolescent present, in order to ensure that the parent was able to speak freely about their views of their child. The interview, which lasted between 40 and 60 minutes, was video-taped and transcribed. The adolescent with TBI was observed in his or her school environment and the adapted PODA questionnaire regarding their conversation skills was completed by a school staff member familiar with the adolescent. BRIEF (Gioia et al., 2000) questionnaires regarding the adolescents' executive skills were given to parents and teaching staff. The questionnaires were completed and returned to the researcher.

#### *3.2.5.3 Data recording procedures*

Formal assessment results were recorded on assessment forms. Narrative samples and interviews with the parents were video and audio-taped, and written transcriptions made. Questionnaire responses were recorded on the questionnaire recording forms.

The digital audio recordings were made using a Digital Wave Player and the digital video recordings were made on a Sony CCD digital camcorder.

#### *3.2.5.4 Data analysis procedures*

Data from standardised tests (BPVS-2nd Edition, Dunn et al., 1997; TLC-E, Wiig & Secord, 1989; BRIEF, Gioia et al., 2000) was scored according to test procedure manuals. The narratives were analysed using the S-MAP for Focused, Holistic Rating of Picture-Elicited Narratives (Appendix M; Wiig & Story, 1993).

Discourse analyses were conducted on the transcribed interviews with parents and the adolescents, identifying common themes in perceptions of language and communication skills. The Pragmatic Protocol (Prutting and Kirchner, 1987) gave descriptive information, as rated by the researcher, on the adolescents' pragmatic abilities. For every appropriate rating, one point was scored, out of a possible 30 points. These scores were recorded. The adapted PODA



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questionnaire filled in by teaching staff was analysed for common themes and overlaps with themes from the interviews with the parents and adolescents. For analysis purposes, desirable pragmatic behaviours rated as 'always' or 'often' being present, were tallied as 'strengths', whereas those with a 'seldom', 'never' or 'unsure' rating were tallied as 'difficulties'. The converse was true for undesirable pragmatic behaviours. Every item on the questionnaire was assigned one point in this way. There was a total of 27 items across the three sections of the questionnaire, which included 17 items on **Rituals and Conversation Skills** section, six items on **Asking For, Giving and Responding to Information** section, and four items on **Non-verbal Communication** section.

*T* scores were used to interpret the adolescents' level of executive functioning as reported by parents and teachers on the BRIEF (Gioia et al., 2000) questionnaires. These provided information on the adolescents' functioning relative to the standardisation sample. These scores were translated into descriptions and degrees of the executive impairments measured.

## 3.3 ETHICS

### 3.3.1 Ethical procedures

A number of ethical considerations were applied in the treatment of all the participants, including the adolescents, their parents and teaching staff, as described by Willig (2001). The participants were fully informed about the research, and were given verbal and written information regarding the research. All of the participants gave their written consent to participate. Deception of the participants in any form was avoided. The participants were made aware of their right to withdraw at any stage of the research. The participants were informed that they would have access to any publications arising from the research. The participants were also assured that confidentiality regarding all data generated would be maintained.

Ethical clearance to carry out the data collection was gained from the National



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Health Service Committee for Research and Ethical Clearance in East Surrey, England, as part of a work-based project in the Speech and Language Therapy Department at a paediatric neuro-rehabilitation facility (Appendix A). Ethical clearance from the Faculty of Humanities Research Proposal and Ethics Committee of the University of Pretoria, South Africa was granted in June 2007 in order to carry out a retrospective study with the data collected (Appendix B).

### 3.3.2 Potential risk factors / prevention of harm

The length of assessment could potentially have caused fatigue in the adolescents. People who have had TBIs are susceptible to high levels of fatigue. Therefore during the assessment process they were offered frequent rest and refreshment breaks.

There was the possibility that some adolescents might have experienced test anxiety. As the researcher had been clinically involved with all the adolescents previously, it was known that previously no test anxiety had been shown.

The researcher was aware of the therapy provision for all the adolescents at the time of assessment. Had any unaddressed issues regarding speech, language or cognition become apparent, follow up contact with local speech and language therapy and/or occupational therapy services would have been made with their and their parents' permission. However, this did not prove necessary.

### 3.3.3 Storage of data and confidentiality

Personal data was recorded on one computer at the paediatric neuro-rehabilitation facility. The participants' data was coded to ensure no identifying information was recorded. All participants were coded with a number or letter for use in data analysis on computer and assessment record forms. There was no other identifying information entered onto the computer data base. The computer was password-locked.



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Any personal or identifying information was placed in a locked filing cabinet on site at the rehabilitation facility. The analysis of data was undertaken primarily by the researcher and the participants were assured of confidentiality. The narrative and interview transcriptions were reviewed, with permission from the adolescents and parents, by two people acting as second raters.

The data will be stored for ten years. The researcher and the research coordinator have access to the data and act as custodians for the generated data.

### 3.4 RELIABILITY AND VALIDITY

Reliability of a test or findings relates to their consistency and stability. It is the extent to which tests or findings can be repeated and found to have similar results (Coolican, 2004). In qualitative research, reliability is described by the term 'trustworthiness' which is defined by Robson (2002) as the 'extent to which one can have trust or confidence in a study and its findings' (p. 553).

A test may be considered valid to the extent that it measures whatever domains it sets out to measure. Validity also refers to the extent to which findings can be trusted (Coolican, 2004). Robson (2002) also refers to the validity of findings having a strong bearing on trustworthiness. He states that, in addition to validity, 'generalizability' is a central concept in trustworthiness. This refers to the extent to which the findings of the research are applicable outside of the specific research situation.

The content of the standardised tests used were examined for validity and is described under Materials and Apparatus. The validity for the BPVS-2$^{nd}$ Edition was good (Dunn et al., 1997), as was the validity for the TLC-E (Wiig & Secord, 1989). The tests were carried out according to the standardised procedures specified in the test manuals, thus ensuring the results were as reliable as possible.



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In order to establish inter-rater reliability on the narrative assessment, a qualified speech and language therapist experienced in narrative disorders, was involved in interpreting narrative data.

The Pragmatic Protocol (Prutting & Kirchner, 1987) was completed by the researcher in real time; therefore a second rating was not possible. This had implications for reliability; however the reports from both the parents and teachers regarding the adolescents' pragmatic abilities served to triangulate these results.

As there was only one interviewer and a small number of interviews conducted, there was the danger of bias in the interviews (Pring, 2005). Therefore, a second rater who had knowledge and experience of qualitative research was involved in analysing the transcripts and comparing the results with those obtained, in order to account for potential bias. This enhanced the trustworthiness of the analysis.

Three measures of reliability were considered for the BRIEF (Gioia et al., 2000), viz. internal consistency, inter-rater reliability and stability of *T*-scores. Internal consistency was high for both teacher and parent forms. Inter-rater reliability was reported as moderate (Gioia et al., 2000). *T* scores proved stable with repeated testing, indicating no significant degree of variability expected due to the instrument itself (Gioia et al., 2000). The content validity of the BRIEF (Gioia et al., 2000) was strong. Rating scales can bring bias into scores, as they rely on third parties for ratings and are not direct measurements of ability. Therefore the BRIEF (Gioia et al., 2000) has two scales which provide information on validity, viz. the Inconsistency and Negativity Scales, which were used to establish increased validity (Gioia et al., 2000).

The researcher was the treating therapist for the adolescents in the study. As this was a retrospective study, it was not possible to modify this aspect. There was the possibility that past knowledge of the parents and adolescents would influence the researcher's manner in presenting questions and interpreting the



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statements made by the adolescents and their parents. However, by involving the teachers by eliciting their opinions of the adolescents' skills, as well as involving second raters for the discourse and narrative analyses, this was partially controlled for.

## 3.5 CONCLUSIONS

Pragmatic language ability requires description, not quantification, hence the descriptive research design described in this chapter is justified. Both quantitative and qualitative methods are used to gather data to form these descriptions. Qualitative research holds both advantages and disadvantages when investigating a topic, thus various measures for enhancing trustworthiness of the results need to be considered.

## 3.6 SUMMARY

In this chapter, the research methods for this study were described. This included the statement of the aim and sub-aims of the study and description of the research design. The sample was described and the materials and apparatus for data collection were discussed and their inclusion in the study justified. The procedures for data collection, recording and storage were presented, along with ethical considerations. Finally, issues of reliability and validity of findings were discussed, as well as the trustworthiness of the qualitative data.



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# CHAPTER 4

Results and Discussion of Results

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## 4.1. INTRODUCTION

In order to describe the pragmatic language abilities of a group of adolescents with traumatic brain injury (TBI), a series of standardised and non-standardised assessments were administered. The assessment findings are presented and discussed in this chapter. Descriptions are given of the adolescents' strengths and limitations in terms of language and pragmatic function. Reports of the adolescents' executive functions are also discussed, providing the cognitive context in which their pragmatic language abilities exist.

Possible reasons for the adolescents' performance are explored, and comparisons are made between the adolescents as appropriate. Contributions from the adolescents' parents and teaching staff are examined, reported, and comparisons are drawn as appropriate. The views of the researcher, parents, adolescents and teaching staff, regarding the adolescents' pragmatic abilities, are compared and interpreted.

Despite pragmatic abilities being specifically targeted in this study, a number of broader themes regarding living with TBI emerged in both the adolescent and parent interviews. Some of these themes are also explored in detail, in particular in terms of how they relate to pragmatic language. The inclusion of these themes is essential, as they illustrate the wide-ranging impact of TBI on the adolescents and their families. Attempting to separate pragmatic abilities from the adolescents' broader cognitive, behavioural and environmental presentation is ill-advised, as firstly this denies the complexity of pragmatics, and secondly places artificial boundaries between these inter-related issues.



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Some of the results, such as the adolescents' insight into their own pragmatic abilities, are interpreted in terms of current theories and models. Reasons are offered as to why some of the results concur with current literature in TBI rehabilitation, and why possibly some do not conform.

The strengths and limitations of both the standardised and non-standardised assessment tools, in eliciting the reported information, are also explored, and the need to use both approaches is demonstrated.

## 4.2. RESULTS

### 4.2.1 Assessment using standardised tools

#### *4.2.1.1 Assessment of executive function*

**Perceptions of parents and teachers of the adolescents' executive skills: Behavior Rating Inventory of Executive Function (BRIEF) (Gioia et al., 2000)**

Both the parents and teaching staff of the adolescents completed the BRIEF (Gioia et al., 2000), a standardised questionnaire which ascertained their perceptions of the adolescents' executive functioning. Executive functions, according to Stuss and Benson (1986), are a set of related functions used for intentional problem-solving, which include anticipation, goal selection, planning, monitoring and use of feedback. Elements of executive functions which relate to the highest levels of cognition include anticipation, judgment, self-awareness and decision-making (Gioia et al., 2000). Working memory capacity, regulatory control of behaviour and emotional response also form part of executive function (Gioia et al., 2000).

The clinical scales in the BRIEF (Gioia et al., 2000) measured the extent to which the parent or teacher reported problems related to the eight domains of executive functioning. Most of these domains are integrally linked with communication function, emphasising the close link between executive function and communication skills. It was therefore useful to consider the results of all the assessments completed by the adolescents in the context of the BRIEF (Gioia et



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al., 2000) results, in order to appreciate possible causes of their identified language and pragmatic difficulties.

Detailed individual results are found in Appendices Q to U. A summary of the adolescents' BRIEF (Gioia et al., 2000) results is detailed in Tables 8 and 9. *T*-scores which fell at or above 65 were of clinical significance i.e. they reflected reported executive function difficulties.

**Table 8: BRIEF results: Parent Form**

| | ***T*- Scores for Scales and Indices** | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Parti-ci-pant** | **Inhibit** | **Shift** | **Emot-ional control** | **Initiate** | **Work Memory** | **Plan/ Organ-ise** | **Organi-sation material** | **Monitor** | **BRI** | **MI** | **GEC** |
| Jack | 60 | 67 | 69 | 56 | 69 | 58 | 52 | 51 | 68 | 59 | 63 |
| Leo | 72 | 72 | 63 | 46 | 66 | 59 | 40 | 68 | 71 | 57 | 63 |
| Carla | 75 | 69 | 61 | 62 | 79 | 67 | 47 | 71 | 71 | 69 | 71 |
| Luke | 91 | 88 | 85 | 70 | 82 | 76 | 69 | 75 | 95 | 78 | 87 |
| Kim | 78 | 85 | 63 | 53 | 61 | 67 | 71 | 60 | 78 | 66 | 71 |

**BRI:** **Behaviour Regulation Index (Inhibit, Shift and Emotional Control scale composite)**
**MI:** **Metacognition Index (Initiate, Working Memory, Plan/Organise, Organisation of Materials and Monitor scale composite)**
**GEC:** **Global Executive Composite**

***T*-score: at or above 65 reflects reported executive function difficulties**



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**Table 9: BRIEF results: Teacher Form**

| | *T*- Scores for Scales and Indices | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Parti-ci-pant** | **Inhibit** | **Shift** | **Emot-ional control** | **Initiate** | **Work Mem-ory** | **Plan / Organ-ise** | **Organi-sation material** | **Monitor** | **BRI** | **MI** | **GEC** |
| Jack | 55 | 52 | 69 | 54 | 66 | 66 | 44 | 62 | 59 | 61 | 61 |
| Leo | 64 | 97 | 76 | 63 | 80 | 81 | 84 | 73 | 79 | 80 | 83 |
| Carla | 80 | 91 | 82 | 77 | 90 | 81 | 111 | 84 | 87 | 83 | 88 |
| Luke | 89 | 85 | 94 | 72 | 78 | 60 | 60 | 78 | 94 | 72 | 82 |
| Kim | 111 | 137 | 118 | 85 | 100 | 97 | 124 | 105 | 127 | 105 | 118 |

As a rating scale, the scores obtained were inherently subject to potential bias, as they relied on third party ratings of the adolescents' behaviour. Therefore the pattern of results on every questionnaire was examined for excessive inconsistency across responses. The extent to which respondents answered questions in an unusually negative style, compared with the clinical samples, was also examined. Validity scale scores, viz. the Inconsistency scale and the Negativity scale, were subsequently calculated to provide information on validity of the results. These are reported in Tables 10 and 11.

**Table 10: BRIEF validity scales: parents**

| **Participant** | **Inconsistency Score and Classification** | | **Negativity Score and Classification** | |
|---|---|---|---|---|
| Jack | 3 | Acceptable | 0 | Acceptable |
| Leo | 3 | Acceptable | 0 | Acceptable |
| Carla | 7 | Questionable | 2 | Acceptable |
| Luke | 0 | Acceptable | 5 | Elevated |
| Kim | 4 | Acceptable | 4 | Acceptable |



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**Table 11: BRIEF validity scales: teachers**

| Participant | Inconsistency Score and Classification | | Negativity Score and Classification | |
|---|---|---|---|---|
| Jack | 4 | Acceptable | 0 | Acceptable |
| Leo | 3 | Acceptable | 0 | Acceptable |
| Carla | 5 | Acceptable | 2 | Acceptable |
| Luke | 0 | Acceptable | 4 | Acceptable |
| Kim | 1 | Acceptable | 5 | Elevated |

| **Inconsistency score:** | | **Negativity score:** | |
|---|---|---|---|
| **≤ 6** | **Acceptable** | **≤ 4** | **Acceptable** |
| **7-8** | **Questionable** | **5-6** | **Elevated** |
| **≥ 9** | **Inconsistent** | **≥ 7** | **Highly elevated** |

The results of the BRIEF(Gioia et al., 2000) questionnaires are discussed in the following section; however the implications of these results on pragmatic function are explored more fully in the discussions of the pragmatic language assessment outcomes that follow later in this chapter.

Six of the adolescents' GEC scores were elevated, which reflected overall executive function difficulties, as reported by either or both their parents and teachers. Two GEC scores (i.e. on Leo's Parent form and Kim's Teacher form) were disregarded as summary scores, due to the extent of the difference between BRI and MI *T*-scores. The GEC scores which were not elevated (i.e. on Jack's Parent and Teacher forms and Leo's Parent form) fell within the outer limits of low average range. This suggested that, although the GEC score did not reach clinical significance, executive functions were not a significant strength for those individuals. It is important, however, to note that for these two adolescents, executive difficulties were still reported in school and at home respectively.

The pattern of scores for the Metacognition Index (MI) and Behaviour Regulation Index (BRI) are of interest. All of the BRI scores (i.e. **Inhibit, Shift** and **Emotional Control** scales), except on Jack's Teacher Form, were elevated. This reflected the pervasive behavioural regulation difficulties which are commonly



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associated with TBI (Ylvisaker & Feeney, 1998). These results also correlated with Gioia et al.'s findings (2000) that all the scales on the BRI were elevated for the TBI population when compared with matched controls. Pragmatic language difficulties could therefore be anticipated in the light of the difficulties indicated on the component **Inhibit, Shift** and **Emotional Control** scales.

For most of the adolescents, greater difficulty on the BRI was reported in the school context than at home. According to Jack's teacher, however, his overall BRI score was not elevated, suggesting that his behavioural regulation difficulties were not as pronounced in school as they were in his home environment. Jack's school context differed from that of the other adolescents, in that the education system in his county divided secondary education into 'middle' and 'high' schools. He attended a middle school, which served as a transitional school between primary and secondary school. Middle schools provide more structure for pupils, whilst introducing aspects of secondary schooling such as moving from class to class for different lessons. The tighter structure of the middle school routine compared with home might have helped him to have more control over aspects of his behaviour.

Across the parent and teacher forms, seven the MI scores were also elevated, which is indicative of metacognitive challenges. Elevated MI scores in the presence of elevated BRI scores are likely to reflect that poor behavioural regulation and inhibitory control were having a negative effect on the metacognition scales (Gioia et al., 2000). Such reported reduced metacognitive skills are significant for the adolescents' academic and social performance (Gioia et al., 2000).

Gioia et al. (2000) also reported that a number of the metacognition scales were significantly higher for children with severe TBI, including the **Initiate**, **Plan/Organise** and **Working Memory** scales. The results from this group of adolescents indicated that working memory, and planning and organisation were widely reported difficulties, although problems with initiation in this group were



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reported in only some of the cases. Broadly speaking, however, the global executive dysfunction reported in severe TBI by Gioia et al. (2000), was largely mirrored in this group of adolescents with severe TBI.

Within the BRI and MI, however, there was a wider range of scale scores, many of which fell within the average range. This showed that, even in the presence of executive function difficulties, the adolescents still had some areas of relative executive strength. Such strengths are commonly not reported in the literature. For example, the parents of Jack, Leo, Carla and Kim reported no difficulties on the **Initiate** scale. This suggested that in the routine demands of the home situation, the adolescents were able to start activities and generate ideas.

Working memory deficits were noted by teachers and parents on nine of the ten forms, reflecting difficulties holding information actively in working memory. These reported deficits on the **Working Memory** scale suggested that working memory was a pervasive difficulty for adolescents with TBI, across both home and school settings. These findings were consistent with the working memory deficits reported in children and adolescents post TBI (Conklin, Salorio & Slomine, 2008; Levin, Hanten, Zhang, Swank, Ewing-Cobbs, Dennis et al., 2004; Moran & Gillon, 2004).

Working memory deficits are likely to predict a number of language and learning obstacles. Working memory and processing speed have been reported to have the greatest influence on verbal fluency in adults with TBI (Bittner & Crowe, 2007). Working memory has also been implicated in new learning deficits in children of school-age post TBI (Mandalis et al., 2007), so the functional implications of these reported difficulties are potentially far-reaching.

Difficulties with working memory tasks might also have been caused by inattention. Gioia et al. (2000) acknowledged that, although two separate entities, attention and memory were difficult to distinguish behaviourally, and thus were combined on this scale of the BRIEF (Gioia et al., 2000). Long term attention



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deficits in children and adolescents with TBI have been reported by Yeates et al. (2005). In addition, Conklin et al. (2008) reported that attention span was predictive of working memory deficit in children with TBI. Because working memory and attention difficulties would manifest functionally in similar ways, differentiating between them would be important primarily for intervention purposes. Luke and Kim in particular required prompts to re-focus on the tasks at hand and required frequent changes in activity in order to hold their attention. Thus their reported working memory deficits might have been a function of reduced attention.

Both the parents and teaching staff of four adolescents, along with the parents of the remaining adolescent, reported difficulties on the **Shift** scale. This represented limitations in flexible behaviour. These results were consistent with the rigidity in behaviour, including inflexibility in communicative contexts, that commonly emerges in young people with TBI during middle to late adolescence (Ylvisaker & Feeney, 1998),

Emotional control was also highlighted as a problematic area for the adolescents by two of the parents and all of the teachers. The fact that difficulties on the **Emotional Control** scale were more prevalent for most of the adolescents in the school setting was significant, as it might have pointed to greater challenges in the school setting leading to more emotional outbursts when the adolescents were feeling challenged.

All five of the adolescents were reported by either a parent or teacher (or both) to have deficits on the **Plan/Organise** scale. In total, seven of the scores for this scale were elevated. All of the adolescents except for Luke were noted to have greater difficulties on this scale by their teaching staff compared with their parents. This was possibly due to tasks in the school context placing greater organisational demand on the adolescents, compared with tasks given to them at home.



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The combinations of relative strengths and limitations were variable for every adolescent which underlined their unique profiles of ability. This revealed the value of thorough assessment, and stressed the importance of not relying on the stereotypical view of expected outcome post TBI, in order to inform treatment options.

Three adolescents had more significant executive difficulties reported by their teacher than by their parents, whereas the other two had similar levels of ability reported in both contexts. In the former cases, this might have reflected the greater demands that were being placed on these adolescents in school as opposed to home. It was also possible that in these home situations, the parents provided more support to their children than they were consciously aware of, thus mitigating the presentation of executive dysfunction in the adolescents.

Although executive functions are commonly perceived to be seated in the frontal lobes of the brain, this is not wholly accurate. Because of the dense connectivity of the frontal lobes with other cortical and sub-cortical regions, such as the limbic system, reticular activating system, posterior association cortex and motor cortex, more areas of the brain are in fact implicated with executive functions (Gioia et al., 2000). It is important therefore to consider the concept of a frontal system as opposed to simply frontal lobes. The difficulties reported by the adolescents' parents and teachers could therefore have reflected neurological damage to the adolescents' pre-frontal regions as well as to damage to any of the posterior or sub-cortical areas which are densely inter-connected with the pre-frontal regions (Gioia et al., 2000).

Language and executive functions are interdependent in child language development (Singer & Bashir, 1999). On the one hand, mature self-regulatory executive function is mediated by self-talk, which becomes increasingly complex and sophisticated as a child develops. On the other hand, effective executive functions are required in order to demonstrate socially competent communication as well as organise complex language tasks (Ylvisaker & DeBonis, 2000). A



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number of the adolescents' brain injuries occurred earlier in childhood. Therefore there was the strong possibility that the language development necessary to express complex and sophisticated ideas had been disrupted by their brain injuries. Compromised expressive language ability, as measured by the TLC-E (Wiig & Secord, 1987) and reported later in this chapter, was evident in most of the adolescents, supporting this view. In addition to this, the mechanism of all of the adolescents' TBIs made their frontal systems vulnerable to damage, and thus prone to executive dysfunction. The combination of these factors placed them at high risk for academic and social failure, given that executive function is central to cognitive, linguistic, behavioural and affective control (Singer & Bashir, 1999).

The BRIEF (Gioia et al., 2000) proved to be a useful assessment to include in the battery. It is an example of a standardised assessment which measured reports of performance at the Activity and Participation level of functioning of the International Classification of Functioning, Disability and Health (ICF; WHO, 2001). This was because it probed opinions from parents and teachers about the adolescents' functioning in everyday tasks. It provided norm-referenced information which was useful for identifying reported deficits in function, compared with the broader population. An advantage of the assessment was that, by involving the parent as well as the teacher, it gathered information regarding the adolescents' functioning in different contexts, a factor necessary in any assessment of function following TBI.

The aim of the overall assessment was to ascertain pragmatic function. The parents' and teachers' reports on executive function proved to be useful adjuncts to this assessment process. The BRIEF (Gioia et al., 2000) provided useful signposts from which to probe the adolescents' executive function further. The results also provided a platform from which to test hypotheses of possible causes of language and pragmatic breakdown, for example whether narrative discourse difficulty was driven by underlying organisational deficits, or whether constant interrupting was caused by self-monitoring or inhibitory deficits. Considering root causes of pragmatic difficulties would be necessary in order to better inform



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treatment, and not always focus on the symptom, but on the cause of the problem.

Executive functions are those functions which regulate 'all aspects of deliberate, non-automatic, non-routine behaviour' (Ylvisaker & Feeney, 1998, p. 53). This includes communication and social behaviour. The outcomes of the BRIEF (Gioia et al., 2000) therefore needed to be carefully considered when interpreting all of the language and pragmatic assessment results reported in this chapter.

#### *4.2.1.2 Language and pragmatic abilities*

##### *4.2.1.2.1 British Picture Vocabulary Scale-Second Edition (BPVS-2nd Edition) (Dunn et al., 1997)*

The adolescents completed the BPVS-2nd Edition (Dunn et al., 1997), a standardised measure of single word understanding. Their performance on this assessment is recorded in Table 12.

**Table 12: Participants' performance on the British Picture Vocabulary Test- 2nd Edition**

| Participant | Chronological Age | Standard Score | Score description | Percentile Rank | Age Equivalent |
|---|---|---|---|---|---|
| Jack | 11.0 | 96 | Low average | 40 | 10.07 |
| Leo | 16.10 | 80 | Moderately low | 9 | 12.05 |
| Carla | 16.1 | 64 | Extremely low | 1 | 9.08 |
| Luke | 12.9 | 79 | Moderately low | 8 | 9.07 |
| Kim | 15.7 | 79 | Moderately low | 8 | 12.04 |

**Scores: mean = 100; standard deviation +/- 15**

Four of the five adolescents scored outside the average range for their chronological age, obtaining scores which were between one and two standard deviations below the norm. This placed them in the moderately to extremely low range of ability. Thus receptive vocabulary deficits represented a core deficit for



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most of the adolescents. Both Leo and Carla were scored as 15 year eight month olds, the upper age limit of this assessment, as they exceeded the age range for which norms were provided. Their below average scores were therefore likely to be an over-estimation of their abilities, emphasising the extent of their receptive vocabulary deficits.

Jack was the only one for whom vocabulary understanding was an area of relative strength for him, as he scored in the low average range. Carla's score, on the other hand, was the lowest across all the adolescents, and reflected very restricted vocabulary understanding. This contrast was interesting, as Jack's TBI was the most recently sustained, whereas Carla's was the longest standing in the group. Therefore it could be hypothesised that the gap between age appropriate vocabulary and actual performance increased with time post injury, possibly due to impaired new learning. Indeed, Cooper and Flowers (1987) reported that standard scores on vocabulary tests may well deteriorate in children with severe injuries, in subsequent years, because of a failure to acquire new concepts and vocabulary.

Working memory deficits have been implicated in new learning deficits in children of school-age post TBI (Mandalis et al., 2007). Given that all of the adolescents were reported to have working memory deficits on the BRIEF (Gioia et al., 2000), new learning deficits, in this case relating to vocabulary, could be anticipated. People with TBI also have a significantly more rapid rate of forgetting new information, due to poor consolidation mechanisms (Vanderploeg, Crowell & Curtiss, 2001). Therefore if new vocabulary was taught incidentally, either verbally or in reading materials, it would be less likely to be retained by this group. This in time would lead to more impoverished vocabulary repertoires.

Ylvisaker (1993) warns of the necessity to differentiate between the loss of skill and knowledge post brain injury, and the loss of ability to acquire new skill and knowledge post brain injury. He makes the point that receptive vocabulary is rarely reported as a concern post TBI, and that this is likely to be as a result of



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the brief interval between assessment and injury. Word knowledge is assessed soon after an injury, often proving to be within normal range, whereas the ability to acquire new vocabulary in the longer term is not assessed.

There is a paucity of literature which reports specifically on long term receptive vocabulary deficits post TBI in adolescents. No studies have previously been undertaken using the BPVS-2nd Edition (Dunn et al., 1997) to measure these skills in this particular population. Moran and Gillon (2004) reported on adolescents, who had acquired brain injuries in childhood, who completed the Peabody Picture Vocabulary Test-3rd Edition (PPVT-III, Dunn & Dunn, 1997), a comparable measure to the BPVS-2nd Edition (Dunn et al., 1997). The group studied was small, but results obtained were mixed, with four adolescents obtaining above average scores, and two adolescents obtaining below average scores. This was in contrast with this study's findings which suggest that receptive vocabulary in adolescents is affected by TBI. Because this study uses only a small group, these findings warrant further investigation with a larger number of participants.

This was a relatively short test, not taking longer than 15 minutes for any of the adolescents to complete. All of the adolescents attended well for this short time period and followed the instructions accurately. Language comprehension tasks with high working memory demands are typically difficult for individuals with TBI (Moran & Gillon, 2004). The instructions on this assessment, however, were simple and the adolescents only had to process one target word at a time. Therefore the language comprehension aspect of the task involved low working memory demands. The results of this assessment therefore reflected vocabulary deficits and were not factors of compromised working memory or inattention.

These findings are significant, because receptive vocabulary deficits would impact on the participants' learning across the curriculum, as understanding words and concepts are key building blocks in learning. Studies have shown that students with wider vocabularies do better in reading comprehension and oral



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language activities, than students with weaker receptive vocabularies (Biemiller, 2003; Dole, Sloan & Trathen, 1995). Tests of receptive vocabulary were also described as useful screening tests of scholastic aptitude (Dunn et al. 1997). Given these results, it would be reasonable to investigate the adolescents' performance in curriculum tasks further and to anticipate difficulties with academic work, notwithstanding other academic difficulties associated with TBI.

The BPVS-2nd Edition (Dunn et al., 1997), as a standardised assessment, provided useful information regarding the adolescents' receptive vocabulary levels. It was quick to administer, which was useful for participants with TBI, a group documented to have long term attentional deficits (Yeates et al., 2005). It also had good construct validity. Information about receptive vocabulary was provided at the Impairment level of disability of the ICF. Thus further assessment at the Activity and Participation level, i.e. how the impairment affected the adolescents' function, would be necessary in order to devise useful intervention. Such information at the activity level was provided for some of the adolescents by their teaching staff, in comments made on the non-standardised adapted Pragmatically Orientated Discourse Analysis questionnaire (PODA; Damico, 1985). They reported the adolescents having difficulties learning new words and concepts in academic tasks. Thus a combination of standardised and non-standardised assessment approaches would be necessary to inform intervention planning.

#### *4.2.1.2.2 Test of Language Competence – Expanded Level 2 (TLC-E) (Wiig & Secord, 1989)*

The adolescents completed the TLC-E Level Two (Wiig & Secord, 1989), a standardised measure which assessed aspects of pragmatic language function as well as aspects of expressive and receptive language function. The TLC-E (Wiig & Secord, 1987) has two versions, Level One for younger children and Level Two for older children and adolescents. This group was assessed using the Level Two version. A summary of the results is provided in Table 13.



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**Table 13: Participants' performance on the Test of Language Competence: Level 2**

| | | Standard Score: Subtests | | | | Standard Scores: Composites | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Partici-pant | Age | Ambiguous Sentences | Listening Comprehension | Oral Expression | Figurative Language | Screening Composite | Expressing Intents | Interpreting Intents | TLC-E Composite | Age equivalent |
| Jack | 11.0 | 8 | 10 | 5 | 6 | 73 | 79 | 88 | 81 | 8.1 |
| Leo | 16.10 | 7 | 3 | 3 | 8 | 73 | 69 | 73 | 67 | 7.10 |
| Carla | 16.1 | 5 | 4 | 3 | 5 | 65 | 65 | 65 | 65 | 8.2 |
| Luke | 12.9 | 9 | 12 | 6 | 6 | 76 | 85 | 94 | 89 | 10.1 |
| Kim | 15.7 | 8 | 8 | 6 | 6 | 76 | 82 | 82 | 79 | 11.00 |

**Subtest standard scores:** **mean = 10, standard deviation = +/- 3**
**Composite standard scores:** **mean = 100, standard deviation = +/- 15**
**Expressing Intents:** **combined Oral Expression and Ambiguous Sentences score**
**Interpreting Intents:** **combined Figurative Language and Listening Comprehension score**

All of the adolescents, except for Luke, scored in the below average range on the TLC-E (Wiig & Secord, 1987) composite score. Luke's composite score fell within the low average range. These outcomes reflected that most of the adolescents had not achieved adequate levels of language competence for their respective ages. Pragmatic language ability as well as aspects of receptive and expressive language were implicated.

Differences between the individual adolescent's sub-test scores were examined according to the guidelines for determining the presence of statistical significance, as set out in the TLC-E manual (Wiig & Secord, 1989). For all of the adolescents, except for Luke, the differences between the sub-test scores were not statistically significant, i.e. no one particular sub-test score influenced the overall score more than the others.

The Expressing Intents composite score combined the **Ambiguous Sentences** and **Oral Expression: Recreating Sentences** sub-test scores. Four of the five adolescents obtained scores which were one to two standard deviations below



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the norm, reflecting significant expressive language deficits. Luke was the only adolescent to score within the average range, with a low average score.

On the component sub-tests of the Expressing Intents composite, a number of patterns were evident. On **Ambiguous Sentences**, Jack, Carla and Luke paraphrased their first responses on a number of occasions when trying to generate alternative meanings of the sentences, showing that they retained the same conceptual basis for their interpretations. This suggested difficulty shifting to a new angle of interpretation, which correlated with the difficulties with flexible thought and behaviour as reported by the parents and teachers of these adolescents on the BRIEF (Gioia et al., 2000) **Shift** scale.

Slow processing of the ambiguous information was evident for all the adolescents except for Luke. In particular, greater difficulty was noted with interpreting complex syntactic constructions in the cases of Jack, Leo and Kim. Slow processing of information as well as single channelled interpretations would imply difficulties interpreting double meanings in everyday conversation (Wiig, 1995). Slow processing was noted by Van Heugten et al. (2006) to be a long term consequence of severe TBI, when measured three years post injury in a group of children and adolescents. Bittner and Crowe (2007) also reported slow information processing in adults post TBI.

All of the adolescents had difficulties on the **Oral Expression: Recreating Sentences** sub-test. Challenges with formulating sentences under constraints were implied and further analysis at the discourse level was indicated. This is reported later in the chapter. A number of behaviours were suggestive of underlying language planning and organisation deficits. These included, for example, Leo omitting one, two or even all of the target words, and not always relating his sentence to the picture stimulus e.g. ‘It’s very difficult without a handle’, when talking about an athletics meeting. A number of the adolescents produced sentences or phrases with little meaning e.g. Jack’s attempt, ‘Do it without difficult again’. Similarly Luke’s sentences did not always convey meaning



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e.g. 'Regardless might be different than being happy or sad', nor did Carla's response, 'I don't like that fresh bread. Nor do I here, let's have this'. This was also a likely outcome of planning and organisational limitations (Ylvisaker & DeBonis, 2000). Their lack of attempts to correct the sentences suggested that these adolescents were also not monitoring their output sufficiently. Jack, Luke and Kim formulated and reformulated their responses, which was suggestive of difficulties bringing order to spoken language. Either the teacher or the parent, or both, reported on the BRIEF (Gioia et al., 2000) that planning and organisation was a weakness for these adolescents. These weaknesses were demonstrated functionally in the expressive language formulation difficulties on this sub-test, suggesting underlying executive dysfunction contributing to these results.

Complex sentence construction limitations were also highlighted on this sub-test. Many of Luke and Leo's responses reflected major or minor syntactic or semantic errors, with particular difficulties introduced by the inclusion of conjunctions. Similarly, Kim produced deviant sentences, but primarily syntactic in nature. Even though she used conjunctions, it was difficult to understand her meaning, e.g. 'Shall we get the tickets before we go to the popcorn place rather than la (pause) after we get the tickets and go'. Carla included the target words, but often over two or three sentences, which also pointed to complex sentence construction limitations. Thus elements of disordered language were evident. Studies have reported on reduced receptive syntactic abilities post childhood brain injury (Jordan & Ashton, 1996; Moran & Gillon, 2004), but the literature pertaining to expressive syntactic abilities provides contradictory findings. Chapman et al. (1992) reported no significant differences in sentential length or complexity in mild, moderate or severely brain injured children and adolescents, one year post injury. Glosser and Deser (1990) reported no significant difference in syntactic complexity in adults. However, a study by Campbell and Dollaghan (1990) reported expressive deficits 12 months post injury in a small group of children and adolescents, while Ewing-Cobbs et al. (1987) reported syntactic deficits for some head-injured subjects, both children and adolescents, on sentence repetition tasks. However, syntactic generation was not measured in that study.



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Coelho et al. (2005a) reported that adults post TBI did indeed exhibit microlinguistic deficits in narrative production, in particular lexical-semantic limitations. Coelho et al. (2005a) and Ylvisaker (1993) both suggest that microlinguistic difficulties in discourse, such as syntactic construction, could in part be attributed to language organisation deficits. Thus executive dysfunction would again be an underlying causal factor of language dysfunction.

The Interpreting Intents composite score combined the results of the **Listening Comprehension: Making Inferences** and **Figurative Language** sub-tests. Leo, Carla and Kim all scored between one and two standard deviations below the norm, indicating significant receptive language deficits.

Leo, Carla and Kim had difficulty processing all of the given information and then using this information to draw accurate conclusions. They took a long time to give their first responses and then delayed further before giving their second responses. On extension testing it was evident that they were able to draw more accurate inferences when given extra time and the information repeated. This reflected that the difficulty did not lie in language comprehension per se, but rather due to demands being placed on them, such as time constraints. In fast-flowing conversation, there would be limited opportunities for such repetition, resulting in the adolescents processing some of the information inaccurately and arriving at faulty conclusions (Wiig, 1995). Slow information processing, as reported under the **Ambiguous Sentences** sub-test results, is a long term outcome associated with TBI in children and adolescents (Van Heugten et al., 2006).

In contrast to Leo, Carla and Kim, the participants Luke and Jack both scored within the low average range, which suggested this was an area of relative clinical strength for them. Jack's receptive vocabulary score (as measured by the BPVS-2nd Edition; Dunn et al., 1997), was also in the lower range of average, suggesting that receptive language ability was a relative strength for him.



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Luke's only sub-test score which was statistically different from the others was on the **Listening Comprehension: Making Inferences** sub-test, at the .05 level of significance. Thus performance on this sub-test was meaningfully different from the other sub-tests and indicated an area of relative strength for Luke. This indicated that some areas of language ability were relatively spared after his TBI, and illustrates the variation in skills that can be associated with individuals post TBI (Ylvisaker & Feeney, 1998).

On the **Figurative Language** sub-test, all of the adolescents benefited from extra time to aid them with their interpretations of non-literal sayings. This again reflected slow processing of the information. On extension testing, they preformed better when given extra time and more clues about the context. In fast-flowing conversation though, when this time and context would not necessarily be provided, they would be likely to miss out on their conversation partner's meaning (Wiig, 1995), unless they were very familiar with the idiom or metaphor, or were primed to expect sarcastic or ironic responses. The three older adolescents, Leo, Carla and Kim, did not interpret the sayings literally which reflected that they understood the principle that a deeper meaning was intended. The fact that they had this awareness reflected that they had learned over time that language was not always used literally. They struggled, however, to use the context to work out the most likely meaning, so made errors in interpretation.

During the assessment, Luke was the only adolescent to spontaneously employ a strategy of reading some of the stimuli to himself to aid his processing of the information. Although Leo was able to state when he found some of the items difficult, by making statements such as, 'That's a hard one', he did not attempt to aid himself in retaining the information. The rest of the adolescents also did not use deliberate strategies which suggested limited awareness on their part of the nature of their information processing difficulties, or inability to apply strategies when interpreting language.



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Luke's TLC-E (Wiig & Secord, 1987) composite score which fell in the low average, is worthy of comment. His average Interpreting Intents score was boosted by a relatively high standard score on his **Listening Comprehension: Making Inferences** sub-test, whereas his Expressing Intents score was at the lowest limits of the average range. Although this assessment indicated an adequate level of language competence for Luke's age, his pattern of responses did suggest some areas of possible weakness such as language formulation and novel figurative language understanding, which would require further investigation. Language formulation at the sentence and discourse level was indeed assessed and is reported in the monologic discourse section. Given that his receptive language performance on the BPVS-2nd Edition (Dunn et al., 1997) was below average, a level of receptive weakness was evident in formal, standardised assessment, and thus further non-standardised assessment would be beneficial.

Although the results reported cannot be generalised to the TBI population in general, because of the small group size, these results are consistent with the literature documenting that adolescents with TBI are at risk of pragmatic language impairment (Moran & Gillon, 2005; Moran et al., 2006; Turkstra et al., 2001).

The adolescents' deficits on this assessment were due to a range of factors. The comprehension deficits reported for most of the adolescents were likely to be caused by linguistic, pragmatic, as well as executive factors. Slow processing skills were likely to be compounded by limited receptive vocabulary, as measured on the BPVS-2nd Edition (Dunn et al., 1997), for most of the adolescents. Pragmatic language difficulties included literal language interpretation and limited use of context to aid their comprehension. Executive skills implicated in pragmatic deficits included working memory difficulties, which were reported on most of the BRIEF (Gioia et al., 2000) Parent and Teacher Forms. Holding information in mind for the purpose of interpreting it would be the foundation for most of these tasks. In addition, the elevated **Plan/Organise** scale on many of



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the BRIEF (Gioia et al., 2000) forms reflected organisational deficits which would have implications regarding how the adolescents learned, remembered and retrieved information. Deficits with organising incoming information would have contributed to receptive language deficits (Ylvisaker & DeBonis, 2000), and difficulties with organising outgoing information would have contributed to the expressive deficits.

The use of the standardised TLC-E (Wiig & Secord, 1987) assessment provided valuable information regarding the adolescents' language and pragmatic abilities. The results also aided establishing possible causal factors in breakdowns in communication observed in functional situations, such as difficulties interpreting humour or misunderstanding implied requests or hints.

The TLC-E (Wiig & Secord, 1987) provided information at the ICF level of Activity and Participation, i.e. comprehending literal and implied meanings, as well as producing words, phrases and longer passages with literal and implied meaning (WHO, 2001). It assessed at the adolescents' capacity level, i.e. in the clinical setting. In order to gather information about the performance level, i.e. their performance level in everyday situations, or how they performed in real life tasks involving the target skills, further assessment was necessary. Difficulties in their performance could only be inferred from the results of this assessment. For example, the concrete manner in which the adolescents processed language would most likely affect their social interaction negatively, such as if they misunderstood sarcastic, ironic or humorous comments (Ylvisaker & Feeney, 1998). From the ICF perspective, the personal or environmental factors (e.g. access to opportunities to communicate, partner competencies or their desire to engage in interactions) all would have had a bearing on their abilities in this assessment, which was not directly commented upon. A disadvantage of the TLC-E (Wiig & Secord, 1987) was that most of the participants found it long and arduous, needing verbal encouragement to remain engaged with the task.



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This assessment took between 30 minutes and one and a half hours to complete. Thus the demands on the adolescents' attention and concentration were greater than they were, for example, when completing the preceding BPVS-2nd Edition (Dunn et al., 1997). This resulted in many of the adolescents losing concentration at times during the assessment, particularly when the tasks were demanding. This was in optimal conditions for maintaining attention, i.e. a quiet room with only one other person present to re-direct attention and provide structure. It would be reasonable to assume that, combined with the evident slow processing skills, these impairments would be accentuated in busy class or home environments, in which visual and auditory distractions were commonplace, and in which large amounts of information were presented verbally. Assessment would still need to take place at the performance level of activity and participation level to ascertain how their limitations were affecting the adolescents' performance in real-life situations, as opposed to only their capacity in controlled clinical situations. This would be essential in order to plan intervention which would minimise negative effects on learning potential (Ylvisaker, 1993).

### 4.2.2 Assessment of language and pragmatic abilities using non-standardised tools

#### *4.2.2.1. Monologic discourse analysis*

A non-standardised measure was used to evaluate narrative accounts given by the adolescents, in order to describe language function beyond the single word and sentence level. Two story telling tasks using picture stimuli were used to elicit these accounts. The two stories, found in Appendices J and K, were depicted by a series of cartoons without words. These were presented to the adolescents who were asked to relate the series of events represented. Monologic discourse analyses of the adolescents' narratives were completed.

Before describing the cartoon stories, the participants needed to recognise the general theme, and then plan and formulate a description. The target accounts needed to be pragmatically and semantically coherent, with the actions,



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characters and events depicted being ordered logically and with minimal reference to irrelevant details (Coelho, 1999).

Information was gleaned from this assessment regarding the narrative organisational structure (**Content Organisation**); the amount and quality of details provided (**Recall and Elaboration**); the coherence and cohesion of ideas, and the linguistic conventions used (**Coherence, Cohesion and Conventions)**, as well as the adolescents' abilities to evaluate, monitor and revise the information as required (**Evaluation and Monitoring**). A full description of these terms is given in Appendix M.

The adolescents' narrative transcriptions were all rated by the researcher and a second speech and language therapist. Inter-rater reliability was 0.75 for the narrative scores which reflected good reliability (Fleiss, 1981). Discrepancies in scores between the raters were resolved in discussion. The narrative scores are presented in Table 14 and transcriptions of the narratives are in Appendices V to Z.



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**Table 14: Participants' performance on monologic narrative discourse**

| Partici-pant | Narrative | Organisational structure | Recall and elaboration | Coherence, cohesion and conventions | Evaluation, monitoring and revision | Total |
|---|---|---|---|---|---|---|
| Jack | Narrative 1 | 1 | 1 | 0 | 1 | 3/12 |
| | Narrative 2 | 2 | 1 | 2 | 2 | 7/12 |
| Leo | Narrative 1 | 1 | 0 | 1 | 1 | 3/12 |
| | Narrative 2 | 1 | 1 | 0 | 1 | 3/12 |
| Carla | Narrative 1 | 2 | 1 | 1 | 1 | 5/12 |
| | Narrative 2 | 2 | 1 | 1 | 2 | 6/12 |
| Luke | Narrative 1 | 2 | 1 | 1 | 1 | 5/12 |
| | Narrative 2 | 1 | 1 | 1 | 2 | 5/12 |
| Kim | Narrative 1 | 2 | 1 | 1 | 1 | 5/12 |
| | Narrative 2 | 3 | 2 | 2 | 2 | 9/12 |

**Scoring**

**0: unacceptable** **1: marginal** **2: acceptable** **3: good**

The narrative tasks proved to be challenging for the each of the adolescents across all or some of the parameters. All five of the adolescents, on at least one of the two narrative accounts, had difficulties on at least two, but sometimes three or four, of the discourse parameters measured. For interpretation and intervention purposes, the 'unacceptable and 'marginal' scores indicated deficits, whereas the 'acceptable' and 'good' scores did not. In total, 67.5% of the scores obtained were 'marginal' or 'unacceptable', in contrast with only 32.5% which were 'acceptable' or 'good', which reflected that the majority of the scores indicated narrative discourse deficits needing intervention.

Three of the adolescents improved their performance on the second narrative. This improvement might have been due to increased familiarity with the task, or due to the variability in performance often associated with function post TBI (Ylvisaker & Feeney, 1998).



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When comparing the adolescents' performance with previous studies, the terminology used was at times confounding. For example, Biddle et al. (1996) described omission of critical information as a monitoring difficulty. On the scoring matrix used for this study, such omissions would have been classified under the **Recall and Elaboration** section, or **Organisational Structure** section, depending on the nature of the omitted information. Despite this, some comparisons were possible.

**Organisational Structure** could be broadly likened with the term story structure. This structure was not evident in some of the narrative accounts, but for 60% of the accounts it was judged acceptable and even good. Compared with the other parameters measured, **Organisational Structure** produced the best overall scores. This was in contrast with impaired story structure which was reported for children and adolescents with severe TBI by Chapman et al. (1995). However the narrative tasks in that study relied on recalling and retelling a story, whereas the elicitation procedure in this study, i.e. visual presentation of sequential pictures portraying a series of events, aided all of the adolescents with organising the information. Limitations in organisational structure were however evident in Jack, Leo and Luke's accounts, which suggested deficits with the planning and organisational demands of discourse. The planning and organisational deficits highlighted by all teachers and most parents on the BRIEF (Gioia et al., 2000) supported this view. In some of the narratives, structural difficulties also reflected pragmatic language limitations in that the adolescents did not recognise the type and amount of information the listener needed in order for the story to make sense. Essential details, such as setting the context to orientate the listener, were omitted by Jack, Leo, Carla and Luke. This is consistent with findings by Chapman et al. (1992) regarding story structure.

Kim's 'good' rating for **Organisational Structure** was the best rating across all of the parameters for the whole group. She gave appropriate details in the correct sequence and thus provided good structure to her account. In her first narrative, however, she did not orientate the listener to details such as the setting and



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characters of the narrative, thus assuming some shared reference or failing to organise the information sufficiently. This reflected that her abilities were variable, in this case within a short time frame. Variable performance is noted to be common post TBI (Ylvisaker & Feeney, 1998).

Under the **Recall and Elaboration** section, eight the adolescents' scores were 'marginal' and one was 'unacceptable', reflecting difficulties on this parameter. All of the adolescents provided some details about characters, the relationship between characters, the course of events, cause-effect relationships and reactions depicted. Nevertheless these details were insufficient in supporting the narrative structure. Important details which were essential to convey the meaning of the stories were omitted. Such lack of description possibly reflected that the adolescents did not appreciate the listener's need for information, thus exhibiting the reduced social perspective taking commonly associated with adolescent TBI (Ylvisaker & DeBonis, 2000). The adolescents could have had difficulties monitoring their own output, another executive deficit for most of the adolescents, as highlighted in the BRIEF (Gioia et al., 2000) results. Lack of details and elaboration could also have indicated planning and organisational deficits, a notion supported again by the BRIEF (Gioia et al., 2000) results.

Leo made up a number of events in his accounts which were not portrayed in the pictures. This could have been humorous in another context, such as with peers, but in the context of formal assessment, he chose the wrong moment to use sexual innuendo and ill-judged humour. Firstly, this raised the notion that nothing could be said that was inherently inappropriate. Everything that was said could be appropriate, but inappropriacy would lie in the context - saying it to the wrong person, saying it at the wrong time, saying it in the wrong place, or saying in the wrong manner. Secondly, this reflected that Leo had difficulty judging the context and inhibiting some of his responses, which led to the pragmatic breakdown in his accounts. Inhibition was highlighted by both his parent and teacher on the BRIEF (Gioia et al., 2000) **Inhibit** scale to be challenging for him.



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Kim was the only adolescent to achieve an 'acceptable' score on this parameter for her second narrative. In this narrative she provided sufficient details, which was an improvement on her first narrative. This again demonstrated that her abilities were variable.

The lack of elaboration on details in this study correlated with findings of Chapman et al. (1992), who found that children and adolescents with severe closed head injuries produced less language and information in narrative discourse. This was in contrast, though, with Biddle et al. (1996) who found that children and adolescents with severe TBI did not produce less information than their peers, however were 'less efficient and less effective in accomplishing their communication goals' (Biddle et al., 1996, p. 460). This statement could also have been applied to most of the adolescents' narrative accounts in this study.

Under the **Coherence, Cohesion and Conventions** section, six of the scores were 'marginal' and two were 'unacceptable', although Jack and Kim both achieved one 'acceptable' score apiece. Overall the adolescents used appropriate grammar although the syntax used was largely simple. When forming complex sentences they mostly used the conjunctions 'and' and 'so', for example, 'So Calvin kisses his daddy good night and goes to bed' (Jack Narrative 2, line 15); 'He throws it and the boy is, uh, is swinging to hit it' (Leo Narrative 1, line 2), and 'And Calvin points to the door and his dad don't know what he's on about' (Luke Narrative 2, line 3). This was indicative of immature use of conjoined forms (Owens, 1996). Carla did use some subordinating conjunctions including 'because' and 'either … or', for example, 'And then the last picture the little boy has got a stool to stand on because he's so short' (Carla Narrative 1, line 21). On Kim's second narrative she included subordinating conjunctions in the form of 'because', for example, '… put his coat, 'cause he saw it was snowing' (Kim Narrative 2, lines 1-2). Nevertheless such conjunction use was limited, reflecting deficits in sentence construction. Sentence complexity was limited for most of the adolescents, when formulating sentences under constraints on the TLC-E (Wiig & Secord, 1987) **Oral Expression** sub-test. The narrative task did not place as



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many conditions or constraints on the adolescents as the TLC-E (Wiig & Secord, 1987) sub-test, yet syntactic limitations were again evident. This suggested that expressive syntax deficits were an underlying problem, in the context of broader planning and organisational deficits.

The use of appropriate reference was inconsistent for three of the adolescents, reflecting reduced perspective-taking. For example when speaking about the character Hobbes pitching a baseball, Luke said, 'He throws the ball' (Luke Narrative 1, line 3), without having previously specified who 'he' is. Carla and Kim however, did use some appropriate reference which reflected a measure of pragmatic awareness and social-perspective taking. They did not, however, consistently make the characters' intentions clear at the sentence and story levels, leading to potentially ambiguous statements. It was therefore possible that they were not always taking into account their listeners' perspectives, again highlighting consistency issues.

The adolescents were variable in their ability to identify and explain inferences. Luke and Carla, for example, drew some but not all of the inferences, but did not explain them fully. It was possible that they did not realise their listener's need for further explanation, and so exhibited the broader pragmatic difficulty of social perspective-taking. They were also variable in identifying main ideas of the stories. Kim and Carla, for example, were able to bring some order to the information by identifying the main idea of the stories and appreciating the key themes.

The **Evaluation, Monitoring and Revision** parameter was highlighted as problematic for most of the adolescents. Pauses were evident across all of the adolescents' narratives. Some of these pauses were within normal limits but many were long and disrupted the flow of the stories. Revisions, however, tended to be smooth after errors were made, for example, 'And they have, the tiger's like, "I've gotta go toilet"' (Leo Narrative 1, line 5) and 'Colvin, Calvin' (Luke Narrative 1, line 10).



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Three of the adolescents, Jack, Leo and Luke, did not monitor the need to give more details for the story to make sense, nor did they recognise the need to revise accounts when they had been unclear, which could be attributed to pragmatic deficits. Leo's accounts were characterised by his tangential comments, indicative of Leo's limited inhibition of ideas which were not apposite for the context. These results were consistent with findings of studies which described narrative discourse deficits post traumatic brain injury, such as those by Chapman et al. (2001), and Hartley and Jensen (1991).

The narrative results would therefore support the observation that 'accurate production … of narrative requires complex interaction of linguistic, cognitive and social abilities that would seem to be sensitive to the particular communicative deficits demonstrated by individuals with TBI (Coelho, 1999, p. 56).

Given that, for most of the adolescents, the Expressing Intents composite score of the TLC-E (Wiig & Secord, 1987) reflected varying degrees of expressive language disorders at the sentence level, limitations at the broader discourse level were anticipated. Expressive language ability per se, however, did not explain all the difficulties. Elements of executive dysfunction were likely to have accounted for a number of the narrative discourse difficulties. Executive functions were suggested by Coelho, Liles and Duffy (1995) to be the potential underlying cause of narrative discourse deficits post TBI in adults. Ylvisaker and DeBonis (2000) divided communication disability associated with executive impairment, for the purposes of discussion, into four overlapping categories, viz. (1) pragmatic language disorders or reduced social-interactive competence, (2) challenges with the organisational demands of discourse, (3) inefficient deliberate strategic memory and retrieval, and (4) impaired strategic thinking. When using this framework to investigate potential causes of the narrative breakdown on this assessment, these categories were applicable. The first two in particular, i.e. pragmatic language impairment, and difficulties with the cognitive-organisational demands of discourse, were relevant.



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The adolescents' cognitive-organisational limitations were illustrated by the restricted ordering of the information, difficulties identifying key elements of the narrative, as well as making tangential comments. Their pragmatic judgements which were lacking included using appropriate reference, identifying appropriate information to include or exclude for the listener, as well as providing an acceptable amount of information to meet the listener's need. Another pragmatic difficulty was failing to recognise the need to clarify or revise accounts, or not monitoring the effect of their words on the listener and adjusting their accounts accordingly, which could be associated with the executive skill of self-monitoring.

The **Organisational Structure** parameter was, relatively speaking, the strongest parameter across all the adolescents, but this could have been due to the visual presentation of the elicitation materials aiding their organisation of the information, as stated earlier. The **Recall and Elaboration**, as well as the **Coherence, Cohesion and Conventions** parameters also tapped into elements of planning and organisational skills. These parameters proved challenging for most of the adolescents, which in part reflected planning and organisation deficits. Given that either the adolescents' teacher or parent, or sometimes both, highlighted planning and organisational skills as problematic on the BRIEF (Gioia et al., 2000), there is scope for further research to investigate the link between this and the narrative ability in adolescents.

Assessment of monologic discourse proved useful for a number of reasons. Expressive language deficits were evident for all of the adolescents except for Luke, as indicated by the Expressing Intents standard scores of the TLC-E (Wiig & Secord, 1987) . Having established these expressive deficits at the sentence level on the TLC-E (Wiig & Secord, 1987), the use of this non-standardised assessment provided further details regarding expressive skills at the monologic discourse level. In the case of Luke however, his expressive language skills at sentence level, as assessed on the TLC-E (Wiig & Secord, 1987), were in the borderline, low average range of ability. However, across his two narrative accounts, Luke showed difficulty on every parameter assessed. More significant



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expressive difficulties therefore emerged at the discourse level. For all of the adolescents, the use of standardised and non-standardised measures in tandem therefore provided more complete information than either could have done in isolation. Positively, this assessment was sensitive in detecting subtle communication deficits, often associated with people with TBI, such as reduced coherence (McDonald, 1993). The assessment also provided practical starting points for narrative intervention.

There were a number of limitations of the assessment. Although content organisation difficulties were detected on some of the accounts, which was consistent with the findings of Chapman et al. (1992), the visual presentation of the elicitation materials might have served to aid this organisation in other of the accounts. Thus the exact extent of the underlying structural limitations was not ascertained. A further limitation of the assessment, reported by Coelho et al. (2005b) to be common in the use of discourse analyses with people with TBI, was the lack of normative data with which to compare the results. This limitation was one also often associated with non-standardised assessment procedures.

This non-standardised assessment explored ability at the ICF capacity level of Activity and Participation (WHO, 2001). Given that difficulties were detected at this level, it would be anticipated that in functional situations such as the classroom or family home, this ability would be at least similar, or probably more impaired due to the extra demands competing for the adolescents' attention in these situations. Accounts of the adolescents' performance level (as opposed to capacity level) of the Activity and Participation dimension are reported later in the chapter in the results of the adapted PODA.

Information is acquired and exchanged in school at a discourse level (Chapman et al., 1995). This has direct implications not only for academic performance but also for social learning and success. Narratives would be necessary to make sense of the adolescents' experiences to themselves as well as to represent themselves to others (Bruner, 1990). These would be lacking, thus affecting



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social interaction. The ability to construct coherent and structured oral presentations, as well as produce clear, well-organised written essays, would also be compromised in these adolescents, leading to poor performance on tests and assignments. This would be in contrast to peers, who by early adolescence would be improving their deliberate use of organisational schemes to process large amounts of information (Ylvisaker & Feeney, 1998). Difficulties with discourse, including narrative ability, have also been implicated in decreased social integration and poorer quality of life (Galski, Tomkins & Johnson, 1998). With this in mind, the adolescents' deficits in this area were significant and warranted intervention.

#### *4.2.2.2 Conversational discourse analysis*

The adolescents were evaluated by the researcher, using the Pragmatic Protocol (Prutting & Kirchner, 1987), a descriptive taxonomy of pragmatic parameters. Communicative performance in real-world settings was described in a non-standardised manner. Thus performance, as opposed to capacity, was recorded at the ICF Activity and Participation level (WHO, 2001). The information was acquired during observations throughout the assessment process in both the clinical and school settings.

The Pragmatic Protocol (Prutting & Kirchner, 1987) was divided into three sections, viz. **Verbal Aspects**, **Paralinguistic Aspects** and **Non-verbal Aspects**. The adolescents scored one point for every appropriate rating, out of a possible total of 30. All ratings of intelligibility and prosodics were corroborated by the speech and language therapist who completed the narrative ratings. The individual protocols for all the adolescents are found in Appendices AA to EE. A summary of the adolescents' scores are recorded in Tables 15 and 16.



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**Table 15: Participants' performance on the Pragmatic Protocol**

| Participants | Verbal Aspects (18 items) | | Paralinguistic Aspects (5 items) | | Non-verbal Aspects (7 items) | | Pragmatic Protocol Total (30 items) | |
|---|---|---|---|---|---|---|---|---|
| | App | Inapp | App | Inapp | App | Inapp | App | Inapp |
| Jack | 13 *(72.2%)* | 5 *(27.8%)* | 4 *(80%)* | 1 *(20%)* | 6 *(85.7%)* | 1 *(14.3%)* | 23 *(76.7%)* | 7 *(23.3%)* |
| Leo | 10 *(55.6%)* | 8 *(44.4%)* | 3 *(60%)* | 2 *(40%)* | 7 *(100%)* | 0 *(0%)* | 20 *(66.7%)* | 10 *(33.3%)* |
| Carla | 6 *(33.3%)* | 12 *(66.7%)* | 3 *(60%)* | 2 *(40%)* | 2 *(28.6%)* | 5 *(71.4)* | 11 *(36.7%)* | 19 *(63.3%)* |
| Luke | 7 *(38.9%)* | 11 *(61.1%)* | 2 *(40%)* | 3 *(60%)* | 5 *(71.4)* | 2 *(28.6%)* | 14 *(46.6%)* | 16 *(53.3%)* |
| Kim | 11 *(61.1%)* | 7 *(38.9%)* | 3 *(60%)* | 2 *(40%)* | 6 *(85.7%)* | 1 *(14.3%)* | 20 *(66.7%)* | 10 *(33.3%)* |
| **Total** | **47 (52.2%)** | **43 (47.8%)** | **15 (60%)** | **10 (40%)** | **26 (74.3%)** | **9 (25.7%)** | **88 (58.7%)** | **62 (41.3%)** |

**Key:**

**App: Appropriate behaviours** **Inapp: Inappropriate behaviours**

**Table 16: Mean, range of appropriate pragmatic aspects, rank order of most frequent performance on the Pragmatic Protocol expressed in percentages**

| Mean | SD | Range | Rank order of inappropriate aspects | Rank |
|---|---|---|---|---|
| 58.7 | 16.4 | 36.7 - 76.7 | Topic maintenance (100%)<br>Variety of communicative style (100%)<br>Prosody (100%)<br>Topic change (80%)<br>Lexical specificity/ accuracy (80%)<br>Eye gaze (80%)<br>Topic selection (60%)<br>Turn-taking initiation (60%)<br>Repair/ revision (60%)<br>Pause time (60%)<br>Quantity / conciseness (60%) | 1<br><br><br>2<br><br><br>3 |

A combination of strengths and limitations in pragmatic ability in all of the adolescents was observed by the researcher. Although the combination of



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strengths and weaknesses within the group of adolescents varied, a number of patterns were evident. All of the adolescents had mastered particular pragmatic abilities, and conversely all of them experienced difficulty with other pragmatic abilities. Some skills were displayed inconsistently, suggesting emergent skills, or skills which were context bound. Importantly, however, the percentage gained on Pragmatic Protocol (Prutting & Kirchner, 1987), did not necessarily reflect the severity of the deficit, as it is likely that certain 'clusters of pragmatic deficits may be more penalising than other combinations' (Milton et al., 1984, p.174).

Group data for the adolescents showed that 58.7% of pragmatic behaviours examined were appropriate. Similar data in other studies for two groups of head-injured adults showed higher percentages of appropriate pragmatic behaviours, with Mentis and Prutting (1987) reporting 74.5% and Milton et al. (1984) describing 76% as appropriate. Thus the adolescents fared less well as a group than groups previously reported on.

Under the **Verbal Aspects** section, all the adolescents had difficulty with topic maintenance, which was in keeping with the findings of Parsons et al. (1989). Mentis and Prutting (1991) also report topic maintenance issues when contrasting a head-injured and normal adults' topic management. The load of organising and maintaining conversation was therefore greater than the demands of merely responding to leads given by the conversation partner. In addition, all of the adolescents, with the exception of Luke, showed difficulties with topic change. This area too was highlighted as problematic in their head-injured subject in the study of Mentis and Prutting (1991). Given that working memory and / or attention deficits were reported for all of the adolescents on the BRIEF (Gioia et al., 2000) forms, it was likely that these executive difficulties manifested in conversation in the form of abrupt topic changes. Inhibition and monitoring deficits were also reported on the BRIEF (Gioia et al., 2000) for most of the adolescents. These executive difficulties were also likely to be implicated in their topic maintenance difficulties. Kim's mother made a plausible suggestion regarding Kim's topic changes. She suggested that Kim's difficulty understanding



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fast-flowing conversation, and her need to retain some control in the conversation led her to select specific topics and revert to them at every opportunity. The receptive language deficits, indicated by the BPVS-2nd Edition (Dunn et al., 1997) and TLC-E (Wiig & Secord, 1989), could therefore also have contributed to the abrupt topic changes observed.

All of the adolescents had difficulty with adjusting their communication style to suit the situation. Many showed some ability to do this, but not across all situations, so according to the judging guidelines specified by Prutting and Kirchner (1987), did not receive credit on this parameter. This deficit was in keeping with the broader difficulties of inflexibility and disinhibition, as reported on the **Shift** and **Inhibit** scales of the BRIEF (Gioia at al., 2000) respectively. Lexical specificity was an area of weakness for all except Leo. This would have in part been related to the group's restricted receptive vocabulary, as measured on the BPVS-2nd Edition (Dunn et al., 1997), as well as word-finding deficits commonly associated with TBI (Ylvisaker & Feeney, 1998). Lexical specificity was also highlighted on the Pragmatic Protocol (Prutting & Kirchner, 1987) as a difficulty in the study by Mentis and Prutting (1991).

Slow processing and formulation of complex information contributed to long pauses in conversation for Carla, Leo and Kim. The slow information processing which was already noted in their TLC-E (Wiig & Secord, 1989) results was therefore evident in their conversation skills. Carla, Luke and Leo exhibited some difficulties judging how much information to give, according to the situation. Carla, at times, and Luke both gave too little information. For Carla, this reduced output was possibly linked to the planning and organising deficits reported by both her parent and teacher on the BRIEF (Gioia at al., 2000) **Plan/Organise** scale. For Luke, however, it was likely to be related to his reduced initiation, a cognitive skill reported to be difficult by both his mother and teaching staff on the BRIEF (Gioia at al., 2000) **Initiate** scale. Carla, at other times, and Leo gave too many details in conversations. This difficulty possibly reflected that the adolescents struggled to appreciate key concepts of messages, another area



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related to a planning and organisational deficit. Alternatively it could have been a factor of broader inhibitory issues, which were also highlighted as problematic on the BRIEF (Gioia at al., 2000) by both the parents and teachers of these adolescents. Both quantity and pause time had previously been highlighted as difficulty for the head-injured adult subject of Mentis and Prutting (1991).

On a positive note, the entire group displayed an appropriate variety of speech acts, indicating that they could use language for a range of purposes. As their injuries were all acquired in late childhood or early adolescence, it was likely that this pragmatic language skill was already well-established and robust (Ylvisaker, 1993). All the adolescents, with the exception of Luke, responded as listeners to speech acts. This reflected their overall willingness to engage in the communication process. Luke's difficulties in this area were related to behavioural difficulties as opposed to lack of knowledge of how to respond. In particular Luke showed limited compliance with verbal directives or requests in school, and was disinhibited in his language, demonstrating the impact of his emotional and behavioural difficulties on his communication skills. Behavioural influences on his elevated **Emotional Control** scales from both Parent and Teacher BRIEF (Gioia at al., 2000) forms reflected that this was a broader problem at the executive level.

All of the adolescents, except for Leo, did not interrupt others, reflecting well-established communication routines. This was surprising, given that they were largely reported to have inhibition difficulties on the BRIEF (Gioia at al., 2000). Leo displayed a number of inhibitory difficulties in his communication skills, including interrupting others, bringing up topics which were not always appropriate for the situation or the conversation partner, and making tangential comments.

Milton et al. (1984), in their study with head-injured adults using an earlier form of the Pragmatic Protocol (Prutting & Kirchner, 1983), reported that the highest percentage of inappropriate pragmatic behaviours was in the **Illocutionary** /



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**Perlocutionary Acts** category. The second highest percentage fell within the **Propositional Act**. The results for the adolescents in this study showed the highest proportion of inappropriate behaviours (47.8%) occurred in the **Verbal Aspects** category. The **Verbal Aspects** on the Pragmatic Protocol (1987) covers similar parameters to the **Illocutionary** / **Perlocutionary Acts** combined with the **Propositional Act** of the Pragmatic Protocol (Prutting & Kirchner, 1983) used in the study by Milton et al. (1984). Therefore this pattern was similar to that reported by Milton et al. (1984).

On the **Paralinguistic Aspects** section, the most striking difficulty for all the adolescents on this section related to prosody, similar to the findings with head-injured adults reported by Milton et al. (1984). In some cases, inappropriate prosodic ratings reflected specific dysarthric influences on expression. For example, Leo used intonation but his pitch variations were exaggerated due to his difficulty coordinating breath support and phonation. Jack, Carla and Kim had a slow rate of speech, which affected their intonation, making it sound exaggerated at times, thus presenting with prosodic disturbance. Such prosodic difficulties are commonly associated with dysarthria post TBI (Wang et al., 2005). Other prosodic deficits were possibly due to cognitive as opposed to physical limitations. For example, Carla, Luke and Kim showed reduced self-monitoring. It is conceivable that they did not consistently alter their intonation because they did not monitor themselves closely, even though they were physically capable of variable intonation. It was also possible that they had limited ability to give attention simultaneously to both formulating language and using appropriate tone of voice. Kim had difficulties moderating her volume, which was also related to reduced self-monitoring, speaking loudly particularly when excited or annoyed. These non-verbal limitations would have implications on the adolescents' abilities to interact on equal terms with others.

Two adolescents, Leo and Luke were rated as having unintelligible speech, but with different causal factors. Leo presented with dysarthria resulting in unclear speech. Part of the dysarthria included velopharyngeal incompetence (VPI),



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resulting in hyper-nasal speech, as well as weak plosive speech sounds due to difficulty creating sufficient intra-oral pressure. Luke, on the other hand, had variable speech intelligibility. He was able to clarify his speech when prompted, suggesting his unintelligibility was possibly due to cognitive, i.e. poor self-monitoring, as opposed to physical limitations. The elevated **Monitor** scales on the Parent and Teacher BRIEF (Gioia at al., 2000) forms, which pointed to reduced self-monitoring skills, supported this observation.

On the **Non-verbal Aspects** section, many of the group displayed appropriate skills. The smallest proportion of inappropriate behaviours was reported in this section, which was similar to the findings with head-injured adults in Milton et al., (1984). Eye-gaze, however, was problematic for all the adolescents with the exception of Leo. This was possibly as a result of limited self-monitoring, a deficit reflected on the **Monitor** scale of the BRIEF (Gioia at al., 2000), in combination with a lack of confidence, as eye-contact improved for all the adolescents with time and familiarity. All the adolescents, except for Carla, fared relatively well on the **Non-verbal Aspects** section, reflecting that the visual aspects of non-verbal communication were well established for them. Their understanding of others' non-verbal communication, however, was not measured on this protocol. Carla displayed difficulty maintaining appropriate eye-contact, judging appropriate physical proximity with others, as well as using appropriate body language and facial expressions in both the home and school contexts. Some of Carla's difficulties such as judging appropriate physical proximity and giving appropriate eye-gaze were related to her reduced monitoring of her conversation partners' reactions. Her limited facial expressions, body posture and gestures, although possibly caused by neurological deficits, were likely to have been maintained by reduced self-awareness as well as reduced incidental social learning from those in her environment.

None of the adolescents had identical profiles of strengths and weaknesses. This was consistent with the views of Parsons et al. (1989), who suggested a significant amount of variability exists in the type of conversational errors made



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by adolescents and adults with closed head injuries. Ylvisaker and Feeney (1998) also described how practically any combination of communicative strengths and weaknesses was possible after TBI, depending on factors such as the individual's age and pre-injury functioning, the severity and nature of injury, as well as the supports available after the injury.

Given the fundamental importance of pragmatic ability in making and maintaining social relationships, the observed pragmatic deficits would contribute to difficulties with interaction (Prutting & Kirchner, 1987; Didus et al., 1999; Yeates et al., 2004). As with narrative discourse deficits, conversational discourse deficits correlated with decreased social integration and poorer quality of life (Galski et al., 1998). This emphasised the broader impact of these impairments, as well as the need for meaningful intervention. Although the adolescents' deficits were prominent, the fact that some of their pragmatic abilities were well established and others were emergent, was a positive sign for further intervention.

However, a caveat must be considered when interpreting these results. Some of the pragmatic strengths noted were present in conversations which did not place the responsibility for initiating, structuring and maintaining the interaction on the adolescents directly. This would have minimised the presentation of their underlying cognitive-communication problems. Parsons et al. (1989) make the point that fewer conversational errors were made in adolescents and adults with TBI when the conversational load was shared, than when they solely needed to take responsibility to organise or direct the conversation. The pragmatic strengths therefore needed to be interpreted with caution, with the consideration that they were measured in situations in which the demands were not maximised.

When considering possible causes of the pragmatic difficulties and strengths of the adolescents, it was useful to refer to the BRIEF (Gioia at al., 2000) findings. On many occasions the executive difficulties reported in the BRIEF (Gioia at al., 2000) did provide a plausible explanation for the pragmatic deficits observed.



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This was useful for intervention planning purposes. Such correlations, however, were not always present, which emphasised the need for direct assessment of pragmatic abilities. The adolescents' executive profiles were able to predict pragmatic ability partially, but not in full.

The value of the non-standardised Pragmatic Protocol (Prutting & Kirchner, 1987) was that it was able to capture and describe a wide range of pragmatic behaviour, in a naturalistic setting that was ecologically valid. This was particularly useful, as currently there are no standardised procedures for assessing pragmatic language which could replicate this.

The Pragmatic Protocol (Prutting & Kirchner, 1987) was a good measure of the ICF Activity and Participation level of performance (WHO, 2001), but did not reflect the adolescents' capacity. In order to devise intervention, further assessment would be necessary to probe whether the deficits in the adolescents' pragmatic behaviour was due to lack of pragmatic knowledge, or lack of ability to apply that knowledge in everyday situations. A further limitation was that only the views of the researcher were reflected in the ratings. However this was controlled for by eliciting the parents' and teachers' views on the adolescents' pragmatic abilities.

Galski et al. (1998) remarked that conversational discourse in itself might not be challenging enough to elicit the attributes that separate individuals with TBI from normal controls. The findings reported above are therefore best interpreted alongside the monologic discourse assessment results, (a view supported by Mentis and Prutting, 1987), due to the different cognitive demands narrative discourse placed on the adolescents.

#### *4.2.2.3 Parent perceptions of the pragmatic abilities of the adolescents*

A semi-structured interview was conducted with the parents of the adolescents in order to determine their perceptions of their children's pragmatic abilities. Information was elicited using a series of open-ended questions as well as



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questions from the Pragmatics Profile from CELF 4UK (Semel et al., 2003). All the interviews were conducted with the adolescents' mothers, except for Jack, whose mother and father took part.

Interpretative Phenomenological Analysis (IPA) was conducted for every interview transcript using the IPA process described by Willig (2001) as a guideline. The transcripts of the interviews are found in Appendices FF to JJ. After the transcripts were read several times, themes were identified and coded alphanumerically. Themes which occurred most frequently were highlighted as significant. A table was produced for every adolescent, detailing all the themes from the parent interviews. These themes are recorded comprehensively in tables in Appendices KK to OO.

Some of the themes that emerged related to the adolescents' skills and experiences, whereas others related to the parents' successes and struggles. Some themes were specific only to one or two of the parents, whilst other themes were shared by most or all of the parents.

Summary tables are found Tables 17 to 19. These include themes which emerged for all five of the sets of parents, as well as those which four sets of parents mentioned, and finally themes which were prevalent for three sets of parents. The codes referred to include Adolescent Difficulty (AD), Adolescent Positive Statement (AP), Adolescent Neutral Statement (AN), Parent Difficulty (PD), Parent Positive Statement (PP) and Parent Neutral Statement (PN). The number of times the theme was mentioned is recorded in the 'Frequency of theme occurrence' column.



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**Table 17: Interview themes shared by all of the parents**

| Description of theme | Code | Frequency of theme occurrence | | | | |
|---|---|---|---|---|---|---|
| | | Jack | Leo | Carla | Luke | Kim |
| Some of his / her conversation skills are inadequate | AD 3 | 16 | 8 | 19 | 10 | 10 |
| He / she struggles to understand some things | AD 5 | 3 | 4 | 5 | 4 | 4 |
| His / her ability to do things varies, depending on a range of factors | AD 18 | 7 | 5 | 18 | 12 | 4 |
| The parent can recognise the causes of things | PP 5 | 8 | 11 | 12 | 5 | 9 |

**'Some of his / her conversation skills are inadequate'**

This theme was common to all of the interviews, with a range of conversation difficulties being noted by the adolescents' parents. For example, comments were made by Jack's parents:

> *When you start a conversation I think he'll try finishing it… he'll try, if you need to talk about something, he'd quite join in, but he won't be on the top of it all (lines 321-323).*

Carla was reported not to observe basic routines of joining or leaving conversation appropriately:

> *Because if she's fed up with the situation, with the conversation, she'll just go (line 218-219).*

Luke's mother also highlighted a range of conversation skills which were difficult, such as interrupting and losing the thread of the conversation:

> *He does interrupt a lot (line 26);*
>
> *…there's certain things he's like, 'Oh, what do I mean, what was I going to say?'(line 35).*



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The range of conversation deficits mentioned highlighted the breadth of the adolescents' pragmatic difficulties. Some of these deficits were caused by underlying executive difficulties. For example, most of the group were noted to interrupt, which was part of a broader difficulty with inhibition. These inhibitory deficits were also noted on the BRIEF (Gioia et al., 2000) for most of the adolescents, thus emphasising that this particular conversation problem was part of a broader cognitive pattern. Interestingly, on the Pragmatic Protocol (Prutting & Kirchner, 1987), which was reported on earlier, interruption was only observed to be a difficulty for Leo. This emphasised the value of gathering information on pragmatic abilities from parents who saw their children in different circumstances to the researcher.

A further link with the BRIEF (Gioia et al., 2000) results was evident. A number of the adolescents were reported to say inappropriate and potentially offensive things, for example, Carla was noted to say what she was thinking, regardless of the circumstances:

> *She speaks her mind (line 146).*

Leo's mother made a similar comment:

> *… sometimes he says things which you know I don't think is appropriate' (line 49)*.

The difficulty monitoring the effect that their words had upon others linked with the elevated **Monitor** scales on the BRIEF for (Gioia et al., 2000) both of these adolescents. This again suggested a close link between executive dysfunction and pragmatic language difficulties.

**'He / she struggles to understand some things'**

This second theme which was common to all of the adolescents focused on understanding deficits. For example, Leo's mother noted:



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*Yes, sometimes, not always, because sometimes I'm trying to hint to him to stop that or don't say that or whatever but he doesn't pick it up (lines 505-506).*

Carla's mother cited high-level language such as humour as being problematic:

*It depends on, you know, she'll get the wrong end of the stick sometimes (line 61).*

These difficulties corresponded with the finding that most of the adolescents achieved below average vocabulary scores on the BPVS-2nd Edition (Dunn et al., 1997) as well as below average receptive language scores on the Interpreting Intents scale of the TLC-E (Wiig & Secord, 1989). Thus functional implications of the measured receptive deficits were reported by parents in everyday activities.

Luke, however, was also reported by his mother to misinterpret some things that were said to him. For example, she noted:

*You say a minute, it is a minute. He will time that minute (line 319).*

Unlike most of the other adolescents, Luke actually scored within the average range for receptive language abilities on the TLC-E (Wiig & Secord, 1989). However, according to the ICF Activity and Participation level (WHO, 2001), these references by his mother gave information about Luke's performance level, that is his ability in real-life situations. This was in contrast to his optimum ability, or capacity level, that was assessed in the TLC-E (Wiig & Secord, 1989). Therefore it appeared that additional stressors in real-life conversations could have contributed to a breakdown in understanding for Luke (Ylvisaker, 1993). Thus the information given in the interview by his parent carried significant functional implications.



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**'His / her ability to do things varies, depending on a range of factors'**

Under the third theme, parents reported that their children's pragmatic abilities varied because of a range of factors. For example, Carla's ability to ask something depended on who she was interacting with:

> *… so it depends on the company as to whether she feels confident enough to ask (lines 180-181).*

Other causes were cognitively based, such as memory:

> *… sometimes she won't always remember to pass the messages on (lines 238-239).*

Much of Luke's variability in using appropriate pragmatic abilities was ascribed to his fluctuating moods, a problem common after brain injury (Wilson, Herbert & Shiel, 2003):

> *That depends on his mood as well. Sometimes he'll play lovely out there and other times within two minutes he'll be telling them to [silence] where to go and you know, that's it (lines 239-241).*

Referring to Leo's ability to interpret non-verbal messages, his mother noted:

> *Me, yes, all the time. But not maybe other people all of the time (line 503).*

Difficulties generalising skills to new situations is commonly reported in people with TBI (Wilson et al. 2003). Thus this could reflect that the adolescents had learned a particular skill, for example Leo interpreting non-verbal messages, but then had not applied it elsewhere.



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**'The parent can recognise the causes of things'**

This fourth theme common to all of the parents, reflected that they were analysing their children's communication and behaviour, and then drawing conclusions. Jack's father noted:

> *[Jack] … got called a lot of names when he was first gone back there. That's one of the things he could not handle. That did not help him because … that's when he did lash out more (lines 693-695).*

Carla's mother spoke of reasons for friendships breaking down between her daughter and others:

> *Keeping [friends]…. is a problem, because we've seen over the years, obviously her peers are growing. And they're not so you'll find her friends change with whatever stage she's at with time. Because they're obviously growing up, they're maturing so they're going off and doing different things (lines 88-92).*

Luke's mother also noted a possible reason for Luke's friendships breaking down:

> *And with the friends I don't know I think because of how he is they're finding it hard to cope with Luke, I think (line 53-54).*

On the whole, this was a positive theme, as it reflected that the parents were aware of antecedents to and consequences of their children's communication and behaviour. This would be important aspects for working out effective strategies to help them overcome failings.

Some explanations or causes parents gave, however, were not necessarily as compelling. For example, when Leo called a staff member's baby 'ugly', his mother explained that it was probably acceptable. She stated that Leo and the



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staff member had a relationship that she was not privy to, in which it was acceptable to speak in that manner. Talking about Luke hugging his sister's friends, Luke's mother reflected:

> *Who does what and some like a lot of the girls hug each other, some do, some don't, but Luke's not going to know that' (lines 455-456).*

However, it could also be argued that Leo and Luke misjudged the situations and said or did something out of place. This was something Leo was observed to do by the researcher on a few occasions, such as during his narrative assessment. At times, Luke was also observed to be inappropriate, for example on the Pragmatic Protocol (Prutting & Kirchner, 1987) regarding adjusting his communication style to suit the situation. In these cases, the parents were not necessarily ascribing their sons' behaviour to their brain injuries, but explaining it in terms of 'normal' teenage behaviour.

The theme, 'The parent can identify the causes of things' was common to all the parents, which was largely positive if the parents identified causality accurately. There was also the possibility that by ascribing faulty reasons for behaviour or situations, parents were denying the effects of the brain injury on their children, or expecting that the behaviour would dissipate as their children matured. This however, would not necessarily happen as the deficits might become more pronounced as the gap between their children and their peers increased.

Two further themes emerged which were shared by four of the five sets of parents, therefore representing significant topics. Both of these themes were positive in tone.



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**Table 18: Interview themes shared by four of the five sets of parents**

| Description of theme | Code | Frequency of theme occurrence | | | | |
|---|---|---|---|---|---|---|
| | | Jack | Leo | Carla | Luke | Kim |
| He / she is showing improvement in his / her skills | AP 1 | 10 | | 6 | 5 | 14 |
| Some of his / her conversation skills are good | AP 3 | 13 | 10 | | 5 | 7 |

**'He / she is showing improvement in his / her skills'**

This theme suggested that the parents had noticed progress in their children's communication and behaviour. Jack's mother commented:

> *Rather than lash out. He's getting a bit better at it to what he was. He's starting to tell [teachers] a little bit (lines 160-161).*

Talking about Carla's ability to negotiate, her mother said:

> *Again, that's something that we're looking at, we're concentrating on compromise at the moment, so I will say sometimes [she can negotiate]. If you'd come here a couple weeks ago and asked me the same thing. I'd have said never (lines 368-371).*

Similarly, Kim's mother noticed positive changes in her daughter's communication skills:

> *We now we can actually now joke and things a little bit more easily. We can talk a lot easier now (lines 4-5).*

Reporting on Luke's interaction with his sister's friends, his mother said:

> *I mean, like all the girls, they all hug each other and things like that, so when they see Luke, they always they always hug him so he used to feel*



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*their bums, you see, yeah, take it that step further [laughs]. So but now he will just hug them (line 441-443).*

Despite the difficulties noted by the parents in the interview, as well as the deficits identified by the range of assessments administered in this study, the parents were still able to identify positive progress their children were making. The implication of these observations was that new learning could take place in certain circumstances.

**'Some of his / her conversation skills are good'**

Even though a wide range of poor conversation skills were noted by all of the parents, it was significant that most of them were able to comment that their children also had some strengths in this area. Leo's mother, for example, spoke about his ability to start conversations with others:

*He'll always say, 'Hullo' and 'How are you?' and, 'Nice to meet you' so he's quite good with that (lines 263-264).*

Kim's mother also noted that Kim was good with well-learned routines:

*She always greets people (line 77).*

Skills such as greeting, starting conversations and using appropriate stock phrases were well established with Leo and Kim. These were skills which did not require judging the social situation in much depth, and would have been skills well practised from a young age.

Speaking about Luke asking for clarification, his mother reported:

*Yeah, he does that often, I would say he often asks if he's unsure (line 364);*



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These positive themes emphasised that it was not possible to explain the adolescents' skills in absolute terms, because they displayed both strengths and weaknesses.

Some of the parents' comments, however, were in contradiction with other comments they had made about their children's conversation skills. There were a number of examples of this, for example regarding Jack interrupting:

> *He will wait for it to come round to him (line 306),* versus … *he interrupts you in the wrong way (lines 487-488)*;

Another example of a contradiction was regarding Jack's listening skills:

> *Oh, he's quite good, yeah, he'll listen to you and that (line 40)*, versus *Sometimes I've asked him something and he ain't took a blind bit of notice (lines 331-332).*

Inconsistencies were also evident in some of Leo's mother's reports. For example, she felt that he was able to adjust his communication style consistently, and gave examples:

> *… when he's talking to friends I mean sometimes I worry when he ends the conversation, 'Yeah, cool!', when the friend's not there. And I say, 'Was that his mother?' and he'll say, 'Yeah, no actually it was his dad!' But it was obviously a brother or little sister (lines 146-149).*

However, at another stage in the interview she gave an example of Leo being over-familiar with a shop assistant who he did not know. Therefore there was an inconsistency in her reports. The researcher also observed a few occasions in which Leo did not adjust his communication style, as reported on the Pragmatic Protocol (Prutting & Kirchner, 1987), and therefore held conflicting views from Leo's mother.



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These inconsistencies could have been caused by a range of factors. For example, Jack's mother and father could have held differences in opinion. In the cases of Leo and Jack, some questions might have caused the parents to think of specific incidents and led them to a judgment about a skill, without necessarily considering their skills as a whole. Underlying these contradictions however is a weakness of methods of data collection which rely on obtaining subjective opinions. Subjective comments such as these, which are obtained by informal methods of data collection, can interfere with assessment results obtained in more controlled conditions. The variability of the adolescents' skills across different settings also needs consideration. Therefore a combination of data collection approaches is called for (Coelho et al., 2005b).

Three of the parents commented frequently upon two further themes.

**Table 19: Interview themes shared by three of the five sets of parents**

| Description of theme | Code | Frequency of theme occurrence | | | | |
|---|---|---|---|---|---|---|
| | | Jack | Leo | Carla | Luke | Kim |
| Friendships are problematic for him / her | AD 2 | 4 | | | 4 | 4 |
| The parent is working out what helps the adolescent | PP 1 | 12 | | 16 | | 10 |

**'Friendships are problematic for him / her'**

Some of the parents noted the difficulties their children had with forming and maintaining friendships. This was illustrated by quotes, for example by Jack's mother:

> *He's got some good friends. It took him a long time. .. to make these friends. He's found it very hard (lines 127-130);*

> *Well, [he won't play] with anyone, if we go anywhere, people he don't really know, he takes a bit of a while' (lines 421-422).*

Luke's mother also commented on this topic, for example:



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*He is quite… not shy. But, don't really want to make new friends, I don't think. And with the friends I don't know I think because of how he is they're finding it hard to cope with Luke, I think (lines 52-54);*

*And he has since the accident lost a lot of friends. He's definitely lost a lot of friends that way. Definitely. They've stopped calling and ringing and things (lines 56-57).*

Social vulnerabilities are reported in early adolescents with TBI (Ylvisaker & Feeney, 1998). In early adolescence, socially awkward behaviour is commonly associated with the frontal lobe injury which Jack and Luke sustained (Ylvisaker & Feeney, 1998).

However, not only the younger adolescents had difficulties in this regard. Talking about Kim's friendships prior to injury, her mother stated:

*But she did found it a lot more easier to have friends; she had friends all the time, it was the same group of friends (lines 18-19);*

Difficulties with forming and maintaining friendships are a natural result of limited pragmatic ability. Without a level of pragmatic competence, equal and sustained relationship suffers. Given that their parents reported that Kim, Luke and Jack had difficulties with conversation skills, subsequent difficulty with making friends was expected. The theme was also noted for Leo and Carla, but not as frequently as for the others.

The above comments are consistent with the breakdown in social grouping that is reported by Ylvisaker and Feeney (1998) to be common in adolescence. This is not only isolating for individuals with TBI , but also places a burden on their family who have to give them additional support which otherwise might have been provided in the extended family or friendship circles (Wilson et al., 2003).



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**'The parent is working out what helps the adolescent'**

The final significant theme struck a positive note. The parents reflected on their successes and noted strategies they had worked out which aided their children's communication and behaviour, thus helping their social skills. For example, talking about going to a holiday club, Jack's mother noted that coaching him in new situations was helpful:

> *But I've gone there and helped him and once he's sussed it out he'd be all right, I think, but it's getting in there (lines 442-443).*

Jack's father explained a useful strategy in how to pose requests to him:

> *Another thing is if you say, 'Go and do that', he won't he won't do it. But if you ask him to do it, he will do…You turn and say to him, 'Jack, you got to wash up.' He'll tell you to get [pause] lost. 'Jack, do us a favour, can you clean them dishes for us?' He will do it! (lines 752-766) .*

Carla's mother also reported a number of instances in which they were working on some strategies:

> *But, that's something we're trying to work on. It'll be a case of 'hold on a minute'. She'll take some time to think. When there's been a row when she's been in my face or I've been in hers, you know, it's been confrontational. She'll come back and say, 'I'm sorry for shouting at you' and we'll sit and talk about it (lines 19-22);*

Kim's mother also noted a number of strategies, such as:

> *But we do have a sign, where I just go like that to her (indicates with fingers, going softer) and she picks it up. She does know when she's getting too loud. I don't have to say anything, I just do it (line 340-342);*



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These parents made a number of positive comments, suggesting a proactive response to some of the difficulties their children were experiencing. Such strategies could be viewed in a positive light, as when they worked, they would facilitate change and ease tension in the family. It would be positive if the parent adopted successful strategies, but could also potentially lead to frustration and distress for the parent if the strategy were unsuccessful due to the problem being uncontrollable (Wade et al., 2001).

Although the theme 'His behaviour has become worse since the injury' only applied to Jack and Luke, it was commented upon with such frequency by both sets of parents that it is worthy of mention. Jack's parents noted that:

> *He's very quick tempered now… before he wasn't as… wasn't like that (lines 2-4);*

> *… now and again, you know, if anything's going on, I said to him, 'You wasn't involved, was you?' You know, 'cos sometimes he gets involved whereas before he wouldn't. If there's something going on, if there's a fight at school, Jack will be there… whereas before he would stand back … or he'd go and get help (lines 141-148);*

Similarly, behaviour was an issue reported to be affecting Luke both at home and in school. There was a range of issues such as impatience, irritability and anger as well as offensive language:

> *If the music is too loud or something he will ask, but then if they don't do it straight away, then he'll get his hair off, he'll ask them to 'TURN IT DOWN! [raised voice]' you know (lines 391-392);*

> *Now it goes that step further, um, to the part where he gets quite rude and, um, with the swearing and everything, you know, and don't really know when to stop (lines 12-13);*



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Deterioration in behaviour post TBI is a common concern in early adolescence following TBI (Ylvisaker & Feeney, 1998). They state that there is a 'likelihood of behavior problems associated with vulnerability to environmental stressors, especially with frontal lobe injury' (Ylvisaker & Feeney, 1998, p. 168). Jack and Luke, being the youngest two participants, fitted this group. Their aggressive behaviour might have therefore been a combination of organic damage to their brain and poor coping skills.

Jack sustained, amongst other sites, damage to the left frontal lobe and Luke damage to his right frontal lobe. Both had sustained diffuse axonal injury, indicating generalised shearing of axons. Both also had reported working memory problems on their Parent and Teacher BRIEFs (Gioia et al., 2000), and were observed to have attentional difficulties by the researcher. They also had elements of receptive and expressive language deficits, as measured on the TLC-E (Wiig & Secord, 1989). All these impairments, along with the environmental stressors such as unsympathetic peers, unexpected changes to daily routines and noisy environments, were likely to have contributed to triggering behavioural outbursts. It was therefore reasonable to assume that these stressors, in the presence of frontal lobe injury, were the underlying cause of their behavioural difficulties. Luke's and Jack's aggressive behaviour could also have stemmed from a number of other sources following their brain injuries, such as episodic dyscontrol disorder, a form of epilepsy, or post traumatic stress disorder. These issues, however, had been ruled out in both adolescents.

Two behavioural syndromes have classically been described as a result of frontal lobe lesions (Stuss & Benson, 1986). The first is the pseudo-psychopathic personality which is characterised by a combination of some or all of the following; disinhibition, impulsiveness, restlessness, hyperactivity, euphoria, facetiousness, social inappropriateness, need for immediate gratification, lack of concern for others, sexual excess, crude humour, explosiveness, fearfulness, withdrawal and lability. This is typically associated with orbito-frontal lesions. The second syndrome is known as the pseudo-depressed personality, characterised



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by some or all of the following: reduced initiation, apathy, lack of drive, loss of interest, lethargy, slowness, inattentiveness, reduced spontaneity, unconcern, lack of emotional reactivity, dullness, poor grooming and perseveration. This is typically associated with dorsolateral or dorsomesial prefrontal lesions. In some cases of widespread frontal lobe damage, some elements from both syndromes may be observed, such as reduced initiation in some circumstances, and disinhibited behaviour in other circumstances (Ylvisaker & Feeney, 1998).

The descriptions and observations of both Luke and Jack would point to the former type of behavioural syndrome, suggesting orbito-frontal involvement. For both adolescents, these behaviours marked a significant change from their pre-injury behaviour which was not only distressing for their families but also for the adolescents themselves.

The behavioural difficulties reported by Jack and Luke's parents were significant. Ponsford, Olver, Ponsford and Nelms (2003) reported that the major source of stress to families of a TBI individual is the presence of emotional, behavioural and cognitive changes in the relative. Cognitive, behavioural and emotional changes are the strongest predictors of anxiety and depression in relatives and also of unhealthy family functioning (Ponsford et al., 2003). Given that Jack and Luke's parents reported behavioural and emotional changes in them, as well as academic difficulties (caused by cognitive deficits), their comments would be red flags, necessitating monitoring and support from relevant professionals.

Although the aim of this study was focused on description of pragmatic language abilities, the fact that parents spoke in so much detail and at length about broader behavioural difficulties emphasised that these problems could not be treated in isolation from one another. In fact, it would be impractical to separate the adolescents' behavioural presentation from their communication profile, or indeed their cognitive profile. Not only would certain communication deficits, such as reduced understanding, contribute to behavioural outbursts, but many of the



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behaviours themselves could be considered forms of communication (Ylvisaker & Feeney, 1998).

The use of a semi-structured interview format with the parents of adolescents with TBI proved to yield rich and varied information. These interviews elicited a broad range of comments and observations, some pertaining specifically to their adolescents' pragmatic abilities, and some pertaining to wider issues. The latter were not elicited by the interviewer, but flowed from the discussion prompted by the questions from the Pragmatics Profile (Semel et al., 2003).

The questions elicited information about the adolescents' communication skills at the performance level of the ICF Activity and Participation dimension (WHO, 2001). This was a useful adjunct to the information at the capacity level which was ascertained by the researcher, for example by using the BPVS-2$^{nd}$ Edition (Dunn et al., 1997) and TLC-E (Wiig & Secord, 1989). In addition, the parents' responses in the interview could be compared with the researcher's observations of the adolescents on the Pragmatic Protocol (Prutting & Kirchner, 1987) and reviewed for discrepancies and similarities. This would aid decisions regarding intervention.

Although there was some correspondence between the parents' responses in the interview regarding their children's communication skills, and their responses on the BRIEF (Gioia et al., 2000) regarding their children's executive skills, this was not always the case. Therefore, the use of the specific pragmatic questionnaire, as opposed to executive function questionnaires alone, was necessary to ascertain the nature and extent of the adolescents' pragmatic impairments.

The weakness of the semi-structured interview was that it obtained subjective opinions, which could not always be verified. This non-standardised, informal method of data collection therefore was used in a larger battery of assessments, to gain an accurate picture of the adolescents' pragmatic abilities.



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#### *4.2.2.4 Adolescents' perceptions of their pragmatic abilities*

An interview was conducted with the adolescents, using questions from an adapted version of the Pragmatics Profile from the CELF 4UK (Semel et al., 2003). This is found in Appendix O. The purpose of the interview was to elicit the adolescents' views regarding their pragmatic abilities and social functioning, thereby assessing the level of awareness into their own skills. Transcriptions of the adolescent interviews are found in Appendices PP to TT.

Interpretative Phenomenological Analysis (IPA; Willig, 2001) was conducted on all the transcripts of the interviews. This process was similar to that described for the parent interview analysis. The identified themes were coded alphanumerically under three broad categories, viz. Positive Statement (P); Neutral Statement (N) and Difficulty (D).

Observations were also made regarding the adolescents' conversation skills during the interview. These observations were coded in the transcripts as Conversation Skill Difficulty (CSD) and Conversation Skill Positive (CSP). These observations were reported earlier in the conversational analysis section, as they were used to aid completion of the Pragmatic Protocol (Prutting & Kirchner, 1987).

In order to interpret the participants' comments about their skills, theories of self-awareness were taken into account. According to Stuss (1991), self-awareness exists on two levels; the first is the objective knowledge of the existence of one's deficits, and the second is the associated understanding of the significance of those deficits. According to Crosson et al. (1989), there are three distinct, hierarchical levels of awareness in head injury recovery. The lowest level is intellectual awareness i.e. the cognitive capacity to understand to some degree that a particular skill or function has been diminished from pre-injury levels. It is further divided into three levels, the first of which is basic intellectual awareness, which involves the person understanding that they are having difficulties with specific activities e.g. 'My speech is slurred'. The next level up is the intermediate



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level of awareness which allows the person to recognise that the activities they struggle with have something in common with one another e.g. 'My speech is slurred. I have problems making myself understood because of my brain injury'. The highest level of intellectual awareness is the person recognising the implications of their deficit e.g. 'I have problems on the phone because of my slurred speech. I'm likely to be misunderstood'. A degree of intellectual awareness is required for higher levels of awareness to develop.

The next level up is emergent awareness i.e. the ability to recognise a problem when it is actually happening. Implicit in this concept is that the person does not require feedback from others to recognise a problem, but does this independently. In order to apply compensatory strategies, it is necessary to have this level of awareness.

The highest level of awareness is anticipatory awareness, which is the ability to anticipate that a problem, resulting from an acquired deficit, is going to occur. The highest level of intellectual awareness, i.e. the ability to understand the implications of the deficits, is linked closely to this level.

These levels of awareness are referred to in the discussion of some of the themes which occurred most frequently. The questionnaire was useful not only in ascertaining the adolescents' views, but also comparing them with results of standardised assessment, observations made by the researcher, as well as parents' and teaching staff's comments.

Detailed results of the adolescents' interviews are recorded in Appendices UU to YY. The most frequently occurring themes for the group are detailed in Table 20. These were themes which were mentioned at least ten times across the five interviews. The number of times the adolescent mentioned a theme is recorded under the 'Frequency of theme occurrence' column.



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**Table 20: Most common interview themes across the group of adolescents**

| Description of theme | Code | Frequency of theme occurrence | | | | |
|---|---|---|---|---|---|---|
| | | Jack | Leo | Carla | Luke | Kim |
| They know why some exchanges with others go well and some do not. | P3 | 3 | 3 | 3 | 3 | 8 |
| They know how they react in situations. It's not always helpful, but reflects understanding of their reaction. | N3 | 7 | 0 | 8 | 4 | 8 |
| They do not know about or understand some things | D3 | 7 | 0 | 1 | 7 | 3 |
| They know that their communication skills vary, depending on the situation | N2 | 2 | 0 | 4 | 0 | 4 |
| Friendships are difficult | D6 | 1 | 4 | 0 | 1 | 3 |

**'They know why some exchanges with others go well and some do not'**

This theme occurred in all of the interviews with the adolescents, suggesting that they all had considered reasons for their communication breakdowns and successes. For example, Jack spoke about interacting with classmates, saying:

> *If they're mucking about, calling me names, I don't [have a good sense of humour] (line 122).*

Commenting on his interactions with his friends since his injury, Leo said:

> *Yeah, I think it's kinda different now, they feel awkward (line 121).*

Kim was able to reflect why she became annoyed with classmates:

> *I sometimes just don't get jokes and I just take it serious and it's like bad, in a way (line 88).*

Kim's quote was significant as it gave some insight into the functional implications of her receptive language deficit, as identified on the TLC-E (Wiig &



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Secord, 1989). Therefore not only was limited receptive language per se an issue, but also the ripple effects it had on the adolescent's social relationships.

Even though Jack scored within the low average range on the Interpreting Intents scale of the TLC-E (Wiig & Secord, 1989), he too commented that he did not always understand others when they were joking with him. He remarked:

> *It ends up in a fight (line 38).*

This illustrates the necessity of using a range of assessments to assess communication skills. The standardised TLC-E (Wiig & Secord, 1989) measure provided valuable information, but only at the capacity level of ICF Activity and Participation dimension (WHO, 2001). Jack's comment gave important awareness into his performance level, and also correlated with his parents' views that he had understanding deficits, as illustrated by the theme that emerged in their interview, 'He struggles to understand some things'.

These examples of the adolescents' quotes showed that they were able to analyse some of their interactions and draw conclusions from their observations. This demonstrated that they had awareness at the intellectual level of some of their difficulties.

**'They know how they react in situations. It's not always helpful, but reflects understanding of their reaction'**

Similarly, this second theme reflected that the adolescents had a degree of intellectual self-awareness regarding their communication skills and behaviour. The theme emerged in all the interviews with the exception of Leo.

The adolescents made comments about a range of topics. Interestingly, a number pertained to their reactions to being teased or annoyed by others, and involved losing their tempers or becoming angry. Their comments therefore supported the views their parents and/or teacher expressed on the BRIEF (Gioia



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et al., 2000) **Emotional Control** scale. This scale reflected underlying behavioural regulation issues and the adolescents' comments illustrated these. For example, talking about her reactions to being teased, Kim stated:

> *I always go to smack them but then I calm down, and I just tell them to piss off. Yeah (line 324).*

When he spoke about his reactions to people when he was cross, Jack stated:

> *Sometimes [I] walk away, sometimes get really angry… and have a fight (line 128).*

On the subject of meeting new people and thinking of things to say, Carla noted:

> *If they don't talk with me, I'll say, 'You've got a problem with me, haven't you?' (line 275)*

Luke was able to say what caused him anger, for example he reported what his peers did to him:

> *'Call me names' (line 141).*

He then stated his reaction:

> *'I flip' (line 194).*

Carla was able to articulate a strategy for dealing with peers who antagonised her:

> *If [the teasing is] cruel (Sigh). People aren't really like that with me so I wouldn't really know. But I'll probably just walk off. There's no point starting an argument (line 140).*



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However, she was reported by staff and parents to have heated arguments and fall out with peers. This illustrated the difference between having knowledge and putting that knowledge into action, a common difficulty resulting from brain injury, particularly to the frontal lobes (Ylvisaker & Feeney, 1998). Carla thus demonstrated a level of intellectual awareness but difficulties at the emergent level of awareness. Similarly, Jack and Luke also described strategies, such as walking away from a fight. Although they knew these strategies at an intellectual level, they did not employ them consistently, as their parents reported that they were often involved in fights. Their comments therefore also reflected difficulties at the emergent and anticipatory levels of awareness, implying that they were not yet at the stage of employing strategies independently.

**'The adolescents do not know about or understand some things'**

Three of the five adolescents, Jack, Luke and Kim, commented on this theme. In the light of the previous two themes, this reflected that although they exhibited some intellectual awareness of deficit, they also had gaps in their understanding of themselves. For example, when discussing if he apologised, Luke stated:

> *Don't know (line 79).*

Jack's responses to questions about why he found things being difficult were also that he did not know. Jack's and Luke's responses suggested that either they were unwilling to discuss their skills or were genuinely unaware of what they did. Whichever the reason, in order for them to learn effective strategies, they would need to consider the areas causing them difficulty.

Kim reflected that making friends with peers was difficult. This showed some awareness of her difficulty. However she was unaware of possible causal factors which were maintaining this difficulty:

> *Well, I can if they're like younger. I can't make friends with my own age. I don't know why, it's just that I've never been able to (line 168).*



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Kim therefore showed she had taken an important initial step for engaging in therapy aimed to facilitate a broader range of friendships, i.e. awareness that the problem existed. She then needed to work on her awareness of the reasons that this problem existed. Jack and Luke, however, demonstrated that therapy would need to start at an earlier stage, of identifying whether a difficulty did indeed exist.

**'They know that their communication skills vary, depending on the situation'**

This theme reflected that Kim and Carla were aware of variability in their skills. Jack also made two comments on this theme. When speaking about how she felt when meeting new people, Carla stated:

> *It's easy, and it's tricky, it just depends on how they are towards you (line 271).*

Kim qualified when it was easy to make friends:

> *Yeah, but it depends what age group they are (line 193).*

Kim was able to state some causes and implications of her difficulties, as well as her variability, indicating a high level of intellectual awareness. However the difficulty she reported putting strategies into place to help herself reflected, as with Carla, the difference between having knowledge, and putting that knowledge into practice. Ylvisaker & Feeney (1998) note that this discrepancy is a common outcome in the frontal lobe injury, which both adolescents exhibited.

The topic of variability of skills also emerged in all of the parent interviews in the theme, 'His / her ability to do things varies, depending on a range of factors'. Carla and Kim therefore showed correspondence with their parents' views on the theme.



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**'Friendships are difficult'**

Leo and Kim noted difficulties in forming or maintaining friendships. Showing awareness of teaching staff concerns about her, Kim stated:

> *And they're worried about me at school because I have no friends (line 171).*

This theme linked with the similar theme 'Friendships are problematic for her', which arose in Kim's mother's interview. This correspondence emphasised it was a difficulty that both mother and daughter were well aware of.

This topic was particularly sensitive for Leo. He showed exasperation with some of his friends, by exclaiming:

> *They're idiots. IDIOTS (line 95).*

He also noted that some of his friends did not know how to talk to him, and he described a recent telephone conversation which had been very brief:

> *I rung one of my friends and I wanted ... and (makes sound effect: telephone) 'Hullo, hullo. All right, bye Leo' (line 105).*

Despite having stated these difficulties, it was interesting to note that Leo showed inconsistency in his views, as reflected in the theme 'Contradictions' (D10). He remarked:

> *Because I made so many [friends] before my accident. I don't really [need new friends], they all go, 'Hi, what's happening?'' (line 205).*

He asserted that he did not need to make friends as he maintained he had a large circle of friends, strongly identifying with his pre-injury identity. Such a contradiction could have been because he was aware of friendship difficulties



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only in certain situations, revealing an early level of intellectual awareness, or because he was sometimes denying that he had difficulties in this area of his life, possibly as a means of protecting himself.

Although friendship difficulties did not constitute a strong theme for Leo's mother in her interview, she did make some references to them, for example,

> *And the two friends he used to hang out, they don't see each other anymore. So Leo kind of feels like he is left out (line 113).*

She then mentioned that she tried to assist Leo by organising events with him:

> *I try to do things like that in the summer, inviting just a few of his select friends to different places in London, just to different places* (line 118).

This showed that she was aware of some of the changes in Leo's friendships and was trying to assist him through it.

The comments made by Leo and Kim, which were backed up by their mothers' observations, illustrated the breakdown in social grouping and social withdrawal often associated with young people with TBI in middle adolescence (Ylvisaker & Feeney, 1998). Ylvisaker and Feeney (1998) speak of this happening due to changes in the adolescents' communication skills, but also note the contribution of poor skills in reading social cues. Leo's mother had also mentioned such difficulties in her interview, when discussing the theme, 'He doesn't have the social 'know-how'; he misjudges situations'.

Jack made a significant comment about the loss and isolation he was experiencing socially, stating that he wanted to be able to:

> *'[be] mucking around with [his] mates again' (line 192).*



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The real life outcomes of pragmatic language difficulties therefore were illustrated by this theme regarding friendship breakdown, which emphasised the high price paid by these adolescents in their everyday lives.

Luke mentioned this theme, but only on one occasion. Luke's mother in her interview, however, had noted friendships to be a significant difficulty for him. She stated that she did not think that Luke had an awareness that he was losing his friends. There was also a discrepancy in the views of Jack and his parents, with his parents noting difficulties in the area, but Jack only mentioning one concern when specifically asked by the researcher. Thus these two adolescents displayed lack of awareness into some of their friendship difficulties. This implied that they were not at a stage at which they could employ strategies to combat the challenge. Their differing views also reflected the importance of gaining views from a number of sources in order to assess accurately and plan useful intervention.

On the one hand, the results of the interviews showed that all of the adolescents had a degree of awareness into some of their communication skills. However, this level of awareness was mainly only at the lowest level i.e. the intellectual level. When the adolescents' comments were considered in the light of their parents' and teachers' comments, as well as the researcher's findings, it was clear that the adolescents' knowledge was not always translating into effective action in everyday life.

On the other hand, some of the adolescents' comments suggested that their awareness was lacking in other areas of their communication ability. Their comments were significant, as diminished awareness is accepted as a limiting factor in functional recovery and rehabilitation outcome following TBI (Prigatano, 1992). Self-awareness therefore plays a crucial role in the rehabilitation process (Schönberger, Humle, Zeeman & Teasdale, 2005; Wilson et al., 2003). Before setting goals to improve pragmatic language abilities, therapy would need to aim at increasing the adolescents' awareness of their deficit.



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Bach and David (2006) noted that a striking feature of self-awareness deficit is the presence of significant dissociations between different aspects of awareness. These results suggest that the adolescents presented with differing levels of awareness for different aspects of their disability i.e. good awareness into their physical disability, but poorer awareness into their memory deficits. Wilson et al. (2003) state that 'insight … is not a unitary phenomenon' (p.97). This statement therefore supports the findings of these interviews.

The non-standardised method of data collection, using semi-structured interviews with the adolescents, proved successful in eliciting information not already gathered by standardised methods. The adolescent interviews also corroborated some of the views expressed by parents. The discrepancies that emerged between views of the adolescents, parents and researcher highlighted the weakness of the informal data collection, but could also in cases be argued to emphasis the variability in skills associated with TBI outcome.

There were a number of other ways that the semi-structured interview format proved useful. Firstly, the adolescents were given opportunity to discuss issues from their perspective and put their views forward, an opportunity not commonly associated with standardised assessment procedures. Secondly, they were able to think about and respond to questions regarding their communication skills which they had not necessarily ever considered before. Therefore the interview itself was an exercise in increasing their ability to self-reflect. Thirdly, it gave opportunity for their level of awareness into their communication skills to be examined by the researcher, in order to ascertain the nature of intervention that would be appropriate for them at that stage.

The weakness of this format was that it relied on the adolescents generating abstract ideas and expressing them verbally. These two skills were not necessarily strengths for them, particularly given that most of them were assessed to have difficulties with expressive and abstract language on the TLC-E (Wiig & Secord, 1989). In addition, given that broader initiation difficulties had



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also been noted on the BRIEF (Gioia et al., 2000) Initiate scale for some of the group, it was possible that they would not necessarily have expanded spontaneously upon ideas, thus giving limited opportunity for deeper discourse analysis.

Using this questionnaire, it was also not possible to investigate the adolescents' higher levels of awareness fully. In particular, anticipatory awareness would need to be observed; self report of the skill would not necessarily reflect that it was established in practice.

#### *4.2.2.5 Perceptions of teachers regarding the adolescents' pragmatic abilities*

A questionnaire on pragmatic language abilities, the Pragmatically Orientated Discourse Analysis (PODA), was adapted from Damico (1985). The researcher grouped the questionnaire items into three categories, viz. **Rituals and Conversation Skills**, **Asking For, Giving and Responding to Information** and **Nonverbal Communication Skills** (Appendix P). This organised the information in the adapted PODA in a logical manner. It also mirrored the categories used in the Pragmatics Profile (Semel et al., 2003) which the parents completed, thus facilitating comparisons between the two sets of responses.

The adapted PODA (Damico, 1985) was completed by teaching staff familiar with the adolescents. It elicited their views on the adolescents' pragmatic abilities in the school context. The teachers rated skills under five headings: 'always', often', 'seldom', 'never' and 'unsure'. The teaching staff were also invited to add further comments at the end of the questionnaire. The adapted PODA (Damico, 1985) results are found in Appendices ZZ to DDD. A summary of the scores is given in Table 21. For analysis purposes, desirable pragmatic behaviours rated as 'always' or 'often' being present, were tallied as 'strengths', whereas those with a 'seldom', 'never' or 'unsure' rating were tallied as 'difficulties'. The converse was true for undesirable behaviours. Every item on the questionnaire was assigned one point in this way. There was a total of 27 items, which included 17 items on



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**Rituals and Conversation Skills**, six on **Asking For, Giving and Responding to Information**, and four on **Non-verbal Communication**.

**Table 21: Adapted PODA results**

| Participant | Rituals and Conversation Skills | | Asking for, Giving and Responding to Information | | Non-verbal Communication | |
|---|---|---|---|---|---|---|
| | Strength | Difficulty | Strength | Difficulty | Strength | Difficulty |
| Jack | 11 | 6 | 4 | 2 | 3 | 1 |
| Leo | 15 | 2 | 5 | 1 | 4 | 0 |
| Carla | 7 | 10 | 5 | 1 | 3 | 1 |
| Luke | 6 | 11 | 1 | 5 | 2 | 2 |
| Kim | 11 | 6 | 3 | 3 | 2 | 2 |

A summary of the adolescents' strengths and difficulties is given in Table 22. The adolescents were rated as having a range of strengths and weaknesses by their teaching staff. All of the adolescents, with the exception of Luke, were rated as having a greater number of strengths than difficulties.

**Table 22: Adapted PODA summary**

| Participant | Strengths | Difficulties |
|---|---|---|
| Jack | 18 | 9 |
| Leo | 24 | 3 |
| Carla | 15 | 12 |
| Luke | 9 | 18 |
| Kim | 16 | 11 |

### Rituals and Conversation Skills

The basic conversation skill of greeting on meeting and departure was noted to be appropriate in all of the adolescents except for Luke. This is a well-rehearsed skill, learned from early childhood, so likely to be relatively preserved (Ylvisaker,



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1993). Luke, on the other hand, presented with a range of behavioural difficulties, so the difficulty reported with this skill was likely to be a manifestation of his behavioural difficulties as opposed to lack of knowledge of how to greet.

Most of the group were reported to use language appropriate to the situation at school, with the exception of Luke. This was useful information, as the adolescents were reported either by their parents, or observed by the researcher, to have some difficulty in adjusting their communication style to suit the situation. The disparity of opinion could have reflected that in the school situation, the structure and familiar hierarchy helped the adolescents with this skill, whereas with less structure outside of school, they had more difficulty with these social judgements. Luke's difficulties with using appropriate language once again fell under his broader profile of behavioural issues, linked with his reported inhibition deficits on the **Inhibit** scale of the BRIEF (Gioia et al., 2000).

Leo and Kim were reported to cope well with using and understanding humour, indirect, figurative and sarcastic language. This was ostensibly a surprising finding, given that not only have difficulties with higher level language, such as detecting sarcasm, been reported in adolescents post TBI (Turkstra et al., 2001), but also Leo and Kim were reported on the TLC-E (Wiig & Secord, 1989) to have higher level receptive language deficits. However, on that assessment, their primary difficulty did not lie in recognising that language was figurative, but in the extended time that it took to interpret that type of language. The adapted PODA (Damico, 1985) results also revealed that Leo and Kim often paused or had long delays before responding to language, which was similar to their pattern on the TLC-E tasks (Wiig & Secord, 1989). It was therefore likely that teaching staff had noted their understanding of less concrete language to be accurate, but with long delays in processing it.

Luke was noted to understand and use indirect, figurative and sarcastic language, as well as humour. This, however, was in keeping with his average TLC-E (Wiig & Secord, 1989) results. Interestingly, he was noted on the adapted



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PODA (Damico, 1985) to have delays in responding, which had not been evident on the TLC-E (Wiig & Secord, 1989) tasks. This could reflect a disparity between completing tasks, such as the TLC-E (Wiig & Secord, 1989), in a quiet, one-to-one environment, and functioning in busy, distracting environments, as reported on the adapted PODA (Damico, 1985), i.e. the difference between the capacity and performance levels of the ICF Activity and Participation dimension (WHO, 2001).

The fact that Leo, Luke and Kim were all noted on the TLC-E (Wiig & Secord, 1989) to have difficulties using context to work out meanings of novel non-literal language, was not reflected on the adapted PODA (Damico, 1985) results. This is possibly a shortcoming in the use of a questionnaire, in that the teaching staff made subjective judgements which did not necessarily reflect the adolescents' underlying deficits. The use of both standardised and non-standardised assessment tools was therefore necessary to gain a holistic understanding of pragmatic language ability.

**Asking For, Giving and Responding to Information**

A number of word-finding difficulties were noted by teaching staff in the adapted PODA (Damico, 1985) questionnaires, with Kim and Luke being rated as often using non-specific vocabulary. Their reduced receptive vocabulary repertoire, as measured on the BPVS-2$^{nd}$ Edition (Dunn et al., 1997), would affect their expressive vocabulary skills. This, therefore, could partially account for reduced expressive vocabulary presenting as word-finding issues. Further diagnostic testing would be indicated to determine whether their expressive vocabulary deficits were due to reduced vocabulary or word retrieval problems due to linguistic organisational issues. It would be important to gain this understanding, with word-finding difficulties described as common sequelae to brain injury (Ylvisaker et al., 2001).

All of the teaching staff noted that the adolescents lacked forethought and planning when telling stories or giving instructions. This matched the monologic



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discourse assessment results, in which these deficits were highlighted to varying degrees for all of the adolescents. This, in turn, correlated with deficits identified by most of the teaching staff on the **Plan/Organise** scale of the BRIEF (Gioia et al., 2000), which was linked with deficits in organising verbal discourse. These results were significant, as they reflected the practical implications of the narrative difficulties identified in clinical assessment, and correlated with existing research that highlighted narrative deficits post TBI (Chapman et al., 2001; Coelho, 1999; Hartley & Jensen, 1991). These findings had particular ramifications, as information is acquired and exchanged in school at a discourse level (Chapman et al., 1995).

**Non-verbal Communication Skills**

A range of skills were reported on this section. The adolescents, as a group, had more strengths than weaknesses on this section, possibly reflecting that non-verbal communication was a relative strength for them. For example, maintaining appropriate social distance was a skill noted by all the teaching staff to be acceptable in the adolescents. This was surprising, given the demands of non-verbal skills and the deficits in this area commonly associated in the TBI population (Turkstra, et al., 2001). In addition, the underlying executive deficits of the adolescents, as reported on the BRIEF (Gioia et al., 2000) **Monitor** and **Shift** scales, would suggest that self-monitoring and flexibly adjusting non-verbal behaviour as appropriate could be problematic. Once again, this highlighted that the adolescents' difficulties were not necessarily consistent across all settings. The findings also emphasised the necessity of using a range of assessments, both standardised and non-standardised, to avoid basing intervention on only one set of subjective ratings.

**Additional Comments**

When invited to make additional comments at the end of the questionnaire, the teaching staff made a number of remarks about communication skills as well as broader academic issues. These comments revealed a number of issues which were of concern to them. This section was particularly useful with regard to Leo,



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who was noted to have only three difficulties on the questionnaire itself. In his case, valuable supplementary information came to the fore, which highlighted some difficulties not mentioned in the questionnaire. This information would be useful in goal setting and intervention planning with Leo. For example, his teacher noted that he tended to 'ramble on' in conversation. This would support the view, identified on the monologic discourse assessment, that Leo did not identify main ideas or key elements in discourse, a difficulty related to organisation of information. Leo's teacher noted that he did 'not have great friendships, but did mix' with others, illustrating some social difficulties in the school context. She also remarked that he had 'trouble understanding new ideas and concepts', an issue supported by his poor receptive vocabulary score, as measure on the BPVS-2nd Edition (Dunn et al., 1997).

Luke was the only adolescent to be rated with more difficulties than strengths on this questionnaire. This was significant, given that his low average results for receptive and expressive language, as measured on the TLC-E (Wiig & Secord, 1989), were the strongest in the group. Once again, the need is clear for using a range of standardised and non-standardised assessments with the brain injured population. Assessments, such as the adapted PODA (Damico, 1985) which capture performance in ecologically valid contexts, are particularly relevant.

The results of the adapted PODA (Damico, 1985) revealed a range of pragmatic profiles in the group, consistent with Ylvisaker and Feeney's (1998) assertions that in TBI, a wide range of communication profiles exist. Some patterns were, however, evident. A number of pragmatic strengths, in particular some conversational strengths, were reported for a number of the adolescents. This might seem surprising given the extent of pragmatic language difficulties already reported for this group. However, Galski et al. (1998) suggested that conversational discourse might not include the most demanding of aspects of pragmatic language, so was not necessarily the best genre to rely upon for identifying all aspects of pragmatic breakdown.



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Having stated this, the adapted PODA (Damico, 1985) highlighted a range of pragmatic difficulties which have also been identified in other studies. Difficulties with figurative language comprehension were noted, which concurred with findings of Moran et al. (2006). Aspects of conversational discourse in this group of adolescents were also problematic which supported findings regarding long term conversational discourse deficits post TBI (Snow et al., 1998).

The adapted PODA (Damico, 1985) was useful in eliciting information about the adolescents' functioning in the school setting. An advantage of the questionnaire was that it gathered information at the performance level of the ICF Activity and Participation (WHO, 2001) dimension which is important for intervention planning. This is particularly true for pragmatic language abilities which need to be assessed in ecologically valid settings (Coelho et al., 2005b).

A number of the ratings given by the teaching staff corresponded with the views of the researcher and the adolescents' parents, whereas others did not. This reflected the variable performance of the adolescents across different settings, completing tasks with different levels of demands. However, this variation also highlighted a weakness of the adapted PODA (Damico, 1985), and emphasised the need for caution in interpretation; questionnaire responses are subjective, therefore based on opinion and open to dispute. Once again the use of non-standardised data collection methods, such as the adapted PODA (Damico, 1985), needed to be backed up with the use of more standardised methods in order to gain a more accurate picture of ability.

A further limitation of the adapted PODA (Damico, 1985) was that the teaching staff's views were not able to be expanded upon or clarified by the researcher, as they could be in an interview setting. The responses were also subject to bias from the informant.



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## 4.3 CONCLUSIONS

This combination of assessment approaches provided rich, detailed descriptions of the adolescents' pragmatic abilities. In addition, although it was not a direct aim of the study, the parents and adolescents themselves gave information about the broader impact of the TBI on their lives, emphasising the pervasive nature of impairments, and in particular, pragmatic language impairment, caused by TBI.

Regardless of the time post injury, deficits were reported for all the participants across various domains. All but one participant had below average receptive vocabulary. All the participants presented with elements of receptive and expressive language deficits. Pragmatic language weaknesses were evident at monologic and conversational discourse levels. Underlying these deficits were teacher and parent reports of executive dysfunction.

Despite the interview questions for the parents and teaching staff targeting communication skills, a set of themes also emerged regarding broader issues. This illustrated that communication can not be separated from other areas of life and treated as a discrete skill, but is pervasive and integral to other areas of functioning, such as cognition, behaviour, emotional control, family dynamics and parental burden.

Although not a selection criteria, all of the participants had experienced severe brain injuries. It was therefore significant that the parents and teaching staff were able to report many positive aspects such as continuing improvement, strengths in conversation skills as well as positive attitudes towards the adolescents.

Two themes emerged regarding inconsistency. The first was the inconsistency of the adolescents' skills. The second was inconsistency across some of the responses given by all the parties, regarding the adolescents' skills.



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The fact that the adolescents' behaviour did indeed vary from context to context, reflects a feature of behaviour post brain injury. This is a feature supported by many of the parents' comments, resulting in it becoming a theme in their interviews.

The inconsistency of the adolescents' responses compared with those of their parents, teaching staff and the researcher could in part be explained by self-awareness deficits, commonly associated with brain injury. The adolescents therefore did not always recognise the extent of their difficulties, and so did not report them. According to Stuss (1991) self-awareness is the highest of all cognitive functions as it involves integrating the 'head and heart, thoughts and feelings'. It was therefore not surprising that at this highest level, these adolescents who had undergone severe brain injuries were experiencing problems.

A further cause could have been that the parents or teaching staff did not recognise certain difficulties as issues, even if they were evident. Thus their rating differed from those of the researcher. Parents might also have under-estimated their child's abilities, having become used to certain deficits in communication and subsequently not recognising progress. Another issue was the difference in understanding of certain terms used. Certain concepts mean different things to different people so therefore elicited different responses.

Another factor at play was the different roles played by all the people who gave ratings, such as teacher, facilitator, parent, researcher and therapist. All came from different angles, had different fields of experience and different motivation. Thus every person found different aspects of the assessment salient.

Having stated that, there was also consensus on a number of issues, illustrating that some features of the adolescents' communication were stable across different contexts. The results of all the assessments emphasised the need to observe the adolescents across a number of contexts and gather information



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from a number of sources, to gain as representative a picture as possible of their pragmatic language abilities.

The value of non-standardised and standardised assessment tools being used side-by-side was also demonstrated, with caveats against using only one or the other when assessing complex skills such as pragmatic language.

## 4.4 SUMMARY

Ylvisaker and Feeney (1998) describe how practically any combination of communicative strengths and weaknesses is possible after TBI, depending on factors such as the individual's age and pre-injury functioning, the severity and nature of injury, as well as the supports available after the injury. The results of this study support these views. There were broad similarities between the participants' profiles, but every participant had a unique pattern of results.

In this chapter, the results of the assessments were discussed. The participants were found to have pragmatic language difficulties in the context of broader cognitive, specifically executive function, difficulties. They were also found to have some communicative strengths, as well as a degree of insight into their own abilities, emphasising the uneven pattern of skills often associated with TBI. The adolescents' parents offered valuable insights into their children and the process of parenting an adolescent with TBI. Teaching staff also contributed information about the school context, where there was evidence of the participants' cognitive-communication and specifically pragmatic language impairments.



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# CHAPTER 5

Conclusions and Recommendations

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## 5.1 INTRODUCTION

Moran and Gillon (2004) maintain that descriptions of individuals with traumatic brain injury (TBI) are important. Such descriptions allow for identification and discussion of how an individual's communication performance is influenced by different variables. This study gave descriptions of five adolescents with TBI, using information gathered in different contexts and from different significant people. Both standardised and non-standardised approaches were used to achieve this.

The conclusions of the study are discussed in this chapter. Conclusions of every sub-aim are discussed and implications of the findings for the field of Communication Pathology are explored. In addition, the strengths and weaknesses of the study are described, with suggestions on how weaknesses could be improved upon in further research. Future research directions are also suggested.

## 5.2 CONCLUSIONS

The main aim of this study was to describe the pragmatic language abilities of a group of adolescents with TBI. Various sub-aims were explored in order to facilitate the achievement of this aim.

### 5.2.1 Conclusions: assessment using standardised tools

The standardised tools used in assessment yielded useful but not comprehensive information regarding the adolescents' language, pragmatic and executive skills. Assessments such as the British Picture Vocabulary Test-2$^{nd}$ Edition (BPVS; Dunn et al., 1997) and the Test of Language Competence-Expanded (TLC-E;



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Wiig & Secord, 1989) gave information at the Impairment level of disability (World Health Organisation, WHO, 2001). Positively, the adolescents' performance on these instruments could be compared with a norm, thus identifying strengths and limitations compared with the average population. A limitation was that instruments such as the BPVS-2$^{ND}$ Edition (Dunn et al., 1997) and TLC-E (Wiig & Secord, 1989) did not reflect performance in a naturalistic, or ecologically valid, setting.

#### *5.2.1.1 Perceptions of parents and teachers of the adolescents' executive skills*

The Behavior Rating Inventory of Executive Function (BRIEF; Gioia et al., 2000) revealed that both parents and teachers judged the adolescents to have varying degrees of executive function difficulties. These executive deficits would explain some of the adolescents' performance on some of the other assessments, such as strategic planning and linguistic organisational deficits on the narrative tasks, working memory deficits on language comprehension tests, and difficulties with initiation, inhibition and shift, resulting in reduced social-interactive competence or pragmatic language disorders. The adolescents' reduced insight into some of their skills was also reflected in monitoring deficits indicated on the BRIEF (Gioia et al., 2000).

#### *5.2.1.2 Language and pragmatic abilities of the adolescents*

The adolescents' receptive language skills were measured by the BPVS-2$^{nd}$ Edition (Dunn et al., 1997). Four of the five adolescents exhibited receptive vocabulary deficits. This, even in the absence of any other language or communication difficulty, would have been cause for concern for the student's academic progress, given the link with receptive vocabulary and scholastic aptitude (Dunn et al., 1997).

All the adolescents had difficulties on the TLC-E (Wiig & Secord, 1989), reflecting pragmatic language and high level language deficits at both the receptive and expressive levels. This included concrete language processing such as



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difficulties detecting ambiguity and understanding figurative language, as well as drawing inferences about information not explicitly stated, and sentence formulation. Underlying working memory, organisational and monitoring difficulties were evident in many of the adolescents, suggesting cognitive causal components.

### 5.2.2 Conclusions: assessment of language and pragmatics using non-standardised tools

The non-standardised assessment tools enhanced the descriptions of the adolescents' skills. Some of the tools, such as the Pragmatic Protocol (Prutting and Kirchner, 1987), reflected the adolescents' performance not only in the clinical situation, but also in more naturalistic settings. Information gleaned from the interviews and questionnaires with the participants gave useful but incomplete insights into the pragmatic abilities of the adolescents, as well as indications of the participants' levels of insight into the adolescents' strengths and limitations. Useful starting points for intervention were given by these non-standardised tools.

#### *5.2.2.1 Monologic discourse abilities of the adolescents*

The adolescents' monologic discourse was measured using the Structured Multi-dimensional Assessment Profile (S-MAP) for Focused Holistic Rating of Picture Elicited Narratives (Wiig & Story, 1993). Narrative construction was a weak area to varying degrees, for all of the adolescents, reflecting underlying cognitive-organisational difficulties. The narrative test instrument developed for this study proved to be clinically useful in identifying narrative difficulties and gave a useful starting point for intervention. A number of factors contributed to the adolescents' monologic discourse ability, including linguistic, cognitive, executive and social skills. The adolescents' deficits were significant as the ability to produce narrative has been linked to academic success (Biddle et al., 1996) and is the means by which individuals make sense of their reality and present themselves to others (Bruner, 1990). For these reasons, and as emphasised by Chapman et al. (2001), the long term verbal discourse deficits would need to be addressed after



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severe TBI in childhood, as these deficits are not only pervasive but also persistent in this population.

#### *5.2.2.2 Conversational discourse abilities of the adolescents*

The Pragmatic Protocol (Prutting & Kirchner, 1987) was used to highlight both pragmatic strengths and weaknesses for all of the adolescents, at the Activity and Participation level of impairment (WHO, 2001). It was evident that they had a number of conversation skills which were emergent but not yet consolidated. As with monologic discourse ability, the adolescents' conversational discourse ability was influenced by linguistic, cognitive, executive and social skills.

#### *5.2.2.3 Parents' perceptions of the adolescents' pragmatic abilities*

The interview questions in the Pragmatics Profile (Semel et al., 2003) focussed on pragmatic abilities; however the themes which emerged from the interviews included information not only about the adolescents' pragmatic abilities but also about their broader challenges, such as behavioural and cognitive issues. This not only emphasised the pervasiveness of communication in other aspects of functioning, but also reflected the need of the parents to be able to speak about their broader concerns regarding their adolescents, as well as their adolescents' achievements. The parents of the adolescents showed insight into their children and made valuable comments about the causes of their difficulties as well as strategies that they had worked out to assist their children.

#### *5.2.2.4 Adolescents' perceptions of their pragmatic abilities*

The adolescents took part in an interview and were asked questions from an adapted version of the Pragmatics Profile (Semel et al., 2003). It was striking that across all five participant interviews there was a level of self awareness regarding their communication difficulties, which is not often discussed in the literature. This self-awareness was primarily at the intellectual level, as described by Crosson et al. (1989), meaning that they did not compensate for the difficulty as it was occurring. Many of their comments revealed that they had considered what was causing problems or successes, showing a reflective attitude. It was also evident



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that the adolescents were unaware of certain communication difficulties they were experiencing, which would impede their progress in rehabilitation. Such reduced self-awareness was consistent with difficulties with the adolescents' self-monitoring skills, as identified on the BRIEF (Gioia et al., 2000) profile, indicating underlying cognitive and specifically executive function difficulties.

#### *5.2.2.5 Teacher perceptions of the adolescents' pragmatic abilities*

Teaching staff completed a questionnaire, an adapted version of the Pragmatically Oriented Discourse Analysis (PODA; Damico, 1985), regarding the adolescents' pragmatic abilities. The results of the adapted PODA (Damico, 1985) revealed that every participant had a combination of strengths and weaknesses as reported by their teaching staff. Some observations were consistent with those of the parents and researcher, reflecting the pervasive nature of the communication difficulties. Other observations were different, possibly reflecting the different demands exerted on the adolescents in the school context, which emphasised the importance of involving teaching staff in the assessment process.

### 5.2.3 Conclusions: pragmatic language abilities of a group of adolescents with TBI

Consistent with previous research, the adolescents presented with pragmatic language deficits. These deficits existed in the context of broader cognitive difficulties, in particular executive dysfunction. However, it was also apparent that they had relative strengths in this area, as well as some insight into their own skills, issues not reported extensively in the literature. Their parents demonstrated that they were analysing their children's behaviour and identifying possible causes of their actions. Some of these causes were plausible and some reflected a degree of denial on the parents' part of the impact the TBI was having on their children. It was evident from the parents' comments that, regardless of the time post injury, improvement in their children's skills was occurring, but at the same time their children were growing into new aspects of disability, a well documented issue in TBI rehabilitation (Ylvisaker & DeBonis, 2000). Their



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comments in the interviews spanned a number of topics, not just the pragmatic abilities of their adolescents.

When the views of the adolescents, parents, teaching staff and researcher were compared, it was evident that there was some agreement but also some difference in opinions regarding the adolescents' skills. The agreement reflected the pervasiveness of the communication difficulties. The differing opinions reflected reduced self-awareness on the adolescents' part, or the variability of their behaviour according to factors such as mood, conversation partner and situation.

Adolescence is a time during which pragmatic language abilities develop, supporting new levels of social interaction and ever-increasing complexity of communication. Adolescents who have had TBIs either earlier in their childhood or during their adolescence are at risk of having impaired pragmatic language abilities and resulting difficulties in social interaction. This study emphasised the complexities of dealing with an adolescent with TBI. It confirmed that, when trying to understand the adolescent, it is unhelpful to separate cognition from behaviour from communication because all three aspects were integrally related.

The stereotypic view of typically developing adolescents includes a degree of pragmatic inappropriacy, such as monosyllabic responses, poor eye-contact and disinhibited language, all in the context of mood swings, changes in personality and tiredness. All of these characteristics can also be applied to people who have sustained brain injury, as noted by McClure, Devlin, McDowall and Wade (2006). It is therefore tempting to explain deficits, such as pragmatic inadequacy, purely in terms of adolescent behaviour. Even if this were true, which studies have shown it not to be, the underlying question is not what constitutes normal adolescent pragmatic language, but what pragmatic language difficulties does a normally developing adolescent outgrow, when they enter adulthood. The brain-injured adult who has retained pragmatic language deficits is disadvantaged, as difficulties which might have been explained or excused as 'typical teenage



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behaviour' would not be tolerated in adulthood. The need for effective intervention during adolescence is therefore crucial to ameliorate the effects of pragmatic language impairment and promote positive communication routines.

The results detailed in this study emphasised the ongoing need for therapeutic support in a population often forgotten by clinical services once discharged home from a hospital or a rehabilitation programme (Hawley et al., 2003). Given that the parents commented not only on pragmatic abilities but broader issues with cognition and behaviour, such therapeutic support should come not only from speech and language therapists, but the wider inter-professional team.

The results also emphasised that pragmatic language ability is a multi-faceted concept which cannot be captured and assessed in a clinical situation, using only standardised procedures. Non-standardised procedures provide essential contextual and ecologically valid information which can bring a greater understanding of the individual with TBI, as well as their treatment priorities.

### 5.2.4 Implications of the study

This study adds to the existing knowledge basis of the pragmatic language abilities of adolescents with TBI. It provides information concerning the adolescents' language and pragmatic abilities, as well as the parents' and teaching staff's insights into the adolescents' abilities. The importance of augmenting standardised assessment with non-standardised procedures is also demonstrated.

The study serves to highlight the importance of assessing cognitive-communication and specifically pragmatic difficulties in a population which is often not prioritised for intervention by community speech and language therapists, who treat children and adolescents after discharge from the acute and in-patient rehabilitation phases of their recovery. Anecdotally therapists report that if functional language skills are adequate then further assessment of higher level language does not take place, particularly in the secondary-school-aged



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population. Speech and language therapy services vary across the UK. Some are clinic based and so the service users are not seen in their daily context of home and school. For service users with pragmatic difficulties, this is significant, as many of their most handicapping difficulties will therefore not be identified or treated. The outcomes of this study encourage assessment to take place in contexts relevant to the service users.

Future assessment protocols for the British TBI population could be developed, in the light of the findings. Specifically, assessment materials could be adapted to elicit the most relevant information. For example, the questionnaires for teaching staff, adolescents with TBI, as well as their parents, could be further adapted and refined, to obtain the most useful information to inform treatment.

Students lacking in metalinguistic ability, and who have inadequate communication and strategy use, are likely to have difficulties learning (Wiig, 1995). Learning is not the only process affected; social interaction is also more difficult as adolescent and adult communication requires the ability to understand and respond to multiple meanings and ambiguities as found in many jokes, sarcasm, as well as figurative and idiomatic language (Wiig, 1995). Speech and language therapy intervention for the impairments detected by the assessments would therefore be indicated to facilitate improvements in receptive and expressive language function, with learning and social interaction improvements as ultimate goals.

The importance of interviewing parents for their views was highlighted. The fact that parents showed good insight into some of the abilities of their children, and were also able to identify useful strategies, emphasised the importance of involving parents in the assessment and intervention process. On the other hand, the fact that some of the parents did not recognise some of the difficulties faced by their children nor fully appreciate that the difficulties were caused by brain injury as opposed to teenage behaviour, emphasised the need to give parents support and education regarding the long term effects of TBI.



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The study also detected commonalities as well as differences in the views of teachers and parents regarding the adolescents' abilities, which in turn highlights the need for information gathering in all settings, in order to best inform intervention.

The importance of understanding possible causal factors of deficits was raised. For example, by identifying executive function impairments, hypotheses for the causes of some of the identified pragmatic language deficits could be formed. Such hypotheses could guide intervention, ensuring that root causes and not merely symptoms of problems are treated.

Incorporating theoretical models from outside the field of Communication Pathology was shown to be imperative when interpreting results. This included, for example, levels of self-awareness in people with TBI (Crosson et al., 1989).

The parents consistently spoke not only of their adolescents' pragmatic abilities but also broader issues of their behaviour and cognition, emphasising that pragmatic abilities cannot be investigated in isolation. This was despite the fact that the questions in the Pragmatics Profile (Semel et al., 2003) focussed on pragmatic abilities. There is also the suggestion that family burden actually increases with time post injury in TBI (Willer, Flaherty & Coallier, 2001). Because the ability of the family to cope with the trauma is important for the success of rehabilitation of the person with the injury (Willer et al., 2001), it is essential for professionals to establish how the families are coping and to suggest support as necessary. The speech and language therapist is likely to be one of these professionals.

The fact that it was difficult to draw a distinction between the communication, cognitive and behavioural aspects of the adolescents' profiles emphasised the need for speech and language therapists to be involved in collaborative working,



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for example with occupational therapists, psychologists, counsellors and behaviour specialists, in the overall treatment of individuals with TBI.

### 5.2.5 Critical evaluation of the study

This study used a small sample of students, all at different stages of recovery and of a range of ages. Although they all had TBIs, the sites of injury varied as well as the time post injury. Although it would have been interesting to have had participants at similar stages of recovery and with similar site of injury for comparison purposes, this would not necessarily have been possible. As stated by Ylvisaker (1993), individuals with TBI form an inherently heterogeneous group. TBI generally causes diffuse brain injury, unlike focal injury caused, for example, by stroke. Thus it is uncommon to have two people with identical injuries. The fact that the focus of this study was description, however, meant that every participant's skills were investigated in their own right, and comparisons were drawn when possible and appropriate.

Additional information could have enhanced the adolescents' assessment profiles. For example, intelligence testing would have added to the understanding of the adolescents' cognitive abilities (Bittner & Crowe, 2007; Friedland & Miller, 1998). Pre-injury intelligence results were not available, but could also have provided important insights into levels of pre-injury functioning, for comparison purposes.

A limitation of the BRIEF (Gioia et al., 2000) was that it was not a direct measure of executive function. It was a rating scale of observed behaviour, thus open to bias (Pring, 2005). On the positive side, the Inconsistency and Negativity Scales served to increase validity of the findings. Executive function would have been challenging to test in a formal situation, as the situation itself would have masked certain executive problems, by providing the structure and initiating prompts to the participant, the very areas being assessed. Therefore, reports from significant others to assess function in this area was an expedient and valid way to gather the necessary information (Turkstra et al., 2005). In addition, the reason for



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including these questionnaires was to enhance the interpretations of the pragmatic language assessments, not provide a full executive function assessment. The BRIEF (Gioia et al., 2000) was able to provide useful information in this regard.

Although an American assessment standardised on American populations, the TLC-E (Wiig & Secord, 1989) still provided useful information about the adolescents' language skills. British norms would have proved useful in this study. The TLC-E (Wiig & Secord, 1989) sub-tests contained examples of American English, which might have been considered unsuitable for British English speakers. Given the purpose of the assessment, however, this did not play a significant role. For example, the **Figurative Language** subtest tested ability to use context to work out meaning as well as ability to see beyond the literal meaning of language. It was thus not understanding of the phrases in themselves that was tested, but the process of working their meaning out using contextual cues.

The validity of the narrative assessment could have been strengthened by comparing the performance of non-injured peers on the tasks. The good inter-rater reliability for the scoring of these narratives did, however, enhance the reliability and validity of the scores. The scoring matrix developed for the assessment also provided a useful structure from which to plan intervention.

In this study the adolescents were observed in situations which precluded video-taping such as in schools, so there was not opportunity to gain views from a second rater on the Pragmatic Protocol (Prutting & Kirchner, 1987), unless this rater had also been involved in the observations. The ratings were therefore subject to inherent bias, being from only one person. This was a weakness in this study, however, it did reflect clinical reality. It was controlled for as much as possible, by including the views of significant others in the information-gathering process. Thus it also underlined the necessity to gather information from a range



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of sources when assessing pragmatic language abilities and not rely on one assessment or checklist from which to set targets and plan intervention.

The Pragmatic Protocol (Prutting & Kirchner, 1987) was a useful clinical tool, as it provided structure to the observations of the adolescents. Information was gathered about the verbal, paralinguistic and non-verbal aspects of the adolescents' communication skills. The rating options, however, were restricted to 'appropriate', 'inappropriate' and 'no opportunity to observe'. This did not necessarily reflect the emergent or variable nature of some of the adolescents' communication skills, which proved to be a common feature. Further assessment would be called for to ascertain if the adolescents understood the importance of these pragmatic abilities, as well as their knowledge of when and how to use them, and then plan intervention accordingly.

The interview with the parents took the form of a semi-structured interview, using a combination of open and closed questions. The advantages of open questions were that they gave a general framework for discussion and did not direct the interviewee to a narrow answer. There was opportunity to raise and discuss issues which were salient to them. The disadvantage was that the interviewees did not necessarily address all aspects of the topic, as they might have, had they been asked more specific questions. The advantages of the closed questions were that they covered a wide range of topics and prompted the interviewees to think about issues which they would not necessarily have associated with communication function. The disadvantage was that there was a narrow range of response options. Many of the parents did, however, spontaneously expand on their response, thus diminishing this as a problem.

In the interview with parents, there were numerous occasions when the question was posed to the interviewee and they gave responses which reflected they had not understood the intended meaning of the question. The question was then rephrased or examples given to illustrate the question further. Some of the questions therefore were open to misinterpretation or relied on the interviewees'



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understanding of what the interviewer intended by certain concepts. In this instance, the breakdown in understanding was repaired by the interviewer. If, however, the questionnaire had been completed by the interviewees independently, and not in an interview context, some of the interviewees' responses would have not have been an accurate reflection of their views. This observation brought into question the clarity of some of the questions posed in the Pragmatics Profile (Semel et al., 2003), the questionnaire used in the interview.

The participant interview yielded varying amounts of information. The questions posed to them were closed, so the participant was not required to speak at length about the topics raised, which was a weakness in the procedure. Given that some of the adolescents had difficulty with spontaneously expanding on their ideas, this resulted in the researcher having to ask further questions to elicit more information. Open questions, however, might also have elicited limited information, due to the difficulties some adolescents had judging the appropriate amount of information to provide.

If the questionnaires for the adolescents and their parents had been completed in the absence of an interview, the breadth and wealth of information would not have been provided. This was a positive feature of the assessment process.

The analysis of both the parent and participant interviews raised further issues. Discourse analysis remains a matter of interpretation (Willig, 2001). This was controlled for to an extent, by involving a second person in the interpretation process. The researcher's interests led her to ask certain types of questions, which directed the process of analysis. This, a characteristic of the Interpretative Phenomenological Analysis (IPA) approach, resulted in the researcher not claiming to have made definitive readings of the accounts, but rather a joint construction in cooperation with the interviewees (Willig, 2001).



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The trustworthiness of the results would have been enhanced had the parents attended a second interview and the accuracy of the themes identified been discussed and verified with them. This process would also have been a possibility with the adolescents, but would have been complicated by the fact that they were not aware of all their difficulties. Therefore they might have disputed having issues in the areas identified by the researcher. The interviewer's comments could also have been subject to discourse analysis, to investigate the interviewing style and effects of her contributions to the discussion in more detail.

There was a chance of the researcher's views impacting the research findings and vice versa. This was particularly true in the analysis of the interviews with the adolescents and their parents. Because the researcher was investigating a particular aspect of the adolescents' presentation, there was the possibility that she was primed to notice themes pertaining to this area and neglect other salient themes. Alternatively, some findings might have influenced the researcher's views and reactions towards the adolescents and their parents.

There was a potential conflict of interest in the dual roles of the researcher: that of therapist and that of researcher. As the researcher had been involved with most of the families previously as a therapist, there was the possibility of past experiences with parents and adolescents influencing the researcher's interpretation of statements made by the adolescents, their parents and teaching staff. It was important to consider that aspects of the researcher's roles and personality might have influenced the responses from the parents and adolescents.

The interview process itself was time-consuming, and in addition there were lengthy transcription and analysis procedures. Thus, such an approach would be difficult to replicate in a clinical situation, outside of a research context. Adaptations to the procedure would need to be made to make it more manageable in the clinical context.



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A weakness of using the adapted PODA questionnaire (Damico, 1985) was that it did not give opportunity for discussion of responses with the teaching staff. It also did not give the chance for the researcher to explain some terms in more detail, give examples, clarify responses or request respondents to expand on their responses. Examples of the difficulties or strengths noted would also have added to the quality of information given. Another inherent weakness of the questionnaire was that the questions posed were closed, requiring a set response. When examining pragmatic abilities, such a reductive response would always only provide a level of insight but not the required breadth and depth of understanding. All the teaching staff did, however, provide additional information in the 'Additional Comments' section; some comments related to pragmatic language abilities, some related to broader learning or behavioural issues. This gave them opportunity to express issues that were uppermost in their minds.

A further weakness of the adapted PODA questionnaire (Damico, 1985) was that it was a subjective rating by a person and as such was the view of a third party, which could have brought its validity into question. In this study, this was controlled for by the researcher observing the adolescent first hand in the school and clinical settings, as well as gathering information from the adolescents themselves and their parents.

On the adapted PODA (Damico, 1985), the rating descriptions 'always', 'often', 'seldom' and 'never' did not strongly capture the possibility of an emergent skill. Instead a five point scale with 'sometimes' in the middle could have been helpful. The word 'seldom' implies rarely or infrequently, which is different from 'sometimes'. Given the variability reported by all parties of the adolescents' skills, this rating option may have provided more accurate reflections of their abilities.

A positive aspect was that the questionnaire was an effective way of eliciting information from staff. The teaching staff did all provide additional information, which was also positive. The information given, in conjunction with the school



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observation carried out by the researcher, gave a baseline of information from which school based-intervention could be planned. It also gave some ideas for training and education of staff with regard to having a student with a TBI in their class.

Some difficulties arose from the fact that this was a retrospective study, i.e. the information had already been collected. Thus methodology and apparatus for data collection could not be modified. For example, a weakness in the study was that the adolescents, parents and teaching staff were not all asked the same questions about the adolescents' pragmatic language abilities, thus direct comparisons of all the responses were not possible. However, there was some overlap in the questions. Some direct comparisons could thus be made, which was useful for gauging the adolescents' insight into their own skills. The adolescents' questions were not as comprehensive as those posed to the parents, because this would have made the interview too long and detailed for them.

The fact that the questionnaires also used different terms to describe skills, posed problems in comparing responses, i.e. the adapted PODA (Damico, 1985) used a rating 'seldom' whereas the Pragmatics Profile (Semel et al., 2003) and the adapted Pragmatics Profile (used with the parents and adolescents respectively) used the term 'sometimes'; these two terms carried subtle but significant differences. The Pragmatic Protocol (Prutting & Kirchner, 1987) used the terms 'appropriate' and 'inappropriate'. Thus these descriptors were not directly comparable with the descriptors on the other questionnaires.

Adams (2002) and Coelho et al., (2005b) emphasise the lack of normative data regarding pragmatic abilities, all commenting that this hampers effective assessment in this area using tools such as the Pragmatic Protocol (Prutting & Kirchner, 1987). Thus the lack of published normative data on adolescent pragmatic language abilities, as well as the inherent difficulty in assessing skills



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which themselves are subject to large variation in the 'normal' population, are complicating factors in a study such as this one.

### 5.2.6 Recommendations for future research

There are many areas within the field of TBI and pragmatic language which require further description and research. A number of specific questions arose from this study.

Further research into the long-term effects of TBI on receptive vocabulary skills in adolescents would be useful, given the underlying importance of vocabulary in language understanding and learning.

Some of the assessment materials used in this study could be further refined to suit this population. The Pragmatics Profile (Semel et al., 2003) is a long questionnaire regarding general pragmatic abilities. It could be adapted to have a brain injury focus and trialled with parents of adolescents with TBI. Similarly, the adapted Pragmatics Profile (Semel et al., 2003) used with the adolescents could be further developed to include some open questions which require the adolescent to generate responses, for example regarding what they perceive to be their communicative strengths and limitations. A larger project could involve developing a standard questionnaire in which the questions are uniform for the teacher, parent, therapist and adolescent, and comparing these ratings in order to assess variability of skills and insight of the adolescent.

The adolescents experienced difficulties with content organisation in the narrative tasks, as measured by the S-MAP for Focused Holistic Rating of Picture Elicited Narratives (Wiig & Story, 1993). Further investigation into content organisation in adolescents with TBI would be beneficial, as content organisation in narrative discourse has already been studied in adults with closed head injury (Coelho, 2002). Given that either the adolescent's teacher or parent, and sometimes both, highlighted planning and organisational skills as problematic on the BRIEF (Gioia et al., 2000), there would be scope for further research using the S-MAP to



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investigate the link between this executive skill and the narrative ability in adolescents.

Research could extend the focus beyond the parents' and teaching staff's perceptions of the pragmatic language abilities of adolescents with TBI, to include siblings' and peers' perceptions on this topic. This would be relevant as peers form the social group in which the adolescents find themselves, and dictate the norm of what is acceptable. Siblings could provide insights not necessarily obvious to the parents, due to their different role in the family. Uninjured adolescents could also be interviewed to determine the extent of their awareness of their own communication skills. This would be useful for establishing normative data.

Research focusing on treatment approaches is vital to inform more effective intervention. It would be useful to investigate the effects of increasing the adolescents' insight into their pragmatic language deficits and assess how this impacts on the development of these skills.

## 5.3 CONCLUSION

Galski et al. (1998) state that 'persisting difficulties in communication are a serious handicap faced by many after a TBI and are a major barrier to community reintegration as well as the probable cause of social isolation and drop in vocational position' (p. 769). In addition to this, disabilities in children with TBI grow over time, particularly when high quality services and supports are absent (Braga, Da Paz & Ylvisaker, 2005).

Galski et al. (1998) also state that the success of the brain injured adult's social, familial, academic and vocational re-integration lies with the recovery of effective communication skills. This too can be said of the adolescent TBI population, perhaps even to a greater degree. This population have not only lost communication skills as a result of a TBI, but have subsequently had arrested or



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disordered development of the communication skills they had not yet mastered at the time of their injury. In effect, they are doubly disadvantaged.

For these reasons, quality assessment, using not only standardised but also non-standardised assessment tools, and the subsequent treatment of pragmatic abilities, are imperative for this population. The value of gathering information from parents and teachers, who are familiar with the adolescents in different circumstances to the clinician, is considerable. Pragmatic ability needs to be understood in terms of broader cognitive skills and specifically executive function. For intervention to be meaningful, adolescents' broader behavioural and cognitive profiles need to be considered. Detailed descriptions of the skills of individual adolescents with TBI, as provided in this study, are useful starting points for the intervention process.



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Revised approval letter

Appendix A

NHS

**East Surrey, Crawley & Horsham Local Research Ethics Committee**
Peach Hut 2
Bournewood House
St Peters Hospital Site
Guildford Road
CHERTSEY, Surrey
KT16 0QA

Telephone: 01932 722952
Facsimile: 01932 722953

30 January 2006

Miss K Jacoby
Speech & Language Therapist
The Children's Trust
Tadworth Court
Tadworth
Surrey KT20 5RU

Dear MISS JACOBY

**Full title of study:** **An investigation into the assessment of prgamtic language skills in adolescents with traumatic brain injury.**
**REC reference number:** **05/Q1910/42**

The Chair of the East Surrey, Crawley & Horsham Local Research Ethics Committee reviewed the above application at the meeting held on 02 December 2005.

**Ethical opinion**
All questions raised by the committee have now been answered by the investigator. Therefore favourable approval has now been granted.

The Chair of the Committee has now given favourable ethical opinion of the above research on the basis described in the application form, protocol and supporting documentation.

**Conditions of approval**
The **favourable opinion** is given provided that you comply with the conditions set out in the attached document. You are advised to study the conditions carefully.

**Approved documents**
The documents reviewed and approved at the meeting were:

| *Document* | *Version* | *Date* |
|---|---|---|
| Application | 1 | 22 June 2005 |
| Investigator CV | | 24 June 2005 |
| Protocol | 1 | 24 June 2005 |
| Covering Letter | | 22 June 2005 |
| Letter of invitation to participant | 1 | 24 June 2005 |
| GP/Consultant Information Sheets | 1 | 24 June 2005 |
| Participant Information Sheet Controlls | 1 | 24 June 2005 |
| Participant Information Sheet Subjects | 1 | 24 June 2005 |
| Participant Consent Form Controls | 1 | 24 June 2005 |
| Participant Consent Form Subjects | 1 | 24 June 2005 |
| Response to Request for Further Information | 2 | 28 October 2005 |
| Response to Request for Further Information | 2 | 28 October 2005 |
| Response to Request for Further Information | 2 | 28 October 2005 |





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**Appendix A *(cont.)***
05/Q1910/42



| | | |
|---|---|---|
| Response to Request for Further Information | 1 | 28 October 2005 |
| Response to Request for Further Information | 2 | 28 October 2005 |
| Response to Request for Further Information | 2 | 28 October 2005 |
| Response to Request for Further Information | | 25 April 2005 |
| Applicant's Checklist | | |
| Letter to Headteacher | 1 | 24 June 2005 |
| Response to Request for Further Information (E-Mail) | 1 | 29 November 2005 |

**Statement of compliance**
The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees (July 2001) and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

| | |
|---|---|
| **05/Q1910/42** | **Please quote this number on all correspondence** |

With the Committee's best wishes for the success of this project

Yours sincerely

**Wendy Knibb**
**Acting Chair**

Email: sarah-jane.richards@nsurreypct.nhs.uk

*Enclosures:* *Site approval form (SF1)*

Copy to: *The Children's Trust*
*Tadworth Court*
*Tadworth*
*Surrey KT20 5RU*



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Appendix B

**Members:**
**Research Proposal and Ethics Committee**
Prof P Chiroro; Dr M-H Coetzee; Prof C Delport; Dr JEH Grobler; Prof KL Harris; Ms H Klopper; Prof E Krüger; Prof B Louw (Chair); Prof A Mlambo; Prof G Prinsloo; Mr C Puttergill; Prof H Stander; Prof E Taljard; Prof C Walton; Prof A Wessels; Mr FG Wolmarans

University of Pretoria
**Research Proposal and Ethics Committee**
**Faculty of Humanities**

1 June 2007

Dear Ms Stipinovich

| | |
|---|---|
| **Project:** | ***Pragmatic language ability in a group of adolescents with Traumatic Brain injury*** |
| **Researcher:** | **K Jacoby** |
| **Supervisor:** | **Ms AM Stipinovich** |
| **Department:** | **Communication Pathology** |
| **Reference number:** | **21292176** |

Thank you for the application you submitted to the Research Proposal and Ethics Committee, Faculty of Humanities

I have pleasure in informing you that the Research Proposal and Ethics Committee formally **approved** the above study on 31 May 2007 The approval is subject to the candidate abiding by the principles and parameters set out in her application and research proposal in the actual execution of the research

The Committee requests you to convey this approval to Ms Jacoby

We wish you success with the project

Sincerely

B Louw

**Prof Brenda Louw**
**Chair: Research Proposal and Ethics Committee**
**Faculty of Humanities**
**UNIVERSITY OF PRETORIA**



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## Appendix C

# PARTICIPANT INFORMATION SHEET

**TITLE**: Pragmatic language assessment in adolescents with traumatic brain injury

**LAY TITLE**: Social skills in traumatic brain injury

You are being invited to take part in a research study. Before you decide with your parents, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

**What is the purpose of the study?**

The aim of this research is to understand how traumatic brain injury affects the social skills in young people.

**Why have I been chosen?**

You have been chosen because you are between 11 and 16 years old and have in the past had a traumatic brain injury. You have has also spent some time at The Children's Trust during the past 5 years.

**Do I have to take part?**

It is up to you and your parents to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and be asked to sign a form saying you agree to take part. If you change your mind, you will be able to ask to stop at any time.

**What will I have to do?**

Session 1: In this session, you will take part in some language tests, either at home, school or The Children's Trust. Parts of these sessions will be videotaped and/ or audio-taped. The videos will be watched by 2 Speech and Language Therapists so that they can be analysed.

Session 2: Karen Jacoby will visit your school and spend time in your class. She will not tell the other students the reason why she is there.

Your parents will also be asked to do some work. They will talk with Karen Jacoby and will be video- and audio-taped.

Your parents will also be asked to be complete 2 questionnaires about you.

Your teacher will be asked to fill in a questionnaire about how you are doing in school.



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**Is anything horrible going to be done to me?**

No! The testing sessions can sometimes feel a bit tiring, but you can take a break regularly and have a drink if you want.

**Will other people know who I am when you write about the results?**

No. Your name will be kept a secret at all times. The only people who will know your name will be Karen Jacoby and the researcher at The Children's Trust.

**What will happen to the results of the research study?**

When the study is finished, the results will be written in a journal for other people, like speech therapists and OT's, to read. Your name will not be mentioned in the article.

**What will happen to the videos and forms you collect about me?**

All the data, including assessment forms, video and audio recordings will be kept in a locked cupboard for 10 years at The Children's Trust. You will be asked to sign consent saying that this information may be used for this project and any projects done at The Children's Trust in the future.

**Has anyone been shown the plans for the study?**

The study has been looked at by the Research Committee at The Children's Trust, as well as the NHS Ethics board in the Epsom region. They said that it will be fine for young people, their parents and teachers to take part in the study.

**Contact for further information**

If you want to know anything more, please call Karen Jacoby at The Children's Trust, Tadworth on 01737 365878.

Date: 29/12/2005 Version number: 3

SDSO21OM P.I.S. (February 2001)



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## Appendix D

# PARTICIPANT INFORMATION SHEET: PARENTS

**TITLE**: Pragmatic language assessment in adolescents with traumatic brain injury

**LAY TITLE**: Social skills in acquired brain injury.

Your child is being invited to take part in a research study. Before you decide with your child, it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether or not you wish to take part.

Thank you for reading this.

**What is the purpose of the study?**

The aim of this research is to gain more understanding of how traumatic brain injury affects the social use of language skills in young people and to consider how these skills are assessed.

**Why has my child been chosen?**

Your child has been chosen because he / she is between 11 and 16 years of age and has in the past sustained a traumatic brain injury. He/ she has also attended a rehabilitation programme or assessment period at The Children's Trust.

**Does my child have to take part?**

It is up to you and your child to decide whether or not to take part. If you and your child do decide to take part you will be given this information sheet to keep and be asked to sign a consent form. If you decide to take part you are still free to withdraw at any time and without giving a reason. A decision to withdraw at any time, or a decision not to take part, will not affect the standard of care you receive.

**What will happen to my child if they take part/What will my child have to do?**

Your child will undergo a series of assessments, commonly administered at The Children's Trust.

Session 1: In this session, your child will complete a series of language assessments. Parts of these sessions will be videotaped and/ or audio-taped for analysis purposes. The videos will be viewed by 2 Speech and Language Therapists for analysis purposes



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Session 2: Your child will be observed in their school environment by Karen Jacoby.

In addition to your child being assessed, you will be invited to take part in an interview with Karen Jacoby regarding your child's social skills. This interview will be video- and audio-taped, for analysis purposes by Karen Jacoby. The interviews will be reviewed by another therapist, who will contribute to the analysis.

You will also be asked to be complete a questionnaire regarding your child's thinking and organisational skills.

Your child's teacher will be asked to complete a similar questionnaire, as well as one on your child's social skills.

**What are the possible disadvantages and risks of taking part?**

The testing sessions can sometimes feel a bit tiring, but your child will be able to take a break regularly throughout the testing session if needed.

**What costs will be covered?**

Any travel costs you incur will be reimbursed by The Children's Trust.

**What if something goes wrong?**

The assessment process holds no obvious risk to you or your child. If your child is harmed by taking part in this research project, there are no special compensation arrangements. If you are harmed due to someone's negligence, then you may have grounds for a legal action but you may have to pay for it. Regardless of this, if you wish to complain, or have any concerns about any aspect of the way you have been approached or treated during the course of this study, the normal National Health Service complaints mechanisms should be available to you.

**Will my child's taking part in this study be kept confidential?**

If you consent for your child to take part in the research any of your child's medical records may be inspected by the principal researcher, Karen Jacoby, for purposes of analysing the results. They may also be looked at by regulatory authorities to check that the study is being carried out correctly. Your name, however, will not be disclosed outside The Children's Trust, Tadworth.

**What will happen to the results of the research study?**

When the study is finished, the results of the study will be written up and analysed and may be submitted for publication in a peer-reviewed journal. Example journals where the article may appear would include the Journal of Head Trauma Rehabilitation, and Brain Injury. If you would like a copy of the final publication, please let us know and we will send you a copy when it is published. Your child will not be identified in any report/publication.



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**What will happen to the data collected in the study?**

All the data, including assessment forms, video and audio recordings will be securely archived for 10 years at The Children's Trust. You will be asked to sign consent saying that this data may be used in the future for subsequent research purposes.

**Will my child's G.P. be informed?**

Should your child participate in the study, his/her GP will be informed for the GP's records.

**Who is organising and funding the research?**

This is a project initiated and funded by The Children's Trust Tadworth, via Karen Jacoby.

**Who has reviewed the study?**

The study has been reviewed by the Research Committee at The Children's Trust, as well as the NHS Ethics board in the Epsom region.

**Contact for Further Information**

If you require any further information please do not hesitate to contact Karen Jacoby at The Children's Trust, Tadworth on 01737 365878

Date: 29/12/2005 Version number: 3

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## Appendix E

The Children's Trust Tadworth
For children with multiple disabilities

Participant ID number

### CONSENT FORM

Title of project: Social skills in traumatic brain injury
Researcher: Karen Jacoby

Please initial box

1. I confirm that I have read and understood the information sheet (dated …… version ……) for the above study and have had opportunity to ask questions ☐

2. I understand that my child's participation is voluntary and that I am free to withdraw at any time, without giving a reason, without my medical care or legal rights being affected. ☐

3. I understand that sections of any of my child's medical and therapy records may be looked at by responsible individuals from The Children's Trust or from regulatory authorities where it is relevant to my taking part in research. I give permission for these individuals to have access to my child's records. This includes future research which may be conducted with the records. ☐

4. I agree for my child to take part in the above study. ☐

5. I agree for my child and me to be videotaped for assessment purposes. ☐

| _____ | _____ | _____ |
|---|---|---|
| Name of parent | Date | Signature |
| _____ | _____ | _____ |
| Name of child | Date | Signature |
| _____ | _____ | _____ |
| Researcher | Date | Signature |

Version: 2 Date: 29/12/2005



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**Appendix F**

The Children's Trust Tadworth
For children with multiple disabilities

Date

Dear

One of your students _____ is currently participating in a research project being conducted at The Children's Trust in Tadworth. I am writing to inform you of this project, as well as request your participation in one aspect of it. Enclosed please find an information sheet which describes the project in more detail.

I would be most grateful if you would agree to participate and complete the 2 enclosed questionnaires. Also enclosed you will find a consent form, for the information you provide to be used in this and any subsequent research to be conducted at The Children's Trust. If you feel that there is another teaching staff member who is better placed at providing this information, please feel free to pass this request onto them. Should you have any queries please do not hesitate to contact me.

You will read that as part of the project I plan to observe the student in school. I trust that this will be in order and will telephone closer to the time in order to arrange a suitable time.

I look forward to hearing from you.

Many thanks.

Yours sincerely

Karen Jacoby
Speech and Language Therapist

Version number: 1
Date: 29/12/05

Tadworth Court, Tadworth, Surrey KT20 5RU
Telephone: 01737 365 000
Facsimile: 01737 365 001
Email: enquiries@thechildrenstrust.org.uk
www.thechildrenstrust.org.uk
Charity Registration Number 288018
A Company Limited by guarantee
Registered in England and Wales No. 1757875
Registered office as above



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## Appendix G

# INFORMATION SHEET: TEACHING STAFF

**TITLE**: Pragmatic language assessment in adolescents with traumatic brain injury

**LAY TITLE**: Social skills in acquired brain injury.

Your student is being invited to take part in a research study. Please take time to read the following information carefully. Ask us if there is anything that is not clear or if you would like more information.

Thank you for reading this.

**What is the purpose of the study?**

The aim of this research is to gain more understanding of how traumatic brain injury affects the social use of language skills in young people and to consider how these skills are assessed.

**Why has this student been chosen?**

This student has been chosen because he / she is between 11 and 16 years of age and has in the past sustained a traumatic brain injury. He/ she has also attended a rehabilitation programme or assessment period at The Children's Trust.

**What will the study involve?**

The student will undergo a series of assessments which are commonly used at The Children's Trust. With your consent, you will also be asked to be complete 2 questionnaires regarding the student's thinking, organizational and social skills. The student will also be observed in the school environment, with your permission, by Karen Jacoby, Speech and Language Therapist.

**What are the possible disadvantages and risks of taking part?**

There are no risks to taking part. The questionnaires will take up to half an hour to complete.

**Will my taking part in this study be kept confidential?**

If you consent to take part in the research, the questionnaires will be analysed by the principal researcher, Karen Jacoby. They may also be looked at by regulatory authorities to check that the study is being carried out correctly. At no stage will your name be disclosed outside disclosed outside The Children's Trust, Tadworth.



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**What will happen to the results of the research study?**

When the study is finished, the results of the study will be written up and analysed and may be submitted for publication in a peer-reviewed journal. Example journals where the article may appear would include the Journal of Head Trauma Rehabilitation, and Brain Injury. If you would like a copy of the final publication, please let us know and we will send you a copy when it is published. You and your student will not be identified in any report/publication.

**What will happen to the data collected in the study?**

All the data, including assessment forms, video and audio recordings will be securely archived for 10 years at The Children's Trust. You will be asked to sign consent saying that this data may be used in the future for subsequent research purposes.

**Who is organising and funding the research?**

This is a project initiated and funded by The Children's Trust Tadworth, via Karen Jacoby.

**Who has reviewed the study?**

The study has been reviewed and approved by the Research Committee at The Children's Trust, as well as the NHS Ethics board in the Epsom region.

**Contact for further information**

If you require any further information please do not hesitate to contact Karen Jacoby at The Children's Trust, Tadworth on 01737 365878

Date: 29/12/2005 Version number: 3

SDSO21OM P.I.S. (February 2001)



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## Appendix H

The Children's Trust Tadworth
For children with multiple disabilities

Participant ID number

### CONSENT FORM

Title of project: Social skills in traumatic brain injury
Researcher: Karen Jacoby

| | Please initial box |
|---|---|
| 1. I confirm that I have read and understood the information sheet (dated …… version ……) for the above study and have had opportunity to ask questions | ☐ |
| 2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason. | ☐ |
| 3. I understand that the information I provide may be looked at by responsible individuals from The Children's Trust or from relevant regulatory authorities. I give permission for these individuals to have access to this information. This includes future research which may be conducted with the information I provide. | ☐ |
| 4. I agree to take part in the above study. | ☐ |
| 5. I agree to be video and audio-taped for assessment purposes. | ☐ |

| _____ | _____ | _____ |
|---|---|---|
| Name school staff | Date | Signature |
| _____ | _____ | _____ |
| Researcher | Date | Signature |

Version : 1
Date: 29/12/2005



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**Appendix I**

The Children's Trust Tadworth
For children with multiple disabilities

Date

Dear

I am writing to inform you that one of your patients _____ is currently participating in a research project being conducted at The Children's Trust in Tadworth.

The project is concerned with social skills following traumatic brain injury and _____ and his/her parents have consented to participate.

Should you have any queries regarding this project and your patient's involvement, please do not hesitate to contact me on the telephone number below.

Yours faithfully

Karen Jacoby
Speech and Language Therapist

Version number: 1
Date: 29/12/05

Tadworth Court, Tadworth, Surrey KT20 5RU
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Charity Registration Number 288018
A Company Limited by guarantee
Registered in England and Wales No. 1757875
Registered office as above



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## Appendix J




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## Appendix K




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## Appendix L

### Narrative instructions

I am going to show you some pictures.

I want you to tell me the story of what is happening.

Take your time.

Start when you are ready.



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# Appendix M

## A Structured Multi-dimensional Assessment Profile (S-MAP) for Focused, Holistic Rating of Picture Elicited Narratives (Wiig and Story, 1993)

| Picture Elicitation | Organisational Structure | Recall and Elaboration | Coherence, Cohesion and Conventions | Evaluation, Monitoring and Revision |
|---|---|---|---|---|
| **Good 3** | A recognisable narrative structure is followed.<br><br>There is a clear beginning, middle sequence and ending.<br><br>All characters identified<br>Setting and/or time identified. | There is a rich amount of details and elaboration to support the narrative structure and sequence.<br><br>e.g. creation of details, relationships, cause-effects, emotions, reactions. | Details and descriptions are logically connected and marked in surface structure.<br>i.e. use of range of conjunctions, appropriate reference, gets main idea and inferences<br><br>Linguistic conventions for structure and content and use are followed.<br>i.e. no semantic, grammatical, pragmatic errors | There is little or no need for revision.<br><br>If a revision is indicated, it is smooth and transitional.<br><br>Pauses are infrequent and within normal limits (2-3 seconds). |
| **Acceptable 2** | There is a recognisable narrative structure with minor digressions.<br><br>There is a clear beginning, middle, and ending, in spite of minor digressions or transpositions.<br><br>Some characters, setting or time identified, at appropriate point in narrative. | There are sufficient details and elaborations to support the narrative structure and segments.<br><br>e.g. some details, relationships, cause-effects, emotions, reactions. | There are only a few deviations in logical connections and use of surface structure markers.<br><br>There are only a few deviations (1-3) in the use of linguistic conventions.<br><br>Meanings and intent are clear- sentence and story level.<br><br>2 or more occasions using conjunctions other than 'and' and 'so', use of subordinating conjunctions | There are a few revisions and/or pauses.<br><br>When revisions occur, they are smooth and transitional. |
| **Marginal 1** | There is evidence of narrative structure, beginning, middle, or end may be omitted, out of sequence, or marked by major digressions.<br><br>Some characters, setting or time identified, but at random point in narrative. | There are details and elaborations but there is not enough to support some segments.<br><br>e.g. some details, relationships, cause-effects, emotions, reactions for certain segments. | Linguistic conventions are followed but there are many deviations in logical connection and use of surface structure markers.<br><br>Logical connections exist but there are many deviations in linguistic conventions.<br><br>Meanings and intents are still discernible but are ambiguous- maybe clear only at sentence level.<br><br>Limited conjunction use; less than 2 conjunctions to indicate causality; restricted to 'and' or 'so. | There are many revisions or no revisions when appropriate.<br><br>When there are revisions, they are abrupt and without transitions, become tangential and verbose.<br><br>Frequent but short pauses<br>or<br>Occasional long pauses. |
| **Unacceptable 0** | There is little or no evidence of narrative structure.<br><br>There are two or more major omissions, transpositions, and/or digressions.<br><br>The account may give a list or series of disconnected events.<br><br>Characters, setting and time not identified. | There are insufficient details and elaboration to support most or all of the narrative structure or segments. | There are few, if any, logical connections or use of surface structure markers.<br><br>Linguistic conventions are not followed or there are major deviations.<br><br>Meanings are unclear and intents not discernible.<br><br>No conjunctions or limited use of 'and'. | There are no revisions even though the account is tangential, off topic, or disorganised.<br><br>There are frequent tangles (orphans that lead nowhere).<br><br>Pauses are frequent and generally longer than 5-10 seconds. |



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# Appendix N

## Pragmatics Profile

## (PP)

Read each item and circle the number (word) that best describes how often the examinee demonstrates the skill (1 = never, 2 = sometimes, 3 = often, 4 = always). If you have never observed the skill, circle NO for *not observed.* If the skill is not appropriate for that examinee, either culturally or for any other reason, circle NA for *not appropriate.* Rate items if you remember occasions when the examinee demonstrated the targeted behaviour, though you have not necessarily observed the behaviour the day you complete the form.If you are rating a two-part skill (e.g., Item 11, *asks for/responds to)* and think the examinee's behavior is inconsistent across both parts, circle the skill you are rating (e.g., *asks for).*

**Rituals and Conversational Skills**
The examinee

| | Never | Sometimes | Often | Always | Not Observed | Not Appropriate |
|---|---|---|---|---|---|---|
| 1. makes/responds to greetings to/from others | 1 | 2 | 3 | 4 | NO | NA |
| 2. makes/responds to farewells to/from others | 1 | 2 | 3 | 4 | NO | NA |
| 3. begins/ends conversations (face-to-face, phone, etc.) appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 4. observes turn-taking rules in the classroom or in social interactions | 1 | 2 | 3 | 4 | NO | NA |
| 5. maintains eye contact, appropriate body position during conversations | 1 | 2 | 3 | 4 | NO | NA |
| 6. introduces appropriate topics of conversation | 1 | 2 | 3 | 4 | NO | NA |
| 7. maintains topics using appropriate strategies (e.g., nods, responds with "hmmm...") | 1 | 2 | 3 | 4 | NO | NA |
| 8. makes relevant contributions to a topic during conversation/discussion | 1 | 2 | 3 | 4 | NO | NA |
| 9. asks appropriate questions during conversations and discussions | 1 | 2 | 3 | 4 | NO | NA |
| 10. avoids use of repetitive/redundant information | 1 | 2 | 3 | 4 | NO | NA |
| 11. asks for/responds to requests for clarification during conversations | 1 | 2 | 3 | 4 | NO | NA |
| 12. adjusts/modifies language based on the communication situation (communication partner[s], topic, place) | 1 | 2 | 3 | 4 | NO | NA |
| 13. uses the language (jargon/lingo) of his/her peer group appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 14. tells/understands jokes/stories that are appropriate to the situation | 1 | 2 | 3 | 4 | NO | NA |
| 15. shows appropriate sense of humour during communication situations | 1 | 2 | 3 | 4 | NO | NA |
| 16. joins or leaves an ongoing communicative interaction appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 17. participates!interacts appropriately in structured group activities | 1 | 2 | 3 | 4 | NO | NA |
| 18. participates/interacts appropriately in unstructured group activities | 1 | 2 | 3 | 4 | NO | NA |
| 19. uses other media (email, phone, answering machine) appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 20. responds to introductions and introduces others | 1 | 2 | 3 | 4 | NO | NA |
| 21. uses appropriate strategies for getting attention | 1 | 2 | 3 | 4 | NO | NA |
| 22. uses appropriate strategies for responding to interruptions and interrupting others | 1 | 2 | 3 | 4 | NO | NA |
| **Raw Score Subtotal** | | | | | | |

***Pragmatics Profile*** *continued on next page.*



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## Appendix N *(cont.)*

**Asking For, Giving, and Responding to Information**
**The examinee:**

| | | Never | Sometimes | Often | Always | Not Observed | Not Appropriate |
|---|---|---|---|---|---|---|---|
| 23. | gives/asks for directions using appropriate language | 1 | 2 | 3 | 4 | NO | NA |
| 24. | gives/asks for the time of events | 1 | 2 | 3 | 4 | NO | NA |
| 25. | gives/asks for reasons and causes for actions!conditions/choices | 1 | 2 | 3 | 4 | NO | NA |
| 26. | asks for help from others appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 27. | offers to help others appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 28. | gives/responds to advice or suggestions appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 29. | asks others for permission when required | 1 | 2 | 3 | 4 | NO | NA |
| 30. | agrees and disagrees using appropriate language | 1 | 2 | 3 | 4 | NO | NA |
| 3l. | asks for clarification if he/she is confused or if the situation is unclear | 1 | 2 | 3 | 4 | NO | NA |
| 32. | accepts/rejects invitations appropriately, using appropriate language | 1 | 2 | 3 | 4 | NO | NA |
| 33. | starts/responds to verbal and nonverbal negotiations appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 34. | reminds others/responds to reminders appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 35. | asks others to change their actions/states appropriately (please move, stop tapping) | 1 | 2 | 3 | 4 | NO | NA |
| 36. | apologises/accepts apologies appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 37. | responds appropriately when asked to change his/her actions (by accepting/rejecting) | 1 | 2 | 3 | 4 | NO | NA |
| 38. | responds to teasing, anger, failure, disappointment appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 39. | offers/responds to expressions of affection, appreciation appropriately | 1 | 2 | 3 | 4 | NO | NA |
| | **Raw Score Subtotal** | | | | | | |

**Nonverbal Communication Skills**
*Note:* Examples of nonverbal skills might include waving to greet someone, gesturing to give someone a reminder, or nodding to show one's agreement.

**The examinee reads and interprets the following nonverbal messages accurately**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 40. | facial cues | 1 | 2 | 3 | 4 | NO | NA |
| 4l. | body language | 1 | 2 | 3 | 4 | NO | NA |
| 42. | tone of voice | 1 | 2 | 3 | 4 | NO | NA |

**The examinee demonstrates appropriate use of the following nonverbal support**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 43. | facial cues | 1 | 2 | 3 | 4 | NO | NA |
| 44. | body language | 1 | 2 | 3 | 4 | NO | NA |
| 45. | voice intonation | 1 | 2 | 3 | 4 | NO | NA |
| 46. | appropriately expresses messages nonverbally | 1 | 2 | 3 | 4 | NO | NA |
| 47. | uses nonverbal cues appropriate to the situation | 1 | 2 | 3 | 4 | NO | NA |
| 48. | adjusts body distance (sit/stand) appropriate to the situation | 1 | 2 | 3 | 4 | NO | NA |
| 49. | presents matching nonverbal and verbal messages | 1 | 2 | 3 | 4 | NO | NA |
| 50. | knows how someone is feeling based on nonverbal cues | 1 | 2 | 3 | 4 | NO | NA |
| 5l. | reads the social situation (script) correctly and behaves/responds appropriately | 1 | 2 | 3 | 4 | NO | NA |
| 52. | understands posted and implied group/school rules | 1 | 2 | 3 | 4 | NO | NA |
| | **Raw Score Subtotal** | | | | | | |
| | **Raw Score** | | | | | | |
| | (See Appendix G in the Examiner's Manual.) **Criterion Score for Age** | | | **M/DNM** | | | |





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# Appendix O

## ADAPTED PRAGMATICS PROFILE

**1= Never 2= Sometimes 3= Often 4= Always = Don't know**

| | | | | | |
|---|---|---|---|---|---|
| 1. Do you think you listen when other people are speaking with you? | 1 | 2 | 3 | 4 | ? |
| 2. If you do not understand something when you are having a conversation do you ask the person to explain what they mean? | 1 | 2 | 3 | 4 | ? |
| 3. Do you use slang? Give some examples | 1 | 2 | 3 | 4 | ? |
| 4. Do you give people eye-contact when you are having a conversation with them? | 1 | 2 | 3 | 4 | ? |
| 5. Do you understand when other people are joking with you? | 1 | 2 | 3 | 4 | ? |
| 6. If you do something wrong, do you apologise? | 1 | 2 | 3 | 4 | ? |
| 7. If you disagree with someone, do you tell them in an effective/good way? | 1 | 2 | 3 | 4 | ? |
| 8. Do you use facial expressions to let people know how you are feeling? | 1 | 2 | 3 | 4 | ? |
| 9. Do you use body language to communicate messages? | 1 | 2 | 3 | 4 | ? |
| 10. Do you use your tone of voice to get your message across? | 1 | 2 | 3 | 4 | ? |
| 11. Can you guess how someone is feeling by looking at their face? | 1 | 2 | 3 | 4 | ? |
| 12. Can you guess what someone is meaning by looking at their body language? | 1 | 2 | 3 | 4 | ? |
| 13. Can you guess what someone is feeling by listening to their tone of voice? | 1 | 2 | 3 | 4 | ? |
| 14. If you need help, do you ask for it? | 1 | 2 | 3 | 4 | ? |
| 15. Do you find it easy to make friends? | 1 | 2 | 3 | 4 | ? |
| 16. Do you fall out with your classmates and friends? | 1 | 2 | 3 | 4 | ? |
| 17. Do you talk too loudly? | 1 | 2 | 3 | 4 | ? |
| 18. Do you stick to the topic of conversation? | 1 | 2 | 3 | 4 | ? |
| 19. Do you think you speak differently to people, according to who they are and where you are? e.g. do you speak with your teacher in the same way as your mates? | 1 | 2 | 3 | 4 | ? |



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## Appendix O *(cont.)*

| | | | | | |
|---|---|---|---|---|---|
| 20. Do you think you have a good sense of humour? | 1 | 2 | 3 | 4 | ? |
| 21. When you meet a new person do you know what to say to them? | 1 | 2 | 3 | 4 | ? |
| 22. Can you pass on messages effectively e.g. phone messages? | 1 | 2 | 3 | 4 | ? |
| 23. Do you react OK when people tease you or wind you up? | 1 | 2 | 3 | 4 | ? |
| 24. Is it easy to listen to other people's points of view, especially if they think differently to you? | 1 | 2 | 3 | 4 | ? |
| 25. Do you interrupt others when they are talking? | 1 | 2 | 3 | 4 | ? |

(Adapted from Pragmatics Profile, Clinical Evaluation of Language Fundamentals 4UK, Semel, Wiig & Secord, 2003).



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# Appendix P

**Pragmatically Orientated Discourse Analysis (Adapted)**

Student Name_____ Year_____

Teacher_____ Date_____

To the teacher: Please circle the answer to each question that best describes your student's performance in class.

Does the student:

| **RITUALS AND CONVERSATION SKILLS** | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Say the same things continuously or provide too much redundancy when talking? | | | | | |
| Make rapid and inappropriate changes in conversational topic without cues to the listener? | | | | | |
| Seem to have an independent conversational agenda or give inappropriate and unpredictable responses? | | | | | |
| Fail to ask relevant questions to clarify unclear messages, so that communication frequently breaks down? | | | | | |
| Use language that is inappropriate for the social situation? | | | | | |
| Produce speech that is frequently disrupted by repetitions, unusual pauses and hesitations? | | | | | |
| Use many false starts, self-repetitions and revisions in talking? | | | | | |
| Produce long pauses or delays before responding? | | | | | |
| Fail to attend to cues for conversational turns, interrupting frequently or failing to hold up his or her end of the conversation? | | | | | |
| Use and 'get' humour appropriately? | | | | | |
| Understand sarcasm? | | | | | |
| Use sarcasm? | | | | | |
| Understand idioms, proverbs, slang in context? | | | | | |
| Understand indirect requests or hints? | | | | | |
| Use indirect requests and hints to get something he or she wants? | | | | | |
| Initiate and ends conversation as appropriate? e.g. face to face or on telephone | | | | | |
| Greet appropriately when meeting and departing? | | | | | |



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## Appendix P *(cont.)*

| **ASKING FOR, GIVING AND RESPONDING TO INFO** | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Give sufficient information when giving instructions or directions? | | | | | |
| Use non-specific vocabulary (thing, stuff, whatchamacallit)? | | | | | |
| Need a lot of repetition before even simple instructions are understood? | | | | | |
| Give inaccurate messages; seem to talk when he or she 'doesn't know what he or she is talking about'? | | | | | |
| Lack forethought and planning in telling stories and giving instructions? | | | | | |
| Show affection and physical touch at appropriate times and with appropriate people? | | | | | |

| **NONVERBAL COMMUNICATION SKILLS** | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Use inconsistent or inappropriate eye contact in conversation? | | | | | |
| Use inappropriate tone of voice? | | | | | |
| Interpret body language and non verbal messages? | | | | | |
| Stand or sit at appropriate social distance when interacting? | | | | | |

| Please use the space below to describe any other concerns you may have about this student's communication: |
|---|
| |

Adapted from Damico, J (1985). Clinical discourse analysis: A functional language assessment technique. In C.S. Simon (Ed). *Communication skills and classroom success: Assessment of language-learning disabled* students, 165-206. College-Hill Press: San Diego



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# Appendix Q

**JACK: PARENT BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 60 | 86 |
| Shift | 67 | 96 |
| Emotional Control | 69 | 96 |
| ***BRI*** | **68** | **94** |
| Initiate | 56 | 78 |
| Working Memory | 69 | 96 |
| Plan/Organise | 58 | 81 |
| Organisation of Materials | 52 | 65 |
| Monitor | 51 | 63 |
| ***MI*** | **59** | **80** |
| ***GEC*** | **63** | **88** |

**JACK: TEACHER BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 55 | 80 |
| Shift | 52 | 70 |
| Emotional Control | 69 | 96 |
| ***BRI*** | **59** | **84** |
| Initiate | 54 | 78 |
| Working Memory | 66 | 90 |
| Plan/Organise | 66 | 92 |
| Organisation of Materials | 44 | 55 |
| Monitor | 62 | 87 |
| ***MI*** | **61** | **86** |
| ***GEC*** | **61** | **86** |

**BRI:** **Behaviour Regulation Index (Inhibit, Shift and Emotional Control scale composite)**
**MI:** **Metacognition Index (Initiate, Working Memory, Plan/Organise, Organisation of Materials and Monitor scale composite)**
**GEC:** **Global Executive Composite**

***T*-score: at or above 65 is of clinical significance i.e. reflect reported executive function difficulties**



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## Appendix Q *(cont)*

**JACK: BRIEF VALIDITY SCALES**

| Form | Inconsistency Score and Classification | | Negativity Score and Classification | |
|---|---|---|---|---|
| **Parent** | 3 | Acceptable | 0 | Acceptable |
| **Teacher** | 4 | Acceptable | 0 | Acceptable |

| **Inconsistency score:** | | **Negativity score:** | |
|---|---|---|---|
| **≤ 6** | **Acceptable** | **≤ 4** | **Acceptable** |
| **7-8** | **Questionable** | **5-6** | **Elevated** |
| **≥ 9** | **Inconsistent** | **≥ 7** | **Highly elevated** |



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# Appendix R

**LEO: PARENT BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 72 | 96 |
| Shift | 72 | 98 |
| Emotional Control | 63 | 89 |
| ***BRI*** | **71** | **96** |
| Initiate | 46 | 47 |
| Working Memory | 66 | 93 |
| Plan/Organise | 59 | 83 |
| Organisation of Materials | 40 | 22 |
| Monitor | 68 | 99 |
| ***MI*** | **57** | **76** |
| ***GEC*** | **63** | **88** |

**LEO: TEACHER BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 64 | 91 |
| Shift | 97 | 98 |
| Emotional Control | 76 | 94 |
| ***BRI*** | **79** | **96** |
| Initiate | 63 | 87 |
| Working Memory | 80 | 98 |
| Plan/Organise | 81 | 98 |
| Organisation of Materials | 84 | 97 |
| Monitor | 73 | 92 |
| ***MI*** | **80** | **99** |
| ***GEC*** | **83** | **99** |

**BRI:** **Behaviour Regulation Index (Inhibit, Shift and Emotional Control scale composite)**
**MI:** **Metacognition Index (Initiate, Working Memory, Plan/Organise, Organisation of Materials and Monitor scale composite)**
**GEC:** **Global Executive Composite**

***T*-score: at or above 65 is of clinical significance i.e. reflect reported executive function difficulties**



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## Appendix R *(cont.)*

**LEO: BRIEF VALIDITY SCALES**

| Form | Inconsistency Score and Classification | | Negativity Score and Classification | |
|---|---|---|---|---|
| **Parent** | 3 | Acceptable | 0 | Acceptable |
| **Teacher** | 3 | Acceptable | 0 | Acceptable |

| **Inconsistency score:** | | **Negativity score:** | |
|---|---|---|---|
| **≤ 6** | **Acceptable** | **≤ 4** | **Acceptable** |
| **7-8** | **Questionable** | **5-6** | **Elevated** |
| **≥ 9** | **Inconsistent** | **≥ 7** | **Highly elevated** |



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# Appendix S

**CARLA: PARENT BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 75 | 98 |
| Shift | 69 | 96 |
| Emotional Control | 61 | 88 |
| ***BRI*** | **71** | **97** |
| Initiate | 62 | 89 |
| Working Memory | 79 | 99 |
| Plan/Organise | 67 | 96 |
| Organisationof Materials | 47 | 45 |
| Monitor | 71 | 97 |
| ***MI*** | **69** | **94** |
| ***GEC*** | **71** | **97** |

**CARLA: TEACHER BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 80 | 95 |
| Shift | 91 | 95 |
| Emotional Control | 82 | 97 |
| ***BRI*** | **87** | **97** |
| Initiate | 77 | 97 |
| Working Memory | 90 | 98 |
| Plan/Organise | 81 | 98 |
| Organisation of Materials | 111 | 99 |
| Monitor | 84 | 97 |
| ***MI*** | **83** | **98** |
| ***GEC*** | **88** | **97** |

**BRI:** **Behaviour Regulation Index (Inhibit, Shift and Emotional Control scale composite)**
**MI:** **Metacognition Index (Initiate, Working Memory, Plan/Organise, Organisation of Materials and Monitor scale composite)**
**GEC:** **Global Executive Composite**

***T*-score: at or above 65 is of clinical significance i.e. reflect reported executive function difficulties**



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## Appendix S *(cont.)*

**CARLA: BRIEF VALIDITY SCALES**

| Form | Inconsistency Score and Classification | | Negativity Score and Classification | |
|---|---|---|---|---|
| **Parent** | 7 | Questionable | 2 | Acceptable |
| **Teacher** | 5 | Acceptable | 2 | Acceptable |

| **Inconsistency score:** | | **Negativity score:** | |
|---|---|---|---|
| **≤ 6** | **Acceptable** | **≤ 4** | **Acceptable** |
| **7-8** | **Questionable** | **5-6** | **Elevated** |
| **≥ 9** | **Inconsistent** | **≥ 7** | **Highly elevated** |



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# Appendix T

**LUKE: PARENT BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 91 | 99 |
| Shift | 88 | 99 |
| Emotional Control | 85 | 99 |
| ***BRI*** | **95** | **99** |
| Initiate | 70 | 96 |
| Working Memory | 82 | 99 |
| Plan/Organise | 76 | 98 |
| Organisationof Materials | 69 | 99 |
| Monitor | 75 | 99 |
| ***MI*** | **78** | **99** |
| ***GEC*** | **87** | **99** |

**LUKE: TEACHER BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 89 | 99 |
| Shift | 85 | 99 |
| Emotional Control | 94 | 99 |
| ***BRI*** | **94** | **99** |
| Initiate | 72 | 95 |
| Working Memory | 78 | 98 |
| Plan/Organise | 60 | 82 |
| Organisation of Materials | 60 | 87 |
| Monitor | 78 | 97 |
| ***MI*** | **72** | **95** |
| ***GEC*** | **82** | **98** |

**BRI:** **Behaviour Regulation Index (Inhibit, Shift and Emotional Control scale composite)**
**MI:** **Metacognition Index (Initiate, Working Memory, Plan/Organise, Organisation of Materials and Monitor scale composite)**
**GEC:** **Global Executive Composite**

***T*-score: at or above 65 is of clinical significance i.e. reflect reported executive function difficulties**



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## Appendix T *(cont.)*

**LUKE: BRIEF VALIDITY SCALES**

| Form | Inconsistency Score and Classification | | Negativity Score and Classification | |
|---|---|---|---|---|
| **Parent** | 0 | Acceptable | 5 | Elevated |
| **Teacher** | 0 | Acceptable | 4 | Acceptable |

| **Inconsistency score:** | | **Negativity score:** | |
|---|---|---|---|
| **≤ 6** | **Acceptable** | **≤ 4** | **Acceptable** |
| **7-8** | **Questionable** | **5-6** | **Elevated** |
| **≥ 9** | **Inconsistent** | **≥ 7** | **Highly elevated** |



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# Appendix U

**KIM: PARENT BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 78 | 98 |
| Shift | 85 | 99 |
| Emotional Control | 63 | 90 |
| ***BRI*** | **78** | **99** |
| Initiate | 53 | 70 |
| Working Memory | 61 | 80 |
| Plan/Organise | 67 | 96 |
| Organisation of Materials | 71 | 99 |
| Monitor | 60 | 87 |
| ***MI*** | **66** | **91** |
| ***GEC*** | **71** | **98** |

**KIM: TEACHER BRIEF**

| Scale/ index | *T*- score | Centile |
|---|---|---|
| Inhibit | 111 | 99 |
| Shift | 137 | 99 |
| Emotional Control | 118 | 99 |
| ***BRI*** | **127** | **99** |
| Initiate | 85 | 98 |
| Working Memory | 100 | 99 |
| Plan/Organise | 97 | 99 |
| Organisation of Materials | 124 | 99 |
| Monitor | 105 | 99 |
| ***MI*** | **105** | **99** |
| ***GEC*** | **118** | **99** |

**BRI:** **Behaviour Regulation Index (Inhibit, Shift and Emotional Control scale composite)**
**MI:** **Metacognition Index (Initiate, Working Memory, Plan/Organise, Organisation of Materials and Monitor scale composite)**
**GEC:** **Global Executive Composite**

***T*-score: at or above 65 is of clinical significance i.e. reflect reported executive function difficulties**



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## Appendix U *(cont.)*

**KIM: BRIEF VALIDITY SCALES**

| Form | Inconsistency Score and Classification | | Negativity Score and Classification | |
|---|---|---|---|---|
| **Parent** | 4 | Acceptable | 4 | Acceptable |
| **Teacher** | 1 | Acceptable | 5 | Elevated |

**Inconsistency score:**

| | |
|---|---|
| **≤ 6** | **Acceptable** |
| **7-8** | **Questionable** |
| **≥ 9** | **Inconsistent** |

**Negativity score:**

| | |
|---|---|
| **≤ 4** | **Acceptable** |
| **5-6** | **Elevated** |
| **≥ 7** | **Highly elevated** |



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# Appendix V

## NARRATIVE TRANSCRIPTIONS: JACK

**Narrative 1: Jack**

All I can think.

Well, there's the tiger, just about to throw a ball.

Then he gets into the position of throwing the ball.

Then he throws the ball.

Then the boy hits it.

Then he goes *(pause 2s)* 'dah'.

*(pause 2s)* He goes.

Then the boy goes 'oooh'.

Then the boy goes *(pause 1s)* 'ahh'.

And the tiger's like, how do I do this? 'toh-tah'

*(pause 2s)* Then the boy's running, *(pause 1s)* looking like he's mad.

Then they have a fight.

Then they're then they're sitting down.

Then they're thinking.

Then the boy gets ready to play a game.

Gets some stepladders and stands on them.

But how do I put it this way? Don't know what that means.

*(pause 3s)* Do I get any words? (KJ: No)

I can't do anymore.

**Narrative 2: Jack**

Well, boy's noticed out his window that it's snowing.

So he's running downstairs to get his coat and that on, to go out and play in the snow.

And his dad's doing paperwork.

And he goes and asks his dad, 'Do you want to play with me?'

Then his dad goes, 'I'm too busy'.

*(pause 2s)* Then the boy walks off, upset.

Then the dad's sitting there doing his paperwork.
Sitting there doing his paperwork more.

Sitting there just looking out the window.

Sitting there looking at the paperwork, just staring at it, angry.

*(pause 2s)* Then the dad gets out his chair, goes and plays with the boy, *(pause 1s)* with Calvin.

Then there's a tree.

*(pause 1s)* Then it's time for Calvin to go to bed

So Calvin kisses his daddy good night and goes to bed.



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## Appendix W

### NARRATIVE TRANSCRIPTIONS: LEO

**Narrative 1: Leo**

He's about to throw the ball

He throws it and the boy is uh, is swinging to hit it.

And the tiger says, 'Sorry, got to go toilet!' *(smiles)*

And the boy says, 'No way!'

And they have, the tiger's like, "I've gotta go toilet!' *(laughs)*

And the boy says, 'But that man over there says you don't need to go toilet!' *(pause 3s)*

And they, they have, they kick up the dust *(pause 5s)*.

And then the tiger bites the boy. *(pause 3s)*

And they *(pause 7s)*

The tiger lands on the boy and the tiger says, 'Now look what you made me do, I

*(laughs)* I pissed myself!' *(laughs)* *(pause 9s)*

And the boy gets up the stairs.

And he gets ready to start again.

**Narrative 2: Leo**

The the boy took, put on his dad's jacket and the dad is doing the work. His work *(pause 5s).*

'I'm going out now', says the boy.

'Give me, give me my jacket!' *(pause 6s)*

Ah, man, back home with his work, still doing his work *(pause 7s)*

Has a feeling that there is a good-looking woman outside so he checks.

*(laughs)* And he sees a nice piece of leg walking *(leg walking motion with his fingers on the table).*

And he thinking, 'Shit, I could *(nasal sound)* I could have that.'

And he goes, 'Actually, why can't I have it?'

And then he goes outside.

She crashes into his arms.

And they decide to have *(pause 3s)* snow fight.

And build a snowman, they build a snowman.

His wife is *(pause 3s)*

He's doing his work and his wife or his sister comes and says, 'This brat won't go to sl to sleep!' *(laughs).*



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# Appendix X

## NARRATIVE TRANSCRIPTIONS: CARLA

**Narrative 1: Carla**

In the first picture, there's a animal – I can't remember what they're called – throwing a cricket ball *(pause 2s)*.

And in the second picture *(pause 2s)* it's him actually throwing *(pause 2s)* the ball.

In the third picture um it's a little person, boy (*pause 5s)* going to hit the ball *(pause 4s)*.

And then the fourth picture it's *(pause 4s) (laughs).*

It's the tiger saying, 'Three shots and out!' *(laughs)*

And then the little boy's either having a go at the tiger, saying, 'I've just had my first shot' or something *(pause 3s)*.

And they're arguing, I think *(pause 3s).*

And then they have a … are they having a ruck?

A fight, sorry.

They having a *(pause 2s)*, I think they're having a fight.

Yeah, then they're having an actual fight.

And then they both fall over.

And then they're sitting and talking.

And then the last picture the little boy has got a stool to stand on because he's so short.

The end

**Narrative 2: Carla**

There's Mini-man again putting his coat on.

And I think that's his dad or his teacher, or, yeah, His dad sitting at the desk doing paper work.

And Mini-man walks in the room and points outside.

And then the dad and Mini-man are talking *(pause 3s)*.

And then Mini-man walks off in a, with a sad face on.

And then his dad looks guilty *(pause 3s)*.

And then his dad looks bored.

And then his dad looks out the window.

And then his dad looks at the desk.

And then his dad walks up, gets up off his chair.

And then the dad goes outside with Mini-man *(pause 2s)*.

Then I think they're having a snow fight outside, I think.

And then Mini-man kisses his dad good night.



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# Appendix Y

## NARRATIVE TRANSCRIPTIONS: LUKE

**Narrative 1: Luke**

So Calvin the Hobbes.

Calvin and Hobbes.

Calvin gets ready for the ball.

He throws the ball.

And the little kid goes to swing for it.

He missed it.

Then *(pause 5s)*. Is that Calvin? *(KJ: It's Hobbes)*

And Hobbes says he's out.

And Calvin disagrees and starts arguing.

And Colvin, Calvin, *(pause 3s)* no Hobbes starts *(pause 2s)* pointing his finger.

Then he starts a fight and they both get knocked out.

Then they both sit down.

And Calvin tries to hit it off the bench.

**Narrative 2: Luke**

Calvin runs out this room and puts a jacket on While Dad's doing some work.

And Calvin points to the door and his dad don't know what he's on about.

So Calvin sits down and has a sulk.

And then his dad's thinking and thinking and thinking.

And thinking.

Then Dad gets up and starts walking somewhere.

And *(pause 3s)* Dad starts playing with Hobbes in the snow.

And *(pause 6s).*

All you can see is the shadows.

And Mum brings Hobbes up to his dad so *(pause 3s*) Calvin can say goodnight.

There you go.

.



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# Appendix Z

## NARRATIVE TRANSCRIPTIONS: KIM

**Narrative 1: Kim**

Hobbes was going to throw the ball.

Calvin hit the ball and Hobbes said it was, there was a no point one, yeah.

And then Calvin screamed and said, 'Yes, it is!'

And then they started having an argument.

And then they got in a scrap and started kicking the soil.

And then they /w/ had a bundle and so Calvin got squashed by Hobbes, of course.

And then they sat down and thought about it and *(pause 2s)* Hobbes found a *(pause 1s)* found *(pause 2s)* step ladders for Calvin to stand on to bat the ball.

Yeah *(pause 2s)*.

The end!

**Narrative 2: Kim**

Calvin ran out of his bedroom, put his coat, 'cause he saw it was snowing.

Put his coats and boots on, said to dad who was busy that he's going out and then his dad said, 'No.'

And so Calvin ran over to him

And he said, 'Will you come out with me then?'

And his dad said, 'No, I'm busy.'

And then Calvin got really upset and ll (pause 2s) sat on the floor.

And his dad goes, 'What's up?'

And he then dad had to carry on writing and doing his work.

And then he was really tired *(pause 2s)*.

And then he looked outside and saw *(pause 2s)* the snow.

So dad was very upset because he couldn't go outside.

So he left his work and thought, 'Oh, I'll go out and play with Calvin'.

So he went outside and started playing in the snow.

Then they ss… they started to build a snowman.

And then Calvin's mum came outside and got him and he gave his and got him ready for bed and gave his dad a kiss on the head *(pause 2s)*.

And Calvin gave a his dad a kiss on the head, yeah.

The end!



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# Appendix AA

## PRAGMATIC PROTOCOL: JACK

| Communicative act | Appropriate | Inappropriate | No opportunity to observe | Comments |
|---|---|---|---|---|
| **VERBAL ASPECTS** | | | | |
| **A. Speech Acts** | | | | |
| 1. Speech act pair analysis | X | | | |
| 2. Variety of speech acts | X | | | |
| **B. Topic** | | | | |
| 3. Selection | X | | | |
| 4. Introduction | X | | | |
| 5. Maintenance | | X | | |
| 6. Change | | X | | Unclear link at times |
| **C. Turn taking** | | | | |
| 7. Initiation | X | | | |
| 8. Response | X | | | |
| 9. Repair/revision | | X | | |
| 10. Pause time | X | | | |
| 11. Interruption/ overlap | X | | | |
| 12. Feedback to speakers | X | | | |
| 13. Adjacency | X | | | |
| 14. Contingency | X | | | |
| 15. Quantity/ conciseness | X | | | |
| **D. Lexical selection/ use across speech acts** | | | | |
| 16. Specificity/ accuracy | | X | | Unspecific at times, better with more time |
| 17. Cohesion | X | | | |
| **E. Stylistic variations** | | | | |
| 18. Varying of communicative style | | X | | Inconsistent but emergent |
| **Total** | 13 | | | |



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## Appendix AA *(cont.)*

| | | | | |
|---|---|---|---|---|
| **PARALINGUISTIC ASPECTS**<br><br>F. Intelligibility and prosodics<br><br>19. Intelligibility and prosodics<br>20. Vocal intensity<br>21. Vocal quality<br>22. Prosody<br>23. Fluency | <br><br><br><br><br>X<br><br>X<br>X<br><br>X | <br><br><br><br><br><br><br><br>X | | |
| **Appropriate rating total** | 4 | | | |

| | | | | |
|---|---|---|---|---|
| **NON VERBAL ASPECTS**<br><br>G. Kinesics and proxemics<br><br>24. Physical proximity<br>25. Physical contacts<br>26. Body posture<br>27. Foot/leg and hand/arm movements<br>28. Gestures<br>29. Facial expression<br>30. Eye gaze | <br><br><br><br>X<br><br>X<br><br>X<br>X<br><br>X<br>X | <br><br><br><br><br><br><br><br><br><br><br><br>X | | |
| **Appropriate rating total** | 6 | | | |
| **TOTAL Pragmatic Protocol Score** | 23 | | | |

From: Prutting, C. & Kirchner, D. (1987). A clinical appraisal of the pragmatic aspects of language. *Journal of Speech-Language-Hearing Disorders, 52 (2),* 105-119.



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# Appendix BB

## PRAGMATIC PROTOCOL: LEO

| Communicative act | Appropriate | Inappropriate | No opportunity to observe | Comments |
|---|---|---|---|---|
| **VERBAL ASPECTS** | | | | |
| **A. Speech Acts** | | | | |
| 1. Speech act pair analysis | X | | | |
| 2. Variety of speech acts | X | | | |
| **B. Topic** | | | | |
| 3. Selection | | X | | variable |
| 4. Introduction | X | | | |
| 5. Maintenance | | X | | tangents |
| 6. Change | | X | | emergent skills |
| **C. Turn taking** | | | | |
| 7. Initiation | X | | | |
| 8. Response | X | | | |
| 9. Repair/revision | X | | | |
| 10. Pause time | | X | | |
| 11. Interruption/ overlap | | X | | occasional interruptions |
| 12. Feedback to speakers | X | | | |
| 13. Adjacency | X | | | |
| 14. Contingency | | X | | |
| 15. Quantity/ conciseness | | X | | exaggerations |
| **D. Lexical selection/ use across speech acts** | | | | |
| 16. Specificity/ accuracy | X | | | |
| 17. Cohesion | X | | | |
| **E. Stylistic variations** | | | | |
| 18. Varying of communicative style | | X | | over familiarity at times |
| **Total** | 10 | | | |



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## Appendix BB *(cont.)*

| | | | | |
|---|---|---|---|---|
| **PARALINGUISTIC ASPECTS**<br><br>F. Intelligibility and prosodics<br><br>19. Intelligibility and prosodics<br>20. Vocal intensity<br>21. Vocal quality<br>22. Prosody<br>23. Fluency | <br><br><br><br><br>X<br>X<br><br>X | <br><br><br><br><br>X<br><br>X | | <br><br><br><br><br>Dysarthria, VPI |
| **Appropriate rating total** | 3 | | | |

| | | | | |
|---|---|---|---|---|
| **NON VERBAL ASPECTS**<br><br>G. Kinesics and proxemics<br><br>24. Physical proximity<br>25. Physical contacts<br>26. Body posture<br>27. Foot/leg and hand/arm movements<br>28. Gestures<br>29. Facial expression<br>30. Eye gaze | <br><br><br><br>X<br><br>X<br>X<br>X<br><br><br>X<br>X<br><br>X | | | |
| **Appropriate rating total** | 7 | | | |
| **TOTAL Pragmatic Protocol Score** | 20 | | | |

From: Prutting, C. & Kirchner, D. (1987). A clinical appraisal of the pragmatic aspects of language. *Journal of Speech-Language-Hearing Disorders, 52 (2),* 105-119.



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# Appendix CC

## PRAGMATIC PROTOCOL: CARLA

| Communicative act | Appropriate | Inappropriate | No opportunity to observe | Comments |
|---|---|---|---|---|
| **VERBAL ASPECTS** | | | | |
| **A. Speech Acts** | | | | |
| 1. Speech act pair analysis | | X | | not picking up on indirect requests limited comments |
| 2. Variety of speech acts | X | | | |
| **B. Topic** | | | | |
| 3. Selection | X | | | abrupt |
| 4. Introduction | | X | | |
| 5. Maintenance | | X | | not smooth |
| 6. Change | | X | | |
| **C. Turn taking** | | | | |
| 7. Initiation | | X | | |
| 8. Response | X | | | |
| 9. Repair/revision | | X | | |
| 10. Pause time | | X | | |
| 11. Interruption/ overlap | X | | | slow processing |
| 12. Feedback to speakers | | X | | |
| 13. Adjacency | X | | | |
| 14. Contingency | X | | | too little information |
| 15. Quantity/ conciseness | | X | | |
| **D. Lexical selection/ use across speech acts** | | | | |
| 16. Specificity/ accuracy | | X | | unclear referents at times, sometimes incoherent, but improved |
| 17. Cohesion | | X | | |
| **E. Stylistic variations** | | | | |
| 18. Varying of communicative style | | X | | Some adjustments but on the whole very similar style |
| **Total** | 6 | | | |



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## Appendix CC *(cont.)*

| | | | | |
|---|---|---|---|---|
| **PARALINGUISTIC ASPECTS**<br><br>F. Intelligibility and prosodics<br><br>19. Intelligibility and prosodics<br>20. Vocal intensity<br>21. Vocal quality<br>22. Prosody<br>23. Fluency | <br><br><br><br><br>X<br><br>X<br><br>X | <br><br><br><br><br><br>X<br><br>X | | <br><br><br><br><br>monotone |
| **Appropriate rating total** | 3 | | | |

| | | | | |
|---|---|---|---|---|
| **NON VERBAL ASPECTS**<br><br>G. Kinesics and proxemics<br><br>24. Physical proximity<br>25. Physical contacts<br>26. Body posture<br>27. Foot/leg and hand/arm movements<br>28. Gestures<br>29. Facial expression<br>30. Eye gaze | <br><br><br><br><br><br>X<br><br>X | <br><br><br><br><br>X<br><br>X<br><br><br>X<br>X<br>X | | |
| **Appropriate rating total** | 2 | | | |
| **TOTAL Pragmatic Protocol Score** | 11 | | | |

From: Prutting, C. & Kirchner, D. (1987). A clinical appraisal of the pragmatic aspects of language. *Journal of Speech-Language-Hearing Disorders, 52 (2),* 105-119.



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# Appendix DD

## PRAGMATIC PROTOCOL: LUKE

| Communicative act | Appropriate | Inappropriate | No opportunity to observe | Comments |
|---|---|---|---|---|
| **VERBAL ASPECTS** | | | | |
| **A. Speech Acts** | | | | |
| 1. Speech act pair analysis | | X | | Limited |
| 2. Variety of speech acts | X | | | |
| **B. Topic** | | | | |
| 3. Selection | | X | | Inappropriate topics at times |
| 4. Introduction | X | | | |
| 5. Maintenance | | X | | |
| 6. Change | X | | | |
| **C. Turn taking** | | | | |
| 7. Initiation | | X | | Variable |
| 8. Response | | X | | |
| 9. Repair/revision | | X | | |
| 10. Pause time | X | | | |
| 11. Interruption/ overlap | X | | | |
| 12. Feedback to speakers | X | | | |
| 13. Adjacency | X | | | |
| 14. Contingency | | X | | |
| 15. Quantity/ conciseness | | X | | Abrupt |
| **D. Lexical selection/ use across speech acts** | | | | |
| 16. Specificity/ accuracy | | X | | |
| 17. Cohesion | | X | | |
| **E. Stylistic variations** | | | | |
| 18. Varying of communicative style | | X | | Emergent but inconsistent |
| **Total** | 7 | | | |



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## Appendix DD *(cont.)*

| | | | | |
|---|---|---|---|---|
| **PARALINGUISTIC ASPECTS**<br><br>F. Intelligibility and prosodics<br><br>19. Intelligibility and prosodics<br>20. Vocal intensity<br>21. Vocal quality<br>22. Prosody<br>23. Fluency | <br><br><br><br><br><br>X<br>X | <br><br><br><br><br>X<br><br><br>X<br>X | | Reduced self-monitoring |
| **Appropriate rating total** | 2 | | | |

| | | | | |
|---|---|---|---|---|
| **NON VERBAL ASPECTS**<br><br>G. Kinesics and proxemics<br><br>24. Physical proximity<br>25. Physical contacts<br>26. Body posture<br>27. Foot/leg and hand/arm movements<br>28. Gestures<br>29. Facial expression<br>30. Eye gaze | <br><br><br><br><br><br>X<br><br><br>X<br>X<br><br><br>X<br>X | <br><br><br><br><br><br><br>X<br><br><br><br><br><br>X | | Has shown improvement, better in some situations |
| **Appropriate rating total** | 5 | | | |
| **TOTAL Pragmatic Protocol Score** | 14 | | | |

From: Prutting, C. & Kirchner, D. (1987). A clinical appraisal of the pragmatic aspects of language. *Journal of Speech-Language-Hearing Disorders, 52 (2),* 105-119.



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# Appendix EE

## PRAGMATIC PROTOCOL: KIM

| Communicative act | Appropriate | Inappropriate | No opportunity to observe | Comments |
|---|---|---|---|---|
| **VERBAL ASPECTS** | | | | |
| **A. Speech Acts** | | | | |
| 1. Speech act pair analysis | X | | | |
| 2. Variety of speech acts | X | | | |
| **B. Topic** | | | | |
| 3. Selection | | X | | can focus, better with familiar topics, depends on interest |
| 4. Introduction | X | | | |
| 5. Maintenance | | X | | |
| 6. Change | | X | | |
| **C. Turn taking** | | | | |
| 7. Initiation | | X | | only initiates with adults |
| 8. Response | X | | | |
| 9. Repair/revision | X | | | |
| 10. Pause time | | X | | |
| 11. Interruption/ overlap | X | | | slow processing |
| 12. Feedback to speakers | X | | | |
| 13. Adjacency | X | | | |
| 14. Contingency | X | | | |
| 15. Quantity/ conciseness | X | | | |
| **D. Lexical selection/ use across speech acts** | | | | |
| 16. Specificity/ accuracy | | X | | |
| 17. Cohesion | X | | | |
| **E. Stylistic variations** | | | | |
| 18. Varying of communicative style | | X | | sometimes misjudges situation |
| **Total** | 11 | | | |



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## Appendix EE *(cont.)*

| | | | | |
|---|---|---|---|---|
| **PARALINGUISTIC ASPECTS**<br><br>F. Intelligibility and prosodics<br><br>19. Intelligibility and prosodics<br>20. Vocal intensity<br>21. Vocal quality<br>22. Prosody<br>23. Fluency | <br><br><br><br><br>X<br><br>X<br><br>X | <br><br><br><br><br><br>X<br><br>X | | <br><br><br><br><br><br>Improved with increased awareness |
| **Appropriate rating total** | 3 | | | |

| | | | | |
|---|---|---|---|---|
| **NON VERBAL ASPECTS**<br><br>G. Kinesics and proxemics<br><br>24. Physical proximity<br>25. Physical contacts<br>26. Body posture<br>27. Foot/leg and hand/arm movements<br>28. Gestures<br>29. Facial expression<br>30. Eye gaze | <br><br><br><br>X<br><br>X<br><br>X<br>X<br><br>X<br>X | <br><br><br><br><br><br><br><br><br><br>X | | |
| **Appropriate rating total** | 6 | | | |
| **TOTAL Pragmatic Protocol Score** | 20 | | | |

From: Prutting, C. & Kirchner, D. (1987). A clinical appraisal of the pragmatic aspects of language. *Journal of Speech-Language-Hearing Disorders, 52 (2),* 105-119.



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## Appendix FF

**PARENT INTERVIEW: JACK**

**K: Father G: Mother KJ: Interviewer**

| | | |
|---|---|---|
| 1 | KJ: How would you describe his personality? | |
| 2 | K: He's very quick tempered now, hey. | AD 8 |
| 3 | G: Yeah, very and before he wasn't as… | AD 1 |
| 4 | K: … wasn't like that. | |
| 5 | G: He was little but, what I say um, a little bit anxious and that but it, yeah. | |
| 6 | K: He was very quiet before, wasn't he? | AD 1 |
| 7 | G: Yeah, he was very quiet, yeah. Like I was saying. | |
| 8 | K: He wouldn't speak to you (laughs). | |
| 9 | G: No, we'd go out all together and and J wouldn't speak to anybody. He was really. | |
| 10 | And today he'd speak to anybody in the street. | |
| 11 | KJ: Yeah. | |
| 12 | G: You know and obviously sometimes I mean. He's been a lot better but sometimes with | AP 1 |
| 13 | me or like he gets a bit anxious | AD 9 |
| 14 | and gets quite short tempered so quick he gets. | AD 8 |
| 15 | K: Yeah. So that's a change? | |
| 16 | G: Yeah, yeah, definitely. Yeah ooh. And he can't seem to, he does it before you can | |
| 17 | even say anything. | AD 7 |
| 18 | KJ: Oh, ok. | |
| 19 | G: Yeah. | |
| 20 | KJ: Do you think he's realising that he's doing it? | |
| 21 | K: To a certain extent. | |
| 22 | GR : To a certain extent he does. Sometimes he doesn't. And the cos he realises | AD 17 |
| 23 | sometimes he does want to do this. | |
| 24 | KJ: Yeah, sure. | |
| 25 | G: Yeah, he doesn't want to be, yeah, wh, wha, I 'cos when we're talking, he'll say, | |
| 26 | 'Why's that happening, Mum?' Because he can't, yeah, and it does upset him. | AD 9 |
| 27 | KJ: Yeah, sure. | |
| 28 | G: You know, 'cos he's sort of why, you know. And I say to him, well with all you've | |
| 29 | gone through. But I mean, well that is what he was. But he's still, we know he's not right. | PP 2 |
| 30 | KJ: Yeah, yeah. | |



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K: ….. he's angry, …. He's upset when we playing. Not so much. AD 8

G: Yeah yeah, no.

K: …?

G: He'll lash out before we go anywhere, and then whereas before if he knew something had gone wrong, he'd just go off on his own. AD 8 AD 1

K: Uh huh

G: Yeah.

KJ: And just thinking like more about his conversation skills, how would you describe his conversation skills?

G: Oh, he's quite good, yeah, he'll listen to you and that. But he tells you whether he agrees with you or whether he won't whereas before he wouldn't. AP 3 AD 16 AD 1

K: Yeah.

KJ: OK.

G: He's more like you say, he talks to you and you know.

K: Yeah

G: And that's what you're talking about. And you've changed that conversation around and he'll tell you. AD 16

KJ: OK. And this is different from before his injury?

G: Yeah.

K: He won't say to you if he's had a bad day at school. PP 2

G: No, he won't say, no.

K: He won't say that.

G: But he'll talk to you about other things. He doesn't remember.

KJ: No, of course.

G: No, you know, perhaps remind him and he does does ask questions and we sort of told him but and he doesn't want to know then yeah. AD 10

KJ: I suppose, relatively speaking, it's still early days.

G: Oh, it's a lot to take on. I think he's had a lot to take on. And when he came out he's had to start all new and and it's all different, in lots in lots of different ways. PP 2

KJ: He's worked so well, he's really um, you know, applied himself and concentrated and tried really hard. He's been very keen to know the whole time, 'How am I doing?'

G: Yeah, how am I doing, because he does try. AP 6



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63 K: Miss D who does his tuition at school. They really got on well. He's even …..

64 G: And he works really hard. Just what she said you know, he said … said you know AP 6
65 he wants to do it. And I said that's the most important. It's when they don't want to. He
66 wants to and that. But then he gets a bit upset when he gets so far but he can't get AD 9
67 anywhere. He he …. What I know I used to work (hard like now?) But I think he tried he AP 6
68 seemed to got over it a little bit. He's gradually getting better and better. AP 1

69 K: He (?) on his bike.

70 G: Yeah, there's things that do it but he gets better and better, isn't he. What he can do. AP 1
71 Like they said his Maths is being better AP 1
72 but he still struggles with his English. AD 22

73 KJ: Sure

74 G: There're bits, isn't it, is.

75 K: ….. and Maths and all that.

76 G: Well he always used to be.

77 KJ: Ok, so that's been a strength in the past.

78 K: Yeah.

79 G: That's been a strength in the past. But then he lost it all together. AD 22

80 KJ: Sure.

81 G: He picked it up. He's not as good as what he was, but he's getting there. AP 1
82 He was really quite good at reading.

83 K: Used to like his reading AD 1

84 G: Yeah, used to like his reading. I mean, you didn't have to tell him to get a book to read.
85 But now you have to…, you know, give him a bit more encouragement. AD 23

86 K: ….ask him to read the road signs for us and things like that.

87 G: Yeah, try you know, whereas before you wouldn't have to ask him.

88 K: Used to say, you've got to come off here.

89 G: He'd pick up pretty quick on his reading before. AD 22

90 G: Um and his writing was quite slow but it was not as slow as it had… like because he's
91 had to start from scratch again, so. AD 22

92 KJ: I know when we did a few writing asks- we didn't do many- he was like, 'Why
93 do we have to do these?'

94 G: Yeah, no. Yeah, he found it harder to write. Because he couldn't do anything.
95 'Cos he we were back we where we were doing it and even baby language really.
96 So he's had to start right from the ... scratch. And so he has found that the
97 hardest. And it's still tricky. I mean even at school. I mean they said that he, they AD 22



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98 really praised him how he's…

99 K: How he's done.

100 G: How he's done. But you can see. And I've got some of his work from when he
101 was at the lower school and he was sort of over this part. So you knew…. How
102 much… yeah he had still quite a bit behind. So I know that bit really's not in it. And his
103 spelling. He was about average for his age. I would have thought. I thought he was
104 about average. He tried more I thought, before he had his accident. Whereas today he
105 seems finding it harder to try. Because even they said that at school. AD 22

106 K: Don't concentrate as much as what … AD 22

107 G: Yeah, he finds it harder to concentrate. Yeah, hmmm.

108 KJ: He's certainly fine when he's been in a quiet situation 1:1, that really suits him.

109 G and K: Yeah.

110 G: It does.

111 K: He does a lot better.

112 G: Yeah, he does a lot better. Yeah, I thought of that; he does do a lot better 1:1 or
113 something rather than in a even in a class, 'cos he comes to me and he doesn't
114 know half of what has gone on. AD 22

115 K: I think they've go too quick or… PP 5

116 G: He can't take it in. I don't know it's in it's…..they as you sat they sit there and he
117 can't ……? everything. It's like his homework, he never knows really what he's got AD 22
118 to do because he's missed out, he he doesn't …

119 K: He doesn't click.

120 G: Doesn't click in, doesn't register with him. Not like he does when he's got a 1:1. PP 1

121 K: If you're doing it with him, he doesn't understand he can ask you personally but in a AD 22
122 class with 30-odd kids he can't do that. PP 5

123 KJ: That must be difficult.

124 G: Yeah, it's very hard.

125 KJ: Yeah, OK. And what about his friendships? How would you describe his ability
126 to make and keep friends?

127 G: Ah, he's got some nice friends at school. He's got some good friends. It took him a
128 long time. AD 2

129 KJ: Uh huh?

130 G: … to make these friends. He's found it very hard. AD 2

131 KJ: Yeah

132 G: because he's ..



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| | | |
|---|---|---|
| 133 | K: because he's the only one from his lower school | PD 3 |
| 134 | G: to where he's gone | |
| 135 | K: to where he's gone. He found it very hard. | |
| 136 | KJ: And compared with before his injury, how does he make and keep friends? | |
| 137 | G: He's had to make new friends. He's different, yeah. | |
| 138 | K: Now his school is adapted for him. | |
| 139<br>140<br>141<br>142<br>143<br>144 | G: Yeah and you know at first he was quite, still quite, you know because of him just …?? there but some have started to got to know J now, as he is, you know. So it's helped him and it's like calmed down a bit so he's still a little bit, I mean, now and again you know, if anything's going on, I said to him, 'You wasn't involved, was you?' You know, 'cos sometimes he gets involved whereas before he wouldn't. If there's something going on, if there's a fight at school, J will be there. | AP 1<br><br><br><br><br>AD 8 |
| 145 | KJ: Hmmm. | |
| 146 | G: You know. Whereas before he would stand back. | AD 1 |
| 147 | K: Or | |
| 148 | G: Or he'd go and get help. | |
| 149 | K: Or sometimes | |
| 150 | G: But he has started to do it occasionally. | AD 8 |
| 151 | K: If someone takes the mickey out of him, he doesn't… | PP 5 |
| 152 | G: He doesn't like that | |
| 153 | K: No matter what it is he will… | |
| 154 | G: … go … | |
| 155 | K: … retaliate. | AD 8 |
| 156 | G: He needs… | |
| 157 | K: … tell the teacher. | |
| 158 | G: Yeah, …….?? He must go tell someone. | |
| 159 | KJ: Yeah. | |
| 160<br>161 | G: Rather than lash out. He's getting a bit better at it to what he was. He's starting to tell them a little bit. | AP 1 |
| 162 | KJ: OK. | |
| 163 | K: We've had a few conversations at school about him (laughs). | |



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G: … know that and of course because the teachers didn't know him. You see, they didn't know him to what was and then they couldn't understand what was wrong with him PD 4

KJ: And they think he's just being a naughty?

G: Yeah, a naughty boy sometimes. And it wasn't.

KJ: Not purely being.

G: Couldn't connected. This is what I talked to them down at …….. he went on one of the visits. He said to me his brain is not connected properly sometimes as ours would tell us, you know, how far to go and we can stop. PP 5

KJ: Yeah, yeah.

G:But J doesn't, he carries on and it don't cut off, sort of thing. AD 12

KJ: Ah, no.

K: …… ?? I don't want to go so I say, 'Don't go then.' You know.

G: Yeah, you know. It's been hard. A hard struggle. It is still hard. But yeah, you try to do to get where that's not naughty but it's still not good to do some of the things. PD 1 PP 2

KJ: Yeah, yeah.

G: You know, you try to get it, relate round to J that you know it ain't I know he can't help some of the things but sometimes it's still not good to do some of them. So he's got to learn to show it and you to help him in a way to show a good way. And it's not PP 1
good to do it that way. But you can't also you try to punish him but you can't punish him PP 1
when he's been….. done though an illness. This is what I was trying to tell them down at
the school because they were saying about how he's been punished, well, I can't PD 4
actually punish him, 'cos he's not it's not because he's a naughty child, it's because of PP 2
an illness he had had it's called by a name, you know. But I also say he can't do' em.
He can't do some of the things. I know he's got to be shown. He's got to be helped with PP 1
it.

KJ: Yeah. I can imagine teachers having a challenge.

G: Well, they don't know. PD 4

KJ: They

G: That's right.

K: They can't make, the schools, an exception for one. PD 4

KJ: It's very tricky.

G: It's very tricky. But also as I say, they know why J went there. PD 4

KJ: Yeah.

G: And education have sent him there and they knew. PD 4

KJ: Yeah.



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G: So as I say you know, but he got to be shown. He has to be shown the right way. PP 1

K: Yeah.

G:Rather than be too much you know. And that is a headache. That, you know. Yeah, yeah, yeah. I mean they've chucked in the deep end aren't they? I mean they just say this child is coming and you don't know nothing. And they don't dealt with any sort of injuries before. PD 4

KJ: Yeah, they are not common, are they?

G: And no-one goes there to tell them about anything and then, yeah, you are chucked in the wrong end. But it's… PD 4

KJ: And J is in the middle.

G: J is in the middle of it all, bless him, that's right.

KJ: Certainly what we do involves making recommendations at the end of our assessment. If we feel there is some stuff some work that we can do that does involve educating the school, doing some training sessions with the teachers …

G: Teachers, that's it.

KJ: Just to give them that; sometimes it can't change the situation but it can just give them the understanding.

G: Understanding, that's it, that's more than anything.

KJ: I think really with J it doesn't help to punish what he has done but it helps to control the things that trigger his behaviour. Sometimes if schools can get hold of that, if they, you know, they generally mete out punishment as a way of controlling behaviour which for your average child works fairly well but for a kid with a brain injury, it doesn't necessarily work. It's about taking that dynamite out of the way.

G: Yes, definitely. I mean when you don't know nothing about it, you're sort of new to it, you know it's sort of, you know I've had to learn a lot though it all, you know. PP 6

KJ: Definitely. It's like a new world.

G: Yeah, it is a different world, it is different, we know. PP 2

K: I'm quite surprised how far he has got on. PP 3

G: I think he's done wonderful. PP 3

K: When we come here down last year, he was in the wheel chair and …

G: No so I mean he's done well. I think they all have. I think they're all shocked. I think the girls that first come from here to see him, I think they were shocked because they saw him at his worst. And they couldn't believe it. Because the first thing they said to me was, 'It will be the best thing at, G, at T (rehabilitation unit)', because they knew. Well, as you say, they work with it. And you know. And I thought great. But they couldn't believe in that short time that they seeing him and me bringing him down what happened. I said it must be them going in there to see him (laughs). He just, you know because, it's like the one day I went in there and AP 1



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the next day it was completely a different boy.

KJ: Really.

G: Yeah.

K: He was throwing things about and something. It looked like the clock just clicked. He don't do it anymore.

G: You'd go to see him, he wouldn't take nothing from you. He'd lash out all the time. He'd get up and go on the floor.

K: He'd have a he'd never go. OK, I shouldn't say it but he'd go round to the nurse and say, excuse the French, 'You fucking Pakis'. And next he said, 'Hullo Nurse, nice to see you!' AP 1

G: He was completely different. And to see that come out on him. I just couldn't believe it. I mean, yeah, it was lovely. Because they now realise what's ever happened to him. What these nurses know what they work with.

K: On day, a little Irish nurse. He used to hate her, aah, he used to really hate her and now they're the best of friends!

G: It turned great, yeah.

KJ: (pause) I've just got a questionnaire. It's like a rating scale. It's about J's interaction and conversation skills. So the options are either he never does something, sometimes, often always. So never, sometimes, often, always. And then if you think it doesn't actually apply to him or you don't' really know, that's fine too. So I'll just go through this, it is quite long, but anyway. And it's OK for you to disagree as well!

K: I'll just do what I'm told! (laughs)

G: Do as you're told! (laughs)

KJ: (laughs) Would you say that J makes and responds to greetings from other people?

K: Sometimes he does. Sometimes you know, some people, OK, Gail's brother, Charlie, he'd greet him and they'd both laugh. AD 3

G: Yeah, with his uncle.

K: Otherwise he won't (laughs). AD 18

G: Sometimes he's very, eh, very subdued about it. So he's a bit of both.

KJ: So we'd put that as a 'sometimes' or an 'often'?

K: Sometimes.

G: Yeah, I'd put it sometimes.

KJ: What about saying farewells and saying bye. Does he do that with people?

G: Yeah, he does sometimes.



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K: Yeah.

G: I would say sometimes.

KJ: Sometimes or often or?

K: G, you know about this one.

G: More sometimes than anything. 'Cos sometimes he'll just you know, he's in the back light or or so it is sometimes.

KJ: What about beginning or ending conversations? And that's face to face or on the telephone. Does he do that appropriately?

G: Oh yes, oh, he likes being on the telephone. Yes yes yes. When he's got something to ask, and he'll do it and he'll do it himself.

K: OK, we'll give you an example. A couple of weeks ago we went to a wedding. It was quite a nice wedding. And there these little champagne bottles full of bubbles. He's going round the tables collecting them and towards the end of the evening he's going around flogging them (laughs). PN 8

G: Yeah, he will, he will.

K: We just laughed. You ought to ask him about that. And it wasn't flogging to just to anybody, it was to the groom and the bestman. PN 7

G:And he didn't care either! 'Cos we all my sisters were all laughing 'cos that's not something he would never have done before. AD 1

KJ: OK, so that's something different.

K: (laughs)

G: So it's really different. So he's really coming out in that way. And he like talks on the phone and he has conversation to say. He's not frightened. He'll phone up. You know and he's telling them when it's his birthday so he's ringing them up and telling them, 'It's my birthday, and I want a fiver. I'm saving up for a Playstation'. AD 16 PN 7

KJ: So he's doing things quite openly?

G: Yeah, quite openly, whereas before he would *never*. We all had a joke about it. We can't believe it. Yeah. AD 1

KJ: So would you say he's starting those conversations always appropriately?

G: Yeah, I'd say always.

K: Yeah.

KJ: How about taking turns when he's maybe having a conversation or he's interacting with somebody.

K: He will wait for it to come round to him. AP 3

G: Yeah, he will wait. Yeah. He won't interrupt when someone's talking. He will get quite cross when someone interrupts with him. AP 8



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KJ: So would you say he's always doing that or often?

G: Quite often yeah, yeah

K: Yeah.

KJ: Ok, how about eye-contact. Do you think he gives good eye-contact and keeps…

K: …..??

G: I'd say sometimes.

KJ: How about appropriate topics of conversation? Does he bring up topics appropriately?

G: No.

K: No.

G: No, no.

K: When you start a conversation I think he'll try finishing it. AD 3

G: Yeah, he'll try, if you need to talk about something, he'd quite join in, but he won't be on the top of it all. AD 5

KJ: OK. So you'd say he never really does that, introducing topics appropriately

G: No.

KJ: So what about if you're just chatting to him, does he maintain the conversation by nodding or saying 'mm', just keeping it going.

K: No

G: Not really no. AD 3

KJ: So you're not quite sure if he's listening.

G: No. Sometimes he's just looking. Sometimes I've asked him something and he ain't took a blind bit of notice. So yeah. AD 3

KJ: And how about when you are having a discussion, will he make a relevant contribution or do you think he will carry on about something else?

G: Well if he thinks it's quite interesting, if it's what he want so know, yeah, he will. AD 18

K: Yeah. If he wants to know something, he'll keep to the topic. AD 18

KJ: So would you say it's often or sometimes that he makes a relevant contribution?

G: Sometimes.

KJ: And what about asking questions? Does he ask appropriate questions?



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341 K: Oh yes.

342 G: Yes.

343 KJ: Would you say he's always doing that?

344 G: Yes, always doing that. AP 3

345 KJ: What about repetitive information? Does he ask for the same information over
346 and over again?

347 G: Not as much as he has done but he has done it, so I'd say sometimes now. AP 1

348 KJ: Does he ask for clarification? If you are having a conversation and he doesn't
349 know what's going on, will he check up with you?

350 G: Yeah he does.

351 K: He does yeah.

352 G: If he doesn't quite understand, he's 'What do you mean?' He wants to know. AP 3

353 KJ: Would you say he always does that or often …

354 K: He always does that.

355 G: Always does that. He does that at school.

356 KJ: That's a real strength

357 G: Yeah, I say to him, 'If you don't know, you tell them you don't know and don't be PP 1
358 fr… 'cos that's what they pointed that out to him that's what he'd be frightened of. I said,
359 'Don't be frightened. You just got to keep on asking until you know.' PP 1

360 KJ: I think that's a really good strategy.

361 G: For him.

362 KJ: Yeah, we've certainly seen it here.

363 G: Yeah.

364 KJ: Do you think he adjusts his language according to the situation? So for example
365 if he's with somebody who has got lots of authority or with a child who is younger than
366 him, do you think he talks…

367 K: He'll adjust his voice. He'll put on a stern voice. If he wants you to do something, AD 3
368 he'll say, 'You will do it!'

369 G: Yeah.

370 K: He will ask ….? to do it for him.

371 KJ: Do you think he often is doing it?

372 K: Yeah, often doing it.



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373 KJ: Do you find he maybe speaks to older people as if they're his mates?

374 K: Yeah. AD 3

375 G: Yeah.

376 KJ: And what about lingo or slang? Does he use a lot of that?

377 K: Not really, no.

378 G: No.

379 KJ: So would you say he never really uses that or sometimes?

380 K: Never.

381 G: Rarely. Very rarely uses it.

382 KJ: What about telling or understanding jokes or stories that are relevant to the
383 situation?

384 K: He comes out with bits and pieces.

385 G: Yeah, some… yeah.

386 K: Sometimes he comes out with about himself, doesn't he?

387 G: Sometimes. As you say, no, sometimes he don't.

388 KJ: And what about showing appropriate sense of humour during conversation?

389 K: Sometimes, sometimes he's keen on a laugh. AD 18

390 G: It is sometimes.

391 KJ: Do you think his sense of humour has changed?

392 KR and G: Yes!

393 K: Yes!

394 G: Yes, yes, definitely. AD 1

395 KJ: How would you describe it before his injury?

396 K: Yeah, it was… he was a very quiet ...

397 G: He was very quiet. He was very laid back. AD 1

398 K: If you would laugh, he would laugh. But not ???

399 G: He wouldn't do it. Sometimes he wouldn't laugh. There are some things now he
400 wouldn't even have dreamt of laughing at and now he does. AD 1

401 K: He reckons these two are two two crazy dudes! (laughs)



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G: (laughs) Yeah. Because he was like that with my my with his cousin. He would never think like that to say but now he does. No. AD 1

KJ: OK, so that's quite a significant change.

G: Yeah.

KJ: What about if there is an ongoing conversation for example, just in the home, would you say he would leave or join the conversation appropriately or…?

K: Hmm.

G: Hmm, don't know, not too much, to be honest. Uhh. If it's something when we're talking about something if it's something that he's quite interested in, he'd be there. AD 18

K: Yeah.

G: If it's not, he would just go.

KJ: Yeah. So it's kind of sometimes…

G: … Yeah, sometimes. While I'm talking with somebody, he's not, you know, he would just go off. Yeah, he's not, unless it really includes him, he don't want to know. AD 18 Unless he hears his name mentioned, then he's

K: ??? He'd probably ??? (laughs)

KJ: That's right! No flies on him! What about interacting in a group activity which is structured, like playing a game with a load of kids?

K: He will play children play games and that, won't he?

G: Well, not with anyone, if we go anywhere, people he don't really know, he takes a bit of a while. AD 2

K: Yeah.

G: He will join in, once he's, what do you call, sus it out sort of thing.

K: Like he went to play the football yesterday.

G: Yeah, once he knew who was there, he was all right. But he susses it all out before he actually joins, you know. I mean, he won't sort of. Because we've gone to these holiday clubs. You know Cannons?

KJ: Yes.

G: And they do the children clubs and all that. Well he won't go to 'em now. Whereas before he used to go to them. AD 1

KJ: OK.

G: And you know because it's all, you've got to make new, you know. PP 5

K:I think a lot of it is the way he walks. He is conscious. He has come out and said things like, 'So, I'm different, all yous lot is the same! I'm the best one' (laughs). Like, you know! PP 5 AN 4



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G: Yeah.

K: He's conscious of it. He's conscious he's got a scar on his leg. AN 4

G: Yeah, you know. So I think it's relating back a bit. So he don't go out and make or do it.

KJ: So maybe a bit self conscious?

G: But I've gone there and helped him and once he's sussed it out he'd be all right, I think, but it's get in there. PP 1

KJ: So would you say he would sometimes joins in the conversation?

G: Yeah, sometimes.

KJ: Maybe with a little help?

G: Yeah.

KJ: What about if it's maybe just a group of kids down the park, like in an unstructured football game or something?

K: No, he won't go join in, no. AD 2

G: No he won't.

KJ: And things like phones, or maybe leaving a message on an answer machine, or email? Does he use that type of communication?

K: He uses.

G: He uses it if anyone's left a… He'd leave a message like on his grandma's phone and that. He misses, he'd leave a message for them. AP 3

K: Yeah.

G: He don't he won't. He hasn't taken on the email bit. He can't seem to structure that.

K: Yeah.

G: I think once he's gained a bit but he can't seem to get the hang of it.

KJ: Yeah.

G: But yeah.

KJ: So would you say it's sometimes he using it but sometimes not. How about if he is introduced to somebody or he has to introduce you to a friend? Does he do that appropriately?

G: No. AD 3

K: No.



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469 KJ: And how about if he wants to get some attention.

470 G: Oh.

471 KJ: Does he use good strategies for that?

472 G: I think so yes, he'd let you know!

473 K: (mimics voice)

474 G: It's like, this is another thing. So it's like going back from the beginning. He gets
475 quite irritated and starts you know. He gets, you know like little children would get your AD 8
476 attention and that's how he. He would go about slamming doors or whatever, whereas AD 1
477 before he wouldn't do that.

478 KJ: So you would say it's not really appropriate ways of getting your attention?

479 G: No, no.

480 KJ: So would you say he always does that or is it just sometimes.

481 G: Just sometimes; it's not all the time.

482 KJ: OK. And how about if somebody interrupts him, or if he needs to interrupt you to
483 maybe get your attention? Do you think he uses good strategies to do that?

484 G: Sometimes.

485 K: Yeah (laughs).

486 KJ: (laughs). OK. So maybe, 'Excuse me, sorry to interrupt'.

487 G: Yeah, yeah, sometimes, or sometimes he might forget and he interrupts you in
488 the wrong way. Yeah. So he does forget. AD 3

489 KJ: Yeah. Um, things like giving directions or asking for directions, do you think he
490 uses appropriate language for that?

491 K: Oh, I ask him, 'Show me the way here, show me the way there'.

492 KJ: OK.

493 G: Yeah.

494 K: Like from the flat here. You show me the way, he shows the way.

495 G: He shows you, he does.

496 KJ: So is it more rather showing than telling?

497 G: Yeah, it's more show you than actually telling you. Because he can't. He always
498 forgets. He can't actually… AD 3

499 K: He gets mixed up with his left and his right.

500 G: And his right. And he gets. Yeah, because he tells you to go right, you go right,



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501 but you have to go left.

502 KJ: So you say maybe sometimes he is able to do this?

503 G: Yeah, sometimes.

504 K: He used to be pretty good about it. AD 1

505 G: He did.

506 KJ: OK, OK. And what about asking about the time of events? Does he …

507 K: He does ask for the times. AP 3

508 G: Yeah, yeah.

509 KJ: You'd say he often does or always?

510 K: Quite often does that.

511 G: Quite often does that.

512 KJ: And how about maybe giving reasons or asking for reasons for things?

513 K: Yes. Giving reasons he does. It's 6 o'clock, the Simpsons are on, yeah, (laughs)
514 or the Night Rider on. AP 3

515 G: Yeah, yeah.

516 KJ: So you think it's that often or always?

517 K: It's quite often that is.

518 G: Quite often that is.

519 KJ: And how about asking for help from others, does he do that appropriately?

520 K: No, no. He tries. AD 3

521 G: He does try. AP 6

522 K: He does try and do it. He's got to be well and truly struck before he asks for help.

523 G: Yeah, you know. He does try.

524 KJ: Would you say he's sometimes or often asking for help appropriately?

525 G: I'd say sometimes.

526 K: Yeah.

527 KJ: How about offering to give help? Does he do that?

528 K: Oh yes!

529 G: He does try help you. He does. It's quite often that it. Even though he can't AP 6
530 always do it, but he does try to. AP 3



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K: Yeah, I say to him. Say we're going up to Scotland, you've got to check the car over. He will go out with me and check the oil and water and help me do all that. He'll help me do all that.

G: He likes to be, he likes keeping involved. PP 1

K: He's like, what can he do sort of thing.

G: And it's helped it kept him going.

KJ: Sure. He was very sweet this morning when we went to the shops as well. Because we were carrying some bags. He offered to carry the bags and we said, 'That's OK, we've got a bit of a way to walk.' He went, 'That's fine!' And he carried the bag.

G: Yeah, he does that.

KJ: Very thoughtful.

G: He is. I thought about how he was getting on. Because he likes going shopping. You know we go shopping but part of the way we're out. Once I've done my shopping, I have to go, he's finished. He doesn't want to look round the shops.

K: I should have gone to McDonalds anyway.

G: But I mean he's quite happy about going around the shops and getting like that and he thinks he's helping you.

K: He goes round with his brother, won't he?

G: Yeah.

K: He won't. Not me and G, he won't so much go around with us, but he'll go around with James.

G: He likes walking around the games shops.

KJ: He was telling me about that.

G: Yeah, the games shops he likes going around. And that's it.

KJ: How about if you give him some advice or suggestions. Does he respond appropriately?

G: Sometimes. Sometimes he does.

K: Sometimes. You might say to him, 'Why don't you do it this way?' And he'd and he'd fly around and say, 'No, I'm doing it my way!' (laughs) AD 8

G: Yeah, sometimes.

KJ: How about asking others for permission. If he needs to ask for permission?

G: Yeah, he does.

K: He will. AP 3



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564 G: He will ask. Sometimes he is a bit (hmmf), and who he's asking. If it's …

565 K: If he doesn't ask dad, he'll ask mum. If one of them doesn't say yes! (laughs)

566 G: But he's very (hmmf) who he asks though, isn't he? But that's that's learning at AD 3
567 school. He got scared about asking, you know, this teacher or that teacher. I mean he AD 9
568 was all right with one teacher, because he got quite close. I said, 'They're not going to
569 bite your head off or anything, J, you just have to ask'. You know, so he does PP 1
570 sometimes.

571 KJ: So you say he's sometimes asking for permission then?

572 G: Yeah, yeah, otherwise he'll wait and get it all wrong or something. Yeah, yeah.

573 KJ: How about agreeing and disagreeing. Do you think he use appropriate language
574 to do so?

575 K: If he disagrees with you, he will let you know!

576 G: Yes, he'll let you know.

577 K: Rather strongly.

578 G: Yeah.

579 KJ: Do you think he does that in an appropriate kind of way?

580 K: No! AD 3

581 G: No. Not always, no.

582 KJ: Would you say he never does it in an appropriate way or just maybe sometimes?

583 G: Sometimes.

584 K: Sometimes in an appropriate way.

585 G: Yeah, yeah, 'cos he, that's where he forgets himself.

586 KJ: OK. And if a situation is unclear, would you say he asks for clarification if he is
587 confused?

588 G: Hmm.

589 K: If he's not too sure what he's doing, he will ask. AP 3

590 G: Yeah. I think he will ask.

591 K: Sometimes he will.

592 G: Yeah, I would say sometimes.

593 KJ: How about invitations? If someone has invited him somewhere, would you say
594 he'd accept it or reject it, you know, appropriately?

595 G: Oh yeah.



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596 K: If someone has asked him, he will accept it.

597 G: Yeah, accept it. Accept it appropriately. AP 3

598 KJ: Would you say often or sometimes?

599 G: I would say often.

600 K: Yeah.

601 KJ: How about if you have a bit of a negotiation going on. Do you think he will he will
602 maybe start making a deal with you or respond to you making a deal with him
603 appropriately?

604 K: Oh, we've got a bit of wheeling and dealing sometimes! (laughs)

605 KJ: (laughs) OK.

606 G: Yeah, yeah.

607 KJ: Do you think he will respond to that sort of thing appropriately?

608 G: Yeah, he does constantly. AP 3

609 K: He does.

610 G: He does.

611 KJ: Would you say he always responds appropriately?

612 G: Yes.

613 K: Yes.

614 KJ: And what about if you're giving him a reminder or if he has to remind you about
615 something? Does he do that appropriately?

616 G: Oh yes, he does!

617 K: He does! Rather strongly! AD 3

618 G: He does.

619 K: G owes him £3. Doesn't it?

620 G: Yeah, I owe him £3.

621 K: And he won't let her forget. AD 4

622 G: No.

623 KJ: OK.

624 G: And he's told me! (laughs)

625 KJ: Right. So do you feel sometimes that it actually becomes… he doesn't realise
626 that it's it's not appropriate to keep on reminding Mum.



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627 K: That's it, yeah.

628 G: Yeah.

629 KJ: So you say it's quite often?

630 K: Yeah.

631 G: Yeah, quite often.

632 K: But sometimes you've got to remind him several times.

633 G: Yeah, yeah.

634 KJ: And how does he respond if you remind him a few times?

635 G: He's quite happy about it.

636 K: He's quite happy about it.

637 G: Yeah, he's quite good, yeah, he accepts it.

638 K: Not like me. G keeps reminding me, I say, 'You're like a bloody gramophone
639 record!' (laughs)

640 G: No, he's quite good about it. Yeah.

641 KJ: And how about, um, if maybe he wants to ask somebody to change what
642 they're doing, maybe somebody is irritating him but maybe tapping their feet or
643 something. Do you think he would do that appropriately or?

644 G: No, he would get quite cross.

645 K: Yes, he would get quite cross. He will get quite stern. AD 8

646 G: Yeah, very stern. If someone's annoying him, he's …

647 K: He will he will let them know.

648 G: Yes, he does let them know. Whereas before it wouldn't bother him before. AD 1

649 KJ: Do you think he would then he would always kind of lose it when he's telling
650 somebody or often lose it?

651 G: Let's say sometimes.

652 K: Yeah.

653 KJ: Sometimes. OK. And how about apologising and accepting apologies? Do you
654 think he does that appropriately?

655 K: He will accept an apology but he won't give them very often, does he? AD 3

656 G: Well, it takes a while. He does do it. But he's got to find, he's got to know the AD 11
657 reason why. You have to give him all the details.



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KJ: OK.

K: At home if he's lost his temper with me, I will not speak to him until he come and apologise to me. AD 8

G: And once he knows what he's done, he does it. But he has to know why he has given an apology. He can't you know. Once you have talked to him and tell him, and it gradually cooks in wine, and he does it. It takes a while. PP 2

K: Once he's given an apology, that's OK, but it's not, (laughs) you know what I'm saying.

KJ: Yeah, you push it.

G: Yeah.

KJ: Do you think he always does that or only sometimes?

G: No, only sometimes.

KJ: And what about if you ask him to change something that he's doing? Do you think he would respond appropriately?

G: Ooh.

K: No. AD3

G: He don't always like changing what he's doing.

K: If he's doing something, he thinks he's doing it in the right way. And that is it. AD 11

G: Yeah, that's it. And you can't, you know, change him.

KJ: So would you say he never responds appropriately in that situation. Or maybe only sometimes?

G: Sometimes. I would say sometimes. I wouldn't say never, but sometimes.

KJ: Yeah. And what about responding to teasing or maybe to failure?

K: He don't like people teasing him.

G: No he don't like people teasing him. That's one thing he don't like.

KJ: No.

G: He don't do it to them, so he doesn't think anyone should tease him. Unless it's a game. They know when it's a game. But when it's like, someone comes in and teases, he doesn't, he can't cope with being teased. AD 9

KJ: Yeah, yeah. That's actually something that's come up a few times when we've been chatting.

G: Has it?

KJ: Yeah. He's said, 'I don't like people calling me names.'



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G: No no, he don't, he doesn't. Because I have, he's always learned not to do it and I think that's still stuck with him actually. That's one of the things he doesn't. You know. PP2
That's another issue. He get he got called a lot of names when he was first gone back there. That's one of the things he could not handle. That did not help him because that AD 8
really did, like you said, that's when he did lash out more. Because he was doing that of PP 5
course it would make him more do it.

KJ: Yeah.

G: Yeah.

KJ: It does fuel it.

G: Yeah. That's right. Because I've always tried to show that he's not diff… this is AN 4
the argument, 'Why am I different to some to everybody else?' I was saying, I was trying AN 5
to get him so he don't, make everything look the same even though he is a different person inside him. He can do try to do everything someone else is doing. It's like the cooking at school. 'Why can I not do cooking at school?' When everyone else is doing it. They turn around and say he can't do cooking. I can't see why he can't be in the kitchen PD 4
doing it. You know.

KJ: Yeah. That's really tricky.

G: Yeah. It is a tricky. You know.

KJ: Because he might just need a little extra support from an adult, but it still shouldn't stop him from doing it.

G: Yeah. He just needs it. He shouldn't do it. So of course he thinks he's diff. So it don't help me. It don't help him either. You feel for him, you know. PP 2

KJ: Yeah. Hmm. That's tough, huh.

G: Yeah.

KJ: Do you think he's able to sometimes maybe appropriately respond to that or do you think he's never really got the reserve to deal with it.

G: Sometimes. Sometimes.

K: Hmm.

G: I'd say sometimes. Because he does try to deal with it. More so now than at the AP 1
beginning, he couldn't. But I'd say sometimes now he does try to deal with it. Because AP 6
he don't like coming home to tell me now.

KJ: Sure.

K: No.

G: So I don't, I always have to ask him.

K: Yeah. I think sometimes he'll tell his sister though.

G: Yeah, he'll tell J (sister)

K: I think he'll tell J (sister).



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728 G: He'll tell J more than he'd tell me. Because I didn't know like one day even AD 24
729 one he was upset at school and I never knew.

730 K: He'd tell J.

731 G: He'd told his sister.

732 K: And J (sister) will tell us.

733 G: And she told me, Mum, you know.

734 KJ: So there's effective communication!

735 G: Yeah, yeah, because I hate to think, you know, he was upset and crying at PN 2
736 school. It's a been a real hard tricky thing. Because teachers don't know. They haven't AD 9
737 experienced any of it. PD 4

738 KJ: Hmm, hmm.

739 G: And then they'll be told. And of course. You know. And I don't want them to be
740 treating him different to everyone else. But something's happened to his brain, you know
741 he can't. PP 2

742 K: …..

743 G: Yeah, you know. And then they try to say to him. You know.

744 K: A lot of …..

745 G: And someone of them, you know, will tell him something. And he can't which and PD 4
746 they ask him and it and they say, 'Oo, you've been told', and he can't. So it's things like PP 2
747 that that he can't, he can't take that on. But he didn't tell me, see, he knows. Then he AD 24
748 thinks they've had so much he didn't want to worry mum.

749 KJ: Yeah.

750 G: That's another thing he's learned now. He don't think, you've, we've... you know.
751 So it's quite hard. But yeah.

752 K: Another thing is if you say, 'Go and do that', he won't he won't do it. But if you
753 ask him to do it, he will do… PP 1

754 G: Oh God, yeah.

755 K: Yeah.

756 G: He'll do it like a shot.

757 K: If he thinks he's making out, doing you a favour, he will do it (laughs).

758 G: And he wasn't like that before. AD 1

759 K: No.

760 G: That's the thing. Yeah.



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761 K: You see what I'm saying.

762 KJ: Yeah.

763 K: You turn and say to him, 'J, you got to wash up.' He'll tell you to get (pause)
764 lost.

765 KJ: Yeah.

766 K: 'J, do us a favour, can you clean them dishes for us?' He will do it!

767 KJ: So you've really leaned how to…

768 G: Yeah. Yeah. You've got go around in circles. Whereas before you didn't have to AD 1
769 do that. You know, he'd do things without even before you know he knew what he had to
770 do or do it all the time.

771 KJ: Hmm.

772 K: Yeah. G's got an aunty down in S (town). She's a, she's eighty ooo, she's PN 8
773 going a bit…. doolally. You know, have a little dig at her. We say, 'Well we going to see
774 F, you coming?' 'Oh, ain't going down to see that crazy woman!' But you say, 'You
775 know what, F wants to see you. Can you come down with us?' 'Oh yeah!' He'd really
776 like.

777 G: Yeah.

778 K: He's really excited! (laughs)

779 KJ: So you've really learned how to turn it into requests! (laughs)

780 G: Yeah.

781 K: Yeah. (laughs) Quite funny!

782 KJ: And how about, um, responding or giving just, you know, signs of affection
783 appropriately?

784 K: 'Oh, can I give you a cuddle?'

785 G: Oh, all the time.

786 K: All the time, yeah!

787 G: Very, very affectionately.

788 KJ: So would you say he's always doing it or often doing it?

789 G: Yeah. Oh always.

790 K: He done it sometimes to get around you. PP 5

791 G: No, he's always doing it.

792 K: Yeah.

793 G: He knows.



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K: Oh yeah.

KJ: Would you say it's appropriate that he's doing it always? Or is it, sometimes you think, 'Aw, I wouldn't expect my 11 year old boy to be doing that?

G: No.

K: He won't he won't do it in front of, but together, in the house he'd do it. He won't do it if you go out anywhere. He'd do it at home. AP 8

G: He likes. But he likes to know that you're, yeah.

KJ: Yeah.

G: He's very affectionate. And he's quite caring. And he loves you giving him cuddles. He loves it. You know. I mean he can come out to school and he give me a hug. And all the kids are there. He doesn't. You'd think he'd been away a long time. He's there, he's quite. PN 7

K: A little boy really.

G: Yeah and he will always be. And that's something that has stuck with him even since with his accident. Because he's always wanted a a cuddle.

KJ: Yeah, yeah, reassuring.

G: Yeah, he's always wanted to be reassured, J. So. That's one of the things I've noticed more than anything. Because he's sort of.

K: He'd go, 'Ah, Daddy!'

G: Yeah, yeah, he was. He's more one for the cuddle. More than any one, the three of them. He's the one out of the three.

KJ: Right, we're onto the home straight! (laughs). How about, would you say he's able to interpret your facial expressions?

K: Yes, yes.

KJ: Would you say he's always able to do that?

K: You know when you're upset about something.

G: Hmm. Yeah, he knows.

K: Right, OK, we had a bit of bad news today. He knew first.

G: Yeah, and he knew. He said, 'What's the matter, Mum?' He knew. PN 8

K: One of G's…

G: It's my nephew, his wife.

K: She's…

G: ... had breast cancer.



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K: And has spent…

G: She's took a bout for the worse.

K: She's literally on borrowed time now.

G: Now.

KJ: That's sad.

G: Sad isn't it. I mean she's had chemo, she's had the lot. She got through the one lot. And we thought she's picked up again. She's just got better, just got the all clear and it all triggered back again. We thought she'd actually got through it but apparently she took a turn for the worse on Thursday. It's just gone rapidly quick.

K: And she knew it was, he knew by the expression on Gail's face. AP 2

G:[He knew by the expression on my face that something's wrong.

K: Yeah, yeah. Something wrong.

KJ: Would you say that's pretty much always?

G: Yeah, yeah. That is always the case with him.

KJ: And your body language as well, if you…

K: Yeah, yeah.

G: Yeah, yeah.

KJ: He knows?

G: He knows.

KJ: Would you say that's pretty much it's often or pretty much always?

G: I'd say often, that's quite often. AP 2

KJ: And what about you tone of voice? If you just change your tone of voice, does he pick up on that?

G: Yeah, yeah. AP 2

K: Gail always calls him…

G: …. I don't call him J, I call him J (long version).

K: J. Yeah (laughs).

G: And he knows.

KJ: Yeah. What I saying is if he's saying, 'I'm wanting to go buy a video game', or whatever, and you say, (sigh) 'Oh, I was really, really hoping to go to the shops *later*', or whatever would he pick up that you were tired or…



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858 K: We'd negotiate. PP 1

859 G: Yeah, we have to negotiate. We'd sort of negotiate. We'd say, 'Right, we do that
860 later' or, 'We're doing so and so first' or you know.

861 KJ:So he picks up on the message maybe through your tone of voice, or does he
862 need a lot of explanation as well?

863 G: Explanation why we've got to change the plan.

864 KJ: OK, OK.

865 G: Or why we go another day like. We'd say, like.

866 KJ: Yeah. OK. What about from him. Do you think he uses appropriate facial kind
867 of cues and…

868 G: Yes, he does.

869 K: He does. Yeah, yeah.

870 KJ: Do you think it's appropriate always as well or sometimes or often ….

871 G: Sometimes. Yeah.

872 K: Oh, I'd … always…. say when he's angry he will point, you will see.

873 G: Yeah, he'll let you know. He does let you know. Yeah, you know when …

874 KJ: K, so would you say that's always or often the case?

875 G: I'd say often. AP 10

876 K: Often.

877 KJ: And the same with his body language?

878 K: Yeah.

879 G: Yeah. AP 10

880 KJ: Yeah?

881 K: ?? he does that ???

882 KJ: And how about his tone of voice?

883 K: Yeah, his tone of voice as well. You can tell by the tone of his voice. AP 10

884 G: Yeah, it changes. He just…. It changes, aw, you just know you know, stay clear!
(laughs)

885 KJ: OK. And just kind of, if he has he's not telling you with words, is he able to
886 express things, you know, non-verbally as such?

887 G: No.



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888 K: No. AD 3

889 KJ: Would you say….

890 G: Not very often.

891 K: No.

892 G: I'd say sometimes.

893 KJ: OK. What about the distance he has, say he stands from you. Do you think
894 that's appropriate or with other people? Does he get into other people's space with
895 them maybe getting uncomfortable?

896 G: No.

897 K: No.

898 KJ: Or does he maintain….

899 G: He maintains.

900 KJ: So would you say that's always the case.

901 G: I'd say that's always. AP 10

902 KJ: OK. And do you think what he's saying and what his body is saying match up?

903 G: Not always.

904 KJ: Not always, OK.

905 K: No.

906 G: No. What he's saying and what his body is saying (laughing)…

907 KJ: Yeah.

908 G:… is sort of different. AD 3

909 KJ: Different things.

910 G: Is different things.

911 KJ: Would you say that's often the case that or…

912 K: Occasionally.

913 G: Occasionally. Sometimes.

914 KJ: Sometimes. OK. Do you think, you were saying just now about him picking up
915 on your facial expressions, you know, and say he had other things, um, maybe
916 non-verbal, gestures or body language …

917 K: Oh yes, he knows how to make gestures.

918 KJ: Does he pick up on that?



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| | | |
|---|---|---|
| 919 | K: He does. (laughs) | |
| 920 | KJ: You say he's always picking up on that or often? | |
| 921 | K: Yeah. | |
| 922 | G: I would say nearly always. | AP 3 |
| 923 | K: Nearly always. Yeah. He's taught us a few as well (laughs). | |
| 924<br>925<br>926<br>927 | KJ:Oh, OK! (laughs). And what about like reading a social situation. So say for example he goes into a room and everyone's very quiet because somebody's talking, do you think he would read that situation as 'Ooh, this is a place I have to come in and sit down and…' | |
| 928 | K: Yeah, he will, he will. He will sit down and be quiet. | |
| 929<br>930 | G: Yeah, because he goes to a library every morning at school and he sits in there quietly. | |
| 931<br>932 | KJ: Uh huh. OK. So he kind of reads what everyone else is doing and is able to take…. | |
| 933<br>934<br>935 | G:… yeah, yeah. They're all out playing on the ground and he'll sit there and he don't actually really read but he'll look at a book. He won't actually read when the lessons unless you sit in with him. | |
| 936 | KJ: OK. | |
| 937<br>938 | G: Which never used to be. That's one of the things we encourage him to go to the library. To try and see if he'll get into it. | AD 1<br>AD 23 |
| 939 | KJ: Yeah. Sure. | |
| 940 | G: Hmm. | |
| 941<br>942<br>943 | KJ: What about rules. Do you think he understands rules that have been told to him and also maybe rules like unwritten rules, like you don't go and jump on your head teacher's lap? Do you think he understands those types of rules? | |
| 944 | G: I think sometimes. Sometimes he finds it hard to get to grips with it. | AD 6 |
| 945 | KJ: Sure. | |
| 946<br>947 | G: But sometimes he understands it,<br>sometimes he can't quite understand it. | AD 18<br>AD 5 |
| 948 | K: He don't understand why. Why the rules are there. | |
| 949<br>950 | G: Before, that never bothered him. You see, like when he first went to school he couldn't understand why there was rules there. | AD 1 |
| 951 | KJ: Ah, right. | |
| 952<br>953 | G: He couldn't understand. Why we got rules. We had rules. But he couldn't understand why. And they're all, why everyone's got different rules. | AD 5 |



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954 K: Yeah.

955 G: That's something he couldn't understand.

956 KJ: OK, right, you'll be happy to know that's the end of my questions!



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## Appendix GG

**PARENT INTERVIEW: LEO**

**J: Mother KJ: Interviewer**

KJ: How would you describe L's personality?

J: As opposed to what? To the way it was before or just how he is?

KJ: No, just how he is now.

J: Um, he's quite friendly. Confident. Most of the time. AD 18

KJ: Yeah , sure

J: Uh, independent.

KJ: Hmm.

J: (pause) Determined (laughs). He's a young man.

KJ: And compared to before the injury, would you say there any major changes?

J: Well, yeah, I mean, I say confident most of the time because before he was confident *all* AD 1
of the time before, whereas now he does have some insecurities. He would check, does it,
what do you think and you know.

KJ: Sure.

J: O sometimes he's not so sure of himself, whereas before he was always sure of
himself. He was always sure which top he could wear with what bottoms, and which
shoes, and you couldn't tell him anything different because he would *know* what looks
good whereas now he will always double-check.

KJ: OK.

J: Or he would take my word for it; if I said, 'That looks stupid, you can't wear it, 'Tsk' but
he would change because he knows maybe he's not right. AD 1

KJ: Yeah (laughs).

J: Whereas before he would go, "I'm right, you're wrong, I don't care. This is what I want
to be wearing and I'm wearing it.' (laughs). And his speech. Is an issue.

KJ: When I was talking to him now he said to me that the speech thing is 'really getting
me down'. Certainly when he left here last year it was an issue for him but walking was
his main issue, wasn't it, that was really what he was focussing on. But now that he has
achieved that you can see … actually it was interesting because told me about your visit to
Portsmouth.

J: OK

KJ: And he said um, that he met up with that girl…

J: Cassie.



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KJ: Yeah, and he said her voice is just on one level; then he said, 'Do I speak like that?' And I said, 'Actually, no L, you don't, you do use your tone of voice. And he went, 'Oh, good'. But I thought it was really interesting because he was really looking for that feedback, like, 'Oh, actually I'm not that sure'. So I thought, 'Yeah', I thought, 'Wow'.

J: Yeah, because her voice is clearer that his but she does, she 'sounds like that all the…' And she's got that that sound when people suddenly turn around, she's got that sound and she's quite loud with it.

KJ: Right.

J: So although her voice is clearer than L's, she's had that sound which she's always had.

KJ: Yeah, OK. So yeah he certainly noticed the difference and was asking for some feedback, so I said 'No, no you don't sound like that', I said it's more issues, you know, is that it sometimes is slower and it is that ….

J: Yeah, that's what he has. She's faster, normal speed and he's quite slow. AD 1

KJ: And how would you describe his conversation skills?

J: Um, I mean he's getting there, he's getting there. AP 1

KJ: Yeah.

J: I mean sometimes he says things which you know I don't think is appropriate. But AD 3
then obviously sometimes maybe I'm getting it I'm getting it wrong because of what PN 5
young people talk about with each other, it is something maybe I wouldn't have
been listening to before. I would have let him got on with it whereas now I try to PP 5
listen to his conversations and say, 'You can't say this, you can't say that'. PN 6

KJ: Yeah.

J: We went to a party and he said something to this friend and I just thought, well you PN 8
can't say something like that, and the friend was quite upset, well I thought he
was upset. And I told J and he said 'Nah, that's all right. That's the sort of things we'd
normally say.'

KJ: OK, yeah.

J: When I told L, 'You can't say that,' he was really upset. L said, "Well, I'd go back up AD 9
there and tell him. I said, 'No, don't do that! Because it will look like I've spoken to you! AD 6
Just leave it!' (laughs)

KJ: (Laughs). It's a really tricky balance, huh. Yeah, yeah. It's that knowing, as you say, it's almost like there's nothing inappropriate to say, just inappropriate times or inappropriate places or inappropriate people.

J: Hmm, yeah, but some of it's learned to me because I don't know. Whereas it would be PN 5
really rude to me to say, 'Your boyfriend is really ugly!' That's normal for them! PD 3 PP 5
(laughs)

KJ: That's normal!

J: Do you know what I mean! (laughs)



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KJ: Like water off a duck's back. (laughs)

J: That's normal! Because… but if I suddenly say that, which is what I've heard him say, I say, 'You can't say that!', but J says it to his friends all the time (laughs). PN 5 PD 3

KJ: So it's normal?

J: So he's obviously normal! (laughs) PN 9

KJ: To think, you know, what is inappropriate for one set of people is not inappropriate for another. And it's about that judgement of when to say it. So if he's saying it just to his mates, that's fine but if he starts saying it to your friends, for example, then that then that becomes an issue.

J: Well, that's it and I said that to him and he said, 'Well, I'm not stupid!' (laughs). So he obviously does know when he can say these things.

KJ: OK, OK (laughs).

J: You know, but then that's something you'll say to, yeah, a young person but to a friend but you'd say it to your friend and what worries me is you say to a young person but they're not your friend. Did you see how he's just said to um… AD 6

KJ: That's right, to I can't remember her name, was it C?

J: No, whatever her name is, he said that, 'Your baby is really ugly, really really ugly.' He's going to say afterwards to S, he's going to say after because I know, I know that he's joking. AD 3

KJ: Hmmm.

J: But things like that, I'll be like 'oo' and I guess because they're friends and they used to have a relationship which obviously I didn't which I wasn't you know privy to, but so they used to talk on the phone and stuff like that. So I guess she, that's OK. PD 3 PP 5

KJ: Hmm.

J: Whereas I wouldn't, I would think, 'Uhh!'

KJ: Yeah, because it's skating a fine, a thin edge, isn't it.

J: Yeah, and some things she would find very normal and I would think were shocking but his brother would say, 'No leave him, that's all right!' (laughs). So there's a generation thingy as well because there're things I wouldn't find acceptable, but they do. PN 5 PN 2

KJ: And how are his conversation skills different from before?

J: Hmm. Um you see, different, yeah. More confident before, really. But he was younger, so my expectations were different too.

KJ: And how would you describe his ability to make and keep friends?

J: I mean that's where we're struggling a little bit.

KJ: Uh huh. Different from before his injury?



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J: Yeah, yeah. But then you know I think he's at that age anyway where he's 16. PD 3
Because before his accident he had tons of friends, but then when you're that age you do, PP5
you have tons of friends. But now they're 16 all his friends are in little groups. And that's PN 9
anyway, I said, 'That L, do you know that's happened anyway. They're not all still
friends without you. They're all not friends with each other. Some of the girls who were
bosom buddies, did everything together, their telephone numbers were one digit apart,
they don't see each other at all anymore. And the two friends he used to hang out, they
don't see each other anymore. So L kind of feels like he is left out.

KJ: OK.

J: And that's why I sort of arranged this party so he could get his friends together. PP 1

KJ: Yeah.

J: I try to do things like that in the summer, inviting just a few of his select friends to PP 1
different places in London, just to different places.

KJ: Just to facilitate that. Yeah, OK. Because he said, I was asking him how is it
going making friends and he said, 'I don't need to make friends actually, I've got
enough.' And I said, 'And keeping them?' and he said, 'Yeah, sometimes we fall out,
sometimes'. He was thinking about it. And he said out of the girls he had lost some of
his friends but there were the two he felt were still were pretty much consistent. As you
say sixteen it is a it's a transition time, isn't it.

J: Yeah, and some of the girls were a bit older and they've got boyfriends now.

KJ: Yeah, so there are lots of other factors as well.

J: And sixteen year old girls are not interested in sixteen year old boys; they want PN 9
18 year old boys. So that's going to be, you know. The fact that most of his friends PN 5
were girls, then he's onto a loser straight away because they're obviously looking for PD 3
older boys to be their friends and boyfriends. PP 5

KJ: Yeah, yeah. What I've got here are just a few questions. If you just think of,
basically rate it as he never does it, sometimes does it, often or always does it. If you
don't' know or it's something you've never observed, that's fine as well. You can just say
it does not apply.

J: OK.

KJ: Just thinking about conversation skills, would you say that he makes and
responds to greetings from others?

J: Hmm.

KJ: Yip.

J: Always. AP 3

KJ: Always. Yeah, he's really comfortable, isn't he, in that kind of situation.

J: Hmm.

KJ: And how about beginning and ending conversations? Say face to face or on the
telephone, do you think he does that appropriately?



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J: Well he says, yeah, I think so. I mean when he's talking to friends I mean sometimes I worry when he ends the conversation, 'Yeah, cool!', when the friend's not there. And I say, 'Was that his mother?' and he'll say, 'Yeah, no actually it was his *dad*!' AP 11
But it was obviously a brother or little sister. AP 8

KJ: OK. Ok, so where would you put that?

J: What?

KJ: Begins and ends conversations always appropriately?

J: Yeah, he says hi and bye. AP 3

KJ: Yeah, sure. How about turn-taking in interactions? Do you think he does that?

J: Sometimes, not not all the time. Sometimes he wants to …? listening. AD 18

KJ: How about maintaining eye-contact? And is just his body posture appropriate for you know a 16 year old boy? Would you say that he is able…

J: (nods) hmm.

KJ: Yeah.

J: Uh, sometimes.

KJ: And about introducing appropriate topics of conversation?

J: Um, yeah, most of the time.

KJ: Yeah? Would you say often or always?

J: Yeah, often. AP 3

KJ: Yeah. And if he is talking to you, do you think he maintains the conversation by nodding or saying, 'Yeah', or 'Hmm'?

J: He does that, yeah, sometimes.

KJ: Sometimes. What about relevant contributions to a conversation, if you are talking. Would you say he is always making relevant contributions or is it often…?

J: Sometimes.

KJ: And does he ask appropriate questions during a conversation?

J: Yeah, sometimes.

KJ: Uh huh.

J: Hmm.

KJ: Would you say sometimes or often or…?

J: I would say sometimes because a lot of the time he would rather listen or interject but he is not going to ask you a question.



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KJ: OK. Would you say he avoids using repetitive information?

J: He doesn't repeat himself. AP 3

KJ: OK.

J: So…

KJ: So you would say that's not an issue.

J: No.

KJ: And if he's not sure about something, do you think he will ask for clarification during a conversation?

J: Yeah, he always says, 'Can you say what you mean' or 'I don't' understand what you're talking about'. AP 3

KJ: Yeah, he was very strong on that when I asked him. He said, 'Yeah, I *always* ask them'.

J: Yeah, no he does.

KJ: And what do you think about him modifying or adjust his language according to the situation, so for example to parents or to a child?

J: Yeah, he is able to. He's very good like that. AP 8

KJ: Yeah, so would you say that's pretty much always?

J: Hmm.

KJ: This is one for L, does he use slang or the language of his peer group appropriately?

J: Yeah, he tends to do that.

KJ: Yeah.

J: Yeah and that's why I said when he was on the phone, I think, 'Uh' and it's obvious his friend wasn't there and he was talking to somebody else and he was talking like that and I'm thinking 'Oh my God!' You're talking to his mother?' and he says, 'No, his dad!' (laughs). AP 11

KJ: (laughs). So would you say that that's pretty much always?

J: Yeah.

KJ: OK. And telling and understanding jokes appropriate to the situation?

J: Sometimes he doesn't get the joke, he doesn't tell jokes. He can never remember them. AD 5

KJ: OK.

J: He's like me, he can't remember them. PN 9



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KJ: Hmm.

J: Mind you he does tell a few.

KJ: Uh huh.

J: And they're quite appropriate. They're little children's jokes and what have you and you have to think about them. And little riddles. He'll say, he does those sort of things.

KJ: OK. Where would you put him on that?

J: Sometimes.

KJ: Do you think he shows appropriate humour though, if other people in a conversation are making jokes?

J: I think so, yeah.

KJ: Sorry, I have to get the number.

J: I'd say often.

KJ: And how about joining or leaving a conversation. Do you feel he has the social skills to do that?

J: Uh, if he's leaving a conversation… no, maybe not, I mean if he's, it depends. I'm trying to think of a situation. Normally if it's his brother's friends, he'd just get up and say, 'Yeah, that's it, I'm out', or what have you. But then… AD 18

KJ: Yeah, which is appropriate.

J: Which maybe that's appropriate. That's the sort of thing they do. Or he'd just get up and say, 'Tch, later!' and he's gone.

KJ: Yeah.

J: But that's what they do. PN 9

KJ: By saying 'later' actually it is actually ending it, isn't it.

J: Yeah, so I guess that's quite appropriate.

KJ: Yeah.

J: And if it was a room with my friends, he would say, 'OK, I'm going to my bed now' or something.

KJ: OK, so that's pretty much…

J: So I'd say, yeah, often. AP 3

KJ: I'm not sure, like in more structured activities, say playing a game or in a group of people doing an activity, do you feel he is able to participate and interact appropriately?

J: Hmm, I think so. He was playing a game in Portsmouth, and that was really good. And he was quite good with that. Hmm.



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KJ: So would you say…

J: I'd say always. AP 3

KJ: And if something is a bit less structured, if there aren't so many rules about something, if it's more free-for-all, do you think he is able to interact appropriately there?

J: Um, trying to think of a situation. I'd imagine so, I'd say often.

KJ: Yeah. Things like email, phone, um, answering machines, does he use that type of media?

J: He uses MSN and he texts a lot.

KJ: Uh huh. And he's pretty much able to do that independently?

J: Hmm, hmm.

KJ: If there's a phone call for you, does he take a message for you?

J: Better than his brother! (laughs)

KJ: (laughs). There we go.

J: If his brother took a message, I'd never get to it!

KJ: So where would you rate him there?

J: If there's a message, he'll often give it to me, more often than not. AP 3

KJ: And how about like if he's being introduced or is introducing someone, does he respond to that?

J: Yeah. I mean he'll always say, 'Hullo' and 'How are you?' and, 'Nice to meet you' so he's quite good with that. AP 3

KJ: Yeah.

J: So always.

KJ: Yeah. Um and if he wants to get attention, do you think he uses appropriate strategies to get attention?

J: Um, it depends, if it's with J's friends, he just raises his voice. I mean, what he tries to do is talk normally, he'll repeat it and repeat it then, 'Aarw!' He will shout. AD 3

KJ: OK

J: But then with them lot all around that's the only way he can do it. PD 3 PP 5

KJ: So again it's appropriate to the situation. Um, say it was a group of your friends, do you think he'd…

J: Yeah (laughs, puts hand up), sometimes he does, like, 'Can I, can I say something?' he puts his hand up. AD 3



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277 KJ: OK.

278 J: So he's not rude then. He wouldn't you know.

279 KJ: Sure, so. Sorry

280 J: So always.

281 KJ: Always, yeah. Do you think he uses strategies to, do you when sometimes you
282 have to interrupt a situation or if you are interrupted, in that kind of situation, do you think
283 L uses strategies.

284 J: I think, I think if he's interrupted, and he thinks that's quite rude…

285 KJ: OK.

286 J: He would actually say, you know, 'I was talking!' and he would start again. Or,
287 'Can you wait, 'cos I was saying something?' AD 3

288 KJ: Yeah, sure.

289 J: So you know, he's obviously just being as rude as whoever interrupted him.

290 KJ: (laughs). OK, he's getting his point across.

291 J: Yeah.

292 KJ: So how would you rate him? Do you think he's using the appropriate strategies?

293 J: I think often, yeah.

294 KJ: Often yeah.

295 J: Because sometimes, you know, people are rude, because his voice is, they think
296 that he is a bit thick. PP 5

297 KJ: Yeah. So he's quite assertive in that way.

298 J: Yeah.

299 KJ: Just thinking about asking and giving information, say if he's asking for directions
300 or giving directions, do you think he uses appropriate language for that?

301 J: I don't know if he's given anyone directions, oh mind you, I think that he was in
302 the car with his brother and his friends and they stuck were in the traffic and he
303 obviously gave them some back route directions from when he used to walk these
304 streets when he was coming home from school and they were all amazed because they
305 all live around there but none of them knew these streets.

306 KJ: And he knew them.

307 J: Yeah. And they, he got them out of there, he got them home. So they were all
308 impressed.

309 KJ: So he was able to get back.

310 J: Yeah. I guess he's quite good at that.



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KJ: Yeah, yeah. If you had to rate him, where would you put him?

J: I'd say often, because he doesn't have to…

KJ: Yeah, yeah. It's not…. What about if he knows something is happening, does he ask what time it's going to happen? Is he cued into that?

J: Most of the things he can, he's got this odd, he remembers some odd things. I mean I made him a doctor's appointment, back last month, 2 appointments, one for the flu injection on the 9th November. He said to me, yes I remember, he said to me this week, 'I've got an appointment on the 9 November'. I wouldn't remember that, I have to write it down.

KJ: Yeah.

J: So but he does he does. He'll know he had to do something today. He's coming in today, 'What time are we going?' What, you know.

KJ: OK

J: So he does ask.

KJ: Yeah, he does. So what would you say, he always asking or often?

J: Often.

KJ: And does he give or ask for reasons for things that have happened or …

J: (pause). Don't know that really. Not at all.

KJ: OK. What about asking for help from others? Do you think he does that appropriately?

J: Sometimes but he doesn't like to ask for help. So I'd say sometimes.

KJ: What about offering help?

J: Ah, no, he does that.

KJ: Yeah.

J: He does that too much and sometimes I don't want him to help because I think...

KJ: Yeah, sure. So you think…

J: It's because he used to do it, he used to be very helpful, and he wants to do, so if he sees my mother struggling with her bags he would run out to help her.

KJ: Yeah, sure.

J: Whereas she'd be better off doing it herself because she'd be worried about him falling.

KJ: About him falling. Yeah. So even if he's offering help, but he's not offering at the appropriate time and place.



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J: No. But he thinks it's appropriate because he will carry the bag, if she let him, he would carry the bag, she does let him sometimes, but he would carry the bag, even if it's heavy, he'd hold it with the other hand, and he'd carry it, sort of thing.

KJ: OK, so that's a bit tricky for him.

J: Hmm.

KJ: What about responding to advice that is or suggestions. Does he respond appropriately to that?

J: Not always, no, no. I mean you know sometimes he'll put up a fight or an argument about it but eventually he'll always, you know…

KJ: OK.

J: Hmm.

KJ: What about asking for permission for things or to do things or go somewhere? Does he do that appropriately?

J: I think so. A couple of weeks ago one of his friends that he hadn't spoken to for ages, she invited him out, she was going to a pub. He said, 'Yeah, I'm going to this pub, in C (place)'. I said, 'Well, how are you going to get there.' 'Uh, get the bus.' I said, 'I'll take you.' Then he came back, he said, 'Why do you have to take me? Why can't I get the bus?' I says 'Well, how are they getting there?' he says, 'The bus.' I said, 'Where do they live?' He said 'E (place)'. So E is up the road, it's one straight route. And we live in M (place). And I said, 'You'd have to get a bus to E...' PN 8

KJ: To E

J: So he sat there and said' 'OK.' I said, 'OK, you go on then, you go on the bus and what have you. You know which way to go then?' He said, 'Yeah. He sat there and said, 'How old do you have to be to go to the pub and have a drink?' I said, 'Eighteen. ' He said, 'But I'm sixteen.' And I said, 'Yeah.' And he said, 'But the girls are sixteen too.' AP 4
And I said, 'Yeah.' So he rang her back and said, 'You know, I'm sixteen, you might look older than me.' And he thought about it, if he goes there by himself, they get in the pub PP 5
and he gets chucked out, he's stuck in C by himself.

KJ: Stuck, yeah.

J: So he rang her and he said, 'You know what, maybe next time.' And I thought that was so big of him. PP 3

KJ: Wow.

J: 'Cos he loves to go out, opportunity to go out with the girls.

KJ: For sure.

J: And rang and he said, 'Maybe next time.'

KJ: Ah wow.

J: So he didn't go!

KJ: Gee whiz. And he really thought that through as well?



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382 J: Yeah!

383 KJ: Like anticipated possibilities.

384 J: Yeah, because I didn't say, I said like, 'Go!'

385 KJ: That's excellent. (laughs)

386 J: (laughs)

387 KJ: Would you say that he agrees or disagrees using appropriate language?

388 J: Uh, it's not really inappropriate; it's like teenagers' language. He says, 'Like, aw PD 3
389 forget it!' or… PP 5

390 KJ: Ok, yeah, sure, ok.

391 J: It depends, it's with me at home. Because he wouldn't do it, he wouldn't do it
392 outside. He'd tell me, 'Aw, shut up!' AP 8

393 KJ: OK, yeah.

394 J: I'd say, 'Don't say that to me'. But he wouldn't say it to anyone else, so you know.

395 KJ: So he's go that difference.

396 J: He'd say it to his brother.

397 KJ: Yeah, sure.

398 J: He'd say it to his brother and he'd say it to me.

399 KJ: So would you say he often uses…

400 J: I'd say often.

401 KJ: OK. Um, and if… OK, actually you've already answered this one about accepting
402 or rejecting invitations appropriately, using appropriate language.

403 J: Hmm, I think so.

404 KJ: What about if you know he is about to start a negotiation, you know, it might be
405 talking through something with him. Does he approach that appropriately using the right
406 kind of language?

407 J: Well, it depends on what he wants. I guess it depends on what he wants.

408 KJ: Yeah, sure.

409 J: Because if he wants something from me, it's, 'Honey bun, sugar, sweetie!' AP 8
410 (laughs)

411 KJ: (laughs) Again, for a sixteen year old…

412 J: Yeah, so it depends on what he wants.



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KJ: OK.

J: So he's appropriate most of the time with me.

KJ: OK.

J: But if it's with his brother, he'd say, 'GO AND GET ME!' And his brother would say, 'Who are you talking to, NO!' And he won't be able to step down because it's a boy thing and say, 'Oh right'. You know, 'Do it now or else!' PD 3 PP 5

KJ: OK, so would you rate him there…

J: I'd say often.

KJ: OK. So different rules apply for brothers as well, don't they.

J: Yeah.

KJ: And how about if you are reminding him about something? Does he respond appropriately to that? Or get frustrated or…?

J: Not really. I mean, he's not too bad. If there's something to do and you remind him, and he'd say, 'Oh yeah.'

KJ: OK. You'd say he's pretty much always like that or often?

J: Yeah, most of the time, so always. AP 3

KJ: Yeah. And if somebody is doing something that might be annoying him or if it's an issue, do you think he is able to ask them to change what they're doing, maybe say, 'Aw, stop that tapping.'

J: He will, he'll say, 'That's quite annoying.'

KJ: And he does that pretty appropriately most of the time?

J: I think so, most of the time, so often. AP 3

KJ: And how about apologising or accepting apologies appropriately?

J: He will apologise. But he has to see that he was wrong to apologise.

KJ: OK.

J: But if he thinks he was wrong, he will apologise without being prompted or what have you. AP 3

KJ: Right, so where would you rate him there?

J: I'd say often.

KJ: Yeah. And what if somebody says to him, 'Oh, could you please stop doing that' or 'Could you please move there' or whatever. Does he response appropriately to that?

J: It depends on what sort of mood he's in, so I'd say sometimes. AD 18

KJ: OK, sure. How about responding to say teasing or failure?



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J: Uh.

KJ: Or disappointment.

J: Teasing. I think he got upset at school once when someone was teasing him. AD 9

KJ: Uh huh.

J: I think they were teasing him about his shoes or things. He took it. He didn't say anything there and then but he came home and said he was upset about it.

KJ: OK

J: And failure, he he that varies, sometimes he thinks, 'Right, I'm not going to that's not going to happen to me again and I'm going to make sure' and then sometimes he's like 'Aah! (sigh), you know. Sometimes he's quite down about it. PP 2 AD 18 AD 9

KJ: So you'd say he's sometimes dealing with that?

J: Yeah, yeah.

KJ: And how about expressions of affection. Would you say he gives those appropriately and receives those appropriately?

J: Yeah, I think so! (laughs). He always says to his brother, you know, 'Come here, give me a goodnight kiss' and his brother says 'I'm going to give you a goodnight kiss' and he tells his brother to get out get out of my room. So that his brother says, 'No, I'm going to give you a good night kiss'. So then so that his brother gets away he says, 'Come on then' and he turns around and puts his tongue out. Then his brother will run! AP 11

KJ: So it's a good strategy!

J: Yeah. Well sometimes it depends because they try to, you know, what's that word when they both, calling each other's bluff. J: says', Come on then' and L says, 'Come on then' and then they go 'Eugh, get away!' and one of them gets punched or something!

KJ: (Laughs)

J: So he is quite. He'll hug his granny and.

KJ: Yeah, sure. So is that pretty much always?

J: Oh yeah.

KJ: We're on the home straight. Are you OK for another 2 minutes?

J: OK.

KJ: How about him reading things like facial expressions, tone of voice, body language? Do you think he picks up messages with that?

J: Hmm, I don't always, not always, no.

KJ: Ok, so would you say it's just sometimes that he's he's picking that up.



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J: Yeah. Sometimes I say, 'You can see someone's bored with you or what have you or they didn't like what you said, but you carried on, L', and he'll say, oh no, he didn't notice. AD 5

KJ: OK. How about his use of facial expressions, body language?

J: He's getting better at it. AP 1

KJ: OK, OK. So where would you put that? Would you say he sometimes doing that?

J: Yeah, but sometimes he shouldn't do it, though I think.

KJ: OK.

J: Because his brother made the point to me, his brother says sometimes you go around someone's house and you don't like the food and you'll go (makes like being sick). You can't do that. You got to just not eat it or pretend it's nice or something (laughs). AD 6

KJ: (laughs) OK. Um, do you thing he adjusts his body distance appropriately, so you know if you know somebody better, you feel comfortable being in their space.

J: Um, I think most of the time, yeah.

KJ: OK, all right. Do you think his verbal message and his nonverbal message match?

J: Not all the time, no. AD 3

KJ: OK. So he can be saying something but actually meaning…

J: Meaning, yeah.

KJ: But everything else is saying something else. What do you think about him judging all nonverbal cues from you, so if you hadn't said anything at all, do you he can judge what you have communicated?

J: Me, yes, all the time. But not maybe other people all of the time. AD 18

KJ: So possibly sometimes?

J: Yes, sometimes, not always, because sometimes I'm trying to hint to him to stop that or don't say that or whatever but he doesn't pick it up. AD 5

KJ: Yeah. OK. What about you know like social situations, like you have scripts for social situations, so you know the script when you go to the shop is, you say hi to the cashier, you wait, they tell you how much money, you ask for cash back, you know. Do you think he's he's got those types of social scripts and he behaves accordingly?

J: Most of the time. But a couple of weeks back, I think his speech and language therapist said that you need to get out more in the community and maybe talk to people more and what have you. And I don't know what he was thinking. I went to Marks and Spencers, with J as well. And then the cashier was packing. And he said, 'Hi, how are you?' And the fella said, 'Hi, how are you?' PN 8

KJ: Oh right.



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J: And um, 'Aw, so what days do you work here then?' And they were talking. So the fella answered him, 'Duh duh uh duh duh'.

KJ: OK.

J: I said, 'So do you go to L's school? And he says, 'No'.

KJ: Oh.

J: I mean he was having a conversation, L was having this conversation with him as if he knew him but he was answering answering him. But J never said anything. J should know him too because they went at the same school where J is. And then (laughs), L was having this conversation, I said, 'L, shut up!' (laughs). AD 3 PN 6

KJ: OK (laughs)

J: I said to him! And J laughed. We went outside. ' I mean you was talking to him as if you was chatting him up – you don't talk to someone like that- a fella!' You know. PN 6

KJ: Yeah. Judging it, missing that.

J: Because the fella was being polite answering him.

KJ: Yeah, exactly.

J: And I thought he was talking to him because he knew him. But he didn't. AD 6

KJ: That's tricky.

J: Yeah. So he laughed when he got home. He thought it was hilarious. Because J made fun of him but he did think it was funny (laughs).

KJ: (laughs) Yeah. And things like implied rules. You know like at school there's not a rule for everything, or just at home you know there's some things you do and there's some things you don't. Do you think he understands things that are implied but not specifically stated?

J: Well he's getting there, I mean. Things happen and we don't we don't know until they've happened and he's done that. And we say, 'Well you can't do that' and he says, 'OK' and he won't do it again, sort of thing. AP 1 PN 6 AP 5

KJ: OK. So he's learning from that.

J: Yeah.

KJ: OK, that's really, yeah. So he's sometimes doing, getting it and sometimes not.

J: Yeah. Hmm.

KJ: I think that's really, there's loads of stuff that I think he's really moved on.

J: Oh yeah, no he has.

KJ: In a huge way.

J: He's doing. You know and he tends not to make the same mistakes twice. And if he does something, you say, 'Well L, that was a', he goes, 'Well that was then' I say, AP 5



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552 'But it was only yesterday.' 'Yeah, but that was then! This is now, I'm not doing that
553 anymore!' But it was yesterday!

554 KJ: Yeah. So he's really made that.

555 J: So he always said, 'Well that was then, this is now. I made that mistake then. I'm AP 5
556 not going to do it again.' And most of the time he doesn't.

557 KJ: That's really positive, that's really encouraging to hear.



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## Appendix HH

**PARENT INTERVIEW: CARLA**

K: Mother KJ: Interviewer

KJ: Just starting with, how would you describe C's personality?

K: C's personality. Oh yeah, she's a character. You know, she's bubbly. She's a, how would I describe her? She's lovely. You know, she's a good kid. As a whole. She's just. She's very outward going. She's one you know for lone-liners. She likes having a laugh and a joke. She doesn't like seeing people miserable and upset. She's very conscious if someone's unhappy. That makes her feel a bit, you know, uneasy. No, she's good. She's quite, she's just nor, she's just a happy girl. Just a happy girl. PP 3

KJ: I know it's a while since the injury, so C now, um would you say there are any striking differences to, just casting your mind back…

K: Um, it's difficult. There are. Um, emotionally, I'd say more the emotional side of things. Expressing herself is a lot, um, a lot different. There's no middle ground with C. PD 1 AD 1 AD 11

KJ: Yeah.

K: She'll either be really loving and laughing and jokey, or she's, you know, it's like there's like a wall that comes up and she can be quite aggressive. There's no, there's no, you know, discussion there, it's one or the other. AD 8 AD 11 AD 18

KJ: No.

K: But, that's something we're trying to work on. It'll be a case of 'hold on a minute'. She'll take some time to think. When there's been a row when she's been in my face or I've been in hers, you know, it's been confrontational. She'll come back and say, 'I'm sorry for shouting at you' and we'll sit and talk about it. PP 1 PP 1

KJ: Yeah.

K: But that can be said about most teenagers. PD 3

KJ: Yeah, yeah.

K: But it's just with, you can see it with C, it's in her eyes, when she does go. It's just. And then you realise, this isn't, with a normal teenager you probably would have, or with K (eldest daughter), you know, a slagging match. But with C, it's just, you do have to, it doesn't register. I mean sometimes when you get when it is confrontation that's when she gets frustrated because the conversation, the argument gets lost a bit. But that's but I'd say that's the significant changes there. PN 3 PP 5 AD 9 AD 1

KJ: Yeah, sure.

K: Otherwise she was always a happy girl. She was always, when she was younger, when there were arguments, she was the one who sorted them out. You know, when they're having the arguments, no come on, let's you know, can't think of the word for it. PP 3

KJ: Kind of the peacemaker.



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K: She was the one who'd make sure they were mates at the end of the day.

KJ: That's still very much part of her as well at school.

K: Yeah, that's it. Another thing, I think she's realised she has disabilities, in a certain aspect but she doesn't like. When she actually, when you actually see, even by people AN 4
um who are on the same wavelength as her, but eventhe slightest, you know, maybe there's a weakness on one side of the face, and she picks up on that straight way. And automatically as soon as that happens, (poof) not interested, you know. So. AD 10

KJ: She knows, yeah, yeah. As you say, she's been carrying it for a while now, hasn't she and it's really a process.

K: She's starting to, yeah, it is. I think it's just going to be, you know. You can see that there is a little bit of maturity coming in now, so she is, you know. I think that is gonna. AP 1
She's obviously a little bit later than than most but she does things.

KJ: A lot to deal with. She's looking great.

K: Fantastic. Yeah, when we've done, before you go, I'll show you the photos of her birthday. When she went out in a pink limo. It was absolutely brilliant, weren't it, M (husband)? When she went out in that Limousine. She looked amazing, like a $1000. She walked out and said, 'Bloody hell, that's not for me, is it?' It's just like, Yeah'. She thought we were taking her up in her nan's car. So it was good.

KJ: (Laughs)

K: Miss H went as well. I got her a ticket so she could be like their chaperone.

KJ: How would you describe her conversation skills?

K: Um, they're quite amusing at times. They're quite limited, I'd say. AD 3

KJ: OK.

K: It depends on, you know, she'll get the wrong end of the stick sometimes AD 5
which is where the humour comes in. AN 3

KJ: Yeah, sure.

K: Whether that's her way of coping with it, of not understanding. Or whether that's PP 5
because, like I say, humour tends to carry C a lot through her life, is then you know, she doesn't have to think too much about everything else that's going on. So I think she struggles sometimes.

KJ: Yeah.

K: And yeah, as I say I think humour is what helps what helps her along when she AD 5
doesn't understand.

KJ: Yeah.

K: Because someone will laugh at whatever it was she said and they'll stick onto PP 5
something else.

KJ: Yeah, and move on. And again I know it's probably an unfair question, really, but compared to before, thinking of her at her age, maybe comparing to like A, have you



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seen any major differences.

K: I would I would just say it was restricted, that's all, you know.

KJ: Hmm.

K: It's not, some of the things I would sit down and talk to her. I mean I can base it on. Because there is such as age difference there, it is difficult. Because it is different with C. But I can look at say K sister) and base it how I would speak to that age group to to C. And it is a little bit different. PP 1 PD 1

KJ: Yeah.

K: She is very immature. You can see over the years, say over the last year, 12, 18 months she has matured, you can see that little bit coming up. AD 20 AP 1

KJ: Just thinking about friendships, how would you describe her ability to make and keep friends?

K: She's got a fantastic way of making friends, She's quite good at that. Keeping them …is a problem, because we've seen over the years, obviously her peers are growing. And they're not so you'll find her friends change with whatever stage she's at with time. Because they're obviously growing up, they're maturing so they're going off and doing different things. Or it might be they're a group of friends, but it will be depending on what stage she's at as to who she is then staying with at the moment. So. AD 2 PP 5

KJ: Hmm, yeah. And thinking of before her injury, how was she at making and keeping friends?

K: She was, yeah. She had a lot of um, friends, sort of like preschool friends. She was at middle school which she is still friendly with now. They've been brilliant because obviously they knew her before the injury, so they're quite, they're not close, they're aware of C, how she was before and after the accident. They do try to keep contact with her as much as possible, do you know what I mean.

KJ: Right (pause). What I've got is just is a profile. And so the options are: never, sometimes, often, always. If you think it's not appropriate or not applicable or you don't know, that's fine as well. It's OK if you think in different situations she reacts differently, that's fine as well. Just expand on that.

K: OK.

KJ: Just thinking more actually her conversation skills, breaking those down a bit. Does she greet people and respond to greetings appropriately?

K: No! (laughs) AD 3

KJ: (laughs)

K: No. As she said, the first thing she said was, 'All right? This is my mate D' Do you know what I mean, it's not your basic. She's not very. She's not backwards in coming forwards. AD 3

KJ: Yeah.

K: Never!



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115 KJ: Aw! Yeah.

116 K: But it's a nice thing, it's not a rude thing. It's just, you know. PD 5

117 KJ: It's C.

118 K: Yeah.

119 KJ: How about making and responding to farewells.

120 K: Sometimes, sometimes. Depends on who it is. AD 18

121 KJ: OK, sure.

122 K: If it's a 16 year old, good looking chap, then he'll get a goodbye, a
123 telephone number etc…

124 KJ: OK. (laughs). Sure. How about beginning and ending conversations
125 appropriately? Say it's face to face or on the telephone, would you say she does
126 that appropriately?

127 K: Sometimes, sometimes. Again it depends on what she's doing. AD 18
128 KJ: What about taking turns in, when she's in a social interaction, maybe in the family.
129 Does she observe that turn taking routine?

130 K: Um, probably not, if she sees something that needs to be done, she'll just AD 3
131 do it, so I'd say I'd say never really. It's just, it's almost tunnel. That's what needs AD 11
132 doing, so da dee da dee da.

133 KJ: Regardless of what everyone else is doing.

134 K: Yeah.

135 KJ: OK. How about eye-contact, would you say she maintains appropriate
136 eye-contact and body position?

137 K: No, no. AD 3

138 KJ: No. what does she tend to do?

139 K: Her eyes are averted, they're sort of, you know, it's very rarely. I need to
140 remind her, I try and remind her to try and pull her eyes forward. PP 1

141 KJ: Yeah.

142 K: And body language is very, I don't know, she can be quite defensive. AD 3
143 Arms folded, that sort of thing.

144 KJ: Yeah, sure. How about introducing appropriate topics of conversation?
145 Does she do that?

146 K: C. She speaks her mind! (laughs) So say it as you will. I don't AD 3
147 know whether that's sometimes, never, always…

148 KJ: (laughs) yeah.

149 K: She speaks as she finds. AD 11



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| | | | |
|---|---|---|---|
| 150 | KJ: Sure. So sometimes she'll be appropriate, sometimes inappropriate? | | |
| 151 | K: Exactly. Yeah. | | |
| 152<br>153 | KJ: Yeah, OK. How about maintaining the topic? Maybe just nodding or saying 'uh huh' or just letting you know that she's listening? Does she do that? | | |
| 154 | K: No, no. She wanders off. She'll forget what she said. | PP 5 | AD 3 |
| 155 | KJ: OK, OK. So would you say she never does that or sometimes? | | |
| 156 | K: She never, no no. You have to keep calling her back, you know. | | |
| 157<br>158 | KJ: How about making a relevant contribution if you're all having a discussion? Would she do that? | | |
| 159<br>160 | K: Um, sometimes. Mark's the one who's picked up on conversation wise, you can have quite an intelligent conversation. Again it depends on what it is. | | AD 18 |
| 161 | KJ: Yeah. If she's interested and motivated to. | | |
| 162 | K: Yeah. | | |
| 163 | KJ: How about asking appropriate questions during a discussion? | | |
| 164<br>165<br>166<br>167 | K: Possibly sometimes. Again it depends on what it is, if there's an interest there. If she's not sure what the topic is, or if she hasn't got a full understanding of it, then again it goes back to the jovial side of things, she'll just make jokes and things. | | AD 18<br>PP 5<br>AN 3 |
| 168 | KJ: So sometimes then? | | |
| 169 | K: Yeah. | | |
| 170<br>171 | KJ: Does she give a lot of repetitive or like redundant information that you're not really interested in? | | |
| 172 | K: Yeah. Always! (laughs) | | AD 4 |
| 173 | KJ: OK (laughs). OK. | | |
| 174 | K: It feels really rotten saying when you think back, but, yeah, she does. | | PD 5 |
| 175<br>176 | KJ: How about if she is unsure about something, will she ask for like clarification in a conversation? | | |
| 177 | K: No. Um, no, not really. Sometimes, maybe. | | AD 3 |
| 178 | KJ: OK. | | |
| 179<br>180<br>181 | K: It depends because it goes again to if she feels embarrassed, she does have that embarrassment of not understanding things so it depends on the company as to whether she feels confident enough to ask. So sometimes, yeah. | PP 5 | AD 18<br>AD 9<br>AD 5 |
| 182<br>183 | KJ: Sure. And do you think she adjusts her language based on the situation she's in. So for example if she's with an adult, in a more formal setting, or if | | |



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she's with her mates in the cinema. Do you think she has the flexibility to adjust how she is, what language she is using?

K: Um, um. Now you've got me. (pause) Probably not. But just purely. Hmm. It's a hard one to think of. When I see her with her friends, sometimes I feel for her because she feels, you can see she's not acting as that but then sometimes she does. Sometimes, I'd say sometimes. PN 1 AD 18

KJ: Yeah.

K: She'll try, she's aware of that difference. AP 6 AN 4

KJ: Yeah, yeah, because it's quite a sophisticated skill, isn't it?

K: Hmm, definitely, it's only when you ask that, it's difficult to. She's aware of the change that needs to be made but as to whether she measure up to that is, yeah. AN 4 AD 21

KJ: How about using the slang or lingo of her peer group?

K: Oh, always!

KJ: That's no problem. Whatever!

K: 'That's bad. My bad.' That's the recent one. My bad.

KJ: (laughs)

K: Yeah, don't! (laughs)

KJ: How about telling or understanding jokes or stories that are appropriate to the situation

K: Um, I'll say sometimes because sometimes it can be delayed. AD 25

KJ: OK. Yeah, yeah.

K: Or it needs ex, you know, I won't say never because there are some things she'll find funny.

KJ: How about showing appropriate sense of humour when communicating?

K: Appropriate! (laughs) AD 3

KJ: Yeah (laughs). That's the magic word.

K: (laughs) Yeah, appropriate. I'll say never because it's, no never.

KJ: It borders on …

K: Again she speaks as she finds, that's the same with her humour. AD 11

KJ: How about if you've got, if someone is having a conversation, can she join or leave a conversation appropriately?

K: Again the key word is 'appropriately'.

KJ: Yeah, yeah.



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K: Um, because I'd say never really. Because if she's fed up with the situation, with the conversation, she'll just go. AD 9 AD 3

KJ: OK.

K: She'll say, 'Can I go?' you know. That's it, so never. AD 18

KJ: OK. I'm not sure if you've seen her in structured group activities? If she participates appropriately, or if that's not really applicable?

K: No, because that's not something, maybe in the school environment sort of thing.

KJ: And maybe I'm not sure there are unstructured group activities. Maybe you have friends around and they are just messing around outside, playing football, would you say she participates appropriately in that type of setting?

K: I think so. I think so.

KJ: Yeah.

K: I think she's quite, in the friends' environment she's quite relaxed.

KJ: Would you say she always does or is it maybe often or sometimes?

K: Um ,often.

KJ: OK, cool. How about using things like email or phone, answering machines appropriately? Is she able to pass on messages or initiate sending messages?

K: She can do the mobile phone fine. If you're talking about, um, yeah, she can manage them, answering machines, sometimes she won't always remember to pass the messages on. Emails, I mean depending on what you're saying there, sometimes she's responded to emails inappropriately if she's been on MSN but she knows how to manage them, how to use them. AP 3 AD 18

KJ: OK. Sure. So you say she's often using that type of media appropriately?

K: Yeah.

KJ: OK. And how about if she's introducing somebody or is being introduced, does she respond appropriately to that?

K: No never. AD 3

KJ: No.

K: That's where the embarrassment bit comes in. AD 9

KJ: Yeah. OK.

K: My part. That's where I go, well, I don't. I love her, you know so. PP 3

KJ: Yeah.



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K: But I do sometimes. It's just. You feel like you have to make excuses. But no she's doesn't, she's just C, whatever she does (laughs). PP 3

KJ: How about, does she use appropriate strategies to get attention?

K: Um. Sometimes. She'll uh, more often that not, it's just 'Mum, mum!'

KJ: Yeah.

K: If we're talking now. You've seen her before. She'll just directly come between you. 'I'm here and I want your attention'. AD 3

KJ: Yeah. How about if she's interrupted or needs to interrupt, does she use strategies to do that appropriately?

K: Um. Again the key word being appropriate. Possibly sometimes, but I wouldn't say never because obviously I'm not with her with her friends and all that. I mean the home environment, you have to remind her when two people are talking, to wait for a gap or what have you. AD 3 PP 1

KJ: Yeah, sure. So maybe sometimes she uses it.

K: Yeah, sometimes.

KJ: OK, cool. We're halfway! (laughs).

K: Yay. (laughs)

KJ: Just thinking about the way she asks for or gives information, I'm not sure if you've observed her ask for or give directions using appropriate language?

K: Um. Pass.

KJ: No, that's fine.

K: That's quite specific.

KJ: Yeah. How about asking for the time of events if she knows something is coming up?

K: Um. If she wants to know if something's going on and times and what have you, it's what time, how long, when it finishes. And she wants to know the specifics. Not that it actually means anything to her but she wants that time to know. AD 13

KJ: Yeah.

K: It's not like she times it. It's just like she wants to know how long you going out, when you getting back blah blah.

KJ: Yeah. Does she pretty much always do that? Or often.

K: Yeah, always.

KJ: What do you think of her concept of time?

K: (laughs) It's getting better, I think. But it does lapse. Again, it does depend AP 1 AD 13



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287 on outside influence and constant phone calls. AD 18

288 KJ: Yeah, sure.

289 K: But there's been times, so, you know, she's been off round about and
290 she's got back in time.

291 KJ: Yeah, it depends. How about, does she give or ask for reasons for you
292 know something that's happened.

293 K: Always. Always. She always wants reasons as well. Always. 'Why?'

294 KJ: OK. Does she give reasons if you ask her things?

295 K: Um. Sometimes. But you have to draw it out of her.

296 KJ: Yeah. OK.

297 K: It's not straight forward. 'Why were you late?' 'I was'. It's not a rude PP 5
298 answer. AD 11

299 KJ: No.

300 K: It's 'I am late'. And then, 'But why have you come in late?' And then she'll PP 1
301 say it. It's something you have to draw on. It's not something she gives, you
302 know.

303 KJ: Yeah. You've learned the roundabout routes.

304 K: Yeah.

305 KJ: And very well. Would you say she asks for help from others appropriately?

306 K: Again I'm going to say I don't know for that, because um again only from
307 her LSAs, for instance, at school I know she can be quite, not so much
308 demanding, but they're there for her and she wants that support then.

309 KJ: Yeah.

310 K: When we're at home she doesn't tend to ask for help. AN 2

311 KJ: OK.

312 K: And I think that's that is a significant to the head injury. Because she AN 4
313 knows she needs help and I'm like a beacon to say my daughter's got a head PP 5
314 injury.

315 KJ: Yeah.

316 K: Does that make sense.

317 KJ: Yeah.

318 K: And I think that's why she doesn't ask for that. PP 5

319 KJ: It's that reminder again.



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320 K: Yeah.

321 KJ: Does she offer to help others appropriately?

322 K: Um. For instance she'll help A, most appropriately. I'd say most of the
323 of the time. Often.

324 KJ: Often, yeah. And how about if you give her advice or suggestions. Does
325 she take that appropriately or not?

326 K: I'll say sometimes again. Because again it depends on the time of day, AD 18
327 who is here, what it's about, if she has an interest in it or.

328 KJ: Yeah. Does she ask you for permission when she needs to?

329 K: No, no.

330 KJ: No, never?

331 K: No. That again I don't class that as being rudeness or I don't class that as PP 5
332 a teenage thing. PN 3

333 KJ: Yeah.

334 K: She's just. But that is a recent thing that we're working on at the moment. PP 1
335 Because obviously where she's getting older, I need to know, I just want to know
336 she's safe.

337 KJ: Yeah. How about if she is disagreeing or even agreeing, does she use
338 appropriate language to do that?

339 K: Um. Sometimes. Again, it's it's difficult with specifics when it comes to AD 18
340 things like that. Because it's a situation involved, you know.

341 KJ: Yeah, totally. And say she is confused about a situation or a situation is
342 unclear, will she ask for clarification?

343 K: She's beginning to. AP 1

344 KJ: OK. Oh, that's great.

345 K: She's beginning to.

346 KJ: Yeah.

347 K: Again it's something that we're tackling at the moment that she isn't sure. PP 1
348 It's a slow process. AP 9

349 KJ: Yeah, sure but if she's doing it once instead of never, that's all right.

350 K: Exactly, that's an improvement.

351 KJ: And how about accepting or rejecting invitations, using appropriate language?

352 K: Um. Yeah. If she wants to go, she wants to go. She wouldn't, I don't think AD 3
353 she'd make excuses.



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KJ: Hmm.

K: If she doesn't want to go, 'I don't want to go'. AD 11

KJ: OK.

K: So if she wants to go, 'I'm going'.

KJ: Yeah, so black and white.

K: Yeah.

KJ: So those situations when you don't really want to go, but you don't want offend someone by saying no, and rather say 'Oh, I can't come today, it's a bit tight.'

K: She'd just say 'I won't to go.'

KJ: So she hasn't really got that subtlety.

K: No! We love her to bits, but! (laughs) PP 3 PD 5

KJ: (laughs) And how about If she wants to negotiate something with you, do you think she'll start that process appropriately? Butter you up a bit?

K: She's started to. Again, that's' something that we're looking at, we're concentrating on compromise at the moment, so I will say sometimes. If you'd come here a couple weeks ago and asked me the same thing. I'd have said never. AP 1 PP 1

KJ: OK. Brilliant.

K: But it is something that we are working on.

KJ: OK. I think that's the thing as well with C, it is that it is a constant chip chip.

K: It's a hard slog. That's exactly what it is. PD 1

KJ: Yeah.

K: And it's getting to understand why we're doing that, you know. And it's not just clear cut. It's not just that I'm a bully or. For instance when she was at school the other day. She was supposed to be in for revision they finished early, but instead she went to a friend's house. I didn't know that until the LSA had phoned to say, 'Oh, she hasn't been at school.' PN 8 PD 5

KJ: Right.

K: I went absolutely crazy at her. Because I thought anything could have happened to you. It's just a phone call, C. You know, so initially I blew up at her. PN 4

KJ: Hmm.

K: So pretty much all those questions you've just asked me, we covered in that one conversation, you know. And it was just, so (phew) I'm meant to settle down. And she said she knew, not so much that what she did was wrong, but AD 17



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390 she could understand why I was frustrated, which was good. AP 7

391 KJ: Yeah.

392 K: So those are pretty much all the things we're working on now. PP 1

393 KJ: Cool. How about reminding others or responding to reminders appropriately?

394 K: Again I won't say never, It's probably sometimes, as opposed to often. It
395 depends on what it is. If she has an interest in that particular something, then AD 18
396 she will remember. She knows she gets £30 at the end of the week, she will not
397 forget that. She knows that she's going to the cinema at the end of the week, if
398 it's something she has an interest in, you know.

399 KJ: OK. Yeah. And how about if she wants to ask somebody to change an
400 action that they're doing. So for example if someone is in the way, you go
401 'Please move' or if someone is tapping on the table that is irritating, would she
402 say, "Ah would you mind not tapping?'

403 K: You won't get 'Do you mind'! No. you'd get, 'Pack it in!' AD 3

404 KJ: Pack it in!

405 K: Or, whatever mood she's in. Yeah. You don't get the subtlety, again. AD 11 AD 18

406 KJ: You wouldn't say she's doing it appropriately?

407 K: No.

408 KJ: And that's pretty much always?

409 K: Yeah. Pretty much.

410 KJ: And what about apologising or accepting apologies appropriately?

411 K: Yeah, I think she can do that; pretty much always, I think.

412 KJ: Yeah. And how about if someone asks her to change what she is doing?
413 Would she accept that or just tell them where to go?

414 K: Um. (laughs). I'd say no, she'd tell them where to go. She would. AD 11

415 KJ: Yeah. (laughs)

416 K: I'm just thinking of her and Mark. Because you know, he'll say, again it's
417 me that makes the excuses. But I think he'll say, 'Court's can you do this?', she's AD 11
418 'No'. She doesn't want to do it, she's not going to.

419 KJ: Yeah.

420 K: And there's no 'yeah, in a minute'

421 KJ: Yeah.

422 K: I'll say sometimes because if I ask and it's the right mannerism, she will. PP 1
423 But not everyone will in the real world is going to make those allowances.



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KJ: They're not going to adapt for C.

K: But I'll say sometimes, if you've got all the time for her really. PP 1

KJ: Do you think she responds to teasing, or anger, failure, to disappointment, to those types of emotions appropriately?

K: Um. Well again as I've said before with the emotions part. If I say sometimes because there are so many different emotions, and some she handles better than others. But everything is to the extreme. AD 9 AD 12

KJ: Yeah.

K: Anything that she doesn't get is the weaker side of emotions as in the crying etc, it takes a very, it takes a lot for her to cry. But getting angry or frustrated is a lot easier for her. AD 8

KJ: Quicker, yeah. (pause) Do you think she responds to your expressions of affection appropriately?

K: Hmm (pause). Well with me for instance. I can only explain. I'll say sometimes often never, but. When I go and say, 'Come here, give us a hug', she'll give me a hug but it is literally a motion, as opposed to emotion. Does that make sense? It's oh, what Mum wants, is a hug. AD 14

KJ: Yeah.

K: I know that she doesn't mean that. PP 2

KJ: Yeah.

K: It's just that there's nothing there.

KJ: Yeah. And does she maybe sometimes go the other way and is over affectionate?

K: No. Not with me. It might. Again when it's looking at outside the family side of things, then she can get, she can be, what's the word, would you say promiscuous, is that the right word? AD 15

KJ: Yeah. Maybe just over like attentive?

K: Yeah. I mean promiscuous is I think, that know. But that sort of she'll be quite flaunting herself sometimes.

KJ: Yeah.

K: Whereas it's not something she'll show at home. Does that make sense? AD 18

KJ: Yeah. So it will be quite situation dependent.

K: Yeah.

KJ: Just thinking about non-verbal communication, do you think she interprets facial expressions and facial cues effectively?

K: Sometimes.



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460 KJ: OK

461 K: Yeah.

462 KJ: So might be quite subtle sometimes.

463 K: Yeah, if they're subtle, then she don't stand a chance. But if it's you know. AD 5
464 if I'm (surprised facial expression) then (laughs)

465 KJ: (laughs) OK. And things like body language. Just messages being given.

466 K: Sometimes.

467 KJ: OK, as well. How about tone of voice? Maybe you say the same words,
468 but just with different emphasis.

469 K: I'll also say sometimes again.

470 KJ: Yeah. And then thinking of her using appropriate facial expressions. Does
471 she do that?

472 K: She's always got a constant smile on her face, so it's you know. AD 3

473 KJ: (laughs)

474 K: Or it's blank. There's no. She doesn't frown. Does that make sense? AD 3

475 KJ: Yeah.

476 K: There's no. Sometimes she's got like a quizzed look on her face.

477 KJ: Yes. Yeah. So would you say she's sometimes using appropriate facial
478 expressions?

479 K: Yeah.

480 KJ: And her body language? Does she use that to…

481 K: No. Well (click) again if you're talking in the home or as whole, then no. But
482 if she knows there's this boy around, she will do the, will look to see if they're looking, AP 8
483 do you see what I mean?

484 KJ: Yeah.

485 K: It's a bit, she's aware that there is a difference, you know.

486 KJ: So she's got some idea but not always.

487 K: Yeah. And I don't know whether that's the case if she's watched other people,
488 that she's picking up, you know, learning a skill, if you like. Watching other people,
489 stuff she's seen on TV.

490 KJ: Hmm. And what about her tone of voice? Do you think she communicates?

491 K: It's very. C is just one you know… AD 3



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492 KJ: Kind of monotone?

493 K: Yeah.

494 KJ: Do you think she expresses messages non-verbally? Without saying words.

495 K: (laughs) When she's go the hump, yeah, she can do those, all right. AP 10

496 KJ: (laughs). Would you say it's appropriate for her age and stage?

497 K: Yeah.

498 KJ: How about using a non-verbal cue, appropriate to the situation. Say you're
499 in the shops and you might just point to something if she's on the other side of
500 the aisle. She'll pick up, 'Oh, Mum wants that in the basket'. Or people…

501 K: Um, possibly sometimes.

502 KJ: OK.

503 K: Again that is situation, depends. AD 18

504 KJ: Yeah. Do you think she adjusts her about body distance, appropriate to
505 the situation? So for example, in a family you might sit closer to someone on the
506 couch. And me coming, for example, you might keep more distance, whereas
507 with a total stranger, you won't sit on the same couch.

508 K: Um, this is, I don't know. I can say sometimes, but it's not. C will sit
509 where she wants to sit. If she wants to sit here, she will sit here whether she AD 6
510 knows you or not. If she wants to sit on the floor, then she'll sit. Does that make
511 sense?

512 KJ: Yeah.

513 K: She does what she likes. It depends on what mood she's in. AD 18

514 KJ: Yeah, what she wants.

515 K: Whether she knows you or not is irrelevant (laughs).

516 KJ: OK. (laughs). But that says a lot, doesn't it, because she's maybe not
517 taking, because it's a lot to interpret, isn't it. It's, 'Oh, how well do I know you?
518 You're sitting in the place I want to sit in, I have to adjust my behaviour'.

519 K: Or, like I said to you if you're talking about special needs like at Guildford
520 or the Trust, and you've got that, she'll be aware of and she'll, you know, be, you AD 10
521 know. Again, I don't know if you'd class that as different.

522 KJ: Yeah.

523 K: In everyday life, she doesn't care at all. She'll sit on your lap.

(C at door; discussion about C staying at a friend's house that evening.)

524 KJ: Just thinking about her verbal messages and her non-verbal messages-
525 do they match? Say she is excited, and she'll show it by moving her hands
526 around, or if she is angry, her voice will be quite flat or …



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K: Yeah, when she's excited it will all be, but when she's angry, she'll be very, that's when the monotone will be really like full on.

KJ: Yeah.

K: There won't be that many hand movements. It's just, she's just loud. It's a weird tone that she uses. But it's not arms. Which is things like, she's like (laughs). AD 3

KJ: (laughs) Um and do you think she knows how someone is feeling based on your non verbal messages?

K: She can sometimes.

KJ: Uh huh. (pause). Is it obvious for her to figure it out?

K: No I wouldn't say it's obvious, If Mark and I have been in say, a heated discussion, and she's been around, she'll pick up on whether I'm happy, sad, angry, etc.

KJ: Yeah.

K: But if it's a case of walking in from school, it's not straight off to her that if I'm quiet or whatever, it will only be if I'm not responding to her that she'll say, 'What's the matter?' AD 5

KJ: Yeah.

K: It's not so in her face.

KJ: Do you think she reads like a social situation and then behaves appropriately?

K: No. AD 6

KJ: Would you say never, or sometimes?

K: Never.

KJ: Again it will be on C's terms?

K: Yeah, it's and depending on what the situation is, she will just go with the flow, it's you know. AD 18

KJ: Yeah, sure.

K: There's no individuality for her, you know to, she's not aware of the dangers or what have you. It's just whatever. AD 5

KJ: Do you think she understands like implied group rules? You know for example when you're in a family group there are some things that are unspoken but just accepted by everybody.

K: Uh hmm.

KJ: Or do you have to spell every single thing out?

K: Sometimes. Again it depends on what's happening, who's there, um. Sometimes she'll blag it, that you know, she does. It's the only way I can say it! AD 18



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KJ: That's a skill as well, isn't it!

K: Someone said to me many years ago that is something she would acquire because of the age that it happened, she'd take that into her recovery. So I've been aware of it. But because I'm aware of it she doesn't get away with it that often. PP 5

KJ: Because it's on of those, being able to blag it can serve you well or it can put you in deeper trouble at times, it depends when you use it.

K: Yeah.

KJ: You'll be happy to know that's the last question. That's great. It's been really helpful. I was looking through C's file and seeing that we have been giving advice at school but have not done a detailed assessment for a while.

K: Yeah, definitely. It's a bit of an eye-opener as well for us, when you actually sit and think about it, it's you know, it's try and, I don't know. PP 4

KJ: Yeah.

K: There are times there'd be times when you ask and I think, actually, she can do that. Whereas before it's not something you actually think of. Sometimes her progression, although it's what, 7 years. PP 3

KJ: Ah wow, 7 years.

K: She's come such a long way. AP 1

KJ: Yeah.

K: I've taken it on. I know you guys aren't going to be there forever so I'm taking it on a little bit more. But it's just the layman's terms. I keep saying to Fiona. If you can have that little pocket book, OK, yeah, 04… PP 1

KJ: I think you have got it though. Where were we, you described C perfectly. It was spot on.

K: But sometimes I find that I don't. It's just. Sometimes I feel like M will think I'm actually, you can't make excuses because of her head injury all the time. And I think, yeah, yeah, I making excuses, maybe I'm holding her back, I'm creating the situation when unnecessarily. It's just my gut feeling. PN 5

KJ: It's the balance really.

K: Like tonight, she's with L, who is a little bit more, how old is L, 17? PN 8
She's very forward with the boys. You know, I love her to bits, she's a lovely girl, PD 1
she's great with her little sister and that. But it's just knowing that and C.
Again, it's a new, again she's moved onto this friendship again. AD 2

KJ: Yeah.

K: Although it's been an old school friend, it's reignited sort of thing.
Obviously the girls she's been knocking about with now, have moved on a little bit. AD 2



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600 KJ: Yeah.

601 K: At least this is someone I know. That's the good thing. Maybe. I can be PP 1
602 reprehensive with Mum about going straight there after youth club. I can give a
603 call at 9.30 to make sure she's there.

604 KJ: All the strategies in place.

605 K: Yeah. She's doing good really. PP 3



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## Appendix II

**PARENT INTERVIEW: LUKE**

L: Mother KJ: Interviewer

KJ: How would you how would you describe L's personality?

L: Oooh (laughs). Wow.

KJ: (laughs).

L: Compared to before, is it?

KJ: Yes.

L: Oh, totally different. AD 1

KJ: Yeah.

L: Yeah, you see, I mean you see parts of him sometimes, um but it's taken to the extreme now. AD 12

KJ: Yeah.

L: I think, before he always had a little devilish side and a joking and messing about side but now it goes that step further, um, to the part where he gets quite rude and, um, with the swearing and everything, you know, and don't really know when to stop. AD 12 AD 8 AD 12

KJ: Yeah, yeah, sure.

L: And of course with the behaviour side with the (pause, sigh) you see I never know what to call them, I really don't. Because like they're like tantrums but they're not. I ne- you see I've never known how to describe to people what happens.

KJ: Yeah, yeah, hmm.

L: Because it just like (sigh) isn't it and you got nothing, you can't do nothing until you try and get him down and you know I don't like to call them a tantrum but it is, you see is and they're really hard. PD 1

KJ: Yeah, yeah.

L: A totally different person. He really is. AD 1

KJ: (pause) How would you describe his conversation skills? Just his ability to take part in a conversation and interact like that?

L: Um. Yeah, I suppose he's not too bad. He does interrupt a lot. AD 3

KJ: OK. Yeah.

L: You know, whereas by now he should know not to interrupt when somebody's talking. AD 20

KJ: Yeah.



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L: But he does. And he will keep going until um, you've sort of sorted answered him and then carry on. Whereas at his age he should be able to wait until you've finished. AD 4 AD 20

KJ: Yeah, sure.

L: You know. Sometimes when he's tired you get the slurriness, you know. Certain things there's certain things he's like, 'Oh, what do I mean, what was I going to say?' Sometimes he can't think of what he meant. AD 19 AD 3 PP 5

KJ: Yeah.

L: You know you notice he does say, 'Ah, I don't know what I mean.' You know. He actually says it. Not all the time but sometimes he actually says, 'I don't know what I was going to say there.' What's that word what's that word that you know, that means whatever he was trying to say. AP 7 AD 18

KJ: So he's showing some awareness that he's struggling like that.

L: Yes. Yeah, yeah.

KJ: And compared with before? How is that different?

L: Mmm. Yeah. It's different. Not as good.

KJ: And how would you describe his ability to make and keep friends ?

L: Hmm. He does with making friends, um, (pause) he does I know, um, I know when he said so and so is going somewhere, he'll go, 'Ah, but they've got so and so with them and I don't know 'em.' AD 2

KJ: Yeah, OK.

L: And you know, I'm trying to say, 'Oh well, you'll get to know them.' And he'll say, 'No, no, I don't know them.' And he is quite… not shy. But, don't really want to make new friends, I don't think. And with the friends I don't know I think because of how he is they're finding it hard to cope with L, I think. You know. AD 2 PP 5

KJ: Yeah. And compared with before the accident?

L: And he has since the accident lost a lot of friends. He's definitely lost a lot of friends that way. Definitely. They've stopped calling and ringing and things. AD 2

KJ: Yeah. And are most of them at LW (school)

L: Yeah. Most of them are at LW.

KJ: Most have moved that way?

L: Yeah, they are. Well I think they're all at LW.

KJ: And does L say how he feels about that? Or is it…

L: Well, no, um I think he thinks I think he still thinks he's got all his friends. AD 17

KJ: Yeah, sure.

L: He really does think he's got all his friends because he's at the stage now when AD 17



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he's asking to call for his friends. 'Why am I not allowed out? Why can't I go and call for my friends? You know.

KJ: Yeah, hmm. (pause). I think as well, we were just talking about it at school saying that he's because he has got a lot of people that know him at school. So you're walking down the corridor and they say, 'Hi', he's like a celebrity. (laughs)

L: (laughs)

KJ: We were just saying that even though sometimes it might look as though he got all these people that know him, he still needs that that extra help just to get maybe to get social interaction going, or to organise a game or something more structured that he can do that.

L: Yeah, definitely

KJ: I think the learning support assistant seems to be sussing that at the moment as well, which has been good.

L: Yeah.

KJ: What I've got are some choices (laughs).

L: (laughs).

KJ: What I've got here is a rating scale. Some of the things you might think, I've not seen that or it's not appropriate at all, so just say so. What we'll look at is um three areas. One is about rituals and conversation skills. The other is about how he copes with asking for and giving information and then the other section is just about non verbal communication, on how he does with that. Yeah, how would you say L um, makes or and responds to greetings from others? Do you think he never does it or sometimes does it or always…

L: What do you mean, like?

KJ: Say if you if he walks into a room, do you think he he will he will greet the people sitting there?

L: Hmmm (laughs).

KJ: (laughs).

L: Depends who it is! (laughs) AD 18

KJ: Yeah, yeah, no.

L: Yeah, yeah, um, I think it just depends.

KJ: Uh huh. So if it's family, how would he react?

L: Well funny enough yesterday we went to up Mum's for dinner and he hadn't seen PN 8
Mum for over a week, because they'd been off on holiday. He walked straight past, they were in the room, and started jumping on my brother (laughs). AD 3

KJ: (laughs)

L: You know so they were just like, 'Here, you haven't even spoke to me, (laughs)



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103 and I haven't seen you all week!' (laughs).

104 KJ: Yeah, and I'm cooking the dinner!

105 L: Yeah. And he just wants to go and have a fight with my brother.

106 KJ: Yeah.

107 L: So it just depends on what mood he's in as well, really. AD 18

108 KJ: Yeah.

109 L: I guess it depends on that one, really, who it is and what mood he's in.

110 KJ: And if it's like people he doesn't know, do you think he would do it?

111 L: No. Unless you actually said to him, 'This is so and so, say, 'Hullo'. He wouldn't
112 actually go in and say hullo.

113 KJ: OK, OK. And what about saying goodbye? Do you think he will…

114 L: Um, sometimes. I suppose.

115 KJ: So maybe it's a bit easier to say goodbye! (laughs)

116 L: Yeah (laughs).

117 KJ: And what about beginning or ending conversations? How, appropriately. Does he
118 do that? Say face to face or on a telephone?

119 L: Um, yeah, yeah, I would say, yeah.

120 KJ: How would you rate him as…?

121 L: Oh yeah. Oh no, that would be sometimes (laughs).

122 KJ: And how observing turn taking rules just when you're interacting with him. Do you
123 feel he does that appropriately?

124 L: Ha! There's going to be a lot of 'sometimes' on this one. I think that is sometimes
125 as well, yeah.

126 KJ: I think that's, having gone through this with a number of parents, I think that is
127 quite characteristic. You think, he is able to do it, but not in every situation.

128 L: That's right, yeah. It just depends doesn't it, yeah. AD 18

129 KJ: I think that's sometimes is the difficult thing because you know that he can do it.
130 But it's just that consistency.

131 L: Yeah, that's right, yeah.

132 KJ: And how about eye-contact and body position. Do you think he maintains those
133 appropriately in conversation?

134 L: Oh, no. AD 3



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135 KJ: Where would you rate him on that?

136 L: (pause) Never.

137 KJ: Never. And how about introducing appropriate topics of conversation? Do you
138 think he does that?

139 L: No, no. AD 3

140 KJ: No. What types of things do you think he will normally introduce?

141 L: (pause)

142 DH: Do you want a cuppa then?

143 L: Oh go then, if you're making. Do you want a cuppa?

144 KJ: No thanks, I'm all right.

145 L: Karen's OK, but I'll have a cuppa thanks, D. Sorry what was the thing again?

146 KJ: Introducing appropriate topics of conversation.

147 L: No. (laughs) You should have heard what he said to my mother the other week!
148 (laughs)

149 KJ: Aw! (laughs).

150 L: Actually we were in Surrey, in the car. And he said to my mother, he said um, I PN 8
151 didn't hear him but my mum told me after. He did actually say, 'Nan, can I ask you a AD 3
152 question?' And she said, 'Oh course you can!' And he said, 'Is Bampy the only man AD 15
153 you've slept with?' (laughs). It was very serious!

154 KJ: Very serious!

155 L: Very, not, um. And then, (laughs), 'Well, what do you ask me that for?' He said, AD 15
156 'Well I just thought about it.' He said, 'I think about sex quite a lot.' AD 3

157 KJ: OK.

158 L: Obviously he just …

159 KJ: …yeah, said.

160 L: Sex.

161 KJ: Aw. Tricky.

162 L: (laughs) Yeah, it's a bit.

163 KJ: So maybe 'never' or 'sometimes'! (laughs)

164 L: Yeah (laughs). Never, you'd have to go on 'never' with that one. Very
165 inappropriate topics he comes up with.

166 KJ: Yeah, sure. Aw. When you're having a chat with him, do you think he maintains
167 the conversation by saying, 'Yeah' or nodding or 'Uh hmm'.



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168 L: Yeah, I see what you mean. Um, sometimes.

169 KJ: Sometimes. And how about when a conversation is actually going, he might no
170 have brought it up, but if a conversation is actually going, do you think he makes
171 relevant comments or contributions?

172 L: Sometimes.

173 KJ: Sometimes. Yeah.

174 L: Yeah. He does like listening to a bit of gossip with me and my friends.

175 KJ: Yeah.

176 L: He does like that (laughs).

177 KJ: (laughs)

178 L: He's like, 'Ah!' And then he adds his bit in. So sometimes.

179 KJ: (laughs) What about asking appropriate questions?

180 L: (laughs)

181 KJ: There you go.

182 L: There we go! (laughs) I could say sometimes. There are the inappropriate
183 ones but you know he do ask the appropriate ones as well. AD 18

184 KJ: As well.

185 L: Yeah.

186 KJ: Would you say he gives a lot of repetitive information, or information that's just
187 redundant. You would just think that's unnecessary.

188 L: Um, (pause) Hmm. That's tricky. (pause) Sometimes. PD 1

189 KJ: Yeah. And what about if he's not sure about something in the conversation, will
190 he ask for clarification? Will he ask you actually what did you mean?

191 L: Yes, yeah, yeah, he will. AP 3

192 KJ: Yeah. Would you rate that as always?

193 L: Yeah. I would, yeah.

194 KJ: Yes, I've certainly also noticed that. With, yeah. Like at school or like at the family
195 day, when he wasn't sure, he was definitely asking which was good.

196 L: Hmm.

197 KJ: Do you think he will adjust his language and the way he's speaking based on the
198 situation, for example, the person he's talking to or the topic or the place. Do you think
199 he'll modify anything.



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200 L: Yeah. AP 3

201 KJ: Would you say he sometimes does that or always?

202 L: Always.

203 KJ: Do you think he uses the lingo or slang of his peer group appropriately?

204 L: Oh yeah.

205 KJ: Yeah. And you think he tells or understands jokes that are appropriate to the
206 situation?

207 L: (pause) Sometimes, not always.

208 KJ: Yeah, sure. And do you think he shows appropriate humour during a yeah,
209 during a conversation?

210 L: Often (laughs). AP 3

211 KJ: Yeah, he's got a good sense of humour.

212 L: Yeah! (laughs)

213 KJ: (laughs) What do you feel, if say there's an interaction going on say between you
214 and your friends or family, do you think he can join or leave that type of interaction
215 appropriately? Like by saying, 'Ah, excuse me, I just have to go and make a call'.

216 L: (laughs) No, no! Definitely not. AD 3

217 KJ: (laughs) No. Or, 'Sorry to interrupt you!'

218 L: No definitely not. Never!

219 KJ: (laughs)

220 L: Thank you, D (handed tea).

221 KJ: You can be on camera, D!

222 L: Oh watch it, you're on camera, buddy. It's your Bobsy. You top your bobsy there
223 (laughs).

224 KJ: (laughs). And what about interacting appropriately in a structured group activity?

225 L: I haven't really seen that.

226 KJ: Yeah, sure, yeah. What's your gut feeling about that?

227 L: (laughs)

228 KJ: Has there been any feedback from the play scheme or anything like that?

229 L: No, because with the play scheme he had the 1:1 and he didn't really interact
230 with the other children. Because he wouldn't go off on the trips, would he, so… AD 2

(Elder son says something from kitchen, unintelligible).



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231 L: I can't really say. (laughs) I'll sort it out later (addressing son). It's like a little trail.
232 (laughs)

233 KJ: (laughs) Like the gingerbread house.

234 L: Yes.

235 KJ: Do you think he interacts appropriately in unstructured group activities, like in the
236 close or…

237 L: Not always. It's sometimes as well.

238 KJ: OK. Sure. What is it that normally happens if it does go wrong?

239 L: Arguments. Isn't it, you know. That depends on his mood as well. Sometimes AD 18
240 he'll play lovely out there and other times within 2 minutes he'll be telling them to AD 8
241 (silence) where to go and you know, that's it.

242 KJ: So it's unpredictable.

243 L: Hmm.

244 KJ: Does he use things like email or the telephone or maybe the answering machine
245 appropriately?

246 L: Yeah, always.

247 KJ: How about it someone is introducing him or he has to introduce you to someone,
248 does he do that appropriately? Or react appropriately.

249 L: Hmm. (pause). Never really sort of been in that role.

250 KJ: Yeah, sure.

251 L: I'll tell you another time because my cousin is on her way over from Australia at
252 the moment.

253 KJ: Oh right. OK.

254 L: And he'll be meeting her children and her husband for the first time. So.

255 KJ: Oh right. Oh cool.

256 L: That'll be introductions for the first time.

257 KJ: New.

258 L: That'll be new. But everyone else he's already met. And same with all the AD 8
259 therapists at the very beginning. He was all very, very negative. Whereas he's got used AP 1
260 to them now. He's pretty good now. He's 100% better I think than a year ago! (laughs)

261 KJ: Yeah, definitely! Yeah. He'll stay in the same room as us now! (laughs)

262 L: I know (laughs).

263 KJ: (laughs) Yeah, no we were commenting, saying at the Fun Day, or you know the



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Family Day that, just how much he has come on. He was able, I mean yeah, sure he had you know the few hiccups, he just needed to see you at the lunch time.

L: That's right, yeah.

KJ: But other than that, once the once the his expectations and that had been set, he was, he did so well.

L: He surprised me, mind, I must admit. Especially from going, us leaving him first thing and (sister) coming with us which I thought was a major issue. That he actually went and stayed for a good couple of hours in the morning before having to come and see us then, which really surprised me. P 3 AP 1

KJ: Yeah, no we were really pleased. (pause) And what about when he wants to get your attention, does he use appropriate strategies to do that?

L: Um. Sometimes.

KJ: Sometimes. What are the types of things he would do?

L: Um. I suppose that's interrupting conversations again. Sometimes I can say, 'Hang on a minute, let me finish' and other times I can't. AD 18 AD 3

KJ: OK, OK. Um, what about him, if someone interrupts him, um or a if he has to you know get your attention. Do you think he reacts or responds appropriately in that way?

L: Well, that's another sometimes as well.

KJ: Yeah, ok.

L: The thing is a like lot of this is dependent on his mood and you know. AD 18

KJ: Yeah. On a good day.

L: Yeah.

KJ: No, no, I think that's that's useful. That's really useful anyway for people at school to know as well. Because his LSA's know that, but people who maybe don't interact with him that often might think…

L: That's right.

KJ: ...'Aw, why is he off today? He was absolutely fine yesterday, what's his problem?'

L: Yeah. That's right, it's like not one day is the same for him. AD 18

KJ: Yeah. Yeah.

L: It changes from morning to afternoon as well. It's not the whole day, is it? AD 18

KJ: Yeah, great morning….

L: Yeah, then it's like (aah) then a couple of hours, then (eerrr) (laughs). AD 8

KJ: Um. Just thinking about how he gives and responds to information. Um, I'm not sure if you've ever been in the situation when he's had to ask for or give directions?



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299 L: No, no, no, never been in that situation.

300 KJ: Yeah, OK. Um. And how about, does he ask or give the time of events? If he
301 knows something is coming up.

302 L: No.

303 KJ: No.

304 L: No.

305 KJ: He never does that.

306 L: No.

307 KJ: How do you feel about his concept of time?

308 L: No! AD 13

309 KJ: No.

310 L: No.

311 KJ: OK!

312 L: Hasn't got a clue. (laughs)

313 KJ: Ah. (laughs) And do you think he is aware of that or just things just happen to
314 him?

315 L: (laughs) I think I just happens and that's it! AD 17

316 KJ: (laughs). Yeah, OK.

317 L: The concept of time, everything has got to be now. AD 8

318 KJ: Yeah.

319 L: You say a minute, it is a minute. He will time that minute. AD 5

320 KJ: Does he ever give or ask for reasons, um, for maybe something that has
321 happened or a choice that you've made or anything like that?

322 L: Yeah.

323 KJ: Yeah.

324 L: Yeah.

325 KJ: Does he do that quite often or is it pretty much always he's always questioning
326 that?

327 L: Yeah, I would say always, yeah.

328 KJ: Do you think he asks for help from from others appropriately?



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329 L: Sometimes.

330 KJ: Sometimes, yeah. OK. Do you think it's different, do you think he'll ask differently
331 from a member of the family as opposed to somebody outside the family?

332 L: I think so, yeah.

333 KJ: Yeah. How do you think, how would that be different?

334 L: Probably more polite to somebody outside the family! (laughs) AP 8

335 KJ: Yeah, sure. You always get the brunt of it! (laughs)

336 L: Yeah. Definitely. (laughs)

337 KJ: (laughs) And how about offering to help others appropriately?

338 L: Yes. Yes. He's very good with old people and babies! (laughs) AP 3 AN 1

339 KJ: Yeah.

340 L: And small children. He is very good.

341 KJ: Yeah. Yeah. Ah. So would you put him as he is always offering to help
342 appropriately or often…?

343 L: … often.

344 KJ: Often. And how about giving to or responding to advice of suggestions you might
345 give him?

346 L: Eeugh! (laughs)

347 KJ: Appropriately. How does he respond to that?

348 L: Um. (pause) You see, that's another mood bit, isn't it. AD 18

349 KJ: Hmm.

350 L: You know, if he, you know, if he is in a good mood, you can get quite a lot out of
351 him.

352 KJ: Yeah.

353 L: You know, you can have a good conversation, you know. You can say this, that
354 and the other. But (laugh) if he's a bit moody, you've got no chance.

355 KJ: Ah. (pause) How about asking for permission when he needs to ask for
356 permission to do something or to somewhere?

357 L: He does sometimes, he does sometimes. Yeah.

358 KJ: OK. Um, and do you think he agrees or disagrees using appropriate language?

359 L: No, never. AD 3

360 KJ: OK. Does it normally happen quite quickly, that he will just go off on one?



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361 L: Yeah.

362 KJ: Yeah, OK. And how about asking for clarification if if he is confused or the
363 situation is unclear and he's not sure what is happening, does he …

364 L: Yeah, he does that often, I would say he often asks if he's unsure. AP 3

365 KJ: OK, um. And just thinking about if somebody does come around, maybe knock
366 and offer an invitation to do something or if he wants to give an invitation, do you think
367 he does that appropriately?

368 L: Yes. Yeah. Yeah. AP 3

369 KJ: Is that pretty much always ….

370 L: … always, yeah.

371 KJ: Yeah, so he'll. So he'll say, 'No thanks'. Or 'Yes, please'

372 L: Yeah, he would, yeah.

373 KJ: And how about if he knows he wants to, you know, negotiate something with you,
374 do you think he will um start, or you need to negotiate something with him, do you think
375 he will start a negotiation appropriately or or respond to you saying, 'Ah, L, we've got
376 something to chat about', do you think …

377 L: … that's sometimes, yeah.

378 KJ: Sometimes. Depend on how he is feeling and what has happened?

379 L: That's right, yeah.

380 KJ: And how about reminding others or responding to reminders appropriately?
381 L: Um (pause). (laughs) That's a tricky one with the reminders bit because I am PD 1
382 always reminding him. Obviously I have to. PP 1

383 KJ: Yeah, sure. And does he take that well or does he tell you where to go.

384 L: Yeah, I suppose he is, he is OK actually. I like got it, I suppose he's getting AP 1
385 used to it.

386 KJ: Yeah, sure. So it is pretty much always?

387 L: Yeah.

388 KJ: Um and say if he wants to ask somebody to change what they are doing, say
389 they are tapping or um doing something he wants them to stop or even start doing, do
390 you think he can ask them to change their actions appropriately?

391 L: Yeah. Yeah. He does with these (other children) if, or I don't know, if the music is
392 too loud or something he will ask, but then if they don't do it straight away, then he'll get AD 8
393 his hair off, he'll ask them to 'TURN IT DOWN!' you know. AD 3

394 KJ: OK.

395 L: But at the beginning, yes, he can ask appropriately. AP 3



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396 KJ: Yeah. Sure. But he can spiral…

397 L: … he can, yeah, quite quickly

398 KJ: And how about apologising and accepting apologies appropriately?

399 L: (pause) Ahhee. Because he can and he has, and that depend how bad the mood AP 18
400 is. Because I know he have apologised to me straight away when he's come back down
401 and there's times he haven't. But if I ask him to, he will.

402 KJ: Yeah, OK.

403 L: You know, so.

404 KJ: Yeah, so it's variable as well.

405 L: Varied that one is, yes.

406 KJ: And how does he respond, does he respond appropriately when someone asks
407 him to change his actions?

408 L: (laughs)

409 KJ: (laughs)

410 L: Sometimes (laughs). You can just imagine that one! AD 3

411 KJ: As I said, some of these questions we've discussed before! (laughs) How do you
412 think he responds to teasing, and anger or failure?

413 L: What? Somebody else's or?

414 KJ: His own.

415 L: His own.

416 KJ: Yeah.

417 L: Ooh, no. AD 9

418 KJ: He never responds appropriately?

419 L: No.

420 KJ: OK. Um, how how does he normally react then?

421 L: Well he just goes off on one then. He just keeps going. Really. AD 12

422 KJ: Um and how about offering or responding to expressions of affection um
423 appropriately? Do you think, say just within the family

424 L: Yeah, yeah.

425 KJ: Does he do that appropriately?

426 L: Yeah. AP 3



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427 KJ: And how about in the broader ….

428 L: (laughs) He has stopped doing it now though, but he used to, um, with DK's
429 friends…

430 KJ: OK.

431 L: … he used to, um, feel their bums. AD 15

432 KJ: OK, OK.

433 L: He has calmed down a lot with that now, though. AP 1

434 KJ: OK, oh, that's good.

435 L: Yeah.

436 KJ: Yeah. Do you think they were giving him feedback that they didn't like it?

437 L: Yes. Oh yeah! Definitely, definitely yes.

438 KJ: So they were saying, 'Cut it out.'

439 L: Yes.

440 KJ: OK. So a bit of real life hitting him in the face (laughs).

441 L: Yes! (laughs) I mean, like all the girls, they all hug each other and things like that,
442 so when they see L, they always they always hug him so he used to feel their bums,
443 you see, yeah, take it that step further (laughs). So but now he will just hug them. AD 12

444 KJ: OK, OK.

445 L: So, which is …

446 KJ: So that's appropriate.

447 L: Yeah, well yeah, because they're hugging him, he's going to hug them back.

448 KJ: Yeah.

449 L: It's just a thing now, everyone sees L, they hug him, you know, it's just
450 (laughs).

451 KJ: (laughs) OK. Yeah, it's a difficult one, isn't it, because that whole social
452 appropriacy, there's a very wide range, of …

453 L: Yes

454 KJ: … when you do what.

455 L: Who does what and some like a lot of the girls hug each other, some do some
456 don't, but L's not going to know that. PP 5

457 KJ: Yeah.



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458 L: But they really go like that to him (open arms)… A lot of them say, 'Give me a PP 5
459 hug!' or he'll say to them, because everyone he sees now, the girls, he expects to have
460 a hug off them.

461 KJ: Yeah, yeah, so that's appropriate to where they are.

462 L: But then to be fair to him he don't do it to own age. AP 8

463 KJ: OK.

464 L: He does only do it to DK's friends and you know, D's friends, you know.

465 KJ: Yeah. OK.

466 L: He don't do it to his own age group.

467 KJ: So he is distinguishing between them.

468 L: Between them. Yeah.

469 KJ: Which is good.

470 L: Yeah. Because the girls his age have never done that. But the older girls have
471 learned all this hugging and stuff. And he's just to used to them doing it.

472 KJ: Yeah, OK. This thing about his non-verbal communication. Do you think he
473 interprets, um, like facial expression?

474 L: Yes, yes. AP 2

475 KJ: Do you think that's pretty much always?

476 L: Yeah, yeah.

477 KJ: He can read it. Do you think he interprets yours better than anyone else's?

478 L: Yes. Definitely mine.

479 KJ: OK, how about body language, do you think he can interpret that appropriately?

480 L: No, yeah, I don't think he's aware of body language.

481 KJ: OK. So you could be turning your back on him and folding your hands and he
482 wouldn't quite get that you're not wanting to talk to him

483 L: Well, I suppose that one, yeah, I suppose he would understand that a bit if I did AP 2
484 turn my back on him.

485 KJ: Yeah.

486 L: I was thinking of the more face to face bit.

487 KJ: Sure.

488 L: I was thinking he wouldn't understand any of that. AD 5

489 KJ: Yeah.



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490 L: But then yeah, I suppose, if I did turn my back on him, yeah, he would, he would
491 understand that, yeah.

492 KJ: OK. So maybe sometimes.

493 L: Yeah.

494 KJ: Well I suppose thinking about things, just if someone is talking and they're just
495 going um, like that, if they put a hand up and then they carry on talking or if they show '5
496 minutes' or whatever, he might need a bit more help?

497 L: Yeah. Yes.

498 KJ: And how about tone of voice? Do you think he interprets that?

499 L: Yeah.

500 KJ: You think it's pretty consistent?

501 L: Yeah.

502 KJ: He understands the shades of that?

503 L: Oh yeah, because he accuses me of shouting and I'm not even shouting and I've AD 5
504 just raised my voice and he thinks I'm shouting at him.

505 KJ: OK.

506 L: I say, 'You'll know if I 'm shouting at you!' (laughs)

507 KJ: Yeah! (laughs) And if you just say to him, for example, if he's just starting to push
508 the boundaries, and you go, 'L!' do you think he will get that there is a slight warning
509 in your voice?

510 L: Yes, yes. AP 2

511 KJ: Yes, OK. And do you think, well certainly when, um, we've seen as well with
512 L, that when you've wanted to really stop him from doing something, you've just
513 changed your tone of voice and (sound effect) and he's totally, he's, 'Oh, this is serious'
514 and he's stopped. Which I think has remained a really big strength for those times.

515 (Phone rings)

516 L: Probably L!

517 KJ: Ah.

518 (L takes phone call)

519 L: That's just the physio. She went in and saw the indoor and outdoor PE. She said
520 obviously rugby is a no-no. I said, yeah, I understand that. It's just the taking part it's just
521 to do something, isn't it.

522 KJ: Just to do something. He's got so much energy.

523 L: You think, he's cooped up all day. That's one thing he can exert some energy off



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there.

KJ: Yeah.

L: She just basically just told me what they told me on Friday when I went in to see M and, I forget the other one's name.

KJ: R.

L: That's right. M said, 'I've been calling you Mrs H, haven't I and you're not are you?' I said, 'Don't worry about it. I've got a different name to the kids., but anything to do with the school' I said, 'Tell you what, just call me L.' I hate all this. She said, 'I know, I'm M.'

KJ: Yeah.

L: Now that we're in close contact I can't stand being called Mrs Whatever. She said, 'Ah, great! Great!' (laughs).

KJ: Ah, she's lovely.

L: Yeah. They have a checklist or something before the PE lesson. They ask him what mood he's in and he got to tick it and something to do with, if he causes arguments or something then, or he's in one of his moods, then he'll have to come back in. So. Just gives him the option.

KJ: That's nice and concrete. That's pretty good.

L: Yeah (laughs). That's pretty good.

KJ: I look forward to seeing them today (laughs). We were just talking about non verbal communication. Do you think he uses appropriate facial expressions?

L: Ooh. (pauses) Sometimes.

KJ: Sometimes.

L: Hmm.

KJ: Yeah. So sometimes his face might not be saying how he is feeling.

L: No. AD 3

KJ: OK. And how about body language? Do you think he uses appropriate body language to get his messages across?

L: (laughs)

KJ: (laughs)

L: Ooh. (pause) Um. Ah, that's sometimes as well.

KJ: Yeah, OK..

L: That's another mood one as well, isn't it. You know, he does lovely body language when he's in a mood (laughs). AD 18 AD 8 AP 10



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KJ: Yeah (laugh). And his tone of voice, do you think he uses his tone of voice to convey messages?

L: Oh yeah. AP 10

KJ: Yeah.

L: Yeah.

KJ: Yeah, OK. Would you say that's pretty much always or often?

L: Often.

KJ: And if he has to give, if he has a message and he's got to communicate without using words, do you think he would be able get his message across just with actions?

L: I don't know.

KJ: OK.

L: I don't know.

KJ: That's fine. And how about if there's um, if he's, can he use, like non-verbal cues appropriate to the situation? So for example if he's in the supermarket and he doesn't want to shout over to you, he might just give you a wave or?

L: I don't know you see, because he's quite verbal.

KJ: OK, sure. So he'll normally be saying something.

L: Yeah. He very rarely uses nonverbal. Hmm.

KJ: And how about his body distance. Does he adjust that according to the situation? Say for example with someone you don't; know very well, you're not going to stand right next to them. Does he take that into account?

L: Um, (pause) well I think so. He's not that much in contact with people he don't know, you see. That's quite hard to judge.

KJ: Yeah, sure. (pause) And how about his words and his actions and face and that. Do they link up? Do his words match his non-verbals?

L: Ohh. That's confusing.

KJ: Yeah.

L: I think so. I think they do.

KJ: Yeah. So he's not, 'Yeah, I'm fine' (dejected tone) (laughs).

L: (laughs)

KJ: He's pretty much what you see is what you get with him?

L: Yeah, yeah. He is pretty much.

KJ: Often or always?



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591 L: Often.

592 KJ: Do you think he can know how someone is feeling based on non-verbals? You
593 don't have to say?

594 L: I think so, he comes out, he definitely knows with me. AP 2

595 KJ: Yeah, yeah. Do you think he knows always or often?

596 L: Often.

597 KJ: Often, yeah, OK. And how about reading a social situation? For example you go
598 into a place where everyone is quiet, like a library. And do you think he'll read that
599 situation and respond appropriately or do you think he'll just carry on with his own
600 agenda?

601 L: (laughs) He'll just carry on! AD 6

602 KJ: (laughs)

603 L: I daren't take him in the library! No he'd just carry on, he would never read it!

604 KJ: OK. So he'd never be able?

605 L: No.

606 KJ: Last one, you'll be happy to know, do you think he understands like implied rules.
607 For example, at school you got to class, it's an implied rule that you go to class and you
608 don't go off to the shops. Like at the swimming pool it's implied that you don't walk past
609 someone and push them

610 L: Hmm, yeah.

611 KJ: Those kind of things.

612 L: Sometimes.

613 KJ: Was there anything else that comes to mind?

614 L: No, nothing comes to mind.

615 KJ: That's really useful actually. Thank very much.



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## Appendix JJ

**PARENT INTERVIEW: KIM**

**G: Mother** **KJ: Interviewer**

KJ: How would you describe K's personality?

G: Now?

KJ: Yeah.

G: Oh, it's altering all the time. We now we can actually now joke and things a little bit more easily. We can talk a lot easier now. AP 1

KJ: Yeah, sure

G: Yeah, she's bubbly. You know she's there. PP 3

K: (squeaky noise, from room next door)

G: … in a nice way! (laughs)

K: I'm always centre of attention in this family.

G: You know that's not true because there's more than you in this family (laughs). PN 6

KJ: That's right (laughs)

G: As I have pointed out quite a lot to K, there's more than K.

KJ: Yeah, sure. I know it's been a while now and obviously, K is older anyway but compared with before the injury, sorry if it is an unfair question…

G: No, no, you do you do compare because it is a different child to what you had before but then in a way you try and block out before. Sure K, K was always the same. She'd still rather be centre of attention. But she did found it a lot more easier to have friends; she had friends all the time, it was the same group of friends. AD 1 AD 1 AD 2

KJ: Yeah

G: Also she could occupy herself a lot more easier; she could do things a lot more. She was outdoors a lot more, garden. But that might be age related as well. So, but, and I think that is another hard thing, knowing what is age-related and what is not age-related. AD 1 PP 5 PD 1

KJ: Yeah, sure.

G: No, she is very similar. She's getting what I would call back to her old self again, after these years. But it is slowly getting, emerging now back to her personality (pause). Yeah, questions like that are awkward, aren't they (laughs). AP 1 PD 1

KJ: Yeah, often parents do say it's all merged into one now, so …

G: Laughs.

KJ: How would you describe her conversation skills?



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G: Improving. I would say I mean she does go back to herself but I always say that is a comfort zone. She can talk about herself. She doesn't have to sort of to think of having to say other stuff; she's safe with that. AP 1 AD 3 PP 5

KJ: Yeah, sure.

G: But we're getting better at the dinner table and things. AP 1

K: (makes noise)

G: We're able to talk about other things as well. That is, that is improving. AP 1

KJ: We're getting comments from the gallery here!

G: (laughs) Yes she tends to agree anyway!

KJ: We've actually touched on this anyway, but a bit on making and keeping friends …

G: Yeah, it's hard because she had the set group of friends, basically two and then there was sort of ones on the fringe, this was before the accident, which but the two she did keep all the time as friends but the ones on the fringe she was falling in and out of all the time. But that's quite normal girlish behaviour anyway (laughs). Friends at school I think K probably from when she first went to school had lots of more social issues. And I think maybe the kids in her class can remember that side and that's why she's finding it hard to make, so maybe going to a new place, if we go anywhere different, then she does find it easier 'cos it's a new, it's a clean slate with her. So… AD 2 PP 5 PD 3 PD 3 PP 5

K: That's why I want to move.

G: (laughs). Maybe farm college will help there, K.

KJ: Yeah, yeah.

K: ??

KJ: (laughs) Yeah, so you say before the injury just a bigger group of friends.

G: Yeah.

KJ: And, um, certainly what K said about making friends with older or younger people… do you find that?

G: Well, I think, yeah, I think she likes the younger ones because she did playgroup and things like that so she learned that one. And if we go down the club there's like older kids which are sort of from 17 upwards and she does sort of make, she's good at socialising with those. So yeah. PP 5 AN 1

KJ: OK, yeah.

G: But it's virtually out of school stuff- it's not within the school set up- I I think she does make more friends. AD 2

KJ: OK.

G: That's all right ???



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KJ: What I have got here, it's not quite as long as it looks (laughs).

G: (laughs) She says now!

KJ: (laughs). She says. (laughs) So again it's just some statements- similar to the things I was asking K. Again if you can rate, as in 1 is never, 2 is sometimes true, 3 is often, 4 is always. If it is something and you just think I have never seen that, or I really don't' know or it's just not appropriate for her, that's fine as well.

G: ??

KJ: Just thinking about general conversation skills, things like making or responding to greetings from other people, would you say K does that?

G: Yes, yeah, er, she always, she always greets people. AP 3

KJ: And saying goodbye, making farewells. How would you ….

G: Yeah, she always, yeah. AP 3

KJ: How about beginning and ending conversations appropriately? For example, face to face or on the telephone.

G: On the telephone, that's fine so always. Face to face (pause), I'd say often AD 3
because it's not always appropriate…. ways of finishing conversation. AP 3

KJ: Yeah, sure. How about turn-taking rules?

G: Oh fine, always. AP 3

KJ: Always, yeah. Maintaining eye-contact, would you say, or body position during conversation?

G: Sometimes, eye-contact, even with me. So (laughs).

KJ: Yeah, sure. OK.

G: I think it depends on the conversation. If she wants something, very AP 8 AP 10
good eye-contact (laughs). Put it that way, yeah! AD 18

K: Mum, that's not true!

G: (laughs) Aw, Mum, I do love that skirt. You get the real good ones and at other times it's….

K: It, aw, bugger off!

KJ: What about introducing appropriate topics of conversation?

K: It always comes back to K.

KJ: I'm interested in what your mum thinks!

K: Aw!

KJ: Aw!



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G: K finds it hard, I think, if she's not quite sure about what's going on especially if there is quite a few people talking. And I think then she does tend to think, all right, I'll talk about something I know about so will change conversation. So that is probably often. PP 5 AD 5 AD 3

KJ: Yeah, OK. So you say she often introduces appropriate topics or….

G: She'll often, yeah. She will often do that, within the family. I don't know I don't know outside. But that's easier talking at home, isn't it. AN 2

KJ: Yeah. What about maintaining conversation, you know like when people are going 'uh huh', nodding their head, just checking in on how the conversation is going, would you say K is able to do that?

G: Yes, she does now. It's a lot better. At one point you would not have got anything like that. But now she does sort of watch what is going on and listen as well at the same time so that's often. AP 1

KJ: OK. How about when you are having a conversation, making relevant contributions to it, does she do that?

G: She does if it's something she knows. AD 18

KJ: OK

G: Like, if we're talking about holidays and things, that's fine; anything we've done as a family, yeah, she does that appropriately and everything. But this is home isn't it (laughs). AN 2

KJ: Yeah. So …

G: That is fine, yeah.

KJ: How about… would you say she asks appropriate questions during conversations and discussions?

G: Yeah, always. AP 3

KJ: Uh huh

G: Oh no put often 'cos sometimes we'll come out with the, 'Don't you think, no that's not appropriate at this moment, K'. PN 6

KJ: OK, yeah. Have you noticed that's got better?

G: That's got better as well. After having a few prompts from us all the time and quick words, slowly… PN 6 PP 1 AP 1

KJ: Yeah

G: …happened.

KJ: How about the use of just repetitive information? Does she use a lot of repetitive information?

G: That was always. Er, now it's sometimes.



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137 KJ: Ok, so there has been shift.

138 G: Yeah, now that you pull that up, it's not that long ago. She was always going over AP 1
139 and over the same thing, but no yeah that is sometimes now. So we do do have to go PP 1
140 over it again, but not as much. I'm thinking, oh yeah. I can remember that.

141 KJ: OK

142 G: (laughs) I've heard this how many times!

143 KJ: How about asking for or responding to requests for clarification in a conversation.
144 So if there is something she is not sure of, do you think she will…

145 G: Yeah sometimes, yeah, she often sort of needs clarification about things so; but AP 3
146 she's willing to ask it, so…

147 KJ: And does that appropriately?

148 G: Yeah.

149 KJ: And how about modifying her language based on the situation, so for example
150 with a stranger or if you are in a different place do you think she adjusts her
151 communication style?

152 G: Um, often. AP 3

153 KJ: Yeah?

154 G: Yeah, sometimes needs reminding. A look from mother might say, 'That's not PN 6
155 quite right'. PP 1 AP 2

156 KJ: So just a prompt as it is happening?

157 G: Yeah.

158 KJ: So do you think she uses like the lingo or jargon of her peer group appropriately?

159 G: Yeah.

160 KJ: Yip. Pretty much…

161 G: Yeah, always. But not that I understand it (laughs)!

162 KJ: (laughs)

163 G: Not always, what does that one mean? (laughs) Please tell me!

164 KJ: (laughs) Yeah, please fill me in. How about telling or understanding jokes that
165 are appropriate to the situation.

166 G: Uh, sometimes. I think she finds that quite hard. When she's having her leg AD 5
167 pulled she she doesn't always I mean coming from a family of us, I mean she is dealing AP 1
168 with it a lot better but yeah, she often has her leg pulled over stuff.

169 KJ: Yeah. Yeah. So has that been a slow change to kind of get used to that again?



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G: Yeah.

KJ: Does she pull legs?

G: She's starting to but sometimes it's not quite funny. But she's learning. (laughs) AP 1

KJ: Yeah, do you think she shows appropriate humour during communication situations?

G: Yeah.

KJ: Yeah.

G: So what's that one, yeah, always, often. Often I think.

KJ: And how about if there's just maybe a conversation or some kind of interaction going, would you say she joins or leaves appropriately?

G: Yeah, always, I'm just trying to think ...

KJ: Maybe you're having a conversation with your husband and …

G: Ah right, sometimes she comes in but she's learnt, she's learning now not to sort of come in. So I would say often. At one bit, one time it used to be straight in there, over everybody else. AP 1

KJ: OK. Um and what about, I'm not sure if you have observed any things like any structured group activities that K is involved in?

G: No. She used to do Karate.

KJ: OK.

G: But she then ended up on her own in the, sort of doing it with the instructor because she couldn't do what her peers, so she's stopped doing that so that's now I don't know really.

KJ: OK, that's fine. And how about other unstructured group activities, I don't know, maybe S (brother) has a few friends around and they're just messing around.

G: Yeah, she finds that quite hard…

KJ: OK

G: Because she wants to join in but doesn't quite know how to do that. But that has not happened for a while so I'm not quite sure at the moment. AD 2

KJ: OK, OK, that's fine. How about using other media for example email, phone, telephone messages, that type of thing

G: Yeah, fine. She's always emailing and talking on the internet.

KJ: Yeah. And if she's being introduced or introducing someone, um, is she able to do that?

G: Yes, she's, yeah. AP 3



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KJ: So it's always?

G: Yeah.

KJ: And how about appropriate, using appropriate strategies to get attention?

G: Uh, sometimes (laughs).

KJ: OK (laughs). So that just varies on the situation?

G: Yeah!

KJ: How about using strategies for responding to interruptions or interrupting others?

G: Uh, she doesn't use any strategies; she usually just jumps in with two feet. AD 3 AD 7 AD 6

KJ: OK. OK. Um. So where would you rate her there?

G: So about 2.

KJ: So the question is does she use appropriate strategies to interrupt or respond to interruptions?

G: So, like a tap on the shoulders?

KJ: Yeah.

G: No, she just dives straight in. Um. Sometimes. It depends if she picks up on my look! AD 18 AD 7

KJ: Your non-verbal!

G: Yeah.

KJ: Right. Again, some of these may not apply so if you haven't observed it, that's fine. What about asking for directions or giving directions using appropriate language?

G: I'm trying to think, if we ever, I don't remember anything in that sort of vein.

KJ: OK, that's fine. No problem. How about asking for or giving the time of events?

G: She's pretty good. I can ask her the time. She's got a very (laughs).

KJ: OK. And so would you say she does that pretty much always?

G: Yeah, she does.

KJ: And how about asking for or giving the reason or cause of something that's happened or a choice you've made or she's made?

G: Uh, often. She'll uh. She does listen as well, when we've made a decision.

KJ: Uh huh.

G: She'll often. Put that down as a 3. We don't always follow because we don't always agree, do we. (laughs)



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236 KJ: Fair enough. Does she ask for help from others appropriately?

237 G: Yes, always, so. AP 3

238 KJ: Does she often offer to help others?

239 G: I don't tend to see that very often.

240 KJ: Uh hmm.

241 G: Although saying that, yeah she will. I would say often because she'll do things
242 around the home without asking.

243 KJ: OK. What about responding to advice or giving advice or suggestions

244 appropriately?

245 G: Uh, often. She does often listen. She might not take it but she does take it on AP 3
246 board! It filters through. It filters through. AP 9

247 KJ: Yeah, sure. How about asking for permission when it's required?

248 K: NO!

249 G: (laughs)

250 KJ: Voice from the peanut gallery! Let me check if this has enough tape. How about
251 agreeing or disagreeing using appropriate language?

252 G: Uh, Often, I mean. It's hard. It's quite hard if you've got a teenager. A part of it, PD 1
253 we do have the door slamming, and the swearing, and the shouting matches. PD 3 PP5

254 K: It's not always me though, is it?

255 G: (smiles) So I would say often, yeah, often. It's quite hard, isn't it? (laughs) PD 1

256 KJ: That's a very common theme to be honest, when speaking with parents of
257 teenagers that comes out, every single time.

258 G: Yeah. Judging what is…

259 KJ: What's normal, what's not normal, what's injury, what's not injury.

260 G: It's the teenager too. PD 3

261 KJ: Yeah. If the situation is unclear, or if K is confused, will she ask for
262 clarification?

263 G: Uh, I would say often. AP 3

264 KJ: OK.

265 G: Sometimes she will just carry on.

266 KJ: Yeah, sure.



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G: And then think about it and then come and ask, sort of thing, but I would say often.

KJ: Often, OK. Um and how about accepting or rejecting invitations appropriately, using appropriate language?

G: Always, I would say. AP 3

KJ: Yeah. And um, what about if K wants to start a negotiation? Do you think she would do that appropriately?

G: Yeah, she's fine, she knows the eye flutters and 'I love you, Mum!' AP 8

K: Yeah, it always works.

G: She paves the way. Yeah, it always work, doesn't it K. (laughs)

KJ: (laughs)

K: Not really though!

G: No, I know!

KJ: What about responding to reminders?

G: Reminders are fine. She does not mind, I think she actually likes …

K: I actually prefer reminders.

G: I will sort of point things out to her. PN 6

KJ: Sure.

KJ: What about asking others to change their actions appropriately?

G: Probably not, I would say sometimes with that one.

KJ: Sure. And apologising or accepting apologies from others?

G: Apologising is fine but doesn't accept them very well. AP 3

KJ: So you'd say maybe a 4 for giving but for accepting…

G: Sometimes for that.

KJ: What about when someone asks K to change her actions, so for example if she is doing something

G: Sometimes.

KJ: OK. What about responding to anger or teasing or disappointment appropriately?

G: Eer, I would say often, yeah, it's not always appropriate. AD 3

KJ: Yeah, OK. And also just offering or responding to expressions of affection or appreciation appropriately?



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298 G: That's fine. AP 3

299 KJ: So she's …

300 G: Always with that one.

301 KJ: Yeah. Within the family?

302 G: Yeah.

303 KJ: And outside of the family? Would you say …

304 G: We don't really do that much outside the family …

305 KJ: Yeah, sure

306 G: …in those sort of ways.

307 KJ: Sure.

308 G: But uh. She does tend to, with people she sort of knows, she does put her arms
309 around them. In that way. Really we need to do a step back from that.

310 KJ: Uh huh.

311 G: But the people she does it to don't mind.

312 KJ: In that way it's appropriate.

313 G: In that way, it's appropriate.

314 KJ: But it's not random people in the shops.

315 G: Ooh, no, no. We're not. Not that. So it's.

316 KJ: If people don't mind, they give the acceptance which then OKs for it to happen
317 again, doesn't it?

318 G: Yeah. It does say it's fine, so yeah. Fling her arms around them and say 'Hi'.

319 KJ: We're on the home strait. Just thinking about her non-verbal skills, for example
320 do you think K interprets facial expressions?

321 G: She does mine. AP 2

322 KJ: Uh huh.

323 G: She does pick up.

324 KJ: Sure. Where would you put that?

325 G: I would say always, with my glaring looks across the room! (laughs) PN 6

326 KJ: There we go! (laughs). What about body language, does she interpret body
327 language?



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328 G: I would say often. AP 2

329 KJ: Yeah. And tone of voice?

330 G: Also often. AP 2

331 KJ: What about K's use of facial expressions?

332 G: (sigh) Sometimes she does but I wouldn't say it's always though. AD 18

333 KJ: And her body language, is it expressive?

334 G: Yeah, I think so. AP 10

335 KJ: Yeah. Do you think that's 100% all the time?

336 G: No I would say often.

337 KJ: What about her intonation?

338 G: It's still loud. But I've seen so much improvement on that one. AP 1 AD 3

339 KJ: Yeah.

340 G: But we do have a sign, where I just go like that to her (indicates with fingers, PP 1
341 going softer) and she picks it up. She does know when she's getting too loud. I don't PN 6
342 have to say anything, I just do it.

343 KJ: Ah, brilliant.

344 G: It's quite discreet.

345 KJ: Yeah.

346 G: (laughs)

347 KJ: (laughs) And how about expressing messages non-verbally? Like you just said
348 you used that. Would K express things like that?

349 G: Uh, sometimes.

350 KJ: What about if there are non-verbal things happening in a situation. Would she
351 use those clues?

352 G: I just think sometimes with that one.

353 KJ: Yeah.

354 G: I don't think she always picks up …

355 KJ: Unless it's said.

356 G: Unless it's said.

357 KJ: What about distance you keep when sitting or standing.

358 G: That's actually improved. I think often. AP 1 AP 10



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KJ: Do you think her words match her non-verbal messages?

G: No (laughs). AD 3

KJ: No. OK.

G: Sometimes, no.

KJ: OK, sure. So what…

G: I don't know. It's hard sometimes when she's putting over the message. It's the happiness. She's doesn't look happy. You go, 'Are you OK?' You look… AD 3

KJ: OK.

G: She doesn't always have that skill.

KJ: And that can lead to people misinterpreting her?

G: Yeah.

G: Which is not a problem here, because we know her! AN 2

KJ: Yeah, exactly. She's understood here.

G: Yeah.

KJ: Do you think, based on non-verbal things, so you think K picks up on how people are feeling?

G: Uh, often. She don't always pick up. AD 5

KJ: OK. Just thinking about in a social situation, you've got scripts, you go to the shop and you say hi to the cashier but you don't ask all about her grandma if you don't know her. You've got scripts to know what to do when you meet a new person. Do you think K uses or reads those kind of scripts?

G: She and S (brother) go shopping and yeah, she's fine. I think it's more on a social level. Yeah, she knows how to ask politely for stuff when she can't find things. So that's fine. AP 3

KJ: Yeah, sure. Where would you put her there?

G: I would say always.

KJ: Yeah. Say a social situation like a party, or maybe your family goes to a wedding, who do you think she would be there? That type of a script, how you would behave in a more formal situation?

G: That would be between sometimes and often.

KJ: OK, yeah. And if it's something that only happens only once in a blue moon, is that more difficult?

G: It's more difficult. AD 6



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KJ: Yeah. How about, just thinking about that are implied but not stated, for example, you don't rush up to the teacher and slap them on the back, you know that there are things which are not written down, but everyone sticks to them on the whole.

G: The rules. I think, at home, and when we meet people out, fine what she does. So at home she's always got the right attitude and things. AN 2

KJ: Great! That's the end! Was there anything else that has spring to mind?

G: No, it's, I just can't believe even after we last spoke, how long ago was it? The attitude has still changed yet again. AP 1

KJ: That's brilliant.

G: Maybe she thinks something's going to happen, she seems to have a different attitude again! PP 5

KJ: Yeah.

G: Apart from the odd teenage, stroppy bits! AD 8

KJ: Sure. That's great to hear.

G: Home has never been much of a problem. AN 2

KJ: Yeah. From what you've been saying. You just understand her so well so you're just spot on with all the scaffolding with her. That's solving half the problem, isn't it?

G: You've got to have that structure, haven't you for her to sort of. We do improve on it all the time, she does improve on it. Just a few glares, she don't always like me for it. But that's fine, isn't it! (laughs) PP 2 PP 1 AP 1

KJ: (laughs) And I think that consistency is really positive. And it shows

G: Having a mother like me, she calls it! You're on my back, mother! Yes, I always will be. PN 6

KJ: (laughs) Always will be!

G: No I'm not like that, honestly! (laughs)

KJ: No, I think it's fantastic.

G: But it must be hard, if you've got no sort of concepts before. I'm quite lucky; I've worked in special education for over 20 years. I've done a lot, there's a lot of it that I do naturally anyway, because I've been taught it over the years. It must be very hard if you haven't had any form of …. PP 2

KJ: You're thrown into a different world.

G: Yeah.

KJ: Your natural style is facilitative. You naturally break the information.

G: Yeah.

KJ: You're at a stage when you don't even think about it because it is part of your



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natural communication style.

G: You don't learn because you're not taught it, are you, and you don't break it down. And maybe because I've worked with the kids all my working life, yeah, that's what you do. What it must be like if you haven't got. To relearn how to do things. I'm not saying I get it right all the time, you know. PP 1

KJ: That's the thing, isn't it, I mean. Ahh, if only we could.

G: It's always having that think. If we do it this way, maybe it will work. Saying that to K often works as well. Right K, we'll do it this way, let's see if this works, if this will work, we'll keep it going. It's all right, we're going to run of tape! PP 1

KJ: That's OK, I've brought two!

G: It's quite hard, isn't it? Because she's changed so much, which is what a lot of these kids do, isn't it. And I think that has major implications especially at school. It doesn't change that fast at school. They have these aims set down once a year, programmes. These are our aims for K. Sorry, when I first went, I said no, I want one every 2, 3 months, which they did initially but now it's gone out the board. But just to change her targets more at school. Things aren't final, are they? PD 1 PD 4 PP 1 PP 2

KJ: As you say, just literally one thing, K thinks about it and puts it into place, it can make all those goals out of date within a week!

G: That's how it goes. Like with the walking, like with the talking and the physio. First of all she was in a chair, not moving or anything. That was such a rapid thing. They put things in place, but she'd gone through it before we had actually put things in place! It's not their fault because I'm in the system itself anyway!

KJ: Yeah.

G: It must be so frustrating for kids like K. PN 1

KJ: It's different from the things, as you'll know, with kids with developmental issues, we predict progress that is just slow and then it goes flat (gesturing up then flat).

G: That's it, then goes like that (gestures up). And that can take years, just to do that.

KJ: Whereas K has a whole lot of skills which are completely preserved from before and she's bright.

G: Yeah!

K: Am I really bright?

G: Yeah, this is but then, this is, what we have to work on, isn't it, having this thought that she can do stuff. But she can, underneath it all. PP 1 PP 3

K: I know I can!

G: Yes!

K: I just like to think can't!

G: It makes it easier in life for you!



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K: Yeah! And it's like when I say I can't do it. They say it's like this. They're like yes, you can!

G: Yeah.

K: And I go, I know I can! It's just taking me slow. Just say, I'm making a cup and that. And that's really frustrating though because it's (sound effect).

G: That's your frustration at school.

K: And with boys.

KJ: Annoying boys.

K: Yeah, it really is.



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## Appendix KK

### PARENT INTERVIEW THEMES: JACK

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Some of his conversation skills are inadequate | AD 3 | 16 | *… sometimes he might forget and he interrupts you in the wrong way (lines 487-488);*<br><br>*When you start a conversation I think he'll try finishing it… he'll try, if you need to talk about something, he'd quite join in, but he won't be on the top of it all (lines 321-323).* |
| Friendships are problematic for him | AD 2 | 4 | *He's got some good friends. It took him a long time. .. to make these friends. He's found it very hard (lines 127-130);*<br><br>*Well, [he won't play] with anyone, if we go anywhere, people he don't really know, he takes a bit of a while' (lines 421-422).* |
| He struggles to understand some things | AD 5 | 4 | *… he'll try, if you need to talk about something, he'd quite join in, but he won't be on the top of it all. (lines 322-323)*<br><br>*But sometimes he understands [the rules], sometimes he can't quite understand it (lines 946-947).* |
| His behaviour has become worse since the injury | AD 8 | 12 | *He's very quick tempered now… before he wasn't as… wasn't like that (lines 2-4);*<br><br>*… now and again, you know, if anything's going on, I said to him, 'You wasn't involved, was you?' You know, 'cos sometimes he gets involved whereas before he wouldn't. If there's something going on, if there's a fight at school, Jack will be there… whereas before he would stand back … or he'd go and get help (lines 141-148)* |
| He has negative emotions | AD 9 | 7 | *But then he gets a bit upset when he gets so far but he can't get anywhere (lines 66-67);*<br><br>*He's been a lot better but sometimes with me or like he gets a bit anxious (lines 12-13).* |
| He is finding academic work difficult | AD 22 | 10 | *They said his Maths is being better but he still struggles with his English (lines 71-72).*<br><br>*He finds it harder to concentrate (line 107).* |
| He is showing improvement in his skills | AP 1 | 10 | *But I think he tried he seemed to got over it a little bit. He's gradually getting better and better (lines 67-68)*<br><br>*Rather than lash out. He's getting a bit better at it to what he was. He's starting to tell [teachers] a little bit (lines 160-161).* |
| Some of his conversation skills are good | AP 3 | 13 | *Oh, he's quite good, yeah, he'll listen to you and that (line 637*);<br><br>*If he doesn't quite understand, he's, 'What do you mean?' He wants to know (line 352).* |
| He tries very hard | AP 6 | 6 | *He does try help you … It's quite often that it. Even though he can't always do it, but he does try to (lines 529-530).* |



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## Appendix KK *(cont.)*

| Description of theme | Code | Frequency | Examples |
|---|---|---|---|
| He is not the same since his injury | AD 1 | 21 | *… he was a little … bit anxious… he was very quiet before … he wouldn't speak to you… we'd go out all together and Jack wouldn't speak to anybody … and today he'd speak to anybody in the street (lines 5-10).*<br><br>*He was very quiet. He was very laid back… sometimes he wouldn't laugh. There are some things now he wouldn't even have dreamt of laughing at and now he does (lines 397-400).* |
| Parents are having difficulties with school understanding him | PD 4 | 10 | *We've had a few conversations at school about him (laughs)… Of course because the teachers didn't know him …they didn't know him to what was and then they couldn't understand what was wrong with him (lines 163-166).*<br><br>*It's like the cooking at school. 'Why can I not do cooking at school?' When everyone else is doing it. They turn around and say he can't do cooking. I can't see why he can't be in the kitchen doing it (lines 703-706).* |
| Parents are working out what helps him | PP 1 | 12 | *But I've gone there and helped him and once he's sussed it out he'd be all right, I think, but it's getting in there (lines 442-443).*<br><br>*Another thing is if you say, 'Go and do that', he won't he won't do it. But if you ask him to do it, he will do…You turn and say to him, 'Jack, you got to wash up.' He'll tell you to get [pause] lost. 'Jack, do us a favour, can you clean them dishes for us?' He will do it! (lines 752-766) .* |
| Parents understand and empathise with him | PP 2 | 12 | *I think he's had a lot to take on. And when he came out he's had to start all new and and it's all different ... in lots of different ways (lines 58-59).*<br><br>*And once he knows what he's done, he does it. But he has to know why he has given an apology. He can't you know. Once you have talked to him and tell him, and it gradually cooks in wine, and he does it. It takes a while (lines 661-663).* |
| Parents can recognise the causes of things | PP 5 | 8 | *If you're doing it with him, he doesn't understand he can ask you personally, but in a class with 30-odd kids he can't do that (lines 121-122);*<br><br>*He … got called a lot of names when he was first gone back there. That's one of the things he could not handle. That did not help him because … that's when he did lash out more (lines 693-695).* |



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## Appendix LL

### PARENT INTERVIEW THEMES: LEO

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Some of his conversation skills are inadequate | AD 3 | 8 | *… sometimes he says things which you know I don't think is appropriate' (line 49).*<br><br>( Leo having conversations at home with the family) *Sometimes he does, [laughs] like, 'Can I, can I say something?' He puts his hand up (lines 275-276).* |
| He struggles to understand some things | AD 5 | 4 | *Sometimes he doesn't get the joke, he doesn't tell jokes (line 207).*<br><br>*Yes, sometimes, not always, because sometimes I'm trying to hint to him to stop that or don't say that or whatever but he doesn't pick it up (lines 505-506).*<br><br>*Sometimes I say, 'You can see someone's bored with you or what have you or they didn't like what you said, but you carried on, Leo', and he'll say, oh no, he didn't notice (lines 480-482).* |
| He does not have the social 'know-how'; he misjudges situations | AD 6 | 4 | *He said that, 'Your baby is really ugly; really, really ugly (line 88).*<br><br>*Because his brother made the point to me, his brother says sometimes you go around someone's house and you don't like the food and you'll go [mimics being sick]. You can't do that. You got to just not eat it or pretend it's nice or something [laughs] (lines 488-490).*<br><br>*I said to him! And [Leo's brother] laughed. We went outside. 'I mean you was talking to him as if you was chatting him up – you don't talk to someone like that- a fella!' You know. Because the fella was being polite answering him. And I thought [Leo] was talking to him because [Leo] knew him. But he didn't (lines 527-532).* |
| His ability to do things varies, depending on a range of factors | AD 18 | 5 | (Talking about if his ability to ask for things assertively) *'It depends on what sort of mood he's in' (line 444).*<br><br>(Commenting on his ability to deal with failure) *… that varies, sometimes he thinks, 'Right, I'm not going to that's not going to happen to me again and I'm going to make sure' and then sometimes he's like 'Aah! [sigh], you know. Sometimes he's quite down about it (lines 453-455).* |
| Some of his conversation skills are good | AP 3 | 10 | *Yeah, he always says, 'Can you say what you mean' or 'I don't' understand what you're talking about' (lines 186-187).*<br><br>*He'll always say, 'Hullo' and 'How are you?' and, 'Nice to meet you' so he's quite good with that (lines 263-264).* |
| He can adjust his communication style to suit the situation | AP 8 | 5 | *Because if he wants something from me, it's, 'Honey bun, sugar, sweetie!' [laughs] (line 409).*<br><br>*… when he's talking to friends I mean sometimes I worry when he ends the conversation, 'Yeah, cool!', when the friend's not there. And I say, 'Was that his mother?' and he'll say, 'Yeah, no actually it was his dad!' But it was obviously a brother or little sister (lines 146-149).* |



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## Appendix LL *(cont.)*

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| He is not the same since his injury | AD 1 | 4 | *Well, yeah, I mean, I say confident most of the time because before he was confident all of the time before, whereas now he does have some insecurities. He would check, does it, what do you think and you know (lines 10-12).*<br><br>*Or he would take my word for it; if I said, 'That looks stupid, you can't wear it, 'Tsk' but he would change because he knows maybe he's not right…Whereas before he would go, 'I'm right, you're wrong, I don't care. This is what I want to be wearing and I'm wearing it'" (lines 19-23).* |
| Parent questions own judgement or knowledge | PN 5 | 4 | *But then obviously sometimes maybe … I'm getting it wrong because of what young people talk about with each other, it is something maybe I wouldn't have been listening to before (lines 49-52).*<br><br>(Discussing what teenagers talk about) *… but some of it's learned to me because I don't know (line 66).* |
| Some things he does not do very well, but that is probably normal | PN 9 | 5 | *Whereas it would be really rude to me to say, 'Your boyfriend is really ugly!' That's normal for them! [laughs] (lines 66-67).*<br><br>*Sometimes he doesn't get the joke, he doesn't tell jokes. He can never remember them… He's like me, he can't remember them' (lines 207-210).* |
| Parent can recognise the cause of things | PP 5 | 11 | *But then obviously sometimes maybe I'm getting it I'm getting it wrong because of what young people talk about with each other, it is something maybe I wouldn't have been listening to before. I would have let him got on with it whereas now I try to listen to his conversations (lines 49-53).*<br><br>*Because sometimes, you know, people are rude, because his voice is, they think that he is a bit thick (lines 295-296).* |
| I correct him and give him feedback | PN 6 | 4 | *I would have let him got on with it whereas now I try to listen to his conversations and say, 'You can't say this, you can't say that' (lines 52-53).*<br><br>*'I mean you was talking to him as if you was chatting him up – you don't talk to someone like that- a fella!' (lines 527-528).* |



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## Appendix MM

### PARENT INTERVIEW THEMES: CARLA

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Some of her conversation skills are inadequate | AD 3 | 19 | *[Her conversation skills] are quite amusing at times. They're quite limited, I'd say (line 59).*<br><br>*I mean the home environment, you have to remind her when two people are talking, to wait for a gap or what have you (lines 263-264).* |
| She does not always understand things | AD 5 | 5 | *It depends on, you know, she'll get the wrong end of the stick sometimes which is where the humour comes in (lines 61-62).*<br><br>(Discussing facial expressions)<br>*If they're subtle, then she don't stand a chance [of understanding them] (line 463).* |
| She has negative emotions | AD 9 | 4 | *I mean sometimes when you get when it is confrontation that's when she gets frustrated because the conversation, the argument gets lost a bit (lines 29-30);*<br><br>(Discussing meeting new people)<br>*That's where the embarrassment bit comes in (line 248).* |
| She displays a black and white approach in dealing with things | AD 11 | 11 | *There's no middle ground with Carla (lines 12-13).*<br><br>*She'll either be really loving and laughing and jokey, or she's, you know, it's like there's like a wall that comes up and she can be quite aggressive. There's no, there's no, you know, discussion there, it's one or the other (lines 15-17).* |
| Her ability to do things varies, depending on a range of factors | AD 18 | 18 | *Again it depends on what it is, if there's an interest there (line 164-165).*<br><br>*… so it depends on the company as to whether she feels confident enough to ask (lines 180-181).*<br><br>*… sometimes she won't always remember to pass the messages on (lines 238-239).*<br><br>*It depends on what mood she's in (line 513).* |
| She is showing improvement in her skills | AP 1 | 6 | *She's come such a long way (line 580).*<br><br>*You can see that there is a little bit of maturity coming in now, so she is, you know (lines 47-48).*<br><br>*… we're concentrating on compromise at the moment, so I will say sometimes [she can negotiate]. If you'd come here a couple weeks ago and asked me the same thing. I'd have said never (lines 368-371).* |
| Parent is finding the experience of dealing with adolescent's TBI difficult | PD 1 | 4 | *It's a hard slog. That's exactly what it is (line 375).*<br><br>(With regards to how Carla had changed since her injury)<br>*… it's difficult (line 11).* |



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## Appendix MM *(cont.)*

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Parent feels bad when she says something negative about her child | PD 6 | 4 | *It feels really rotten saying when you think back, but, yeah, she does (line 174).*<br><br>(Talking about using subtlety)<br>*No! We love her to bits, but! [laughs] (line 365).*<br><br>*It's not just that I'm a bully!' (line 378).* |
| Parent is working out what helps her child | PP 1 | 16 | *But, that's something we're trying to work on. It'll be a case of 'hold on a minute'. She'll take some time to think. When there's been a row when she's been in my face or I've been in hers, you know, it's been confrontational. She'll come back and say, 'I'm sorry for shouting at you' and we'll sit and talk about it (lines 19-22).*<br><br>*I need to remind her, I try and remind her to try and pull her eyes forward (lines 139-140).* |
| Parent feels very positive towards her child | PP 3 | 7 | *Oh yeah, she's a character. You know, she's bubbly. She's a, how would I describe her? She's lovely. You know, she's a good kid. As a whole (lines 2-3);*<br><br>*She's doing good really (line 605).* |
| Parent can recognise the cause of things | PP 5 | 12 | *I think humour is what helps what helps her along when she doesn't understand ... Because someone will laugh at whatever it was she said and they'll stick onto something else (lines 69-73);*<br><br>*Keeping [friends]…is a problem, because we've seen over the years, obviously her peers are growing. And they're not so you'll find her friends change with whatever stage she's at with time. Because they're obviously growing up, they're maturing so they're going off and doing different things (lines 88-92).* |



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## Appendix NN

### PARENT INTERVIEW THEMES: LUKE

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Friendships are problematic for him | AD 2 | 4 | *He is quite… not shy. But, don't really want to make new friends, I don't think. And with the friends I don't know I think because of how he is they're finding it hard to cope with Luke, I think (lines 52-54).*<br><br>*And he has since the accident lost a lot of friends. He's definitely lost a lot of friends that way. Definitely. They've stopped calling and ringing and things (lines 56-57).* |
| Some of his conversation skills are inadequate | AD 3 | 10 | *He does interrupt a lot (line 26).*<br><br>*And he said to my mother… 'Nan, can I ask you a question?' And she said, 'Oh course you can!' And he said, 'Is [Granddad] the only man you've slept with?' [laughs] (lines 147-153).* |
| He struggles to understand some things | AD 5 | 4 | *You say a minute, it is a minute. He will time that minute (line 319).*<br><br>*Oh yeah, because he accuses me of shouting and I'm not even shouting and I've just raised my voice and he thinks I'm shouting at him (line 503).* |
| His behaviour has become worse since the injury | AD 8 | 8 | *If the music is too loud or something he will ask, but then if they don't do it straight away, then he'll get his hair off, he'll ask them to 'TURN IT DOWN! [raised voice]' you know (lines 391-392).*<br><br>*Now it goes that step further, um, to the part where he gets quite rude and, um, with the swearing and everything, you know, and don't really know when to stop (lines 12-13).* |
| He takes things to the extreme | AD 12 | 5 | *I mean you see parts of him sometimes, um, but it's taken to the extreme now (line 8-9).*<br><br>*I think, before he always had a little devilish side and a joking and messing about side but now it goes that step further, um, to the part where he gets quite rude and, um, with the swearing and everything, you know, and don't really know when to stop (lines 11-13).* |
| His ability to do things varies, depending on a range of factors | AD 18 | 12 | *The thing is a like lot of this is dependent on his mood and you know (line 283).*<br><br>*That depends on his mood as well. Sometimes he'll play lovely out there and other times within two minutes he'll be telling them to [silence] where to go and you know, that's it (lines 239-241).* |
| He is showing improvement in his skills | AP 1 | 5 | *He was all very, very negative. Whereas he's got used to them now. He's pretty good now. He's 100% better I think than a year ago (lines 259-260).*<br><br>*I mean, like all the girls, they all hug each other and things like that, so when they see Luke, they always they always hug him so he used to feel their bums, you see, yeah, take it that step further [laughs]. So but now he will just hug them (line 441-443).* |



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## Appendix NN *(cont.)*

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Some of his conversation skills are good | AP 3 | 5 | (Speaking about asking for clarification)<br>*Yeah, he does that often, I would say he often asks if he's unsure (line 364).*<br><br>(Discussing requesting things to be done)<br>*'But at the beginning, yes, he can ask appropriately' (line 395).* |
| Parent is finding the experience of dealing with adolescent with TBI difficult | PD 1 | 3 | *Because it just like [sigh] isn't it and you got nothing, you can't do nothing until you try and get him down and you know I don't like to call them a tantrum but it is, you see is and they're really hard (lines 19-21).* |
| Parent recognise the causes of things | PP 5 | 5 | (Commenting on his unintelligible speech)<br>*Sometimes when he's tired you get the slurriness, you know (line 34).*<br><br>*And with the friends I don't know I think because of how he is they're finding it hard to cope with Luke, I think (line 53-54).* |



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## Appendix OO

### PARENT INTERVIEW THEMES: KIM

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Friendships are problematic for her | AD 2 | 4 | *But she did found it a lot more easier to have friends; she had friends all the time, it was the same group of friends (lines 18-19).*<br><br>*Friends at school, I think Kim probably from when she first went to school had lots of more social issues. And I think maybe the kids in her class can remember that side and that's why she's finding it hard to make … (lines 46-49);* |
| Some of her conversation skills are inadequate | AD 3 | 10 | *She can talk about herself. She doesn't have to sort of to think of having to say other stuff; she's safe with that (line 33-34).*<br><br>(Commenting on Kim interrupting)<br>*Uh, she doesn't use any strategies; she usually just jumps in with two feet (line 211-212).* |
| She struggles to understand some things | AD 5 | 4 | *Kim finds it hard, I think, if she's not quite sure about what's going on especially if there is quite a few people talking (line 101).*<br><br>*When she's having her leg pulled she she doesn't always [understand] (line 166).* |
| Her ability to do things varies, depending on a range of factors | AD 18 | 4 | *If she wants something, very good eye-contact [laughs]. Put it that way, yeah!' (lines 90-91).*<br><br>*She does if it's something she knows (line 116).* |
| Some things may be difficult elsewhere but they are not a problem at home | AN 2 | 5 | *Like, if we're talking about holidays and things, that's fine; anything we've done as a family, yeah, she does that appropriately and everything. But this is home isn't it [laughs] (lines 118-120).*<br><br>*[Kim's disability at] home has never been much of a problem (line 406).* |
| She is showing improvement in some of her skills | AP 1 | 14 | *We now we can actually now joke and things a little bit more easily. We can talk a lot easier now (lines 4-5).*<br><br>*We're able to talk about other things as well. That is, that is improving (line 38).* |
| Some of her conversation skills are good | AP 3 | 7 | *She always greets people (line 77).*<br><br>*She does often listen (line 245).*<br><br>*Yeah, she knows how to ask politely for stuff when she can't find things (line 381-382).* |
| Parent is finding the experience of dealing with adolescent with TBI difficult | PD 1 | 5 | *I think that is another hard thing, knowing what is age-related and what is not age-related (lines 23-24).*<br><br>(Commenting on Kim's changing presentation)<br>*It's quite hard, isn't it? Because she's changed so much, which is what a lot of these kids do, isn't it? (lines 437-438).* |



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## Appendix OO *(cont.)*

| Description of theme | Code | Frequency | Quotes from the interview |
|---|---|---|---|
| Parent corrects her and gives her feedback | PN 6 | 5 | *A look from mother might say, 'That's not quite right' (lines 154-155).*<br><br>*I will sort of point things out to her (line 283);* |
| Parent is working out what helps her child | PP 1 | 10 | *But we do have a sign, where I just go like that to her (indicates with fingers, going softer) and she picks it up. She does know when she's getting too loud. I don't have to say anything, I just do it (line 340-342);*<br><br>*You've got to have that structure, haven't you for her to sort of. We do improve on it all the time; she does improve on it (lines 409-410);*<br><br>*It's always having that think. If we do it this way, maybe it will work. Saying that to Kim often works as well. Right Kim, we'll do it this way, let's see if this works, if this will work, we'll keep it going (lines 433-435).* |
| Parent can recognise the cause of things | PP 5 | 9 | *Well, I think, yeah, I think she likes the younger ones because she did playgroup and things like that so she learned that one (lines 59-60).*<br><br>*I would say I mean she does go back to herself but I always say that is a comfort zone. She can talk about herself. She doesn't have to sort of to think of having to say other stuff; she's safe with that (lines 32-34).* |



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## Appendix PP

**INTERVIEW: JACK**

**J: Jack** **KJ: Interviewer**

| | | | |
|---|---|---|---|
| 1 | KJ: | So what did you do on your weekend? | |
| 2 | J: | Um, saw my sister. | |
| 3 | KJ: | Cool. | |
| 4 | J: | She's had a baby. | |
| 5 | KJ: | Ah, you're the godfather, aren't you? | |
| 6 | J: | Yip. | |
| 7 | KJ: | Did you do anything else? | |
| 8 | J: | Um. No, just played on the computer and stuff. | |
| 9 | KJ: | OK, nice one. So what are we going to do, we'll start off with an interview. | |
| 10 | J: | Fine. (pause) What's the interview about? | CSP 1 |
| 11 | KJ: | The interview is about having conversations with people, OK. So these are | |
| 12 | | your answers you can give for this: you never do that, 2 you sometimes do it, 3 | |
| 13 | | is often you do it, and 4 is you always do it. And if you don't know, you just | |
| 14 | | say 'I don't know', actually. So options are never, sometimes, often, always. | |
| 15 | | Okey dokey? | |
| 16 | J: | Yip. | |
| 17 | KJ: | Let me just write our names and the date. Do you think you listen when others | |
| 18 | | speak with you? | |
| 19 | J: | Often. | |
| 20 | KJ: | You often listen when others are speaking? Cool, well done. | |
| 21 | J: | Uh hmm. | |
| 22 | KJ: | If you do not understand something when someone is speaking, do | |
| 23 | | you ask the person to explain what they mean? | |
| 24 | J: | Often. | |
| 25 | KJ: | Uh hmm. Do you use slang words? | |
| 26 | J: | What do you mean? | CSP 1 |
| 27 | KJ: | Do you know the word slang? | |
| 28 | J: | No. | |
| 29 | KJ: | Um, do you use different names for things that maybe your teachers don't know | |



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about?

J: Never.

KJ: Never, OK. Right, do you give people eye-contact when you're having a conversation with them?

J: Often.

KJ: Uh hum. Do you understand if someone is joking with you?

J: Sometimes. CSD 1

KJ: What do you do if, what happens when you don't understand when they're joking?

J: It ends up in a fight. N3 P3 P1 D4

KJ: Oh, OK, that's a bit tricky, huh?

J: Yeah.

KJ: Does it happen often?

J: Sometimes.

KJ: Sometimes. So if they're having a tease and then you get angry.

J: Hmm. CSD 1

KJ: OK. If you do something wrong, do you find it easy to apologise?

J: Often.

KJ: Uh hmm. Cool. If you disagree with someone, do you tell them in good way, in an effective way?

J: Often.

KJ: Uh hmm. Do you use facial expressions to let people know how you're feeling?

J: Sometimes.

KJ: Sometimes. Uh hmm. Do you use body language, do you know what I mean by body language, to communicate any messages?

J: No. CSD 1

KJ: Hmm.

J: No.

KJ: You don't know what body language means? CSD 4

J: No.

KJ: It's like using you body, for example you might put your head like that or you might put your hand up or …



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J: Often….

KJ: You might put your hand out when you don't want to speak to someone.

J: Often.

KJ: Yeah, OK. Do you use your tone of voice to get your message across? Do you know what I mean by that?

J: No.

KJ: OK, What I could say is 'J!' or I could go 'J!' Does that sound different?

J: Yeah.

KJ: Yeah. When I'm going, 'J!' do you think I'm begin friendly or …

J: Friendly.

KJ: And when I go, 'J!'

J: Horrible.

KJ: What about you, do you use your voice like that?

J: Sometimes.

KJ: OK. Can you guess how someone is feeling by looking at their face?

J: Sometimes.

KJ: Sometimes, yeah. Can you guess what someone is meaning by their body, by looking at their body language?

J: Sometimes.

KJ: OK. Can you guess what somebody is saying by listening to their voice, to their tone of voice?

J: Always.

KJ: Uh hmm. If you need help, do you ask for it?

J: Sometimes. CSD 1

KJ: Uh hmm. When do you ask for it?

J: During lessons and at school.

KJ: OK, All right. Is that easy?

J: Yeah.

KJ: OK. What about friends. Do you find it easy to make friends?

J: Sometimes. CSD 1



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91 KJ: OK. Tell me a bit more about that.

92 J: Sometimes I can make good friends quick, sometimes I can't. N2

93 KJ: OK, why do you think that is?

94 J: Don't know. D3

95 KJ: OK. All right. Do you fall out with your classmates and your mates?

96 J: Sometimes. D6

97 KJ: OK, what happens?

98 J: We have a disagreement …

99 KJ: Uh hmm.

100 J: We leave each other alone for a bit, then we might the next day be friends again. N3

101 KJ: OK. So you kind of figure it out afterwards?

102 J: Yeah.

103 KJ: OK. Do you talk too loudly?

104 J: (pause) Don't know. D3

105 KJ: OK, that's cool. Do you stick to the topic, do you know what I mean by that?
106 When we're talking about the cinema, for example, do you carry on talking about the
107 cinema or do you start talking about other things?

108 J: Sometimes.

109 KJ: Sometimes, yeah, OK. What do you think about this one? OK, do you think
110 you speak differently to people according to say how old they are, or how well you
111 know them, or what type of relationship you have with them?

112 J: Often.

113 KJ: So you think you would you speak to your teacher in the same way as you
114 would speak to your mates? Or would you speak to them differently?

115 J: Different.

116 KJ: OK, so you think you speak differently to people according to how old they
117 are and how well you know them?

118 J: Yeah.

119 KJ: OK. Good. Right, do you think you have a good sense of humour?

120 J: (pause) Sometimes.

121 KJ: Sometimes. Uh hmm.



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| | | | | | |
|---|---|---|---|---|---|
| 122 | J: | If they're mucking about, calling me names, I don't. | CSP 2 | P3 | N3 |
| 123 | KJ: | OK. So there's a good reason. | | | |
| 124 | J: | Yeah. | | | |
| 125 | KJ: | OK. What happens when people call you names? | | | |
| 126 | J: | I tend to get cross. | | N3 | D4 |
| 127 | KJ: | OK. And what do you do when you get cross? | | | |
| 128 | J: | Sometimes walk away, sometimes get really angry. | | N3 | P2 |
| 129 | KJ: | OK. | | | |
| 130 | J: | And have a fight. | | | N3 |
| 131 | KJ: | Right, OK. Yeah, it's a bit tricky to walk away, isn't it? | | | |
| 132 | J: | Yeah. | | | |
| 133 | KJ: | It's often the better way. Hmm. | | | |
| 134 | J: | Hmm. | | | |
| 135 | KJ: | When you meet a new person, do you know what to say to them? | | | |
| 136 | J: | Hullo. | | CSD 1 | CSD 11 |
| 137 | KJ: | Uh hmm. OK, so have a think about these. Which one do you think? | | | |
| 138 | J: | Sometimes. | | | |
| 139 | KJ: | You sometimes know what to say to them? | | | |
| 140 | J: | Yeah. | | | |
| 141<br>142 | KJ: | Uh hmm. OK. Can you pass on messages, say if someone phones for your message for your mum or dad? | | | |
| 143 | J: | I say often. | | | |
| 144 | KJ: | Often, good. OK. Do you react OK when people tease you or wind you up? | | | |
| 145 | J: | Sometimes. | | | CSD 1 |
| 146<br>147 | KJ: | Right, is it easy to listen to other people's points of view, especially if they think differently to you? | | | |
| 148 | J: | Sometimes. | | | |
| 149 | KJ: | Sometimes, yeah, OK. Do you think you interrupt others when they're talking? | | | |
| 150 | J: | Sometimes. | | | |
| 151 | KJ: | Sometimes. Right, good. What did you think of that? | | | |



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| | | | | |
|---|---|---|---|---|
| 152 | J: | OK. | | CSD 1 |
| 153 | KJ: | All right, good. | | |
| 154 | J: | Is it over already? | | CSP 1 |
| 155 | KJ: | No! It's not! | | |
| 156 | J: | Oh! | | |
| 157 | KJ: | So how are things at school? | | |
| 158 | J: | I don't know. | | D3 |
| 159 | KJ: | Do you think you need help with anything in class? | | |
| 160 | J: | Sometimes. | | CSD 1 |
| 161 | KJ: | OK, How do you usually react when something's a bit tricky? | | |
| 162 | J: | Ask for help. | | P2 |
| 163 | KJ: | OK. What else do you do? | | |
| 164 | J: | Get angry. | D4 | N3 |
| 165 | KJ: | OK, anything else? | | |
| 166 | J: | Don't know. | | D3 |
| 167 | KJ: | How do you think the teachers try to help? | | |
| 168 | J: | Calm me down. | | P2 |
| 169 | KJ: | Ah. Good. | | |
| 170 | J: | Try help me. | | CSP 2 |
| 171 | KJ: | Good. How do they do that? | | |
| 172 | J: | I don't really know. | | D3 |
| 173 | KJ: | OK. How do you think other people should help you? | | |
| 174 | J: | Don't know (laughs). | | D3 |
| 175 | KJ: | OK. Any ideas of what other people can do? | | |
| 176 | J: | No. | | CSD 1 |
| 177 | KJ: | No, OK. What types of things do teachers or classmates do that really annoys | | |
| 178 | | you or frustrates you? What winds you up? | | |
| 179 | J: | (pause) Um, calling me names. | | P1 |
| 180 | KJ: | OK, uh huh. OK. I want you to tell me 5 things that you're good at and you want | | |



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| | | | |
|---|---|---|---|
| 181 | | other people to know about you. | |
| 182 | J: | Maths, English and ICT. (pause) How many did you say? | CSP 1 |
| 183 | KJ: | I want 5 things. Any other things you're good at? | |
| 184 | J: | I'm good at chatting with my mates, playing my playstation. | |
| 185 | KJ: | Hmm, what else. What else are you good at? | |
| 186 | J: | Sometimes apologising. | |
| 187 | KJ: | Good one. If you could choose 3 things to get better, what would they be? | |
| 188 | J: | (pause) Keeping calm. | |
| 189 | KJ: | OK. | |
| 190 | J: | (pause) Um. (pause) Not getting angry. | |
| 191 | KJ: | Uh hmm. | |
| 192 | J: | (pause) Mucking about with my mates. | |
| 193 | KJ: | Uh hmm. OK. You want to muck about with them a bit more? | |
| 194 | J: | Yeah. | |
| 195 | KJ: | Yeah, OK. Why, is that a bit tricky at the moment? | |
| 196 | J: | Yeah. | |
| 197 | KJ: | Why's that? | |
| 198 | J: | Because some like to muck about and call me names and some don't. | P3 |
| 199 | KJ: | OK. All right. | |



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## Appendix QQ

**INTERVIEW: LEO**

**L: Leo** **KJ: Interviewer**

L: Can you help with me any speech? N4

KJ: I can't, but maybe I can try and help get you speech therapy, OK. Because it's a bit tricky, because obviously we're quite far away from each other. But that's kind of weighing on your mind, huh?

L: (nods) It's very irritating. D4

KJ: Yeah, sure.

L: (sigh) What can you say.

KJ: What can you say. That's huge, L. I am sorry to hear there's nothing there for you. Hopefully we can get something sorted.

L: (nods)

KJ: How is school going?

L: School is going good, but there's this teacher. He's a real (punches hand). He thinks, his head is bigger than a football.

KJ: Uh hmm.

L: He … every woman he sees, he like chats to them (for me?). And when he comes in the room with me,he goes, 'You know that chick I was chatting to, I think I am … yeah, I think I'm in there.'

KJ: He says that to you?

L: Yeah.

KJ: What do you say back?

L: I go, 'Yeah, man, you're buff!'

KJ: So what do you think about a teacher talking like that to you?

L: He shouldn't (?) he shouldn't be allowed and my mum is gonna go there to my school and and complain. P1

KJ: Oh, is it.

L: He threatened to beat up a boy in my year.

KJ: Really. Goodness me. Does he teach you?

L: Hmm.

KJ: What does he teach you?

L: Everything, he's my TA.



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KJ: Oh, he's your TA.

L: For those of you who don't know what TA means, it's teaching assistant. CSP 4

KJ: Cool, you tell them. Nice one. Ah, L, it's good to see you again. Right. So how was your half term holiday?

L: It was shit.

KJ: Yeah?

L: I went to see some girl that used to go to my old hospital, in B (place).

KJ: Oh, yeah?

L: (laughs) It's quite funny.

KJ: Uh hmm.

L: She's got fat now.

KJ: Really.

L: I mean, she has to move her whole body when she walks (mimics ungainly walking action).

KJ: Really.

L: Hmm.

KJ: Ah, so she's walking though.

L: Hmm.

KJ: So you kept in contact with her?

L: (interrupts) And she talks in one tone. CSD 8

KJ: Oh, really.

L: Hmm. She talks like this, all in that tone (imitates monotone). Am I talking in one tone? D3

KJ: No, you don't talk in one tone.

L: Good good!

KJ: So you went to go see her.

L: And we stayed in the Hilton hotel.

KJ: Well, excuse you.

L: (laughs). And my mum went, we all went to her house and came up and a few days later (pause) the girl came (pause) and she looked so terrible. CSP 2



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61 KJ: Yeah.

62 L: I know I shouldn't say that but… because she is to me quite buff before her
63 accident. CSP 5

64 KJ: Hmm, hmm.

65 L: And now …. D 11

66 KJ: Hmm. (pause) It's tough to to adapt to, isn't it.

67 L: Hmm.

68 KJ: How old is she?

69 L: She's 18, 19.

70 KJ: So she's older than you

71 L: Hmm.

72 KJ: So you spent some time in B at the Hilton.

73 L: P (place)

74 KJ: OK so you went down there.

75 L: Hmm.

76 KJ: So that's quite a lot to take on though, isn't it. Do you think you will stay in contact
77 with her still?

78 L: My mum will.

79 KJ: OK, your mum will, so you'll just ….

80 L: (interrupts) What's that? CSD 8 CSD 2

81 KJ: This is a voice recorder. Because I'm paranoid about something going wrong
82 with the video, so at least I have it on voice recording as well.

83 L: (laughs). I'm a bit like that! But not *so* paranoid! CSP 4

84 KJ: Oh well, gotta make sure! How's J (brother) doing?

85 L: He is doing OK. We're having a party on Saturday. CSP 2

86 KJ: OK.

87 L: He's invited all his friends. CSP 2

88 KJ: Uh huh.

89 L: And my cousin has invited all his friends. CSD 3

90 KJ: Cool.



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| | | | | | |
|---|---|---|---|---|---|
| 91 | L: | And I have invited some of my friends. | | | |
| 92 | KJ: | Uh huh. | | | |
| 93 | L: | Cos they rest of them … | | | |
| 94 | KJ: | Yeah? | | | |
| 95 | L: | They're idiots. IDIOTS. | | D6 | D4 |
| 96 | KJ: | Uh huh, are they? Is that from school? | | | |
| 97 | L: | No. | | | CSD 1 |
| 98 | KJ: | No. | | | |
| 99 | L: | A lot of them are girls. | | | CSP 2 |
| 100 | KJ: | Oh, yeah | | | |
| 101 | L: | Because I've had an accident, they treat me differently. | P3 | N5 | D11 |
| 102 | KJ: | Oh really. | | | |
| 103 | L: | Hmm. | | | |
| 104 | KJ: | What's been happening? | | | |
| 105 | L: | I rung one of my friends and I wanted ... and (sound effect: phone) | | | |
| 106 | 'Hullo, hullo. All right, bye L'. | | | D5 | D6 |
| 107 | KJ: | Really? | | | |
| 108 | L: | Yeah. | | | |
| 109 | KJ: | So they don't necessarily talk to you for a long time on the phone? | | | |
| 110 | L: | (shakes head) | | | D6 |
| 111 | KJ: | Ah. What about do you hang out with them or go to the movies or anything like that? | | | |
| 112 | L: | No. | | CSD 1 | D6 |
| 113 | KJ: | No. | | | |
| 114 | L: | There're 2, 3 really good friends. | | | CSP 2 |
| 115 | KJ: | OK. | | | |
| 116 | L: | Two of them came up here when I was sick. | | | |
| 117 | KJ: | Uh huh. So you still, you still see a lot of them? | | | |
| 118 | L: | Hmm. | | | |
| 119 | KJ: | OK, that's cool. So maybe the broader group you don't see much of anymore. | | | |
| 120 | That's a shame. | | | | |



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121 L: Yeah, I think it's kinda different now, they feel awkward.

(conversation ends as LG and KJ leave the room; interview then takes place later)

122 KJ: I just want to get your opinions on a few things, about your conversation skills.
123 So the answers you can give for this are 1 is never, 2 sometimes 3 is often…

124 L: I can read! CSP 4

125 KJ: Sorry! I just (roll eyes) Four is always!

126 L: So read your questions! CSP 4

127 KJ: If you don't know, then just say, I don't know.

128 KJ: L, do you think you listen when others speak with you?

129 L: Always.

130 KJ: Always, OK. OK, so that's a four. If you don't understand something
131 when someone is speaking, do you ask the person to explain what they mean?

132 L: Always.

133 KJ: So, do you use slang?

134 L: Always.

135 KJ: Can you give me some examples?

136 L: (pause). I don't know. You know. You just. If I, if you were one of my friends CSP 5
137 and I was chatting to you, I would use slang but you're not one of my friends …

138 KJ: Cool, no problem, we'll go to the next one.

139 L: … so I chat…

140 KJ: No, that's fine. Do you give people eye-contact when you're having a
141 conversation with them?

142 L: Quite often.

143 KJ: How about, do you understand if someone is joking with you?

144 L: Often.

145 KJ: Often, yeah. If you do something wrong, can you apologise?

146 L: Yeah. Always.

147 KJ: If you disagree with someone, do you tell them in an effective way?

148 L: If I, (pause) often.

149 KJ: Do you use facial expressions to let others know how you're feeling?



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150 L: Often. CSD 1

151 KJ: Uh huh. Do you use body language to communicate any messages?

152 L: Often. CSD 1

153 KJ: Do you use your tone of voice to get your message across?

154 L: Always.

155 KJ: Can you guess how someone is feeling by looking at their face?

156 L: Always.

157 KJ: Yeah. Can you guess what someone is meaning by looking at their body language?

158 L: Always.

159 KJ: OK. Can you guess what somebody is saying by listening to their tone of voice?

160 L: Always.

161 KJ: OK. If you need help, do you ask for it?

162 L: Always.

163 KJ: Yeah. Do you find it easy to make friends?

164 L: Sometimes. It's easier with when it's girls. Like friends of my friends. P3

165 KJ: Sometimes, yeah. Do you sometimes fall out with your classmates and friends?

166 L: Often.

167 KJ: Do you talk too loudly?

168 L: Never.

169 KJ: Never, OK. Do you stick to the topic of conversation?

170 L: (pause) Often.

171 KJ: Uh hmm. OK, do you think you speak differently to people according to say
172 how old they are, how well you know them, or what type of relationship you have with them?

173 L: Often.

174 KJ: So would you speak to your teacher in the same way as, say, your mate?

175 L: Yeah, my TA.

176 KJ: But not your teacher?

177 L: No (shakes head).

178 KJ: Do you think you have a good sense of humour?



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179 L: Yeah.

180 KJ: Uh hmm. Do you think you're which one of those?

181 L: Always.

182 KJ: Always, yeah. When you meet a new person, do you know what to say to them?

183 L: Sometimes. CSD 10

184 KJ: What about passing on messages, can you pass on messages, say if
185 someone phones?

186 L: Always.

187 KJ: OK. Do you react OK when people tease you or wind you up?

188 L: (pause) Often.

189 KJ: OK, you think you often react OK. Is it easy to listen to other people's
190 points of view, especially if they are different to yours?

191 L: Always. CSD 1

192 KJ: It's always easy to listen. Do you think you interrupt others when they're talking?

193 L: Never.

194 KJ: OK, cool. Just thinking about making and keeping friends, how do you think
195 that's going at the moment?

196 L: It's going OK. CSD 1 D 10

197 KJ: Uh huh.

198 L: But I don't really need to make friends. CSP 2 D 10

199 KJ: OK.

200 L: But if I was to make friends, I would ask how they are, um, ask if they have any
201 brothers or sisters, ask them obviously how old they are. CSP 2

202 KJ: OK.

203 L: I mean if it was a boy. CSP 2

204 KJ: OK. So you said you don't really have to make friends at the moment, why is that?

205 L: Because I made so many before my accident. I don't really, they all go,
206 'Hi, what's happening?' D10

207 KJ: So you're not really coming across new people who you have to make friends with?

208 L: No.



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## Appendix RR

**INTERVIEW: CARLA**

**C: Carla** **KJ: interviewer**

| | | | |
|---|---|---|---|
| 1 | KJ: | So what are you doing on the weekend? | |
| 2 | C: | Going to my dance. | |
| 3 | KJ: | Great, what's happening? | |
| 4 5 6 | C: | I'm coming home, getting ready, and then I'm picking up the boy I'm going with, and then we're going round my mate's house in L (place) and we'll wait and then we're getting a limo. Then we're. (laughs) | |
| 7 | KJ: | (laughs) Perfect. Who you going with? | |
| 8 | C: | Dan. | CSD 3 |
| 9 | KJ: | Oh, Dan, you've spoken a bit about him in the past. What are you wearing? | |
| 10 | C: | A dress. | CSD 1 CSD 10 |
| 11 | KJ: | Yeah, what does it look like? | |
| 12 | C: | It's gold, um, its just gold. | CSD 1 |
| 13 | KJ: | What else you're wearing? | |
| 14 | C: | Heels. | CSD 1 |
| 15 | KJ: | Brave woman. | |
| 16 | C: | Yeah, I know. | |
| 17 | KJ: | I so cannot wear heels. And have you got any jewellery? | |
| 18 19 | C: | Yeah, my mum's getting me a bag and I've got a necklace and my mum's getting me some earrings | CSP 2 |
| 20 | KJ: | Ah, fantastic, that's going to be so cool. So do all the year 11's go? | |
| 21 | C: | Yeah. | |
| 22 | KJ: | That's going to be fun, And what else are you up to this weekend? | |
| 23 | C: | I'm going to Elysium on Saturday. | CSD 3 |
| 24 | KJ: | (puzzled look) | |
| 25 | C: | It's an Under18's night club. | CSP 3 |
| 26 | KJ: | Is it any good? | |
| 27 | C: | Yeah, it's all right. | |



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KJ: I know some teenagers visiting this area who were asking me about night clubs the other day. Cool. And then you probably only got another week left at school.

C: Yeah.

KJ: Easy peasy.

KJ: So you got mocks next week though.

C: No, we had last week and this week. CSD 1

KJ: Oh cool, that's nice.

C: We got a week at school then break up for Christmas. CSP 2

KJ: You're not going to do any work next week, are you? No, of course not. Everyone goes on strike, that's what I did.

C: That's a good idea actually.

KJ: Don't tell them I told you. I mean, after exams what do you do? Just kill time.

C: Go on strike!

KJ: Don't quote me- get me into trouble! Karen from T says go on strike, She's a great example.

KJ: What are you doing in your Christmas holiday?

C: Nothing planned, not yet.

KJ: Not yet. And, dare I ask, how is Ayesha?

C: She's good.

KJ: Is she OK? So you're friends?

C: Yeah. CSD 1

KJ: Cool. When you refused to see me on Saturday, what did you get up to anyway? I mean, the amazing offer having an assessment!

C: What did I do last Saturday, I can't remember.

(Mother walks in, greets, refers to incident at school in the morning.)

K: You all right?

C: Yeah. CSD 1

KJ: A bit of a rough morning, huh.

K: Yeah, it's been hectic this morning, her brother's been throwing up all night, I panicked because I had a phone call from her and she was in tears and it's like God, what's going on now.



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KJ: Ahh.

K: You were in a bit of a state, weren't you?

C: Hmm. CSD 1

K: You're better now. You're going to pick Alesha up for me later?

C: Yeah.

K: How you going to walk along the road with her? CSD 1

C: I know.

K: Not letting go of her hand at all. You'll be attached!

KJ: What time do you pick Alesha up at?

C: Well, I've got, I need to start walking at about 2.50.

KJ: Well, we'll be finished by then. What do you reckon, what shall we do first? We've got like an interview.

C: What, like where you ask me questions? CSP 1

KJ: Ask you questions. I wan to see what you reckon? We'll start with that?

C: Yeah.

KJ: How are things going at school? I know this morning was a bit tough, but in general?

C: What are they? CSD 2

KJ: Oh, I'll explain later. How things at school?

C: Um, OK. CSD 1

KJ: Yeah, OK. What's happening with the work?

C: OK. CSD 1

KJ: It's good. You've been preparing for your mocks?

C: Yeah. CSD 1

KJ: Miss H says you've been doing lots of revising.

C: Yeah. CSD 1

KJ: That's great. And how about with friends and all that?

C: It's all good. CSD 1

KJ: All good, excellent. I'm just going to ask you some questions about what you think about your conversation skills. Have a think about the questions. Let me know if the answer is never, sometimes, often, always. You're welcome to tell me more.



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90 Sometimes you might find it tricky, other times you might not. Let me know that as well.

91 C: OK.

92 KJ: So, do you think you listen when others are talking to you?

93 C: Depends on what they're talking about. N 2

94 KJ: Nice one. So what do you reckon, if you had to rate yourself, 1-4.

95 C: Sometimes.

96 KJ: So does it depend on how interesting it is, or on who it is?

97 C: Yeah. CSD 1

98 KJ: So when is it tricky to listen to someone?

99 C: Um, when they're talking about stuff I don't really care about. P4

100 KJ: Ok, so you just phase out?

101 C: Yeah, I just like agree with them. I know I'm not listening! N3

102 KJ: OK. If you don't understand something when someone is having a conversation
103 with you, do you ask the person to explain what they mean?

104 C: Yeah.

105 KJ: Do you say you …

106 C: Always.

107 KJ: And that's easy to do?

108 C: Yeah. CSD 1

109 KJ: Do you use slang? Do you know what I mean by slang?

110 C: Yeah.

111 KJ: Do you use that?

112 C: Yeah. CSD 1

113 KJ: So how do you rate yourself?

114 C: Always.

115 KJ: Pretty much like everyone else in your form. Give me some examples.

116 C: Like? CSP 1

117 KJ: Give me some examples of words you would use.

118 C: If you're talking about liking a boy or something, and you think he's nice, you say
119 he's buff. If you think he's ugly, you say he's butters.



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120 KJ: Butters!

121 C: Or if you think something is funny, you say 'jokes'. (pause) If you think good
122 you say something like 'ski' They're stupid words but they're cool. CSP 2

123 KJ: Do you look at people when you're having a conversation with them.

124 C: Yeah.

125 KJ: Where would you put yourself there?

126 C: Often.

127 KJ: Often, yeah. I think that's something that's really, like a few years ago you
128 really struggled to look at other people, but now you're a whole lot more comfortable,
129 which is great. It's cool to see.

130 C: Yeah. CSD 1

131 KJ: Do you understand when others are joking with you?

132 C: Yeah.

133 KJ: Would you say…

134 C: Always.

135 KJ: OK. And how do you react when people tease you?

136 C: I laugh. N3

137 KJ: What if they tease you?

138 C: I still laugh.

139 KJ: And if it's cruel?

140 C: If it's cruel (Sigh). People aren't really like that with me so I wouldn't really know. P2
141 But I'll probably just walk off. There's no point starting an argument.

142 KJ: OK cool. If you did something wrong, can you apologise?

143 C: Depends what I've done. N2

144 KJ: OK. Give me an example.

145 C: Like if I done something deliberately, I wouldn't apologise 'cos I'm not sorry for
146 doing it. But if I done something wrong that I knew I was doing but I didn't mean for
147 it to get that far, then I'd apologise. N5

148 KJ: Right. If you disagree with someone, can you tell them that in an effective way?

149 C: Yeah.

150 KJ: Can you always, sometimes or often do that?



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C: Yeah, I can always do that. If I think someone is in the wrong, or not saying something right, I will step in and just correct them (laughs). CSP 2 N5 N3

KJ: (laughs) And how do they react to that?

C: They just like, oh yeah, but, I'm like, never, cos I'm right! N5

KJ: Do you use your face, like facial expressions to let people know how you're feeling?

C: (pause) Sometimes.

KJ: Yeah, OK.

C: Sometimes when I'm (?) with someone, I'll burst out laughing. Most of the time though, I can, people know when I'm wound up with them or in a hyper mood or annoyed. CSP 2

KJ: OK, cool. And how about do you use your body language to communicate how you are feeling?

C: (pause) What do you mean? CSP 1

KJ: Like, for example, how you hold your arms, or how you stand, or where you turn…

C: Um well sometimes I'll like, if someone knows I'm bored or like getting annoyed or something, I'll fold my arms. But the thing is I always fold my arms, it's just a habit. N3

KJ: OK. Do you think you use things to communicate if you're not using words?

C: Yeah, if I don't want to be rude, I'll just go like (gestures/sighs), to hint to them.

KJ: 'I'm finished now'?

C: Yeah.

KJ: OK, cool. Do you use your tone of voice to get your message across?

C: Yeah.

KJ: Would you say you always do that or often or sometimes?

C: Always.

KJ: So just the way you say the word, say 'Alesha!' or 'Alesha', you can get different meanings across?

C: Yeah.

KJ: Can you guess how someone is feeling by looking at their face?

C: Yeah. Half the time.

KJ: OK, so sometimes, often?

C: Often.

KJ: Is it sometimes tricky?



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182 C: Pardon? CSP 1

183 KJ: Is it sometimes tricky to figure out what people are feeling by looking at their face?

184 C: No. Because usually if someone is like sad or upset, they'll come and talk to CSD 5
185 me 'cos they know I listen. Or if they're hyper they'll ask me to be hyper with them! (laughs)

186 KJ: (laughs) Can you guess what someone is communicating by looking at their
187 body language? By looking at what they do with their arms or their body, or how they move?

188 C: Come again. CSP 1

189 KJ: Can you guess how someone is feeling by looking at their body language?

190 C: Yeah.

191 KJ: Is that always, or often?

192 C: Always.

193 KJ: Can you guess how someone is feeling just by the tone of voice? If they just use
194 one word, like 'bed time' bedtime' or 'bedtime', can you guess how someone is feeling
195 by their tone of voice?

196 C: Yeah.

197 KJ: Would you say you always can, or sometimes or often.

198 C: Probably often.

199 KJ: If you need help, do you ask for it?

200 C: Where? CSP 1

201 KJ: At home, at school.

202 C: Always. CSD 1

203 KJ: Always?

204 C: Most of the time.

205 KJ: OK. Is it different from home to school?

206 C: Yeah. CSD 1

207 KJ: So what's the difference?

208 C: Hmm (pause).

209 KJ: Where do you ask for help more? CSD 11

210 C: Probably at school.

211 KJ: Is that because there're more things to …

212 C: Yeah, that I need more help with.



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213 KJ: Whereas at home it's easier.

214 C: Yeah.

215 KJ: You know what you're doing.

216 C: Yeah.

217 KJ: Do you find it easy to make friends?

218 C: Yeah.

219 KJ: Always, often?

220 C: Yeah, always.

221 KJ: Do you fall out with your class mates and friends?

222 C: Not often, hardly ever. We do have arguments sometimes, but they're over CSP 2
223 stupid things, so we laugh about it afterwards.

224 KJ: Do you think you talk too loudly?

225 C: Yeah, always.

226 KJ: Always, really?

227 C: Yeah.

228 KJ: Well I don't think you do.

229 C: I'm really loud.

230 KJ: What do you think that is about?

231 C: I don't know, I think I just like people knowing that I'm there (laughs). P3

232 KJ: (laughs) Do you think you stick to the topic of conversation?

233 C: No.

234 KJ: No. Never?

235 C: Never!

236 KJ: Ever?

237 C: Well it depends what we're talking about. If I get bored with what we're talking N2
238 about, I just change the subject. But if I like what we're talking about, then I just
239 carry on. N3 P3

240 KJ: How do people react if you change the subject?

241 C: No-one's really bothered about it, so they just change it too.

242 KJ: OK. So do you reckon you always change the topic, or sometimes or often?



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243 C: Often.

244 KJ: And do you think you speak differently to people according to say how old they are,
245 or if someone has a bit of authority or…

246 C: Yeah. CSD 1

247 KJ: Yeah, you think you change the way you speak to them or do you talk to
248 everyone in the same way?

249 C: I talk to everyone in the same way. N3

250 KJ: OK and is that always or …

251 C: Yeah. 'Cos I say it like I see it, yeah.

252 KJ: So if you had to go, I don't know, to see the head teacher, do you think you would
253 talk to him in the same way as you would talk to Miss H?

254 C: Well I wouldn't change the way I talk but I wouldn't be rude to him. N3

255 KJ: OK, cool. So you'd know, oh, mustn't swear here or...

256 C: Yeah.

257 KJ: Do you think you'd talk to Miss H differently to how you talk to your mates?

258 C: Kind of, but I've got a lot of respect for Miss H. P3

259 KJ: Do you think you've got a good sense of humour?

260 C: Yeah.

261 KJ: Always, sometimes, often?

262 C: Always.

263 KJ: Yeah, everyone has been saying that.

264 KJ: What makes you laugh?

265 C: Anything! (laughs)

266 KJ: When you meet a new person, do you know what to say to them?

267 C: (pause) No. It's just. You kind of got to be there to know what to say.

268 KJ: OK, OK. So would it depend on the situation?

269 C: Yeah.

270 KJ: OK. How do you feel about meeting new people? Do you think it's tricky or easy?

271 C: It's easy, and it's tricky, it just depends on how they are towards you. N2

272 KJ: OK, OK. So it depends on how they are feeding back.



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273 C: Yeah.

274 KJ: So is it sometimes difficult to think of something to say to new people?

275 C: No. If they don't talk with me, I'll say, 'You've got a problem with me,
276 haven't you?' N5 N3

277 KJ: OK.

278 C: Because they blatantly do. Um, or I just make conversation and see if they talk
279 back. D7

280 KJ: OK, cool. So can you pass on messages effectively? Say someone phones and
281 leaves a message or knocks on the door, leaves a message for your mum?

282 C: Yeah, I write it down and leave it where someone is going to see it. P2

283 KJ: So where do you think you are with that?

284 C: Most times, always.

285 KJ: OK. Do you react OK when people tease you or wind you up?

286 C: Yeah. CSD 1

287 KJ: Always? Often?

288 C: Always.

289 KJ: Do you wind other people up?

290 C: Yeah!

291 KJ: How do they react?

292 C: The same way I do. CSD 1

293 KJ: OK. Is it easy to listen to other's peoples points of view, even if they don't agree
294 with you?

295 C: Yeah, because I, I've go loads of respect when I'm talking to people like that N3
296 because if they if they listen to my point of view, then I'll listen to theirs. And then
297 we'll just mingle them both together.

298 KJ: Yeah, OK. So do you reckon you're always like that, or sometimes or often?

299 C: Always.

300 KJ: Do you reckon you interrupt other people when they're talking?

301 C: Yes.

302 KJ: Often, always? Sometimes.

303 C: Often.



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304 KJ: How do they react?

305 C: They tell me to shut up and wait for my turn (laughs).

306 KJ: (laughs) And how do you react to that?

307 C: I just laugh and just shut up and wait my turn. N3



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## Appendix SS

**INTERVIEW: LUKE**

| | | **L: Luke** **KJ: Interviewer** | | |
|---|---|---|---|---|
| 1 | KJ: | How is school going? | | |
| 2 | L: | Uh, get picked on. | | D1 |
| 3 | KJ: | What's happening? | | |
| 4 | L: | I get I'm getting picked on. | | |
| 5 | KJ: | Uh hmm (pause) And who's doing that? | | |
| 6 | L: | Loads of people. | | |
| 7 | KJ: | Oh dear (pause). What do you do about it? | | |
| 8 | L: | Nothing. | N3 | D2 |
| 9 | KJ: | Nothing. OK (pause). Other than that, how things going at school? | | |
| 10 | L: | Huh? | | |
| 11 | KJ: | Other than that, how things going at school? | | |
| 12 | L: | Not bad. | | CSD 1 |
| 13<br>14<br>15 | KJ: | Not bad. OK. Cool. Before we do the questionnaire I'm haven't chatted to you for a while actually. So what did you do on the weekend? (pause) Can you remember? | | |
| 16 | L: | (Shakes his head) | | CSD 1 |
| 17 | KJ: | No? | | |
| 18 | L: | (pause) No, can't remember. | | |
| 19<br>20 | KJ: | Can't remember, OK (pause). Did you go to your Nan and Grandpa's for lunch yesterday? (pause). You normally do on a Sunday, don't you. | | |
| 21 | L: | Normally I do, yeah, I did do. | | |
| 22 | KJ: | Did you have a nice roast? | | |
| 23 | L: | Yorkshire pudding. | | |
| 24 | KJ: | Ah, yummy. (pause). Roast beef, Yorkshire pudding, what else? | | |
| 25 | L: | Roasties and potato. | | |
| 26 | KJ: | And did you have carrots? | | |
| 27 | L: | No, I don't eat any vegetables. | | |



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KJ: For the record!

L: (breaks wind and gestures) CSD 9

KJ: Do I want to know that? Right. Now, I'm going to, we're going to chat about some questions and I want you to have a look at the answers, OK. You might think that the answer is never or sometimes or often or always (shows sheet with options written on it).

L: Or don't know.

KJ: Or don't know.

KJ: OK, so this is L talking about L. Todo doo. L, do you think you listen when other people are talking to you?

L: (points to 'sometimes').

KJ: Sometimes. OK.

L: Two (points to sheet).

KJ: Two, yeah, cool. What normally happens when people are speaking with you?

L: Question (refers to sheet with question mark). D3

KJ: You don't know. OK. If you don't understand something when you're having a conversation, do you ask the person to explain what they mean?

L: Sometimes.

KJ: Sometimes, OK. What happens the rest of the time?

L: (pause) Don't know.

KJ: Don't know, all right. OK. Now, do you use slang?

L: What? CSP 1

KJ: Do you know what slang is?

L: No.

KJ: Things like 'whatever', 'minger'. It's words that…

L: Never.

KJ: … maybe your parents don't use.

L: Never.

KJ: Let's have a think if we say that. Maybe it's words types of words that your parents might not use, but you would and maybe D (brother) and D (sister) would. It's like different types of um…

L: Never. CSD 8



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KJ: Never, OK. Tell me, do you give people eye-contact when you're having a conversation with them?

L: Sometimes.

KJ: Sometimes, yeah, OK. Do you understand when other people are joking with you?

L: Sometimes.

KJ: Sometimes, yeah, OK. And what happens? How do you feel about when, how do you feel about it when people joke with you?

L: (pause) Uh, (pause) don't know. CSD1 D3

KJ: Do you joke with other people?

L: Sometimes.

KJ: Yeah you do. Yeah, you've got a good sense of humour.

L: Aw (laughs, pleased tone of voice).

KJ: Sometimes you're a bit cheeky!

L: (laughs)

KJ: Yes. If you do something wrong, will you apologise?

L: Sometimes.

KJ: Sometimes, yeah.

L: Quite often.

KJ: Often. Uh hmm. What happens then?

L: Don't know. D3 CSD 1

KJ: You don't know. OK. If you disagree with someone, can you tell then in an effective way?

L: (pause) Sometimes.

KJ: Sometimes, OK. How do you normally go about that? If you don't like what someone else is saying. What do you normally do?

L: Don't know. D3

KJ: You don't know? OK. In class?

L: In class, what about class? CSP 1

KJ: If someone does something that you don't really agree with it.

L: (pause) Just explain what I don't agree with. P1

KJ: OK, just explain what you don't agree with. Do you use your face to let people know



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91 how you're feeling with expressions?

92 L: Sometimes.

93 KJ: Sometimes, yeah, OK. And how about body language? Do you use
94 body language to communicate?

95 L: Sometimes.

96 KJ: Sometimes. Yeah. Oh, you got lots of 'sometimes'.

97 L: (burps) CSD 9

98 KJ: Excuse you.

99 L: Sorry.

100 KJ: That's all right. Do you use your tone of voice? Do you know what I mean
101 by your 'tone of voice?'

102 L: Um war um war (laughs). (pause). Um, sometimes (laughs). CSD 6

103 KJ: Sometimes. Yeah?

104 L: Yeah. (laughs)

105 KJ: So maybe you just…

106 L: (laughs)

107 KJ: … OK, all righty. Can you guess how somebody is feeling by looking at their face?

108 L: Often.

109 KJ: Often, OK.

110 L: (?) before – referring to the answer options.

111 KJ: You've used 'often' before.

112 L: (?) over here.

113 KJ: Hmm. Can you guess what somebody means by looking at their body language? What
114 they are doing with their body?

115 L: Sometimes.

116 KJ: OK. How about guessing how someone is feeling by listening to their voice.
117 Just how, by the way they say their words?

118 L: (pause) I don't know. D3

119 KJ: Don't know, OK.

120 KJ: Um, if you need help, do you ask for it?

121 L: Sometimes.



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| | | | | | | |
|---|---|---|---|---|---|---|
| 122 | KJ: | Sometimes. | | | | |
| 123 | L: | Actually, often (laughs). | | | | CSP 2 |
| 124 | KJ: | OK. How about making friends? Do you find it easy to make friends? New friends? | | | | |
| 125 | L: | (?) people. | | | | |
| 126 | KJ: | Uh hmm. How about making new friends? Do you find it easy? | | | | |
| 127 | L: | Yeah. | | | | |
| 128 | KJ: | Uh hmm. Where would you put yourself? | | | | |
| 129 | L: | Always. | | | | |
| 130 | KJ: | Always. Do you ever fall out with any of our classmates or your friends? | | | | |
| 131 | L: | Yeah, sometimes. Often. | | | | D6 |
| 132 | KJ: | Often. | | | | |
| 133 | L: | Always. | | | | CSD 1 |
| 134 | KJ: | Always? | | | | |
| 135 | L: | No, I was messing about. Often. | | | | |
| 136 | KJ: | OK, OK. What happens when you fall out with them? | | | | |
| 137 | L: | (pause). Don't know. I get upset. | N3 | P3 | D4 | |
| 138 | KJ: | OK, OK. Is there something that they do to to wind you up? | | | | |
| 139 | L: | (sharp intake of breath) | | | | |
| 140 | KJ: | What is it? | | | | |
| 141 | L: | Call me names. | | | | P3 |
| 142 | KJ: | Call you names. OK. All right. (pause). Do you think you talk too loudly? | | | | |
| 143 | L: | No. | | | | |
| 144 | KJ: | No. Where would you put yourself? | | | | |
| 145 | L: | Don't know. | | | | |
| 146 | KJ: | You just said, 'no'. Would you say 'never' or 'don't know?' | | | | |
| 147 | L: | Don't know. | | | | CSD 1 |
| 148 | KJ: | OK. Do you think you stick to the topic of conversation? | | | | |
| 149 | L: | Yes, sometimes. | | | | |



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150 KJ: Yeah, sometimes, often, always?

151 L: Sometimes.

152 KJ: Sometimes. OK. What happens uh if someone is talking about something
153 and you want to change the subject, talk about something else?

154 L: Don't know. D3

155 KJ: Do you think you speak differently to people according to how old they
156 are or maybe how well you know them?

157 L: Sometimes.

158 KJ: So for example, do you speak with your teachers the same way
159 as you speak with your mates?

160 L: Yes. Sometimes.

161 KJ: Sometimes. OK

162 L: No, never.

163 KJ: You never, OK. (pause). So you always speak to your teachers differently
164 to how you speak to your mates.

165 L: Yeah (pause). In a nicer way. N3

166 KJ: In a nicer way. OK, that's pretty cool. Yeah, how do your mates feel about that?

167 L: Really don't know.

168 KJ: All right.

169 L: Don't know about me doing that.

170 KJ: OK, that's all right. OK. Do you think you've got a good sense of humour?

171 L: Sometimes.

172 KJ: Sometimes, OK. When you meet a new person, do you know what to say to
173 them?

174 L: 'All right, mate?' CSD 1 CSD 10

175 KJ: All right, mate, yeah.

176 L: Sometimes.

177 KJ: Sometimes, OK. What's tricky about that?

178 L: I don't know 'em, or I haven't met 'em before. P3

179 KJ: OK. What about passing on messages? Can you do that effectively?

180 L: Sometimes. Often.



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181 KJ: OK. Yeah. Say if someone phones home, you can do that?

182 L: What d'ya mean? CSP 1

183 KJ: When someone phones home and you've got to give a message to your mum,
184 can you do that?

185 L: Sometimes.

186 KJ: OK. Do you react OK when people tease you or wind you up? (pauses).
187 Do you react OK and just kind of get on with it?

188 L: Sometimes.

189 KJ: Sometimes.

190 L: Never actually. CSP 2

191 KJ: OK.

192 L: Never would.

193 KJ: OK, so when someone winds you up…

194 L: I flip. D4 N3

195 L: You flip. OK.

196 KJ: Is it easy to listen to other people's points of view especially if they think
197 differently to you? Is it easy to listen to their points of view?

198 L: Often.

199 KJ: It's often quite easy to listen. Yeah?

200 L: Yeah.

201 KJ: OK. How about interrupting. Do you interrupt others when talking?

202 L: Hmm, never.

203 KJ: Never, OK. All right. Cool. So now, tell me, what do you do on weekends?
204 How about your friends? What friends do you see?

205 L: K. CSD 1

206 KJ: Anyone else?

207 L: (pause) J.

208 KJ: Are these are these guys from the close?

209 L: From the school.

210 KJ: From the school. OK.



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## Appendix TT

**INTERVIEW: KIM**

| | | | |
|---|---|---|---|
| **K: Kim** | | **KJ: Interviewer** | |
| 1 | KJ: | So, is school going? | |
| 2 | K: | Um, fine. | CSD 1 |
| 3 | KJ: | Yeah, anything else? | |
| 4 | K: | It can be annoying at times. | |
| 5 | KJ: | Uh huh. Why's that? | |
| 6 | K: | Because of my hand, that shakes and people take the mick out of it. | D1 |
| 7 | KJ: | Do you find that weight helps a lot? | |
| 8 9 | K: | I don't know, because I like hardly wear it. I'm just wearing it at the moment to see if it does. | |
| 10 | KJ: | Oh is it. OK. | |
| 11 | K: | But I've worked if you have your hand like that, and carry something, it works! | N1 |
| 12 | KJ: | Really. | |
| 13 | K: | Yeah. It doesn't shake! | |
| 14 | KJ: | It doesn't shake. | |
| 15 | K: | If you hold it like that, and hold something, it doesn't shake that much. | |
| 16 | (gestures again) | | |
| 17 | KJ: | OK. Is that quite uncomfortable? (gestures) | |
| 18 | K: | No, it's uncomfortable. | CSD 5 |
| 19 | KJ: | That position. | |
| 20 | K: | Yeah. | |
| 21 | KJ: | And other things at school, how are things going? | |
| 22 | K: | It should be OK! | CSD 1 |
| 23 24 | KJ: | Should be OK, she says! Because when did I see you, I saw you probably 6 weeks ago, 8 weeks ago, maybe? | |
| 25 | K: | Yeah, it says on that thingy there (points to calendar). | |
| 26 | KJ: | Got the date? | |
| 27 | K: | You came … (walks over to calendar and looks for appointment). | |



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KJ: Probably about 6 weeks ago, I reckon. September sometime?

K: September, yeah, probably. August … September ... 19 September.

KJ: There you go, cool, so it was about 6 weeks ago.

K: Yeah.

KJ: So has anything changed since then?

K: Apart from my bedroom, no not really!

KJ: So tell me about your bedroom.

K: Oh, it's tidy!

KJ: I just want to find out about what you think about your social skills and conversation skills.

K: Yeah.

KJ: I'll ask you some questions.

K: Mum's really horrible to me! (laughs) CSP 4

KJ: She just wants to get that on video, doesn't she! (laughs)

K: Yeah!

G: Yeah. Random thought!

KJ: Yeah, just a random thought. So your options are 1 is never, 2 sometimes, 3 is often, 4 is always.

K: Question mark, whoohoo. CSD 6

KJ: So if you don't know,

K: Then you say question mark, whoohoo! CSD 6

KJ: So you just say you don't know.

K: OK.

KJ: Do you think you listen when others are speaking with you?

K: Yes. All the time. 4.

KJ: All the time? So you give yourself a 4 there.

K: Yeah.

KJ: If you don't understand something when you're having a conversation, do you ask the person to explain what they mean?

K: Yes, all the time.



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KJ: So you'd give yourself a…

K: 4.

KJ: Do you use things like slang?

K: Yes.

KJ: Can you give me some examples of the stuff you use?

K: (pause) Um, whatever (laughs).

KJ: Yeah, whatever!

K: It's like MSN kind of thing. Sometimes I say yeah and nah and, yeah, kind of thing.

KJ: So where would you put yourself here?

K: 3

KJ: 3. OK. Cool. Do you give people eye-contact when you're having a conversation with them?

K: Not all the time.

KJ: So where would you rate yourself there?

K: 2.

KJ: 2, so sometimes. What about that?

K: About what? CSP 1

KJ: Giving people eye-contact.

K: It's very polite, but I'm not very polite, am I? (laughs) D9

KJ: I don't know, you've got some polite skills.

K: Have I?

KJ: Well, that's what I want you to tell me. Do you understand if someone is joking with you?

K: Not all the time.

KJ: OK. Where would you rate yourself there then?

K: 2.

KJ: 2. So that's sometimes.

K: Yeah.

KJ: So what is tricky about that?



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88 K: I sometimes just don't get jokes and I just take it serious and it's like bad, P3 N3
89 in a way.

90 KJ: Yeah.

91 K: Yeah.

92 KJ: OK. If you do something wrong, do you apologise?

93 K: Yeah. Always.

94 KJ: Uh huh, so you put yourself on a 4?

95 K: 4.

96 KJ: OK, cool. Is that easy?

97 K: Yeah. I just say sorry for no reason sometimes! (laughs) N3

98 KJ: (laughs) OK. If you disagree with someone, do you tell them in an effective way?

99 K: No, I just say I don't like it, (giggle) I don't agree with you or whatever.

100 KJ: So you think that gets your message across effectively?

101 K: No.

102 KJ: No. So where would you rate yourself there?

103 K: Never.

104 KJ: So you think you *never* tell people in an effective way?

105 K: No. D8

106 KJ: No, OK. So that's a …

107 K: Number 1.

108 KJ: Do you use facial expressions to let others know how you're feeling?

109 K: Sometimes.

110 KJ: OK. So you give yourself a 2. How about body language? Do you
111 think you use body language to communicate messages?

112 K: Yes.

113 KJ: Uh hmm.

114 K: 3.

115 KJ: 3. What kind of things would you do?

116 K: I'd slouch if I'm bored. N3



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117 KJ: Cool.

118 K: Um, (pause).

119 KJ: Anything else?

120 K: I'd shake if I'm worried or whatever.

121 KJ: OK.

122 K: Sometimes.

123 KJ: OK. Do you use your tone of voice to get your message across?

124 K: I don't know. D3

125 KJ: What do you think?

126 K: (pause) Sometimes.

127 KJ: Sometimes.

128 K: Yeah.

129 KJ: OK. Can you guess how someone is feeling by looking at their face?

130 K: Yes.

131 KJ: Yeah. You reckon?

132 K: Yes.

133 KJ: Where would you put yourself there?

134 K: Um, often, 3

135 KJ: OK, cool. So if someone is annoyed, or bored, or tired, you can gauge it
136 from their face?

137 K: Yeah.

138 KJ: Ok, cool. How about, can you guess what someone is meaning by looking
139 at their body language?

140 K: What? CSP 1

141 KJ: Can you guess what someone is meaning by looking at their body language?

142 K: Yeah, sometimes.

143 KJ: Where would you put yourself there?

144 K: 2.

145 KJ: A 2, yeah.

146 K: Yeah.



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147 KJ: So maybe somebody is going like this (arms folded) or they (lean forward).

148 K: Yeah, they interested.

149 KJ: Yeah. So, can you guess what somebody is saying by listening to their

150 K: …tone of voice?

151 KJ: their tone of voice.

152 K: Yeah. Like. Always, so 4.

153 KJ: OK. If you need help, do you ask for it?

154 K: Yes. Always.

155 KJ: How do you do that?

156 K: Just ask them.

157 KJ: Who do you ask?

158 K: L and the teachers if L (LSA) isn't there.

159 KJ: Yeah. Right. Do you find it easy to make friends?

160 K: No.

161 KJ: What's tricky about it?

162 K: (pause) I don't know. D3

163 KJ: Uh huh.

164 K: I just don't.

165 KJ: Yeah.

166 K: So.

167 KJ: So where would you. What would you say there? Do you think it's…

168 K: Well, I can if they're like younger. I can't make friends with my own age. N2 D3
169 I don't know why, it's just that I've never been able to. D6

170 KJ: OK.

171 K: And they're worried about me at school because I have no friends …. CSP 2 D6

172 KJ: OK, all right.

173 K: In my own year so ...

174 KJ: In your year.

175 K: Yeah.



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176 KJ: Do you have friends in other years?

177 K: I have friends in S's (brother) years, in S's year. And the year below me. D6
178 But I can't, I'm not with anyone in my own year. CSP 2

179 KJ: In your own year.

180 K: Yeah.

181 KJ: OK. So that's interesting isn't it?

182 K: Yeah.

183 KJ: Because you know that you can make friends with older people, you can
184 make friends with younger people.That's 2 really, really important things, isn't it?

185 K: Yeah.

186 KJ: So the tricky thing is the people your own age. That's 1 out of 3 that's
187 tricky and 2 out of 3 that's easier.

188 K: Yeah.

189 KJ: So where would you put yourself there? If I said do you find it easy to
190 make friends? Would you say.

191 K: It's like 3.

192 KJ: Often, often easy to make friends?

193 K: Yeah, but it depends what age group they are. N2

194 KJ: Yeah. All right. So where would you put it for your own age group then?

195 K: 1

196 KJ: OK. And for younger?

197 K: Um, 2. And for older is probably 4.

198 KJ: OK. Well, that's really interesting, that you kind of used the whole range of
199 the scale there, depending on other people.

200 K: Yeah.

201 KJ: OK. Cool. Do you fall out with your classmates and friends?

202 K: Yeah.

203 KJ: Uh huh. Where would you put yourself there?

204 K: Um, 3

205 KJ: 3. Often?

206 K: Yeah.



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207 KJ: Uh hmm. What happens?

208 K: I just disagree with them all. It always ends up in an argument. N3 D4

209 KJ: OK. Do you think you talk too loudly?

210 K: Yeah, sometimes.

211 KJ: OK.

212 K: From when I come out, when I come off the playground and go into a quiet
213 place I still talk in my playground voice. CSP 2 N3

214 KJ: Right OK. OK, that's interesting you use that, I like that, your
215 playground voice. Playground voice is volume up.

216 K: Yeah.

217 KJ: OK.

218 K: Because it's louder and it's outside and people find it hard to hear quiet.

219 KJ: Yeah, OK.

220 K: And I come outside and it's quieter and I just keep on using my playground

221 voice so that's bad. P3

222 KJ: So what do you reckon, if I say do you talk too loudly, where would you put yourself?

223 K: 2.

224 KJ: 2, so sometimes.

225 K: Yeah.

226 KJ: Nice one. OK, do you stick to the topic of conversation?

227 K: No, I always turn it back to me (giggle). N3 P3

228 KJ: I suppose you are 15 year old… yeah! (laugh) So, hmm. Gosh, so where
229 would you put yourself?

230 K: What is it?

231 KJ: Do you …

232 K: Stick to the topic of conversation.

233 KJ: Stick to the topic of conversation?

234 K: Never! D8

235 KJ: You reckon.

236 K: Yeah.



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237 KJ: What are you doing now?

238 K: Talking to you. But like, it's questions. So it's a questionnaire.

239 KJ: So it's different.

240 K: Yeah.

241 KJ: So you're going to give yourself a 'never'?

242 K: A 1.

243 KJ: A 1. Wow, that's a strong statement. So what happens when you change
244 topic? You say you always turn it back to you?

245 K: I always turn it back to me.

246 KJ: Why is that?

247 K: I don't know. (pause) it's just I like it, I like the spotlight being on me, I guess. P3

248 KJ: OK, do you think you speak differently to people according to say how old
249 they are, how well you know them, or what type of relationship you have with them?

250 K: Often.

251 KJ: So would you speak to your teacher in the same way as, say, your mate?

252 K: No. No (laughs).

253 KJ: OK, all right, So where would you put yourself there?

254 K: Always, a 4.

255 KJ: Give yourself a 2. All right. Just a few more.

256 K: Hmm.

257 KJ: Do you think you have got a good sense of humour?

258 K: Yeah.

259 KJ: Uh hmm.

260 K: I've been told I have, anyway.

261 KJ: Uh huh. So where would you put yourself there?

262 K: A 4.

263 KJ: All right. So you've always got a good sense of humour?

264 K: Yeah. I can take a joke.

265 KJ: Cool.



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266 K: Half the time anyway. CSP 2 N 2

267 KJ: OK. When you meet a new person, do you know what to say to them?

268 K: Hullo. CSD 11

269 KJ: Uh hmm.

270 K: Nice to meet you.

271 KJ: Uh hmm.

272 K: My name is Katy.

273 KJ: Yeah.

274 K: Yeah. That kind of thing.

275 KJ: So where would you put yourself there?

276 K: Sometimes.

277 KJ: OK.

278 K: It's a 2.

279 KJ: It's a 2. Do you find it's different for people of different ages?

280 K: Yeah.

281 KJ: So tell me about that.

282 K: (pause)

283 KJ: So if you met a younger person …

284 K: What would I say to them?

285 KJ: Hmm.

286 K: Welcome to the school if it's at school.

287 KJ: Yeah.

288 K: (pause) How do you find stuff and like stuff like that.

289 KJ: Do you think it would be easier of more difficult to think of new things to say
290 to a new person who is younger than you?

291 K: Difficult.

292 KJ: Uh hmm. (pause) Can you pass on messages effectively?

293 K: No!

294 KJ: For example phone messages?



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K: No.

KJ: No?

K: No. CSD 1

KJ: Where would you put yourself there then?

K: At 1.

KJ: Never!

K: Yeah!

KJ: So tell me about that.

K: I always forget the phone message. And I always like like say oh, this person phoned but I can't remember who it was though. N3

KJ: OK.

K: And it's stuff like that. Unless it's written down for me, and they give me time to write it down then I'm OK. P2

KJ: OK. You see, you know what the problem is and the solution. Fantastic. (laughs)

K: (laughs)

KJ: Because some people go, 'No, I'm great at giving messages' and meanwhile they're rubbish. And so they haven't even thought of what could help themselves. But you've thought of everything, you've thought that whole thing though. Fantastic.

K: Yeah.

KJ: So if they just slow down and give you some more chance to write the stuff, then you're OK.

K: Yeah.

KJ: I have a phone message notepad thing that I can send to you.

K: That's good.

KJ: It just gives you some prompt questions so you just tick some boxes so you don't have to do all the writing.

K: Yeah, ah yeah, yeah!

KJ: So I'll make a mental note to bring it next Monday.

K: Yeah. OK. Thank you.

KJ: Sure. Do you react OK when people tease you or wind you up?

K: Um no, I always go to smack them but then I calm down, and I just tell them to piss off. Yeah. N3 N1 D4



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327 KJ: OK. And what do they do then?

328 K: They just make more fun because they just get a reaction off me. And so, yeah. P3

329 KJ: Oh.

330 K: Hmm. I just carry on.

331 KJ: OK.

332 K: I don't actually learn not to react. P3

333 KJ: Ahh! So how do you feel about that?

334 K: Bad.

335 KJ: Yeah.

336 K: Yeah.

337 KJ: So kind of, they're in control.

338 K: Yeah.

339 KJ: And that's irritating.

340 K: Yeah.

341 KJ: That's irritating.

342 K: Hmm.

343 KJ: That's a tricky one. Where would you put yourself there for how you react?

344 K: 1.

345 KJ: 1. So you never react OK?

346 K: No.

347 KJ: OK. What are the strategies that you think could help?

348 K: Just ignore them, just blank them out. But I can't. It's hard. P2 P3

349 KJ: It's a hard one.

350 K: Yeah.

351 KJ: OK, we'll think about that. Is it easy to listen to other people's points of
352 view, especially if they are different to yours?

353 K: Well yeah, (sound effects) sometimes, but then not really. So it's like 3 or 2. N2

354 KJ: OK, last question.

355 K: Yay.



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356 KJ: Oh, second to last question.

357 K: OK.

358 KJ: Do you think you interrupt others when they're talking?

359 K: Sometimes.

360 KJ: OK. So that gives you a 2.

361 K: Yeah.

362 KJ: Yeah. So why do you think you do that?

363 K: I don't know. Because I like it being with me. It's like the same as the spotlight one. P3

364 KJ: OK.

365 K: I like everything coming back to me.

366 KJ: So you like the attention!

367 K: Yeah!

368 KJ: So you're loving the video! (laughs)

369 K: Yeah! (laughs)

370 KJ: So it's not so bad in the end! Well, actually that's all I've got to ask at this stage.

371 K: OK.

372 KJ: Fantastic

373 K: Thank you.



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## Appendix UU

**INTERVIEW THEMES: JACK**

| Description of theme | Code | Frequency | Example of quote |
|---|---|---|---|
| He knows some strategies which help him | P2 | 3 | (Discussing his reaction to calling him names)<br>*Sometimes walk away (line 128)*<br><br>(Discussing what he when he was stuck)<br>*Ask for help (line 162)* |
| He knows why some exchanges with others go well and some do not. | P3 | 3 | (Talking about his sense of humour)<br>*If they're mucking about, calling me names, I don't [have a good sense of humour] (line 122).*<br><br>(Describing what happens when he does not realise someone is joking with him)<br>*It ends up in a fight (line 38).* |
| He knows how he reacts in situations. It's not always helpful, but reflects understanding of his reaction. | N3 | 7 | Describing what he does when people call him names)<br>*I tend to get cross (line 126).*<br><br>Talking about how he reacts when cross<br>*Sometimes walk away, sometimes get really angry… and have a fight (line 128).* |
| He does not know about or understand some things | D3 | 7 | Talking about why it is difficult making friends)<br>*Don't know (line 94)*<br><br>(Talking about if he speaks loudly<br>*[pause] Don't know' (line 104).*<br><br>Answering if there is anything tricky at school<br>*I don't know (line 158).* |



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## Appendix VV

**INTERVIEW THEMES: LEO**

| Description of theme | Code | Frequency | |
|---|---|---|---|
| He knows why some exchanges with others go well and some do not. | P3 | 3 | (Discussing friends)<br>*Because I've had an accident, they treat me differently' (line 101).*<br><br>*Yeah, I think it's kinda different now, they feel awkward (line 121).* |
| Friendships are difficult. | D6 | 4 | (Discussing friends)<br>*They're idiots. IDIOTS (line 95).*<br><br>(Describing how his friends do not speak on the phone to him)<br>*I rung one of my friends and I wanted ... and (sound effect: phone) 'Hullo, hullo. All right, bye Leo' (line 105).* |
| Contradictions | D10 | 3 | *Because I made so many [friends] before my accident. I don't really [need new friends], they all go, 'Hi, what's happening?" (line 205).* |



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## Appendix WW

**INTERVIEW THEMES: CARLA**

| Description of theme | Code | Frequency | |
|---|---|---|---|
| She knows why some exchanges with others go well and some do not. | P3 | 3 | (Discussing why she adjusts her communication style with her learning support assistant)<br>*I've got a lot of respect for Miss H (line 258).*<br><br>(Talking about speaking loudly)<br>*I don't know, I think I just like people knowing that I'm there [laughs] (line 231).* |
| She knows that her communication skills vary, depending on the situation. | N2 | 4 | (Discussing meeting new people)<br>*It's easy, and it's tricky, it just depends on how they are towards you (line 271).*<br><br>(Talking about keeping to the topic)<br>*Well, it depends what we're talking about (line 237)* |
| She knows how she reacts in situations. It's not always helpful, but reflects understanding of her reaction. | N3 | 8 | *If I get bored with what we're talking about, I just change the subject. But if I like what we're talking about, then I just carry on (line 237).*<br><br>(Describing her reaction to being teased)<br>*I laugh (line 136)*<br><br>(Discussing meeting new people)<br>*If they don't talk with me, I'll say, 'You've got a problem with me, haven't you?' (line 275)* |
| She does not mince her words. | N5 | 4 | *If they don't talk with me, I'll say, 'You've got a problem with me, haven't you?' (line 275)*<br><br>*If I think someone is in the wrong, or not saying something right, I will step in and just correct them [laughs] (line 151).*<br>*They just like, oh yeah, but, I'm like, never, cos I'm right! (line 154).* |



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## Appendix XX

**INTERVIEW THEMES: LUKE**

| Description of theme | Code | Frequency | |
|---|---|---|---|
| He knows why some exchanges with others go well and some do not. | P3 | 3 | (Describing why it is sometimes hard to speak with people)<br>*I don't know 'em, or I haven't met 'em before (line 178).* |
| He knows how he reacts in situations. It's not always helpful, but reflects understanding of his reaction. | N3 | 4 | (Discussing how he reacts to falling out with friends)<br>*Don't know. I get upset (line 137).*<br><br>(Talking about when peers annoy him)<br>*I flip (line 194)* |
| He does not know about or understand some things. | D3 | 7 | (Discussing if he apologises)<br>*Don't know (line 79)*<br><br>(Talking about how to disagree)<br>*Don't know (line 85).* |



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## Appendix YY

**INTERVIEW THEMES: KIM**

| Description of theme | Code | Frequency | |
|---|---|---|---|
| She knows why some exchanges with others go well and some do not. | P3 | 8 | *They just make more fun because they just get a reaction off me. And so, yeah … I don't actually learn not to react (line 328).*<br><br>*I sometimes just don't get jokes and I just take it serious and it's like bad, in a way (line 88).*<br><br>*And I come from outside and it's quieter and I just keep on using my playground voice so that's bad (line 220).* |
| She knows that her communication skills vary, depending on the situation. | N2 | 4 | (Discussing if it was easy it was to make friends)<br>*Yeah, but it depends what age group they are (line 193).* |
| She knows how she reacts in situations. It's not always helpful, but reflects understanding of her reaction. | N3 | 8 | *I sometimes just don't get jokes and I just take it serious and it's like bad, in a way (line 88).*<br><br>(Discussing reactions to being teased)<br>*I always go to smack them but then I calm down, and I just tell them to piss off (line 325).* |
| She does not know about or understand some things | D3 | 3 | (Discussing making friends)<br>*Well, I can if they're like younger. I can't make friends with my own age. I don't know why, it's just that I've never been able to (line 168)*<br><br>(talking about if she uses her tone of voice well)<br>*I don't know (line 124).* |
| Friendships are difficult | D6 | 3 | *And they're worried about me at school because I have no friends (line 171)*<br><br>*I can't make friends with my own age (line 168).* |



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# Appendix ZZ

## PRAGMATICALLY ORIENTATED DISCOURSE ANALYSIS: JACK

| RITUALS AND CONVERSATION SKILLS | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Say the same things continuously or provide too much redundancy when talking? | | | | x | |
| Make rapid and inappropriate changes in conversational topic without cues to the listener? | | | | x | |
| Seem to have an independent conversational agenda or give inappropriate and unpredictable responses? | | | | x | |
| Fail to ask relevant questions to clarify unclear messages, so that communication frequently breaks down? | | | x | | |
| Use language that is inappropriate for the social situation? | | | | x | |
| Produce speech that is frequently disrupted by repetitions, unusual pauses and hesitations? | | | | x | |
| Use many false starts, self-repetitions and revisions in talking? | | | | x | |
| Produce long pauses or delays before responding? | | | x | | |
| Fail to attend to cues for conversational turns, interrupting frequently or failing to hold up his or her end of the conversation? | | | x | | |
| Use and 'get' humour appropriately? | | | x | | |
| Understand sarcasm? | | | x | | |
| Use sarcasm? | | | | x | |
| Understand idioms, proverbs, slang in context? | | | | x | |
| Understand indirect requests or hints? | | | | | x |
| Use indirect requests and hints to get something he or she wants? | | | | x | |
| Initiate and ends conversation as appropriate? e.g. face to face or on the telephone | | x | | | |
| Greet appropriately when meeting and departing? | | x | | | |



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## Appendix ZZ *(cont.)*

| ASKING FOR, GIVING AND RESPONDING TO INFO | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Give sufficient information when giving instructions or directions? | | | x | | |
| Use non-specific vocabulary (thing, stuff, whatchamacallit)? | | | x | | |
| Need a lot of repetition before even simple instructions are understood? | | | | x | |
| Give inaccurate messages; seem to talk when he or she 'doesn't know what he or she is talking about'? | | | | x | |
| Lack forethought and planning in telling stories and giving instructions? | x | | | | |
| Show affection and physical touch at appropriate times and with appropriate people? | | x | | | |

| NONVERBAL COMMUNICATION SKILLS | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Use inconsistent or inappropriate eye contact in conversation? | | | | | x |
| Use inappropriate tone of voice? | | | | x | |
| Interpret body language and non verbal messages? | | | x | | |
| Stand or sit at appropriate social distance when interacting? | | x | | | |

**Additional Comments**

- Has difficulty following events in large groups
- Finds drama difficult as he can't integrate all the verbal and non-verbal communication
- Has slow speed of response.

Adapted from Damico, J (1985). Clinical discourse analysis: A functional language assessment technique. In C.S. Simon (Ed). *Communication skills and classroom success: Assessment of language-learning disabled* students, 165-206. College-Hill Press: San Diego



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# Appendix AAA

## PRAGMATICALLY ORIENTATED DISCOURSE ANALYSIS: LEO

| Rituals and Conversation Skills | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Say the same things continuously or provide too much redundancy when talking? | | | X | | |
| Make rapid and inappropriate changes in conversational topic without cues to the listener? | | | | X | |
| Seem to have an independent conversational agenda or give inappropriate and unpredictable responses? | | | | X | |
| Fail to ask relevant questions to clarify unclear messages, so that communication frequently breaks down? | | | | X | |
| Use language that is inappropriate for the social situation? | | | X | | |
| Produce speech that is frequently disrupted by repetitions, unusual pauses and hesitations? | | X | | | |
| Use many false starts, self-repetitions and revisions in talking? | | | X | | |
| Produce long pauses or delays before responding? | | X | | | |
| Fail to attend to cues for conversational turns, interrupting frequently or failing to hold up his or her end of conversation? | | | X | | |
| Use and 'get' humour appropriately? | | X | | | |
| Understand sarcasm? | | X | | | |
| Use sarcasm? | | X | | | |
| Understand idioms, proverbs, slang in context? | | X | | | |
| Understand indirect requests or hints? | | X | | | |
| Use indirect requests and hints to get something he or she wants? | | X | | | |
| Initiate and ends conversation as appropriate? e.g. face to face or on the telephone | X | | | | |
| Greet appropriately when meeting and departing? | X | | | | |



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## Appendix AAA *(cont.)*

| Asking For, Giving and Responding to Information | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Give sufficient information when giving instructions or directions? | X | | | | |
| Use non-specific vocabulary (thing, stuff, whatchamacallit)? | | | X | | |
| Need a lot of repetition before even simple instructions are understood? | | | X | | |
| Give inaccurate messages; seem to talk when he or she 'doesn't know what he or she is talking about'? | | | | X | |
| Lack forethought and planning in telling stories and giving instructions? | | X | | | |
| Show affection and physical touch at appropriate times and with appropriate people? | X | | | | |

| Non-verbal Communication | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Use inconsistent or inappropriate eye contact in conversation? | | | | X | |
| Use inappropriate tone of voice? | | | X | | |
| Interpret body language and non verbal messages? | X | | | | |
| Stand or sit at appropriate social distance when interacting? | X | | | | |

**Additional Comments**

- difficulties understanding new ideas and concepts
- 'open-ended' tasks, for example in English lessons, more difficult than tightly structured tasks
- rambles on in conversation
- copes better with 'factual and concrete' learning
- slow rate of processing information
- slow speech rate- affects ability to take part in class at the same pace as the other students.
- very aware and always corrects himself when he made a mistake.

Adapted from Damico, J (1985). Clinical discourse analysis: A functional language assessment technique. In C.S. Simon (Ed). *Communication skills and classroom success: Assessment of language-learning disabled* students, 165-206. College-Hill Press: San Diego



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# Appendix BBB

## PRAGMATICALLY ORIENTATED DISCOURSE ANALYSIS: CARLA

| Rituals and Conversation Skills | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Say the same things continuously or provide too much redundancy when talking? | X | | | | |
| Make rapid and inappropriate changes in conversational topic without cues to the listener? | | X | | | |
| Seem to have an independent conversational agenda or give inappropriate and unpredictable responses? | | | X | | |
| Fail to ask relevant questions to clarify unclear messages, so that communication frequently breaks down? | | | | X | |
| Use language that is inappropriate for the social situation? | | | X | | |
| Produce speech that is frequently disrupted by repetitions, unusual pauses and hesitations? | | X | | | |
| Use many false starts, self-repetitions and revisions in talking? | | | X | | |
| Produce long pauses or delays before responding? | | X | | | |
| Fail to attend to cues for conversational turns, interrupting frequently or failing to hold up his or her end of conversation? | | | X | | |
| Use and 'get' humour appropriately? | | X | | | |
| Understand sarcasm? | | | X | | |
| Use sarcasm? | | | X | | |
| Understand idioms, proverbs, slang in context? | | | X | | |
| Understand indirect requests or hints? | | | X | | |
| Use indirect requests and hints to get something he or she wants? | | | X | | |
| Initiate and ends conversation as appropriate? e.g. face to face or on the telephone | | | X | | |
| Greet appropriately when meeting and departing? | | X | | | |



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## Appendix BBB *(cont.)*

| Asking for, Giving and Responding to Information | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Give sufficient information when giving instructions or directions? | | X | | | |
| Use non-specific vocabulary (thing, stuff, whatchamacallit)? | | | X | | |
| Need a lot of repetition before even simple instructions are understood? | | | X | | |
| Give inaccurate messages; seem to talk when he or she 'doesn't know what he or she is talking about'? | | | X | | |
| Lack forethought and planning in telling stories and giving instructions? | | X | | | |
| Show affection and physical touch at appropriate times and with appropriate people? | | X | | | |

| Non-verbal Communication | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Use inconsistent or inappropriate eye contact in conversation? | | X | | | |
| Use inappropriate tone of voice? | | | X | | |
| Interpret body language and non verbal messages? | | X | | | |
| Stand or sit at appropriate social distance when interacting? | | X | | | |

**Additional Comments**

- falls out a lot with classmates, but still is popular member of the class
- Carla has grown up a lot' in the past year
- Better her turn-taking and also greeting people more now
- takes a long time to formulate her thoughts
- can be a bit blunt in her way of speaking
- gives too many details

Adapted from Damico, J (1985). Clinical discourse analysis: A functional language assessment technique. In C.S. Simon (Ed). *Communication skills and classroom success: Assessment of language-learning disabled* students, 165-206. College-Hill Press: San Diego



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# Appendix CCC

## PRAGMATICALLY ORIENTATED DISCOURSE ANALYSIS: LUKE

| Rituals and Conversation Skills | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Say the same things continuously or provide too much redundancy when talking? | | X | | | |
| Make rapid and inappropriate changes in conversational topic without cues to the listener? | | X | | | |
| Seem to have an independent conversational agenda or give inappropriate and unpredictable responses? | | X | | | |
| Fail to ask relevant questions to clarify unclear messages, so that communication frequently breaks down? | | X | | | |
| Use language that is inappropriate for the social situation? | | X | | | |
| Produce speech that is frequently disrupted by repetitions, unusual pauses and hesitations? | | X | | | |
| Use many false starts, self-repetitions and revisions in talking? | | X | | | |
| Produce long pauses or delays before responding? | | X | | | |
| Fail to attend to cues for conversational turns, interrupting frequently or failing to hold up his or her end of conversation? | | X | | | |
| Use and 'get' humour appropriately? | | X | | | |
| Understand sarcasm? | | X | | | |
| Use sarcasm? | | X | | | |
| Understand idioms, proverbs, slang in context? | | X | | | |
| Understand indirect requests or hints? | | X | | | |
| Use indirect requests and hints to get something he or she wants? | X | | | | |
| Initiate and ends conversation as appropriate? e.g. face to face or on the telephone | | | X | | |
| Greet appropriately when meeting and departing? | | | | X | |



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## Appendix CCC *(cont.)*

| **Asking for, Giving and Responding to Information** | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Give sufficient information when giving instructions or directions? | | | | X | |
| Use non-specific vocabulary (thing, stuff, whatchamacallit)? | | X | | | |
| Need a lot of repetition before even simple instructions are understood? | | X | | | |
| Give inaccurate messages; seem to talk when he or she 'doesn't know what he or she is talking about'? | | X | | | |
| Lack forethought and planning in telling stories and giving instructions? | | X | | | |
| Show affection and physical touch at appropriate times and with appropriate people? | X | | | | |

| **Non-verbal Communication** | **always** | **often** | **seldom** | **never** | **unsure** |
|---|---|---|---|---|---|
| Use inconsistent or inappropriate eye contact in conversation? | | X | | | |
| Use inappropriate tone of voice? | | X | | | |
| Interpret body language and non verbal messages? | X | | | | |
| Stand or sit at appropriate social distance when interacting? | | X | | | |

| **Additional Comments** |
|---|
| - often fixates on one thing - becomes obsessive<br>- we are constantly moving the goalposts to adjust to Luke<br>- very regimented and does not take to new ideas<br>- ability to have conversations with peers limited<br>- difficulties learning new words |

Adapted from Damico, J (1985). Clinical discourse analysis: A functional language assessment technique. In C.S. Simon (Ed). *Communication skills and classroom success: Assessment of language-learning disabled* students, 165-206. College-Hill Press: San Diego



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# Appendix DDD

## PRAGMATICALLY ORIENTATED DISCOURSE ANALYSIS: KIM

| Rituals and Conversation Skills | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Say the same things continuously or provide too much redundancy when talking? | | X | | | |
| Make rapid and inappropriate changes in conversational topic without cues to the listener? | | X | | | |
| Seem to have an independent conversational agenda or give inappropriate and unpredictable responses? | | X | | | |
| Fail to ask relevant questions to clarify unclear messages, so that communication frequently breaks down? | | | X | | |
| Use language that is inappropriate for the social situation? | | | X | | |
| Produce speech that is frequently disrupted by repetitions, unusual pauses and hesitations? | | | X | | |
| Use many false starts, self-repetitions and revisions in talking? | | | X | | |
| Produce long pauses or delays before responding? | | X | | | |
| Fail to attend to cues for conversational turns, interrupting frequently or failing to hold up his or her end of conversation? | X | | | | |
| Use and 'get' humour appropriately? | X | | | | |
| Understand sarcasm? | X | | | | |
| Use sarcasm? | | X | | | |
| Understand idioms, proverbs, slang in context? | X | | | | |
| Understand indirect requests or hints? | X | | | | |
| Use indirect requests and hints to get something he or she wants? | | X | | | |
| Initiate and ends conversation as appropriate? e.g. face to face or on the telephone | | | X | | |
| Greet appropriately when meeting and departing? | | X | | | |



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## Appendix DDD *(cont.)*

| Asking for, Giving and Responding to Information | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Give sufficient information when giving instructions or directions? | X | | | | |
| Use non-specific vocabulary (thing, stuff, whatchamacallit)? | | X | | | |
| Need a lot of repetition before even simple instructions are understood? | | | | X | |
| Give inaccurate messages; seem to talk when he or she 'doesn't know what he or she is talking about'? | | | X | | |
| Lack forethought and planning in telling stories and giving instructions? | | X | | | |
| Show affection and physical touch at appropriate times and with appropriate people? | | | X | | |

| Non-verbal Communication | always | often | seldom | never | unsure |
|---|---|---|---|---|---|
| Use inconsistent or inappropriate eye contact in conversation? | | | X | | |
| Use inappropriate tone of voice? | X | | | | |
| Interpret body language and non verbal messages? | | | | X | |
| Stand or sit at appropriate social distance when interacting? | X | | | | |

**Additional Comments**

- always polite
- never swears in school
- provides a lot of details when talking.
- very direct when speaking with others
- can be blunt with someone she does not like
- fast on getting ideas but slow in writing them down
- concentration is noticeably better when she is motivated by the topic
- does not like being ignored
- becomes 'forceful' in her manner to become noticed

Adapted from Damico, J (1985). Clinical discourse analysis: A functional language assessment technique. In C.S. Simon (Ed). *Communication skills and classroom success: Assessment of language-learning disabled* students, 165-206. College-Hill Press: San Diego



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