DOCTORAL THESIS

Incorporating Student Self-reports in Functional Assessment

Villec, Desiree

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Incorporating Student Self-Reports in Functional Assessment

Desiree Villec

Bond University
Certification of Sources

This thesis is submitted to Bond University in fulfilment of the requirement is for the Degree of Master of...Doctor of Philosophy/Doctor of Legal Science.

This thesis represents my own work and contains no material which has been previously submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

Signature:.......................................................... Date: ............................................
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Mom and Dad, thank you for always helping me get through, even though you think what I’m doing is ridiculous. It was ridiculous, but it was worth it.

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Abstract

Interventions created to alter challenging behaviour should be preceded by a thorough investigation into the purpose of the behaviour. Functional Assessment is a framework created to investigate the purpose, or function, of behaviour viewed as a problem. Careful analysis of the behaviour through interviews, questionnaires, rating scales and direct observations, are combined to form hypotheses pertaining to the reasons why a particular behaviour might be of value to the individual. Functional Assessment has a history of being implemented for cases of extreme behaviour often exhibited by individuals with severe disabilities. Its success in these cases has allowed for branching out to new populations of individuals with verbal ability and average intelligence. For these latter populations, current literature recommends for inclusion of the target individual during the Functional Assessment – especially during the collection of data via interview. The current study uses an $n = 1$ paradigm to compare the contribution of information from 10 student-parent-teacher triads on rating scales, Functional Assessment interviews and direct observations. The study aims to investigate whether inclusion of students in the Functional Assessment process (i.e., Student-Assisted Functional Assessment) is superior to traditional Functional Assessment frameworks that do not include the individual with challenging behaviour as an informant.
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Chapter 1:

Introduction

Individuals who display challenging behaviour have been a topic of research for many years. Investigations into best practice for eliminating or altering these behaviours have evolved over time. Ethical and legal responsibilities now demand that behavioural interventions must be preceded by a thorough investigation of the variables that impact on and maintain the behaviours to be remediated. In particular, such interventions should be based on a clear understanding of the reasons (or functions) of the challenging behaviour as determined by completion of a formal Functional Assessment (Iwata, Dorsey, Slifer, Bauman & Richman, 1994). Functional Assessment data-collection and data-analysis procedures are generally focused on determining the functions served by particular problem behaviours (i.e., function labels include attention, avoidance, escape, physical and tangible). Because Functional Assessment frameworks were initially developed to assist individuals with developmental delays and poor communication skills, the methods for collecting data typically involved caregivers (i.e., parents and/or teachers) considered to be familiar with the behaviour under investigation. These caregivers were treated as knowledgeable informants who provided information via participation in interviews and completion of rating scales (Dunlap, Kern, dePerczel, Clarke, Wilson, Childs, White & Falk, 1993). Data obtained via these informant methods were usually interpreted by clinicians in connection with findings obtained from direct observations of the individual (with the challenging behaviour) in his/her natural environment. Behavioural interventions arising from such Functional Assessments were designed to modify specific target
behaviours which interfered with the individual’s functioning by teaching relevant coping skills and reinforcing viable replacement behaviours (Carr & Durand, 1985).

Over the past decade, researchers (e.g. Cowick & Storey, 2000; Dunlap, et. al., 1993; Lewis & Sugai, 1996) have argued strongly that Functional Assessments and their associated needs-based interventions offer a viable therapy process for all individuals with challenging behaviour irrespective of whether a pre-existing disorder is present. This has caused an expansion in the client groups (e.g., children/adolescents with behavioural and emotional disorders) and problem behaviours considered for Functional Assessment. This proposal has also created a need for refinement of traditional Functional Assessment data-collection methods in order to ensure that valid conclusions are reached on the functions of behaviour. Kern, Childs, Dunlap, Clarke and Falk (1994) have proposed that the individuals who exhibit the challenging behaviour should be formally incorporated in the Functional Assessment process as they might possess valuable information on maintaining variables that cannot be obtained from caregivers. This call for development of Student-Assisted Functional Assessment procedures, which has existed in the literature, has not received much attention in the research literature thus leaving clinicians with minimal direction in obtaining student-generated data.

Functional analytic researches (Bitsika, 2005; O’Neill, Horner, Albin, Sprague, Storey & Newton, 1997) have remained robust in their argument that needs-based interventions cannot be developed via allocation of diagnostic labels. Lewis and Sugai (1996) and Starin (2002) suggest that, in cases of moderate to severe behavioural difficulty, a disability label does not offer a detailed description of the individual’s experiences and cannot be used to assist in any difficulties s/he might be struggling with.
Further, Carr, Yarbrough and Langdon (1997) state that behaviour is best understood in relation to its details and the ways in which it assists the individual to interact with particular aspects of his/her environment. Therefore, the focus of data-collection is on the individual’s behaviour in relation to form (i.e., topography and appearance) and function (i.e., specific outcomes it produces) and interventions arise from an in-depth evaluation of these data (O’Neill, et. al., 1997). This recommended focus on understanding the individual’s specific experiences has resulted in criticism of traditional Functional Assessment models that have identified only the generic functions (or function labels) for challenging behaviour and resulted in interventions with only short-term or partial effectiveness in remediating that behaviour. Investigations into creation of methods to identify the full range of specific reinforcing outcomes arising from difficult behaviour are increasing, but guidelines for adopting such methods in the applied setting remain scarce.

This thesis aimed to (a) develop and evaluate a clinical framework for conducting Student-Assisted Functional Assessment tailored for participants with age-appropriate comprehension and language skills and long-term behavioural difficulties and (b) trial a basic approach for augmentation of traditional Functional Assessment by including an in-depth investigation of behavioural functions.

Chapter two focuses on the introduction and elaboration of Functional Assessment within the school environment. Details are provided tracing the evolution of Functional Assessment technologies from its early stages and across several refinements in process and shifts in research paradigms. The terms “Functional Assessment” and “Functional Analysis” are traced through the literature and compared to promote understanding of the differences in processes. Functional Assessment is further refined through its progression
of use with individuals with severe disabilities to the current usage with any individual displaying problem behaviour, in which the process became stronger through experimentation with a wider range challenges paired with a more advanced set of abilities, such as average levels of intelligence and verbal ability, which historically have not been factors present in individuals undergoing Functional Assessment. The individuals who serve as sources on input for Functional Assessment have also branched out from those familiar with the behaviour to include those experiencing the behaviour first hand, a necessary involvement when considering past discrepancies between caregiver and student reports on behaviour. This chapter concludes with a detailed inspection of the current process of a Student-Assisted Functional Assessment which serves as the basis for methods used in the current study.

Chapter three focuses on the methods used to conduct a Student-Assisted Functional Assessment. Details of the participant group and setting used for interviews, assessments and observation are defined along with the order of data collection methods and phases. Descriptions of the four standardized tests, valued outcomes analysis and antecedent-behaviour-consequence data collection observation method used for the current study are also provided. A rationale for including the student as an informant in a Functional Assessment is included as well, indicating that all individuals familiar with the target behaviour should be included as part of a comprehensive evaluation needed to determine the function and its value to the individual in order to create the most effective individualized intervention.

Chapter four focuses on detailing the information of the 10 cases, including results of the standardized tests required to establish eligibility criteria; data from semi-structured
interviews with the parent and teacher; results of standardized tests utilized to determine the presence of behaviour problems; identification of a target behaviour by the researcher; results of the parent, teacher and self-report rating scales; information from the parent, teacher and participant on the Functional Assessment interview and details of direct observations of the target student in the natural environment in the school setting. Comparisons of data are included at the end of each case study, indicating areas of agreement and disagreement between participant and caregiver data, along with the information that was gained by including the target student as part of the data collection process.

Chapter five focuses on results of the study which promote the utility of Student-Assisted Functional Assessment as opposed to traditional Functional Assessment methods that do not include the target individual in the data collection process. Results are presented which indicate that the target students were able to provide unique information or information that varied from caregiver (i.e., the parent and teacher) reports regarding details of the target behaviour, antecedents and consequences of the behaviour, the function label and valued outcomes which maintain the behaviour using the same or similar rating scales and interviews. Further details are also provided on student performances during the assessment process.

Chapter six focuses on the integration of results from the current study and the effects and influences it will have on the field of Functional Assessment. The trends uncovered following 10 case studies that included the individual displaying the challenging behaviour as an informant during the Functional Assessment process are utilized to
elaborate on previous areas of need as well as identify future directions in this necessary field of behavioural investigation and intervention.
Chapter 2:

Functional Assessment and Intervention Frameworks and Methodologies Developed for the School Environment

2.1 Functional Assessment in Schools

Functional Assessment and Functional Analysis are becoming distinguished as a superior method for understanding and changing student behaviour labeled as difficult or challenging. The process of Functional Assessment and Analysis has been designed to examine the conditions under which target behaviour occurs and identify the variables which maintain that behaviour in order to create a support or intervention plan designed to promote behaviour change primarily via acquisition of positive replacement behaviours (O’Neill, et.al., 1997). Functional analysts strongly recommend that no intervention should be implemented without first investigating the purpose (or functions) of the challenging behaviour for the person who exhibits it (Iwata, et.al., 1994). While Functional Assessment and Analysis have no one definitive step-by-step system for collecting and analyzing data on student behaviour, the general process does aim to gather student-specific information on the ways in which challenging behaviour interacts with specific variables in the environment. It is proposed that understanding behaviour-environment interactions will result in more efficient and effective strategies for changing behaviour in the context in which it is exhibited.

Functional Assessment data-collection processes have more recently been shifted from simulated clinical condition to the natural environment where the behaviour to be investigated naturally occurs (i.e., school and classroom settings). Researchers (e.g.,
Aikman, Garbutt & Furniss, 2003; Carr, et. al., 1997) suggest that conducting assessment in natural settings allows for more in-depth data which is better able to represent how behaviour actually occurs and overcomes the criticism that attempted recreation of classroom environments in analogue settings may not account for specific establishing operations, discriminative stimuli and reinforcers that are functionally related to the behaviour (Anderson & Long, 2002). An increasing number of studies have brought Functional Assessment into the classroom and shown repeatedly that this process can lead to effective individualized interventions and produce positive outcomes (Aikman, et. al., 2003; Ervin, DuPaul, Kern & Friman, 1998; Kern, Delaney, Clarke, Dunlap & Childs, 2001; Lewis & Sugai, 1996; Northup, Wacker, Berg, Kelly, Sasso & DeRaad, 1994). Several studies have found that training school personnel in conducting these assessments is useful and beneficial (Sasso, Reimers, Cooper, Wacker, Berg, Steege, Kelly & Allaire, 1992; Wallace, Doney, Mintz-Resudek & Tarbox, 2004), and when asked, teachers who participated in the training agreed that it was practical and of benefit to them (March & Horner, 2002).

Previously, the challenging behaviour exhibited by students in schools was dealt with in a punitive manner, such as an office referral, detention, suspension or expulsion (Quinn, Gable, Fox, Rutheford, Van Acker & Conroy, 2001; Sugai, Horner, Dunlap, Hieneman, Lewis, Nelson, Scott, Liaupsin, Sailor, Turnbull, Turnbull, Wickham, Reuf & Wilcox, 1999). In more recent times, punishment has been viewed as an ineffective method for behaviour change on two of levels. First, it is established that access to even slight aversive consequences can lead to the onset of negative emotions and resistance on the part of students (McGee & Daly, 1999). Second, punishment does not teach students
new behaviours thus setting the conditions for other negative behaviour to emerge and serve the same function of the one targeted for elimination (McGee & Daly, 1999). Often following exposure to these methods of punishment, if behaviour required further intervention, it was remediated via standardised behaviour modification programmes developed for general problem areas rather than to meet the particular behavioural needs of specific students (March & Horner, 2002). Furthermore, to fall within school time and budgeting limitations, such programmes were often provided in group-delivery formats, which, literature has shown, can produce iatrogenic effects, such as increasing externalizing behaviours, delinquency, alcohol and drug use and other problem behaviours these programs have been designed to decrease (Rhule, 2005).

The standardized school-based intervention processes described above are most likely to be successful for low- to moderate-level behaviour problems. However, school personnel are all too familiar with the reoccurring behaviours that are more severe in nature and apparently resistant to the typical warning or discipline approaches commonly used in the school environment. Research findings (e.g., Kinch, Lewis-Palmer, Hagan-Burke & Sugai, 2001; Sprague, Sugai, Horner & Walker, 1999; Sugai, et. al., 1999) suggest that students with moderate-severe behaviour problems represent only 3-5% of the overall population, however, they contribute to at least half of the negative behaviour incidents and absorb a significant amount of time from school personnel. Schools often have no clear plan for dealing with severe behavioural difficulties, and their approach to this type of behaviour has been reactive and focused on damage control as opposed to proactive so that instances of behaviour might be minimized. The time assigned in reaction to problem behaviour from these few students can be apportioned in a more useful
fashion conducting individualized Functional Assessments to understand the behaviour and its maintaining variables in order to create a uniquely tailored intervention more likely to produce positive effects (Starin, 2002).

Northup, et. al. (1994) report that school personnel often raise that the Functional Assessment process will be too time consuming and tedious, especially when considering its use within the natural context of a school. Quinn, et. al. (2001) estimate that the average time period for a thorough assessment ranges from one week to one month, with some complex cases requiring additional time. Despite these concerns, it is now established that the time and effort spent conducting Functional Assessment is time well spent. This process overcomes the disadvantages (to the student, teachers and school) of arbitrarily prescribing an intervention without first identifying the functions of the behaviour and matching those functions with an intervention likely to accommodate the specific and particular needs of the individual (Iwata, et. al., 1994; Wacker, Cooper, Peck, Derby & Berg, 1999).

Matching the function of behaviour to an appropriate intervention using the extensively researched method of Functional Assessment is no longer only an ethical responsibility, but a legal one when dealing with students with identified disabilities requiring an individualized education plan. It is now recognized by the United States Congress that identifying function of behaviour is the first step in creating long-term behaviour change. Functional Assessment is now incorporated in the Individuals with Disabilities Act (IDEA), following the 1997 amendments, stating that this type of assessment must be conducted to create and implement a behavioural intervention plan preceding any disciplinary action regarding a student identified as having a disability who
has been suspended for a period exceeding 10 days. The inclusion of Functional Assessment in the IDEA suggests that this process is evidence-based, and its utility should be spread to include all students, not just those with a disability recognized by Diagnostic and Statistical Manual of Mental Disorders - Fourth Edition – Text Revision (DSM-IV-TR) (American Psychiatric Association, 2000). Functional Assessment is a tool to solve problem behaviour, not to fix a problem student or cure a problem disability, and therefore should be used to assess any challenging behaviour (Bitsika, 2005).

2.2 Historical Background of Functional Technologies

Prior to the widespread use of Functional Assessment and Analysis, problem behaviour was thought to be a symptom of a problem child (Sugai, et. al, 1999). There was an emphasis on the link of the behaviour with the disability, and interventions were based on variables arising from the diagnostic label rather than in-depth knowledge about the individual’s behavioural repertoire and coping mechanisms (March & Horner, 2002). Over time, a paradigm shift occurred that began to view problem behaviour as a functional response to specific aspects of the environment the student was attempting to deal with. Behaviour was no longer labeled a problem because it was now seen as a reliable (but not necessarily appropriate) method for gaining access to desired outcomes and withdrawing from or avoiding aversive events (Cowick & Storey, 2000).

Behaviour modification represents an initial intervention framework for creating behaviour change, following in the principles of reinforcement (i.e., the act of producing a positive event or removing an aversive event contingent upon a given behaviour that increases the likelihood that the behaviour will be repeated in the future), punishment (i.e., the act of producing an aversive event or removing a positive event contingent upon a
given behaviour that decreases the likelihood that the behaviour will be repeated in the future), stimulus control (i.e., the process of consistently pairing an antecedent with a reinforced behaviour so the latter will be highly likely to follow the former) and extinction (i.e., the process of a conditioned stimulus losing its power to evoke a response when it is no longer reinforced) created by B. F. Skinner (1953). Without a methodology to follow, behaviour analysts put all of their focus on reinforcement histories with no consideration of environmental factors, and interventions were based on strategies arising from these behavioural principles. The individual exhibiting the problem behaviour became the focus for all change, while the setting and external forces effecting the behaviour were largely ignored (Mace, 1994). This led to interventions primarily dedicated to eliminating behaviour problems from the student’s repertoire rather than analyzing how the environment might be influencing particular behaviours.

Skinner (1953) was the first behavioural scientist to acknowledge that what a person does is a result of specific conditions, and when these conditions are discovered, behaviour can be predicted, manipulated and controlled. He posited that the most effective process for creating alterations in behaviour was to gain systematic control over the factors responsible for it. Skinner (1953) also led the field in discussing the functional relation between independent (i.e., the cause) and dependent (i.e., the target behaviour) variables, suggesting that certain events tend to occur together in a particular temporal order. Therefore, the purpose of Functional Analysis was to identify and understand the impacts of the observable conditions and events associated with specific problem behaviours and to manipulate these in order to create positive changes to that behaviour (Skinner, 1953). Building on the foundation established by Skinner (1953), an article written by Bijou,
Peterson and Ault (1968) elaborated on specific research methodologies for conducting descriptive field investigations aimed at describing the interaction between observable behaviour and the physical and social environments in which it occurred. The Bijou, et. al. (1968) studies have had a significant impact on the field and continue to form the basis for development of observational and data-collection methodologies to be used as part of the Functional Assessment process.

The research studies of Iwata, et. al. (1994) represent another important advance in Functional Analysis with specific contributions centred on development of detailed procedures for conducting manipulations on the physical and social environment (in which difficult behaviour occurred) to formally test the functional relations between specific environmental variables and the behaviour itself. The focus for Iwata and his research team (1994) was on identifying the functions of self-injurious behaviour exhibited by nine children diagnosed with some type of developmental delay. Results from this study indicated that each respondent reacted differently to each of the presented conditions, leading the experimenters to conclude that the functions of self-injury varied from one child to the next (Iwata, et. al., 1994). This finding led to the development of separate interventions to address each individual child’s needs. Subsequent studies by Iwata (e.g., Fischer, Iwata, & Worsdell, 1997; McCord, Iwata, Galensky, Ellingson, & Thomson, 2001; Wallace & Iwata, 1999) confirmed the significance of determining the specific functions of behaviour as a prerequisite (and not optional) step for developing effective interventions for problem behaviour.
2.3 Functional Assessment vs. Functional Analysis

Functional Assessment and Functional Analysis are two terms grouped together because they represent frameworks designed to identify the purpose of a given behaviour. Functional Assessment is a process used to determine the functional relationships between events that occur in the environment and the occurrence and nonoccurrence of a specified behaviour targeted for change. As such, Functional Assessment often utilizes rating scales, interviews and direct observations to identify the variables involved (Dunlap, et. al., 1993). “Assessment is not something done to a child or family; it is a collaborative process in which the child, family and teacher all play active roles” (Mash & Wolfe, 2007, p. 75). Following a thorough data collection from a variety of sources in the assessment phase, hypotheses are developed to define the functional relationship between the target behaviour and the environmental variables that maintain the behaviour (Dunlap, et. al., 1993; Repp, Felce & Barton, 1988). Functional Analysis is defined as the direct manipulation of those variables in order to confirm, deny or clarify the hypothesized relationships (Dunlap, et. al., 1993). Shapiro and Kratochwill (2000) point out that no single method for collecting data is considered superior to any other. All gathered information is considered valuable to understanding the full functionality of the behaviour with respect to the given environment in which it occurs.

2.4 Expanding on Functional Assessment

Within the past two decades, researchers have suggested a need to go a step further in defining the functions of behaviour if interventions are to be truly individualized. Identifying generic labels to describe the purpose of behaviour provides an insufficient basis for understanding that behaviour. Behaviour can no longer be viewed simply as a
way to gain attention, obtain an object, avoid tasks or escape an unpleasant situation (Iwata, et. al., 1994). An individualized method of assessment should lead to further inquiries to establish what kind of attention is sought, from whom and under what conditions. Carr (1994) recognized a need to go beyond a function label, suggesting the term “subcategories” to account for the added information necessary for a full understanding of target behaviour. Interventions relying solely on a category of function, such as task avoidance, need to be elaborated upon to discover the nuances that make each task more or less desirable to the individual at a given time. Hagopian, Wilson and Wilder (2001) agree with the suggestion of subcategories, suggesting that investigation of the function of behaviour should be extended to identify idiosyncratic reinforcers (i.e., functional subcategories of behaviour). The term idiosyncratic variables was seen again in the literature in an article by O’Reilly, Lancioni, King, Lally and Dhomhnaill (2000) when the results of brief Functional Analysis were essentially ambiguous until including an added variable that previously would have been overlooked.

Carr extended his initial work on subcategories in study conducted with Yarbrough and Langdon (1997) where he argued for the inclusion of idiosyncratic stimulus variables. These researchers adopted standard Iwata, et. al. (1994) manipulation conditions with three participants to determine if either condition of social disapproval or academic demand, was the maintaining variable for behaviour in each case. They also arranged for a third condition which contained individualised variables relevant to each participant. These variables included wristbands and other small objects for participant one; the presence of puzzles for participant two; and inaccessible presence of magazines, specifically People and TV Guide, for participant three. In all cases, inclusion of the idiosyncratic variables
resulted in a drastic increase in relevant data, allowing for a more individualized intervention to be implemented for each participant. More recently, Bitsika (2006) suggested the extra data-collection step in the Functional Assessment process should focus on investigating behaviour in terms of the “valued outcomes” it produces for an individual in a specific context. It is within this step that methods must go beyond the function of behaviour and identify the value it has to the individual producing that behaviour at that time (Bitsika, 2006).

Behaviour is highly complex and individualised, and every action is performed by the person with intent to meet a specific need at a particular time and in a specific situation. A person may have a broad behavioural repertoire consisting of many behaviours used to gain access to a given function, or s/he may have a narrow repertoire with few behaviours to meet his/her needs. These behaviours form a response class (i.e., a set of behaviours that produce the same function), and the person can choose behaviours from his/her repertoire to meet the needs of the current situation (Sprague & Horner, 1999). Therefore, many behaviours can act to serve the same function, or behaviour can potentially serve multiple functions (Cowick & Storey, 2000). A thorough assessment should consider the issue of multi-functionality in gathering information on target behaviour to create the most comprehensive intervention tailored to address all the possible functions of behaviour. This includes identifying the valued outcomes (or the numerous specific and more subtle changes) that behaviour produces. This more detailed search for internal and external factors can result in environmental modifications that could not be made from identifying generic functions (Bitsika, 2006).
2.5 **Various Client Groups**

Functional Assessment was created essentially for individuals with severe, violent or intense problem behaviour (Sugai, Horner & Sprague, 1999) which appeared to be resistant to typical modification or disciplinary procedures, and a new technology was needed to create an effective intervention (Cowick & Storey, 2000). In the past, significant problem behaviour was sought to be eliminated by whatever means possible to protect the safety of the individual and his/her peers (Carr & Durand, 1985). To this end, the typical client group was mainly those with developmental disabilities exhibiting behaviours that were likely to cause physical harm or damage to the client him/herself, another person or the environment. In a review of Functional Analysis literature through the year 2000, Hanley, Iwata and McCord (2003) reported that 253 of 277 (91.3%) studies reviewed were conducted on individuals with some type of developmental disability, and approximately two thirds of those studies focused on self-injury (179; 37.2%) and aggression (113; 23.4%). These target problems have shaped both the data-collection procedures and interventions used to address difficult behaviour.

Sugai, et. al. (1999) have argued for the expansion of Functional Assessment techniques to a wider range of client groups. This suggestion has arisen from the belief that Functional Assessment is relevant to any individual with difficult behaviour. Since the branching out of this process to new populations began, it has incorporated a wide range of ages, behaviours and disability types. Studies have included children as young as two years old (Call, Wacker, Ringdahl & Boelter, 2005; Iwata, et. al., 1994) through to elderly patients well into their nineties (Baker, Hanley & Mathews, 2006). Target individuals have been diagnosed with a number of disorders, including developmental

As recently as 2003, Hanley, et. al. conducted a review of the Functional Analysis literature sourced from 34 journals through the year 2000. Of the 790 published articles identified, 277 met the criteria of the review. The majority of articles (i.e., 70%) focused on children, while only 37.2% addressed the behaviour of adults. Most of the articles (i.e., 91.3%) reported on analyses of individuals with a developmental disability; with the remaining 20.9% conducted on persons with autism, and only 9% on persons not identified as having a disability. Approximately two-thirds of the studies were undertaken in a hospital or school setting, 32.5% and 31.4% respectively. Other studies were set in
institutions (25.3%), homes (7.6%), outpatient clinics (7.6%) and vocational settings (2.2%) (see: Table 2.1 for participants and setting characteristics table).

Table 2.1. Participant and setting characteristics

<table>
<thead>
<tr>
<th>Participants</th>
<th>Number of Studies</th>
<th>Percentage of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child</td>
<td>194</td>
<td>70.0</td>
</tr>
<tr>
<td>Adult</td>
<td>103</td>
<td>37.2</td>
</tr>
<tr>
<td>Developmental disability</td>
<td>253</td>
<td>91.3</td>
</tr>
<tr>
<td>Autism</td>
<td>58</td>
<td>20.9</td>
</tr>
<tr>
<td>No disability</td>
<td>25</td>
<td>90</td>
</tr>
<tr>
<td>Setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital (inpatient)</td>
<td>90</td>
<td>32.5</td>
</tr>
<tr>
<td>School</td>
<td>87</td>
<td>31.4</td>
</tr>
<tr>
<td>Institution</td>
<td>70</td>
<td>25.3</td>
</tr>
<tr>
<td>Home</td>
<td>21</td>
<td>7.6</td>
</tr>
<tr>
<td>Clinic (outpatient)</td>
<td>21</td>
<td>7.6</td>
</tr>
<tr>
<td>Vocational program</td>
<td>6</td>
<td>2.2</td>
</tr>
</tbody>
</table>

(Hanley, et. al, 2003)

Finally, topographies of the target behaviours submitted to Functional Analysis encompassed a broad range of behaviour, including self-injury (64.4%), aggression (40.8%), disruption (19.1%), vocalizations (12.6%), property destruction (10.5%), stereotypy (9%), noncompliance (4.3%), tantrums (3.6%), elopement (2.9%), pica (2.5%) and other (3.6%) (see: Table 2.2 for prevalence of behaviour topographies table).
Table 2.2. Prevalence of behaviour topographies

<table>
<thead>
<tr>
<th>Topography</th>
<th>Number of Studies</th>
<th>Percentage of Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-injury</td>
<td>179</td>
<td>64.4</td>
</tr>
<tr>
<td>Aggression</td>
<td>113</td>
<td>40.8</td>
</tr>
<tr>
<td>Disruption</td>
<td>53</td>
<td>19.1</td>
</tr>
<tr>
<td>Vocalizations</td>
<td>35</td>
<td>12.6</td>
</tr>
<tr>
<td>Property destruction</td>
<td>29</td>
<td>10.5</td>
</tr>
<tr>
<td>Stereotypy</td>
<td>25</td>
<td>9.0</td>
</tr>
<tr>
<td>Noncompliance</td>
<td>12</td>
<td>4.3</td>
</tr>
<tr>
<td>Tantrums</td>
<td>10</td>
<td>3.6</td>
</tr>
<tr>
<td>Elopement</td>
<td>8</td>
<td>2.9</td>
</tr>
<tr>
<td>Pica</td>
<td>7</td>
<td>2.5</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>3.6</td>
</tr>
</tbody>
</table>

(Hanley, et. al., 2003)

Upon superficial inspection, it is clear that certain areas are more widely researched than others when it comes to the application of Functional Assessment. Researchers have recently proposed that students with emotional/behavioural disorders who do not respond to generic interventions might benefit from Functional Assessment but research into this group is limited (Dunlap, et. al., 1993; Kern, et. al., 2001; Kinch, et. al., 2001; Reed, Thomas, Sprague & Horner, 1997). These students are distinguished from the participant groups previously investigated in the Functional Assessment literature because they possess age-appropriate language skills and intelligence. The presence of intact communication and average to above average cognitive ability has meant that traditional
Functional Assessment methods cannot be applied to students with emotional/behavioural difficulties without some consistent modification that acknowledges they are capable of contributing directly to the data-collection process (Dunlap, et. al., 1993; Kern & Dunlap 1999; Lewis & Sugai, 1996).

2.6 Functional Assessment of Students with Emotional/Behavioural Problems

The inclusion of students with emotional/behavioural difficulties in the data-collection process provides the opportunity to represent a point of view that has not been readily accessible in much of the previous Functional Assessment research. McConaughy (2000) argues that, for this group of students, it is possible to gather information from the individual’s perspective of his/her own problems and strengths, as well as his/her interpretations of the environment and social interactions relevant to the target behaviour. However, despite the potential for adding valuable information to the assessment process and empowering the student to embrace change by giving him/her an active role in finding solutions to his/her difficulties, Functional Assessments continue to omit students from investigations into their own behaviour.

A case study by Kern, et. al., (1994), which reported on the Functional Assessment of an 11 year old male with emotional disturbance, represents one of the few attempts to conduct a student-assisted investigation. This participant exhibited grade-level academic skills and functioned within the high average range of intelligence. A Functional Assessment was conducted to identify the variables associated with on-task versus off-task behaviour (e.g., talking with classmates, leaving his seat, crying, tantrums and self-injury) and to create an intervention which would result in a concurrent positive change in those behaviours. In addition to the standard descriptive data obtained from observations,
standardized tests and teacher interview, the student completed a Student-Assisted Functional Assessment Interview. Given this opportunity, the student described the target behaviour from his point of view, outlined possible changes to help increase on-task behaviour and decrease off-task responses, provided input on the level of difficulty of assigned work as well as his thoughts on whether others noticed when he did well. Follow-up evaluations of the interventions (that incorporated student-derived data) showed positive changes in on-task behaviour that were maintained over time, with Kern et. al. (1994) arguing that students with emotional/behavioural difficulties who are capable of communication should be interviewed as part of a Functional Assessment (Kern, et. al., 1994).

Researchers (e.g., Kern, Wacker, Mace, Falk, Dunlap & Kromrey, 1995; Koegel, Koegel, Kellegrew & Mullen, 1996) have also argued that higher-functioning students can take an active role in providing information via self-observation, self-monitoring and completion of rating scales. Those researchers report that students with diagnosed emotional/behavioural disorders are able to monitor their own behaviour with a high level of accuracy, and with appropriate intervention, are able to individually work towards increases in positive behaviour. Despite this, children and adolescents (with average communication and cognitive skills) who are targeted for Functional Assessment are rarely invited to act as informants on their own behaviour. Mash and Wolfe (2007) suggest that children/adolescents are most often referred for assessment by an adult who views some aspect of their behaviour as a problem, and as the referral source, these adults have traditionally played the major role in defining and elaborating on “the problem.” In addition to this focus on adult-generated data, traditional Functional Assessment
procedures have been developed for clients (predominantly children) with developmental disabilities with a clear emphasis on viewing caregivers as reliable sources of information and the children themselves as incapable of providing relevant details on their own behaviour and the variables that impact on it. This thesis proposes that Functional Assessment processes must formally and actively incorporate students in all aspects of the data-collection process and that this active involvement will produce findings not able to be obtained from caregiver informants.

2.7 Diagnoses Commonly Encompassed by the Emotional/Behavioural Disorder Classification

Many of the behaviours severe enough to require the attention and diligence of a Functional Assessment are often exhibited by children meeting the criteria for a specific disorder according to the DSM-IV-TR (American Psychiatric Association, 2000). Examples of such childhood-onset disorders in which behavioural disturbance features highly include Attention-Deficit/Hyperactivity Disorder (ADHD), Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD) (American Psychiatric Association, 2000). In the past, the behaviours of children with these disorders have been viewed as symptoms arising from the condition itself and it has followed that children should receive access to interventions aimed at diagnostic label (i.e., Conduct Disorder) rather than the specific reactions causing the child difficulty (e.g., confusion in comprehending the relevance of rules) (Sugai, et. al., 1999). O’Neill, et. al. (1997) state that this nomothetic manual-driven approach to intervention cannot lead to meaningful and long-term changes to a child’s behaviour. Functional Assessment is considered to be the antithesis of the nomothetic approach because the focus is on specific behaviours and not the disability label. It
represents an ideographically-driven basis for understanding an individual’s responses, and it takes into account his/her ability to decide on how to react to particular environmental variables. This new approach to assessment and intervention encompasses not only the form, or topography, of behaviour, but also the functions that behaviour serves for the individual (O’Neill, et. al., 1997).

It is necessary to classify school children’s behavioural difficulties into categories according to the DSM-IV-TR (APA, 2000) for the purpose of resource allocation and placement but it should also be acknowledged that these categories are of minimal value when planning interventions. Researchers (e.g., Dunlap, et. al., 1993; Lewis & Sugai, 1996; Starin, 2002) report that an intervention developed to remediate one child’s behaviour problems might be ineffective or even reinforcing when implemented with another child who exhibits the same or similar behaviour. For example, one young child with Autism who screams at home during individual playtime activities in order to gain access to attention from a caregiver could respond to an intervention which offers minimal attention from screaming (i.e., brief removal to time out area) and maximum attention for non-screaming vocalizations and speaking (i.e., immediate positive verbal response from an adult). To further this example, another child with Autism might scream to avoid or escape the playtime activity. Removal of him/her from the activity to a time-out area would most likely strengthen the use of screaming under similar circumstances. The nomothetic approach would suggest similar interventions for both children because they are autistic, yet the ideographic approach would dictate that circumstances of each child be investigated in detail before implementing an appropriate interventions (O’Neill, et. al., 1997).
2.8 Potential Discrepancy between Caregiver and Student Reports of Behaviour

It is not unreasonable to focus on obtaining information from caregivers during assessment. This procedure has been used repeatedly in the research and is considered to be a valid basis for gathering information during a Functional Assessment (O’Neill, et. al., 1997). However, more recent studies suggest that caution should be taken in doing so. Information obtained from caregivers (whether they be parents or teachers) might or might not be accurate or reliable in the investigation of behaviour (Kern, et. al., 1994; McMahon & Kotler, 2006).

Studies into student choice regarding their preferences have investigated similarities in information from staff versus the students. Specifically, this research has focused on evaluating the capacity of staff to identify the preferences of students they see every day, thus testing their ability to give accurate information on this issue during interview. Green, Reid, White, Halford,Brittain and Gardner (1988) administered surveys on perceived preferences of clients to 35 staff members, with at least five staff members per student. In addition to this, seven students, all with a diagnosis of profound intellectual impairment, participated in the preference experiments. Results indicated that five of the seven participants exhibited a consistent approach toward particular stimuli. Systematic simulations of student preference were significantly different to the staff members’ survey responses. Interestingly, in all cases, at least one of the twelve stimuli were ranked very high by the student and simultaneously very low by the staff, and at least one stimulus was ranked very low by the student and very high by the staff. This study consistently demonstrates a lack of agreement between staff and self-perception of preferences (Green, et. al., 1988). A similar experiment was conducted by Parsons and Reid (1990) to assessed
food preferences in five adults diagnosed with profound mental retardation. Results were compared with surveys completed by seven direct care staff members attempting to identify the client’s preferred foods. Results showed that staff opinion did not consistently correlate with client preferences. Staff members were generally more knowledgeable about the item for which the participant had the strongest preference, and they had less knowledge of preferences between other choice decisions. Results from this and the previous study make a strong case for including the participant in gathering information for a Functional Assessment (Green, et. al., 1988; Parsons & Reid, 1990). Interestingly, despite possessing limited verbal ability, the clients involved in the above studies were able to provide useful information regarding preferences, indicating that input can and should be obtained from anyone, regardless of their verbal ability. Communication is not limited to speaking words and includes messages conveyed through the use of facial expression, body posture, vocal behaviour, gestures, mannerisms and motor behaviour (Mash & Wolfe, 2007), all of which can provide useful information when incorporated into a Functional Assessment.

The issue of unreliable reporting from caregivers provides a rationale for planning to include child participation in Functional Assessment interviews. Frick (1998) also emphasizes that it is the combination of informant sources that provides a deeper understanding of key issues. McConaughy (2000) states that rapport-building with the child can be undertaken during the interview process and work to reduce any fear or confusion s/he might be feeling. Despite these potential benefits of interviewing the child and the recommendation from researchers (e.g., Cowick & Storey, 2000) to speak with children directly during the assessment process, very few studies have adopted this method.
(Kern, et. al., 1994; Reed, et. al., 1997). Reed, et. al. (1997) administered the Student Guided Functional Assessment Interview to 10 students in fifth to eighth grades and compared their responses to those gathered from seven teachers. A total of twenty-three behaviours were analyzed for agreement. Students reported on 15 behaviours, while teachers identified only thirteen. The unidentified behaviours included fighting, possessing inappropriate items and messing with friends, suggesting that these were activities that had a greater chance of occurring outside the classroom, and therefore teachers remained unaware of their occurrence (Reed, et. al., 1997). Students have the advantage of reporting on behaviours that adults might not have as much insight into, such as preferences, academic difficulties, distractions and conflicts with peers (Kinch, et. al., 2001). While the information collected from students might not be perfectly accurate, they are still capable of providing information on internal behaviours that are not readily observable by an adult (Frick, 1998).

2.9  **Student-Assisted Functional Assessment in Detail**

The steps of a functional investigation into behaviour are relatively generic and include three common lines of assessment: informant methods, direct observation and Functional Analysis manipulations (O’Neill, et. al., 1997) (see: Figure 1 for steps for conducting a Functional Assessment). These are essentially generic categories which must be undertaken in a predetermined order which moves from an indirect to a more intensive and controlled analysis of behaviour. Informant methods include interviews that must be conducted with the individual and people close to him/her. These informants can include parents, siblings, teachers and other people able to provide useful information regarding the behaviour of concern. Rating scales can also be completed to gather information at this
stage of the assessment. O’Neill, et. al., (1997) caution that rating scales should be chosen in relation to their capacity to elicit the most relevant information about the behaviour from each informant. Following verbal reports obtained via interview and rating scale completion, direct observations of the student should be conducted in the natural environment in which the behaviour occurs. Several observations should be conducted to get a clear picture of how the behaviour occurs and the events surrounding the behaviour (O’Neill, et. al., 1997). It is common to postpone the student interview until after observations have been completed in an attempt to create the least amount of influence on the environment (Skinner, 1953). All data collected via informant methods and direct observation is reviewed to develop hypotheses about the antecedent and consequent events that maintain the problem behaviour. These hypotheses become the starting point in deciding on appropriate interventions more likely to effect change (O’Neill, et. al., 1997).

The third and final line of assessment is a Functional Analysis, or direct manipulation of events to confirm or disconfirm the influencing factors. One variable should be tested at a time, in an attempt to distinguish events that are truly significant to understanding the reasons for the behaviour. The hypotheses formed can then be proven or eliminated, and an intervention can be created to specifically meet the needs of the client in this situation (O’Neill, et. al., 1997).
Figure 1. Steps for conducting Functional Assessment chart.

Functional Assessment and Functional Analysis provide a process for determining the maintaining variables of behaviour in relation to the specific function and valued outcomes it holds for the individual involved. The steps are progressive, building upon one another, always utilizing the information gathered to assist in the next step. Specific interview questions, rating scales, observational forms and analogue manipulations are not identified because, in an individualized assessment, each of these categories should be tailored to the individual. It is not just individualized intervention; it is an individualized assessment unique to the person involved and the target behaviour.

The purpose of the current study is to investigate the process of Functional Assessment and the possible benefits of including the individual who displays the behaviour of concern as an informant to enhance the overall understanding of the behaviour and its maintaining conditions. This study will also evaluate the benefits of the
various stages involved in conducting a Functional Assessment using the most current adaptations into the investigative process in an attempt to uncover the specific details and valued outcomes that the causes the individual to develop a pattern of utilizing a challenging behaviour as a more effective means to ascertaining desired outcome.
Chapter 3:
Methods Used to Conduct a Student-Assisted Functional Assessment in the School Setting

This chapter describes the application of Student-Assisted Functional Assessment (S-AFA) procedures to 10 participants via an $n = 1$ replication quasi-experimental research design methodology. Following the administration of a brief battery of tests in order to conduct a standardised cognitive assessment of these 10 cases, the behaviour of each participant was further evaluated according to S-AFA procedures and methods and this chapter describes those procedures. The results of these procedures are presented in Chapter 4 of this thesis, with each participant being treated as a subject in a separate $n = 1$ replication experiment thus allowing for in-depth and individualised evaluation of data.

3.1 Participant Group

Participants for this study were 10 triads comprising a student, his teacher and his parent/guardian. The students were considered to be the primary participants for this study because all data-collection focused on their behaviour and its outcomes. Therefore, the word “participant” will be used to refer only to those students (and not their parent or teacher) for the remainder of this thesis.

The 10 participants for this study were referred by their school for behavioural assessment because they displayed long-term challenging behaviours which adversely impacted school and home functioning as well as being resistant to generic behavioural interventions. Participant ages ranged from 8 years 4 month to 16 years 7 months (mean age = 13 years 1 month) with all students being boys. All participants attended the age-
relevant grade in their local state primary (i.e., five participants), middle (i.e., one participant) or high school (i.e., four participants) (see: Table 3.1 for a description of participants and characteristics). Because participants were required to take an active role in the Functional Assessment of their own behaviour, it was necessary that they fulfil two ability-based criteria. All participants functioned within the average range of intellectual ability (inclusion criterion 1) and had acquired age-appropriate language skills (inclusion criterion 2). Therefore, the challenging behaviour of this participant group was not due to any underlying developmental disorder or intellectual impairment.

Table 3.1. Participant age and grade characteristics

<table>
<thead>
<tr>
<th>Participant code</th>
<th>Chronological age (y-m)</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>9-0</td>
<td>3</td>
</tr>
<tr>
<td>02</td>
<td>8-4</td>
<td>3</td>
</tr>
<tr>
<td>03</td>
<td>13-4</td>
<td>7</td>
</tr>
<tr>
<td>04</td>
<td>12-10</td>
<td>7</td>
</tr>
<tr>
<td>05</td>
<td>12-4</td>
<td>7</td>
</tr>
<tr>
<td>06</td>
<td>12-11</td>
<td>7</td>
</tr>
<tr>
<td>07</td>
<td>15-3</td>
<td>9</td>
</tr>
<tr>
<td>08</td>
<td>14-8</td>
<td>9</td>
</tr>
<tr>
<td>09</td>
<td>16-7</td>
<td>11</td>
</tr>
<tr>
<td>10</td>
<td>15-4</td>
<td>9</td>
</tr>
</tbody>
</table>
3.2 Data-Collection Settings

The study took place in three state educational settings: primary, middle and high schools. Data-collection occurred via a three-step process that involved the researcher in conducting interviews, administering standardised tests and undertaking direct observations of participant behaviour. The setting in which each data-collection method was adopted is described below.

3.2.1 Interview setting.

In the primary school environment, interviews with the participant and his parent/guardian occurred in a room allocated for independent study sessions. Shelving containing books and other learning materials was placed around the perimeter of the room. Two computers were located in the corner of the room and remained powered off during all interviews. Windows were covered to ensure privacy. Due to the secluded location of the room, both doors (one leading to a hallway between classrooms and the other to an outside courtyard) were able to remain open during interviews to increase air circulation without compromising the privacy of the individuals involved. The room contained one large table and one small table, positioned perpendicular to each other and all participants were given the opportunity to select the table at which they sat with the researcher sitting directly across from each interviewee to promote face to face interaction. The tables were devoid of any items which might have caused interviewees to become distracted. The teacher interviews were conducted in the classroom and scheduled at a time when no other teachers or students were present.

In the middle school environment, interviews with the participant and his parent/guardian occurred in a large conference room located in the administration building.
All walls were empty and white. The far wall consisted of a row of windows with the shades pulled down to ensure privacy. One door was positioned in the corner of the room, and it remained closed during all interview sessions to ensure privacy. The room was completely empty save for a large rectangular conference table dominating the centre of the room with eight chairs placed around it, and all participants were given the opportunity to select the chair in which they sat with the researcher sitting directly across from each interviewee to promote face to face interaction. The tables were devoid of any items which might have caused interviewees to become distracted. The teacher interviews were conducted in the classroom and scheduled at a time when no other teachers or students were present.

In the high school environment, interviews with the participant and his parent/guardian occurred in a small office located within the guidance department in the administration wing of the school. Across from the door were two large windows with a view of an empty outdoor area, and the window located on the door was shaded to ensure privacy. The room contained one office desk pushed against the wall with one chair placed in front of the desk and another placed at beside the desk, and all participants were given the opportunity to select the chair in which they sat with the researcher in the remaining seat facing the interviewee to promote face to face interaction. The desk was devoid of any items which might have caused interviewees to become distracted. The teacher interviews were conducted in the classroom and scheduled at a time when no other teachers or students were present.
3.2.2 **Standardised assessment setting.**

Standardised testing of participants was undertaken in the same room in which the interviews took place across all schools. Assessment of participant cognitive ability and receptive language skill was undertaken on separate days as to not overwhelm the students.

3.2.3 **Direct observation setting.**

All direct observations were undertaken in the school environment within the typical daily schedule of routines and activities to which the student was usually exposed. Examples of specific settings in which observations occurred included the classroom, playground area, gymnasium, chemistry lab and assembly hall. When conducting observations in the classroom, the researcher sat in a chair or desk in the back of the classroom. For out-of-class observations (i.e., playground, gymnasium and assembly hall), the researcher positioned herself near teachers in order to remain unobtrusive. The researcher maintained direct line of sight with the target student being observed during all sessions. Further student-specific details on the settings in which observations were conducted are presented in Chapter 4 of this thesis.

3.3 **Data Collection Phases and Methods**

A five phase data-collection process was used to conduct the S-AFA with each phase designed to investigate a particular aspect of the student’s day-to-day behaviour. Data were collected in five phases and from three respondents (i.e., participants, their parents and their teachers).

Phase I was designed to gather current information on the participant’s general patterns of behaviour. Data on these response patterns were collected via verbal and written report from parent-teacher dyads comprised of adults with high familiarity with the
participant’s particular behavioural difficulties. A combination of semi-structured interview and administration of a standardised rating scale (i.e., Conners Clinical Index - Parent [Conners CI-P] and Conners Clinical Index – Teacher [Conners CI-T]; Conners, 2008) were administered to the parent and teacher. The semi-structured interview included a protocol of questions designed to identify difficult behaviours the participant exhibited on a consistent basis and the possible maintaining variables for those behaviours (see: Appendix A for a copy of the semi-structured interview protocol). The Conners CI-P and Conners CI-T were administered to explore a broad range of behavioural difficulties which might have impacted on the participant’s functioning but remained unidentified during the interview. The researcher reviewed the interview and rating scale data in order to decide on one target behaviour identified by all the testing methods that appeared to cause the most disruption to the individuals and general functioning in the environment to be defined and submitted for in-depth Functional Assessment.

Phase II was designed to gather specific information on the target behaviour and its maintaining variables. Data were collected via Functional Assessment interviews with the parent and teacher who were prompted to discuss the following topics: description of behaviour, possible maintaining conditions (i.e., location, times, activities and people associated with the behaviour), form analysis of the behaviour (i.e., duration, frequency, latency and magnitude of the behaviour), functional analysis of the behaviour (i.e., setting, distal and proximal antecedents and immediate and delayed consequences to the behaviour) and valued outcomes analysis of the behaviour (i.e., personal value placed on the functions associated with the behaviour). The Functional Assessment interview was used to determine the distal and proximal antecedents and consequent events significant to
understanding the purpose of the target behaviour. The Questions About Behavioural Function (QABF; Vollmer & Matson, 1995) questionnaire was administered to the parent and teacher individually in order to gather additional information that might assist in identifying the functions served by the target behaviour. The Functional Assessment interview was combined with QABF administration to check for agreement about identified functions across respondents (i.e., parent vs. teacher) and data-collection methods (i.e., interview vs. questionnaire).

Phase III was designed to gain information on the participant’s current repertoire of behaviour by examining response patterns during everyday situations. Data on antecedents and consequences to the participant’s behaviour were collected via direct observation in the natural environment. This involved the researcher in conducting five 30-minute (i.e. total time = 150 minutes) observations of each participant in the school to become familiar with specific responses in this environment. Although the focus was on recording any instance of the target behaviour (in relation to frequency measures) it was anticipated that the chances of students exhibiting these behaviours might possibly be low. In cases where a target behaviour was recorded, the antecedent and consequent events associated with that behaviour were also immediately noted on an A-B-C data collection sheet.

Phase IV was designed to establish whether the intended participants were eligible for further inclusion in the current study. Eligibility was formally determined after Phase III was completed in order to avoid any direct participant-researcher interactions that would have contaminated the data obtained via direct observation. The issue of eligibility centred on the participants’ capacity to provide accurate data in the Functional Assessment process by speaking about and reflecting on the reasons for their own behaviour. In order
to be eligible for inclusion, students were required to fulfil two ability-based criteria as stated on page 32 of this thesis. Criterion 1 specified age-appropriate intellectual capacity and this was established via administration of the Slosson Intelligence Test-Revised (SIT-R; Slosson, Nicholson & Hibpshman, 1991). Criterion 2 required age-appropriate receptive language and the Peabody Picture Vocabulary Test-Fourth Edition (PPVT-IV; Dunn & Dunn, 2007) was used to determine ability in this area of functioning.

Phase V was designed to gather in-depth Functional Assessment information from the perspective of the participant himself. Data on the target behaviour and its maintaining variables were collected via verbal and written report from each participant. The same combination of assessment methods utilized with the parent and teacher were administered to the target student, including the Conners Clinical Index – Self Report (Conners CI-SR; Conners, 2008), Functional Assessment interview, and QABF (Vollmer & Matson, 1995). The formats and procedures used to gather behavioural information directly from participants were consistent with those applied during parent- and teacher-focused data collection. This phase of the study aimed to provide each participant with multiple opportunities to report on his internal and external responses and to describe the events that affected those responses at home and school (see: Table 3.2 for a summary of data-collection methods used in the five phases of this study).

3.4 Description of Standardised Tests

3.4.1 Peabody Picture Vocabulary Test – Fourth Edition (PPVT-IV).

The Peabody Picture Vocabulary Test – Fourth Edition (PPVT-IV; Dunn & Dunn, 2007) (age range = 2 years 6 months to 90 years and older) is a norm-referenced individually-
Table 3.2. Summary of data-collection methods per phase of study

<table>
<thead>
<tr>
<th>Phase</th>
<th>Assessment method</th>
<th>Parent</th>
<th>Teacher</th>
<th>Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Semi-structured interview</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of Conners CI-P</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of the Conners CI-T</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>Functional Assessment interview</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of QABF</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>III</td>
<td>Five 30-min observations of the target student in the school environment</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IV</td>
<td>Administration of PPVT-IV</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of SIT-R</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>V</td>
<td>Administration of Conners CI-SR</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Functional Assessment interview</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration of QABF</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

administered test of receptive or listening vocabulary and consists of 228 test items, segmented into 19 progressively challenging 12-item sets. The participant is required to listen to an oral presentation of a stimulus word and then select the picture which best
represents this word from a pool of four coloured pictures. Stimulus words represent a variety of content areas (e.g. emotions and facial expression, actions, animals, vegetables, tools, body parts, shapes, signs and symbols) and parts of speech. The PPVT-IV directs the assessor to begin testing at the item set prescribed for participant’s chronological age. The test is designed so that approximately 85% of participants will meet the requirements of a Basal Set (i.e., 11 to 12 items correct per set) in the first group of items administered. Testing continues in progressive order until the test is completed or the participant reaches a Ceiling Set (i.e., four or fewer items correct per set). Participant responses to individual test items are recorded as either correct or incorrect immediately thus allowing for quick determination of Basal and Ceiling sets.

The PPVT-IV is a standardised test and the standard score is established by comparing the student’s performance with that of a norm group. Standard scores range from 20 to 160 with the range of scores from 85 to 115 denoting average performance. The student’s performance can also be evaluated according to a percentile rank score (i.e., percentage of examinees in the norm group who scored at or below the participant), an age equivalent score (i.e., the age level which accurately reflects the participant’s receptive vocabulary) and a grade equivalent score (i.e., the grade level which best represents the participant’s receptive vocabulary). For the purpose of this study, participant performance was presented in relation to standard score and percentile rank.

Dunn and Dunn (2007) reported adequate reliability for the PPVT-IV. Alternate form reliability coefficients, which were based on administering two equivalent versions of the PPVT-IV (i.e., forms A and B) to the same group of 508 participants, ranged from .87 to .93 with a mean reliability coefficient of .89. Dunn and Dunn (2007) also reported that
internal consistency was calculated at .94 and .95 on forms A and B across age and grade samples. Test-retest reliability was measured by administering both forms A and B an average of four weeks apart to 340 participants in five age groups. The average test-retest reliability coefficient was calculated at .93, with a range of .92 to .96. Dunn and Dunn (2007) examined construct validity by administering the PPVT-IV with a number of other tests designed to measure receptive vocabulary. High corrected correlation coefficients were recorded for the PPVT-IV and Expressive Vocabulary Test-Second Edition (Williams, 2007) (i.e., correlation coefficient = .82), the PPVT-IV and Clinical Evaluation of Language Fundamentals-Fourth Edition (Semel, Wiig, & Secord, 2003) (i.e., correlation coefficient = .74), and the PPVT-IV and Peabody Picture Vocabulary Test – Third Edition (Dunn & Dunn, 1997) (i.e., correlation coefficient = .84). In contrast to this, construct validity was reported to be reasonably poor between the PPVT-IV and Comprehensive Assessment of Spoken Language (Carrow-Woolfolk, 1999) (i.e., correlation coefficient = .58) and the PPVT-IV and Group Reading Assessment and Diagnostic Evaluation (Williams, 2001) (i.e., correlation coefficient = .63). These studies suggest adequate evidence of validity for use of the PPVT-IV as a measure of receptive language across all age ranges and grades.

3.4.2 Slosson Intelligence Test – Revised (SIT-R).

The Slosson Intelligence Test – Revised (SIT-R; Slosson, et. al., 1991) (age range = 4 years to adult) is designed as an individually-administered screening instrument used to assess the level of global cognitive ability with a particular focus on verbal skills. This test consists of 187 questions with an even distribution of items in eight domains: vocabulary (i.e., the capacity to use the spoken word to define single words), general information (i.e.,
knowledge acquired through personal experience of one’s culture and environment), similarities and differences (i.e., the ability to differentiate between the characteristics and qualities of two distinct entities or ideas), comprehension (i.e., an awareness of language and behaviour appropriate a given situation), quantitative (i.e., the capacity to use mathematical calculations to mentally ascertain numerical responses for a variety of situations) and auditory memory (i.e., the capacity to replicate several sentences and random numerical sequences) *(see: Table 3.3 on SIT-R cognitive domain distributions)*.

Table 3.3. SIT-R cognitive domain distributions

<table>
<thead>
<tr>
<th>Cognitive domain</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocabulary</td>
<td>33</td>
</tr>
<tr>
<td>General Information</td>
<td>29</td>
</tr>
<tr>
<td>Similarities and Differences</td>
<td>30</td>
</tr>
<tr>
<td>Comprehension</td>
<td>33</td>
</tr>
<tr>
<td>Quantitative</td>
<td>34</td>
</tr>
<tr>
<td>Auditory Memory</td>
<td>28</td>
</tr>
</tbody>
</table>

The SIT-R manual directs the assessor to read each question to the participant, with the option of repeating the question as many times as is necessary for him to comprehend the required task. The only exception to this item-repetition procedure is the Memory subtest for which questions are presented only once. SIT-R items are marked as either correct (1) or incorrect (0) on the response form and ratings are made immediately after a response is given. Slosson, et. al. (1991) recommended that testing begin with items associated with the participant’s chronological age and questioning continues until a Basal
of 10 consecutive correct responses is achieved. If the participant is unable to answer 10 questions correctly, the assessor is directed to continue backwards testing (i.e., consecutive administration of earlier items) until this standard is achieved. Testing progresses forward until a Ceiling of 10 incorrect items is established and testing is terminated when this occurs.

The SIT-R is a standardised test and the standard score is established by comparing the student’s performance with that of a norm group. The Total Standard Scores range from 36 to 164 at most age levels with the range of scores from 90 to 109 denoting average performance. The student’s performance can also be evaluated according to a Mean Age Equivalent (i.e., the approximate age level that reflects the participant’s intellectual development) and percentile rank (i.e., percentage of examinees in the norm group who scored at or below the participant). For the purpose of this study, participant performance was presented in relation to total standard score and percentile rank.

Slosson, et. al. (1991) reported satisfactory reliability for the SIT-R. Measures of split-half reliability indicated excellent consistency with coefficients of .97 for Spearman-Brown, .97 for Rulon and .96 for Kuder-Richardson 20 procedures. Test-retest reliability was determined by administering the SIT-R to 41 participants on two occasions with an interval of one week between testing sessions. This procedure produced a reliability coefficient of .96 thus indicating sound stability. Slosson, et. al. (1991) examined criterion-related validity by conducting a correlational study with the Wechsler Intelligence Scale for Children – Revised (WISC-R; Wechsler, 1974). It was determined that the Total Standard Score (TSS) for the SIT-R was highly correlated with the WISC-R Verbal IQ (coefficient =.89). The correlation between the SIT-R TSS and WISC-R Full Scale IQ was
also reasonably high (coefficient = .84). The SIT-R therefore remains high in reliability and there is evidence of its validity for use as a screening tool for verbal ability.

3.4.3 Conners Comprehensive Behaviour Rating Scales (Conners CBRS) and Conners Clinical Index (Conners CI).

The Conners’ Comprehensive Behaviour Rating Scales (Conners CBRS) and Conners Clinical Index (Conners CI; Conners, 2008) are multi-informant questionnaires designed to measure the presence and intensity of general behavioural difficulties. Data are collected from parents, teachers and youths (i.e., self-report) who are highly familiar with the behaviour of a target individual under investigation. The Conners CBRS are comprised of three versions: Conners CBRS – Parent Form (Conners CBRS-P) (age = 6 years to 18 years) containing 203 questions and 48 subscales, Conners CBRS - Teacher Form (Conners CBRS-T) (age range 6 years to 18 years) containing 204 questions and 46 subscales and Conners CBRS – Self-Report Form (Conners CBRS – SR) (age range = 8 years to 18 years) containing 179 questions and 40 subscales aimed at determining levels of concern (Conners, 2008). This study incorporated data from the Conners CI which mimics the three versions of the Conners CBRS and are comprised of 24 questions each extracted directly from these longer forms. All three versions of the Conners CI rating scale present the respondent with five subscales (containing various numbers of specific items) which relate directly to the DSM-IV-TR (APA, 2000) criteria for a diagnostic classification. However, this standardised rating scale is primarily used for screening purposes and does not provide a sufficient basis for making a diagnosis. The five subscales of the Conners CI are listed in Table 3.4 on the next page.
Table 3.4. List of five subscales for the Conners CI

<table>
<thead>
<tr>
<th>Form</th>
<th>Subscale</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI – Parent</td>
<td>Disruptive Behaviour Disorder</td>
<td>5</td>
</tr>
<tr>
<td>(Conners CI –P)</td>
<td>Learning &amp; Language Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mood Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Anxiety Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ADHD</td>
<td>5</td>
</tr>
<tr>
<td>Conners CI – Teacher</td>
<td>Disruptive Behaviour Disorder</td>
<td>5</td>
</tr>
<tr>
<td>(Conners CI-T)</td>
<td>Learning &amp; Language Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mood Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Anxiety Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ADHD</td>
<td>5</td>
</tr>
<tr>
<td>Conners CI – Self-Report</td>
<td>Disruptive Behaviour Disorder</td>
<td>5</td>
</tr>
<tr>
<td>(Conners CI-SR)</td>
<td>Learning &amp; Language Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Mood Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Anxiety Disorder</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>ADHD</td>
<td>5</td>
</tr>
</tbody>
</table>

Items are rated on a four-point Likert scale, which ranges from 0 “not true at all (never, seldom),” 1 “just a little true (occasionally),” 2 “pretty much true (often, quite a bit)” and 3 “very much true (very often, very frequently).” In each instance, the respondent is instructed to rate items based on behaviour exhibited by a target individual over a one month period. Raw data are converted to T-scores (i.e., a standard score used to
compare the score earned against other gender-similar individuals of the same age and to compare scores for the same individual across subscales and test versions) in order to determine the possibility of behavioural problems in any of the five areas screened by this rating scale. The intensity of behavioural difficulties can also be classified via a percentile rank score (i.e., denotes the percent of individuals in the norm group who earned scores at or below the obtained score). The Conners CBRS manual also presents guidelines for interpreting T-scores and percentile rank scores in relation to a series of clinical descriptors which are used to establish the extent to which any behavioural difficulties cause disturbance to student’s functioning (see: Table 3.5 for interpretive guidelines and associated T-scores and percentile rank scores). For the purpose of the current study, data were obtained from the parent, teacher and participant in order to gather data from a number of perspectives and contrast any variation in reports of behavioural difficulties.

Table 3.5. Understanding T-scores and percentiles

<table>
<thead>
<tr>
<th>T-score</th>
<th>Percentile</th>
<th>Guideline</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥ 70</td>
<td>≥ 98</td>
<td>Very elevated score (many more concerns than typically reported)</td>
</tr>
<tr>
<td>60-69</td>
<td>84-97</td>
<td>Elevated score (more concerns than typically reported)</td>
</tr>
<tr>
<td>40-59</td>
<td>16-83</td>
<td>Average score (typical levels of concern)</td>
</tr>
<tr>
<td>≤ 39</td>
<td>≤ 15</td>
<td>Low score (fewer concerns than typically reported)</td>
</tr>
</tbody>
</table>

(Conners, 2008, p. 41)

Conners (2008) reported adequate internal consistency for the Conners CI with reliability coefficients ranging from .73 to .85 for the Conners CI-P, .62 to .83 for the Conners CI-T, and .73 to .83 for the Conners CI-SR across all age groups and subscales. Test-retest reliability is reported as being adequate for all three scales. Reliability
coefficients for the Conners CI-P ranged from .80 to .90 across the five subscales, .65 to .86 for the Conners CI-T subscales and .76 to .83 for the Conners CI-SR subscales.

Tests of discriminant validity, which measured the capacity of the Conners CI to distinguish between individuals with a clinical diagnosis and those without, was measured by comparing results from targeted clinical groups with results from a general population group and other clinical groups. With raw scores ranging from 0 to 15 on all three scales, scores from 12 to 15 consistently predict inclusion in a clinical group with over 90% probability on parent, teacher and self-report scales. Raw scores of 7 to 11 accurately predict inclusion in a clinical group with probability percents between 63 and 89 on the Conners CI-P and Conners CI-SR, and raw scores of 6 to 11 yield similar predictors between 61% and 89% on the Conners CI-T. Raw scores from 0 to 3 consistently predict inclusion in the general population (i.e., less than 33% probability of inclusion in a clinical group) on all three forms. The remaining raw scores (i.e., 4, 5 and 6 on parent and self report scales and 4 and 5 on the teacher scale) suggest indistinguishable classification, as inclusion in clinical and general population groups is roughly equal (Conners, 2008). These results indicate that the Conners CI accurately distinguishes between the relevant groups of individuals with and without a clinical diagnosis.

Convergent and divergent validity (i.e., high correlations of similar variables and low correlations of dissimilar variables) were measured by comparing the Conners CI with a variety of scales used to assess children and adolescents with clinical distinctions. The Disruptive Behaviour Disorder Indicator showed low correlations with its predecessor, the Conners CI and the Conners’ Rating Scales – Revised (CRS-R; Conners, 1997) Oppositional scale (i.e., range = .49 to .59, p<.01) and adequate to high correlations with
the Behavior Assessment System for Children, Second Edition (BASC-2; Reynolds & Kamphaus, 2004) scales that assess aggression (i.e., Behavioural Symptom Index, Aggression, Conduct Problems and Bullying) (i.e., range = .62 to .84, p<.01) and the Achenbach System of Empirically Based Assessment (ASEBA; Achenbach, 1991a, 1991b, 1991c) Aggressive Behaviour Scale (i.e., range = .63 to .93, p<.01). The Learning and Language Disorder Indicator showed low to high correlations with the CRS-R Cognitive Problems/Inattention Scale (i.e., range = .52 to 1.00, p<.01) and adequate to high correlations with the BASC-2 Learning Problems scale (i.e., range = .69 to .86, p<.01). The Mood Disorder Indicator showed adequate correlations with the Conners-Wells’ Adolescent Self-Report Scales (CASS; Conners, 1997) Emotional Problems scale (i.e., range = .70, p<.01), low to high correlations with BASC-2 Depression, Withdrawal and Negative Emotionality scales (i.e., range = .40 to .80, p<.01), the ASEBA Anxious/Depressed and Withdrawn scales (i.e., range = .46 to .76, p<.01) and the Children’s Depression Inventory (CDI; Kovacs, 2003) which measures youth symptoms of depression (i.e., Conners CI-P and Conners CI-SR range = .49 to .66, p<.01 and Conners CI-T range = .15, ns to .29, p<.01). The Anxiety Disorder Indicator showed low correlations with the CRS-R Anxious-Shy scale (i.e., range = .29 to .47, p<.01) and the Multidimensional Anxiety Scale for Children (MASC; March, 1997) Total Anxiety and Anxiety Disorder Index (i.e., range = .28 to .40, p<.01) and low to high correlations with the BASC-2 Anxiety scale (i.e., range = .43 to .88, p<.01). Finally, the ADHD Indicator showed low to high correlations with the CRS-R ADHD scales (i.e., Cognitive Problems/Inattention, Hyperactivity, DSM-IV-TR Inattention, DSM-IV-TR Hyperactive Impulsive, DSM-IV-TR Total and ADHD Index) (i.e., range = .42 to 1.00, p<.01) and the
BASC-2 Attention Problems and Hyperactivity scales (i.e., range = .34 to .85, p<.01) and moderate to high correlations with the ASEBA ADHD Indicator and Attention Problems scale (i.e., range = .75 to .86, p<.05) and the Behavior Rating Inventory of Executive Function (BRIEF; Gioia, Isquith, Guy & Kenworthy, 2000) which measures elements of executive functioning (parent and teacher scales only) (i.e., range = .67 to .87, p<.01). These correlations with multiple scales indicate an adequate level of convergent validity for the Conners CI forms.

3.4.4 Questions About Behavioural Function (QABF).

The Questions About Behavioural Function (QABF; Vollmer & Matson, 1995) is designed to determine the general functions of (or reasons for) the behaviour problems exhibited by individuals with developmental disabilities. It is an untimed interview-style questionnaire consisting of one page of 25 questions scored on a four point Likert scale with descriptions of “often” (3), “some” (2), “rarely” (1), or “never” (0). A “does not apply” option is also used to denote that item is not relevant to the behaviour of the individual being assessed. The test manual directs the assessor to read each statement to the interviewee, replacing the phrase “engages in the behaviour” seen in each statement with the subject’s name and specific behaviour. For example, number one, “engages in the behaviour to get attention,” becomes “John yells to get attention.” The interviewee is required to reflect on each item and select one of the frequency ratings provided (i.e., 0 to 3), and the assessor records this numeric rating on the questionnaire record form. Following administration of the QABF, answers are transferred to the score sheet. The summation of responses is converted into the five functional categories of attention, escape, non-social, physical and tangible (see: Table 3.6 on QABF function label
distribution). Significant functions arising from the target behaviour are established by comparing the frequency rating for each functional category (i.e., range of frequency rating = 0 to 15). QABF data contribute to a Functional Assessment of target behaviour offering a hierarchy of possible functions for that behaviour. In the current study, the QABF was administered to the participant, parent and teacher familiar with the behaviour targeted for Functional Assessment.

Table 3.6. QABF function label distribution

<table>
<thead>
<tr>
<th>Function label</th>
<th>Number of items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attention</td>
<td>5</td>
</tr>
<tr>
<td>Escape</td>
<td>5</td>
</tr>
<tr>
<td>Non-Social</td>
<td>5</td>
</tr>
<tr>
<td>Physical</td>
<td>5</td>
</tr>
<tr>
<td>Tangible</td>
<td>5</td>
</tr>
</tbody>
</table>

The original QABF questionnaire was modified for the current study to ensure that all items were developmentally-appropriate to the participants who comprised a group of children who exhibited long-term behaviour difficulties but no cognitive disability. This modification process resulted in changes to four questions of the QABF (see: Appendix B for a copy of QABF modified). In question 3 the original words “self-stimulation” were altered to “refocus when bored or overwhelmed.” In question 5 the original words “such as preferred toys, food or beverages” were removed. In question 7 the original words “brush teeth, work, etc.” were removed. In question 25 the original words “toy, item,
food” were altered to “item” (see: Table 3.7 on modifications made to the QABF for the current study).

Table 3.7. Modifications made to the QABF for the current study

<table>
<thead>
<tr>
<th>Question number</th>
<th>Original question</th>
<th>Question after modification</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Engages in the behaviour as a form of “self-stimulation”.</td>
<td>Engages in the behaviour as a form of refocus when (a) bored or (b) overwhelmed.</td>
</tr>
<tr>
<td>5</td>
<td>Engages in the behaviour to get access to items such as preferred toys, food or beverages.</td>
<td>Engages in the behaviour to get access to items.</td>
</tr>
<tr>
<td>7</td>
<td>Engages in the behaviour when asked to do something (brush teeth, work, etc.)</td>
<td>Engages in the behaviour when asked to do something.</td>
</tr>
<tr>
<td>25</td>
<td>Does he/she seem to be saying “give me that (toy, item, food)” when engaging in the behaviour?</td>
<td>Does he/she seem to be saying “give me that (item)” when engaging in the behaviour?</td>
</tr>
</tbody>
</table>

Paclawskyj, Matson, Rush, Smalls and Vollmer (2000) reported adequate reliability for the QABF. Reliability was examined based on administering the QABF twice to the individual with one to three weeks between testing sessions; correlations showed 76% of the items exceeded .80 and total percentage agreement showed 96% of the items exceeded 80%. Paclawskyj, et. al. (2000) also reported that inter-rater reliability was calculated at a range of -.09 to 1.0 and 52% of the items exceeded .80. Reliability measures in relation to
stability of scores over time for each subscale were also reported to be high, with a range from .79 to .99. Paclawskyj, et. al. (2000) examined convergent validity by administering the QABF with a number of other tests designed to measure functions of behaviour. Low correlations were recorded for the QABF and experimental functional analysis (EFA; Hall, 2005) (i.e., 69.2% agreement) and the QABF and Motivational Assessment Scale (MAS; Durand & Crimmins, 1988) (i.e., 53.8% agreement). Matson, Bamburg, Cherry and Paclawskyj (1999) assessed validity and clinical utility by administering the QABF to 398 individuals displaying challenging behaviours in attempt to determine the function of the behaviours. The QABF identified functions for 84% of the individuals, each of whom showed greater improvement using interventions catered to the function of behaviour than those who had no functional ties to intervention.

3.4.5 Valued Outcomes Analysis.

The Valued Outcomes Analysis Procedure Form (VOAPF) is designed to gather in-depth information on the significant outcomes of difficult behaviour and is administered via semi-structured interview. This is a qualitative assessment which does not require numeric ratings. The VOAPF consists of the following subsections: description of the behaviour of concern (i.e., identification of – low-level behaviours; patterns of target behaviour occurrence and variations to these and timeline for target behaviour usage), form analysis of the behaviour of concern (i.e., informant-estimated measurements of duration, frequency, latency and magnitude of the target behaviour), functional analysis of the behaviour of concern (i.e., identification of – distal and proximal antecedents [specific queries relate to social context, interactions, tasks and internal state], immediate and delayed consequences [specific queries relate to immediate- and long-term changes social
context and internal state], reinforcement process [specific queries relate to positive and negative reinforcement]) and specific valued outcomes (i.e., specific queries relate to ways in which behaviour assists the individual to cope with demand, exert control and modulate internal state) (Bitsika, 2006) (see Appendix C for a copy of VOAPF). The informant is prompted to provide in-depth descriptions of the variables listed in the VOAPF from their own perspective and that of the individual who exhibits the target behaviour under investigation. The examiner is required to record informant responses during the interview and later review this information to establish themes relevant to understanding the particular reasons for participant behaviour. The VOAPF was administered to participants, their parents and their teachers in the current study. The resulting information was compared to determine similarities and differences in established themes.

### 3.5 Description of Observation Method

Five 30-minute observations were conducted for each participant in the school environment to gather data on the target behaviour identified as being of high concern by parents and teachers. A data-recording sheet was used to keep a frequency count of these two behaviours as well as make note of maintaining variables. This sheet included the following subheadings: interpersonal context (i.e., context, people and interaction), target behaviour (i.e., frequency and description) and social consequences (i.e., context, people and interaction) (see: Appendix D for a copy the interview protocol). Miller (2006) cautions that even when every effort is made to conduct direct observations in the natural context in an unobtrusive manner, the inclusion of a non-familiar adult in the classroom will cause disruption to this environment. Therefore, the first two of the five observations were discarded to ensure that all participants and their teachers were given the opportunity
to adjust to the presence of the observer in the classroom. Data obtained from the three observations were transferred to individual index cards (i.e., one card per one instance of behaviour). The final pool of index cards was used to conduct a thematic analysis of antecedents and consequences maintaining the target behaviour.

3.6 Research Design

The primary focus of the current study was on collecting in-depth data pertaining to individual participants’ behaviours and the particular internal and environmental factors which maintained those behaviours. Therefore, traditional group-based comparisons and statistical analysis procedures were not considered to be an appropriate basis for evaluating the data obtained in this study. Instead, the present study followed an $n = 1$ design paradigm which is defined as a study “in which data from a single participant (rather than a group) are the focus of the research design” (Sharpley, 2007, p. 350). In this type of research, each participant acts as his/her own control group. Some exploratory correlational and scatter plot analyses were performed on the scores obtained from administration of the standardized self-report questionnaires to test for links between parent, teacher and participant responses. The predominant data analysis methodology was via tabular and graphic comparisons. According to Barlow, Nock and Hersen (2009), to establish generalizability of a particular technique, one successful experiment is required, followed by three successful replications. This study examined 10 separate cases of individuals demonstrating challenging behaviour, and through Functional Assessment procedures, determined the agreement and utility of interviews and rating scales from the participant and caregivers.
3.7 Rationale for Inclusion of Student in Functional Assessment Method

The preceding discussion outlines the specific procedures involved in an S-AFA designed to gather information through interviews and observations regarding the social and environmental conditions under which a particular behaviour occurs and does not occur, in an effort to determine the possible reasons why the behaviour is exhibited by the individual. Traditional models of Functional Assessment are on gathering information from caregivers, and this has raised the question of whether their reports are an accurate representation of what is occurring for the target student. Mash and Wolfe (2007) point out that children and adolescents are usually referred for assessment by an adult who views their behaviour as a problem and takes a predominant role in defining the behaviour of concern. Due to the complexity of human behaviour it is necessary to obtain data that allow for a full understanding of the individual’s behaviour, including his/her own perspective to accompany the traditionally collected data from significant adults. The participant’s input gained from the administration of rating scales and detailed interviews enhances the data collected to determine functions and valued outcomes associated with the behaviour that could not have been otherwise accessed. The current study uses the S-AFA as a method for comparing the data collected from a parent/guardian, teacher and participant as well as evaluate the utility of including this new perspective so that future investigations can include the individual’s input as part of a complete Functional Assessment and ultimately produce interventions more closely tailored to the needs as defined by the individual exhibiting the behaviour.
Chapter 4:
Application of Student-Assisted Functional Assessment on 10 Experimental Cases

This chapter presents the results of ten $n = 1$ replications designed to test the effectiveness of Student-Assisted Functional Assessment as a technique for conducting an in-depth and individualised investigation into the “inner skin” as well as environmentally-based maintaining variables for difficult behaviour in regular students with behavioural difficulties. As has been discussed in Chapter 2, the use of Functional Assessments which exclude students from the data-collection process can minimise the chances of identifying factors which are significant to understanding the purpose of that difficult behaviour. This exclusion has been viewed as a deficiency in the Functional Assessment process and prompted researchers such as Kern, et al. (1994) and Kinch, et al. (2001) to recommend that students be actively included in assessments of their own behaviour. However, this recommendation has not been systematically addressed in the existing research and behavioural interventions continue to be based primarily on data obtained from adult-derived assessments. Therefore, these experiments sought to incorporate participant self-reports during all stages of the Functional Assessment process and to compare data (obtained from these self-reports) with those established via informant methods involving parents and teachers. Table 3.2 in Chapter 3 of this thesis presented a sequenced outline of the data-collection and analysis procedures used during the Student-Assisted Functional Assessments reported on in this chapter. A review of this sequence shows that students participated in the standardised testing conducted to establish eligibility for inclusion in this study after the researcher completed direct observations of their behaviour in the
classroom context. This procedure was adopted to ensure that the student behaviour being displayed during the observation period was not impacted by prior interactions with the researcher. In this chapter, the results of this standardised testing are presented early in the discussion to demonstrate that eligibility was established.

4.1 Experiment 1 (Participant 01)

Participant 01 was a boy age 9 years 0 months who attended grade 3 at a state primary school. He was referred to the researcher for Functional Assessment by the principal of the school due to long-term and pervasive behavioural difficulties (e.g., withdrawing from peers, falling behind in school work and displaying outbursts of emotion) which were reported to disrupt the participant’s academic achievement and social integration.

4.1.1 Standardised testing to establish eligibility for inclusion of participant 01.

It was necessary for participant 01 to meet two ability-based criteria in order to be included in this study. Criterion 1 required that the participant exhibited age-appropriate receptive vocabulary ability. Level of ability in this area of performance was investigated via administration of the PPVT-IV (Dunn & Dunn, 2007). Criterion 2 required that the participant demonstrated average intellectual ability which was measured via SIT-R (Nicholson & Hibpshman, 1991) administration. The scores obtained from completion of this testing process are summarised in Table 4.1 below.

4.1.1.1 Summary of PPVT-IV testing results.

Participant 01 earned a standard score of 139 and a percentile rank score of 99.5 on the PPVT-IV (see: Table 4.1 on standardised test scores for participant 01). This standard
score falls within the Extremely High range of performance and indicates exceptionally well-developed receptive vocabulary skills. It was concluded, on the basis of the PPVT-IV scores, this participant fulfilled the condition set out by criterion 1.

4.1.1.2 Summary of SIT-R testing results.

Participant 01 earned a Total Standard Score (TSS) of 143 and a percentile rank score of 99+ on the SIT-R (see: Table 4.1 on standardised test scores for participant 01). This TSS falls within the Superior range of performance and indicates exceptionally well-developed cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.1. Standardised test scores for participant 01

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>139</td>
<td>99.5</td>
</tr>
<tr>
<td>SIT-R</td>
<td>143</td>
<td>99+</td>
</tr>
</tbody>
</table>

4.1.2 Data from the initial semi-structured interview.

This semi-structured interview, which was designed to collect data on general behavioural strengths and weaknesses from the perspectives of two adults familiar with the behaviour patterns of the student, was administered to the mother and grade-level teacher of participant 01. The mother was the biological parent of the participant and responded to queries pertaining to her child’s behaviour from a lifespan perspective. The teacher taught participant 01 for approximately eight months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided
information on her observations of the participant’s behaviour in the classroom and during break times.

4.1.2.1 Summary of parent responses to the semi-structured interview.

The mother of participant 01 was invited to discuss the behaviours which caused her concern about her child. She reported that he often became distracted when working on tasks and this caused him to forget what he was doing. The mother also reported that the participant frequently repetitively tapped and waved items in close proximity to both adults and peers using objects that he was playing with in an effort to play or interact.

The mother of participant 01 also stated that he experienced great difficulty in making friends at school and was often teased by other boys in his class. She reported that the behaviour causing the greatest disruption in the home environment was explosions of anger. These anger outbursts were defined as the participant yelling (vocal response) and pushing objects near him (physical response) when disrupted or blocked from continuing to focus on a task in which he was engaged. Similar outbursts were reported to occur when things were taken away from him or when peers annoyed him. The mother reported that anger outbursts were short in duration because when such behaviour occurred, she removed the participant from the situation and attempted to calm him down.

4.1.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported that she had observed a general lack of participation in classroom activities and poor social involvement from participant 01. She stated that it was common for the participant to remain seated when she instructed the class to leave their desk in order to complete an activity in another area of the classroom. The teacher
also stated that the participant rarely spoke in class and that she had observed very few verbal interactions between him and his peers. This reluctance to speak was also reported to occur at times when the participant was asked a direct question by the teacher and she noted that, at these times, he most likely engaged in behaviours such as yawning, rolling a pencil on his desk or looking away from her with head in hand. The teacher reported that the participant occasionally approached and followed her during class time but did not speak to her unless she initiated a conversation. Finally, the teacher reported that the participant sometimes engaged in “screeching” outbursts which created substantial disruption to the other students and the general running of the classroom. These screeching outbursts were defined as the participant yelling loudly (vocal response) at another student who had said or done something to cause him annoyance. The teacher hypothesized that screeching outbursts appeared to be the result of a gradual build up of frustration. The participant was observed to remain silent and passive during negative peer interactions in the early segments of the day but, as the school day progressed, used screeching as his coping tool. The teacher also reported that the participant had no close friends and peers did not play with him leading to a paucity of opportunities for appropriate social interaction.

4.1.3 Standardised testing for presence of behaviour problems for participant 01.

4.1.3.1 Summary of Conners CI-P testing results.

The mother of participant 01 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the Mood Disorder (i.e., T score = 74) and Anxiety Disorder (i.e., T score = 74)
indicators of the Conners CI-P. Both scores indicated that a significant problem existed in these areas of functioning. T scores for the AHDH indicator (i.e., T Score = 56), the Disruptive Behaviour Disorder indicator (i.e., T score = 52) and the Learning and Language Disorder indicator (i.e., T score = 46) fell within the average range and indicated typical levels of concern in the participant’s responses for these areas (see: Table 4.2 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.1.3.2 Summary of Conners CI-T testing results.

The grade level teacher of participant 01 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very elevated scores for the Mood Disorder (i.e., T score ≥ 90), Anxiety Disorder (i.e., T score = 76), and the Disruptive Behaviour Disorder (i.e., T score = 70) indicators of the Conners CI-T. All scores indicated that a significant problem existed in these areas of functioning. An elevated T score for the Learning and Language Disorder indicator (i.e., T score = 64) suggested a significant problem in functioning. An average score of 56 was earned on the ADHD indicator, which signified a typical level of concern in that area of functioning (see: Table 4.2 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.1.3.3 Summary of Conners CI-SR testing results.

Participant 01 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed an elevated score for Anxiety Disorder (i.e., T score = 61) and Mood Disorder (T score = 60) indicators, which reported more concerns than typical. T scores for the ADHD (i.e., T score = 57), Learning and Language Disorder (i.e., T score = 53) and Disruptive Behaviour Disorder (i.e., T score = 50) fell within the average range
and indicated typical levels concern in the participant’s responses for these areas (see:
Table 4.2 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

Table 4.2. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD\textsuperscript{a}</th>
<th>LLD\textsuperscript{b}</th>
<th>MD\textsuperscript{c}</th>
<th>AD\textsuperscript{d}</th>
<th>ADHD\textsuperscript{e}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>52</td>
<td>46</td>
<td>74</td>
<td>74</td>
<td>56</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>70</td>
<td>64</td>
<td>&gt;90</td>
<td>76</td>
<td>56</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>50</td>
<td>53</td>
<td>60</td>
<td>61</td>
<td>57</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Disruptive Behaviour Disorder indicator.
\textsuperscript{b}Learning and Language Disorder indicator.
\textsuperscript{c}Mood Disorder indicator.
\textsuperscript{d}Anxiety Disorder indicator.
\textsuperscript{e}Attention Deficit Hyperactivity Disorder indicator.

4.1.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., mother and
teacher) and administration of the three Conners rating scales were inspected in order to
decline upon one target behaviour to be submitted to in-depth Functional Assessment. It
was decided that the behaviour of “refraining from using speech when this verbal response
was necessary to deal with an academic and/or social demand” would become the target
for further assessment. While results of semi-structured interviews indicated angry
outbursts caused the greatest interference in the classroom and home environment,
discussions with both caregivers suggested that inability and/or refusal to speak or respond
verbally (especially to peers) were low-level behaviours occurring early in the “angry
outburst” chain and were thus worthy of further investigation. The Conners CI results
showed that all three respondents reported high levels of difficulty in the areas of mood
and anxiety with less emphasis placed on disruptive behaviour. This finding supported the
decision to refocus further investigations away from anger outbursts which appeared to be an end-of-chain response preceded by more subtle (i.e., low speech) and covert (e.g., anxiety) behaviours which appeared to be more significant to understanding the participant’s experiences and reactions.

4.1.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour of “refraining from using speech when this verbal response was necessary to deal with an academic and/or social demand.” It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The administration of the QABF was used as a basis for determining relevant functions and placing these in a hierarchy of importance, which was the subject of further investigation during the in-depth interview. This interview-based questionnaire was completed by the mother, grade level teacher and participant.

4.1.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “non-social” (total score = 7) and “physical” (total score = 7). Lower ranking options for possible functions included “escape” (total score = 4) and “tangible” (total score = 2). All items associated with the function label “attention” remained unendorsed by the mother. These data suggested that, from the mother’s perspective, the target behaviour was most likely to assist the participant in gaining access to “non-social” and “physical” outcomes.
4.1.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “escape” (total score = 9) and “non-social” (total score = 7). A lower ranking was given to the possibility of “tangible” (total score = 3) as a function. All items associated with the remaining function labels of “attention” and “physical” were answered with a response of never (0). These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in “escape” or accessing “non-social” outcomes.

4.1.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 8) and “physical” (total score = 6). Lower ranking options for possible functions included “escape” (total score = 4) and “tangible” (total score = 4). Items associated with the remaining function label “attention” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” and “physical” outcomes.

4.1.6 Data from individualised Functional Assessment (FA) interview.

This interview, which was designed to elicit in-depth information on the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 01 and his caregivers (i.e., mother and teacher). This interview focused specifically on the target behaviour and goes into much greater depth than the semi-structured interview regarding variables associated with the behaviour. Information is
further discussed first by detailing the behaviour from the individual’s perspective, then elaborating on maintaining variables (i.e., setting events, antecedents, functions and valued outcomes) from the unique point of view of each individual.

4.1.6.1 Summary of parent responses to the individualised FA interview.

The mother reported that participant 01 rarely experienced difficulty in using speech to deal with social demand in the home environment but acknowledged that this deficit in communication caused significant disruption to functioning at school. She reported that instances of non-speaking were infrequent and of short duration (i.e., episodes lasting several minutes) at home where he was most comfortable. She stated that the participant often spoke to himself, his parents and pets and the television and play station games during the course of the day. The contexts in which mother had observed the participant to remain silent were the classroom, being in the presence of unfamiliar people and morning time. The mother also reported that being in large groups often resulted in decreased speaking (and clinging to her) from the participant. This lack of speaking whilst in groups had been present in the participant’s repertoire for several years and individual instances of reduced speaking were estimated to last for approximately 30 minutes. It was reported that, when the participant spoke in the large group context, he directed all comments to his parents.

In discussing the major antecedents to the target behaviour, the mother of participant 01 reported that her asking him a question about his day at school often resulted in short evasive statements or went unanswered altogether. The mother also reported an antecedent to participant 01 refraining from speaking was verbal interaction with the principal and grade level teacher. She described both individuals as having loud voices,
which she perceived was the main deterrent to him speaking and possibly prolonging the verbal interaction.

In discussing the major consequences to the target behaviour, the mother reported that the most frequent outcome to the participant refraining from speaking was that the other person (involved in the interaction) ignored him. She hypothesized that this lack of response from others allowed the participant to remain unnoticed and avoid social demand.

In reviewing the mother’s responses to this more in-depth interview, the major function for remaining silent was identified as “avoidance of social interactions with peers and adults outside the home environment,” and this supported the “non social” function label previously identified by via parent completion of the QABF. In reviewing the specific valued outcomes associated with avoidance, it was hypothesised that the target behaviour assisted the participant to: avoid interactions with adults the participant might find intimidating due to some aspect of their communication style (i.e., the principal and teacher both spoke in loud voices) and avoid interactions with peers who are likely to initiate a conflict-based interaction (e.g., teasing) that will result in participant annoyance. The analysis of data generated from the in-depth interview confirmed the significance of the “avoidance” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of adverse (from the participant’s perspective) events the participant succeeded in avoiding by not speaking, it was highly probable that this behaviour has become an effective coping tool relevant to day-to-day life.
4.1.6.2 Summary of teacher responses to the individualised FA interview.

The teacher had reported several instances of participant 01 remaining quiet when speech was required of him during the semi-structured interview. Therefore, this Functional Assessment interview aimed at elaborating on the teacher’s perspective of the behaviour and the variables that maintained it. The teacher reported that the participant was most likely to remain silent when expected to engage in spontaneous speech, such as when he was called upon to answer a question or provide an example during class. She stated that this non-verbal behaviour persisted even when she allowed the participant time to prepare and plan a verbal response. The teacher reported that duration of silences was “prolonged” and she often re-directed the question to another student. She stated that the participant was able to deliver an answer to her question after a lapse of approximately 20 seconds on the occasions she had prompted him to speak. The teacher had observed the participant engage in the same cluster behaviours (i.e., standing, waiting and mouthing words) before he spoke – this group of behaviours was used regardless of whether the participant was required to speak in a group or to her individually. She also reported that quality of speech was affected by poor fluency, use of partial sentences and repeated pauses between words. The teacher reported this pattern of speech had been consistent for the entire eight months the participant had attended her class.

In discussing the major antecedents to the target behaviour, the teacher reported that being in a group situation was a significant trigger for silence. The participant was observed to “never” volunteer spontaneous verbal comments in a group of any kind and remained silent when peers asked him for feedback or assistance. The teacher also identified the presence of loud noises in crowded events (e.g., Christmas concert) as
antecedents to observable withdrawal and silence. The teacher observed that the antecedent to the participant using speech was verbal prompting from an adult – especially his mother.

In discussing the major consequences to the target behaviour, the teacher reported a common consequence resulting from the non-speaking behaviour (especially during the completion of language-based academic tasks) was her providing contextual cues to assist him in conveying a meaningful verbal message. She had observed the consequence of “someone else speaking for the participant” was sometimes delivered by some peers in response to the participant remaining silent. The teacher also reported two adverse consequences which arose from the participant’s poor verbal communication: incomplete work and teasing from a small number of peers.

In reviewing the teacher’s responses to this more in-depth interview, the major function for remaining silent (when speaking was expected) was identified as “avoidance of interactions associated with academics and social communication with individuals whom the participant perceived as annoying” and this supported the “escape” and “non-social” function labels previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with avoidance, it was hypothesised that the target behaviour assisted the participant to: avoid social contexts involving both peers and adults, specifically at school when verbal a response was expected to communicate information relevant to an academic discussion or question. The analysis of data generated from the in-depth interview confirmed the significance of the “avoidance” function for the target behaviour, but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviours in more precise terms.
4.1.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 01 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated that “remaining silent in class” involved him in not making social comments to the teacher/peers, not asking questions of the teacher/peers and not raising his hand to volunteer answers. The participant reported that he had “always” exhibited non-speaking when a verbal response was necessary to deal with academic and/or social demands in the school context. He was able to state that the maximum duration for silence in the classroom was approximately 30 minutes. The participant was able to confirm the finding that the target behaviour was limited to the school context and that he spoke frequently at home. Participant 01 was able to discuss a larger number of conditions under which he was more likely to engage in verbal communication as opposed to those associated with non-speaking. The participant stated that he talked mostly at home in the afternoon when discussing the events of his school day and stated that he preferred speaking to his parents and to himself.

In discussing the major antecedents to the target behaviour, the participant identified the presence of loud sounds (e.g. fireworks) that caused him to be scared as a trigger. He also reported remaining silent when the behaviour of others caused him annoyance and gave the examples of people talking during movies and peers “showing off” in school. The participant described one particular peer, whom he perceived was particularly disruptive in class, as a significant antecedent to his withdrawal and non-
communication. This person-based antecedent had not been reported by either caregiver in the Functional Assessment interview. When queried on the possible consequences of the target behaviour, the participant became silent and remained so for approximately one minute. He also did not respond to verbal prompting used to assist him in exploring this issue and provided no information on consequent events.

The functionality of the target behaviour was explored with the participant by guiding him to describe how remaining silent helped him to cope with demand in the classroom context. The participant’s responses to this prompting indicated that the target behaviour served the function of escape. From his own perspective, the specific valued outcomes gained by this behaviour were an escape of social situations, specifically when he finds the behaviour of peers annoying or when the demand placed on him in a verbally social situation was overwhelming.

In reviewing the participant’s responses to this more in-depth interview, the major function for remaining silent was identified as “escape from social interactions with peers/adults, an event which the participant views as aversive” and “escape from negative feelings associated with these interactions,” and this somewhat supported “escape” previously identified as a possible function label by the participant during completion of the QABF, however other function labels were identified as more probable, therefore further investigation was required to identify the valued outcomes associated with the identified function label. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to: escape social interactions involving peers whose behaviour in proximity to the participant was perceived as annoying (e.g., telling jokes in class) and escape interactions with the
adults/peers when a demand to speak was placed on him (e.g., questions). The participant also identified internal valued outcomes of escape from: situations where he felt scared (e.g. when loud noises were present) and situations when he felt annoyed (especially with peers). The participant’s exposure to these adverse events paired with success in escaping via not speaking yields a high probability that this behaviour has been an effective coping mechanism for daily life in the school environment. The function of escape was similar to those of avoidance identified by the parent and teacher, including the participant’s specific values regarding social interactions and academic demands. The knowledge of internal valued outcomes with an emphasis on emotion was not identified by either the parent or teacher.

4.1.7 Summary of findings from three direct observation sessions involving participant 01.

Direct observations were conducted in the classroom environment within the typical routine of the day-to-day activities to which participant 01 was normally exposed. This procedure was followed to maximise the chances that the researcher would observe and record representative samples of participant behaviour. Of the five observations conducted, the first two were discarded to eliminate factors associated with the student researcher being present as a new entity in the room – therefore all analyses were performed on observation sessions 3, 4 and 5. Data were collected on the frequency of the target behaviour as well as the possible antecedent and consequent events surrounding each instance of that behaviour. Data records were reviewed subsequent to each observation session to conduct a thematic analysis of recurrent antecedents and consequences. The functions and valued outcomes arising from the target behaviour were also identified.
Observation 3 took place in the afternoon during a school-wide Christmas concert in the assembly hall. Approximately 300 students sat on the floor grouped according to grade level and their task was to watch four teenagers conduct a performance involving singing and dancing. Observation 4 occurred in the afternoon during free-time outside after lunch. Students of all grade levels were given access to the play grounds and open spaces and the participant chose to play in a group of six children his own age. Observation 5 was conducted in the afternoon during an English lesson in the classroom. Nineteen students sat in desks positioned in rows of four. The lesson involved following directions on a colour, cut and paste activity (see: Table 4.3 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.3. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>School-wide concert</td>
<td>Watching a performance</td>
<td>300</td>
</tr>
<tr>
<td>4</td>
<td>Free time after lunch</td>
<td>Free play; play on logs</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>English lesson</td>
<td>Cut and paste activity</td>
<td>19</td>
</tr>
</tbody>
</table>

4.1.7.1 Frequency of the target behaviour.

A total of 34 instances of target behaviour were recorded over the three 30-minute observations. Specific examples of target behaviour involved the participant in: standing silently during an activity which required everyone to sing, clap and dance; watching (but not speaking to or joining in) a group of peers who were playing and making a flying motion with his pencil during an independent assignment where students were permitted to
engage in quiet discussions. In each instance of target behaviour, the participant was observed to remain silent and disengaged from the activity he was required to complete.

4.1.7.2 Observed antecedents for the target behaviour.

A total of 34 antecedents for quiet behaviour were recorded during the observation period and these can be classified into three pre-behaviour themes: peer interactions with a clear opportunity to begin/continue verbal interaction (19), given direction by teacher/adult figure indicating the necessity of a verbal response (8) and the need to clarify work requirements by speaking (5) (see: Table 4.4 on summary of antecedents for participant 01). The remaining two antecedents could not be adequately classified and were discarded from the analysis. Theme 1 antecedents exposed the participant to peers who were playing a game, completing a cooperative activity or speaking to one another. At these times, the participant exhibited the target behaviour by quietly observing the other children without taking the opportunity to join them in their interactions. Theme 2 antecedents exposed the participant to explanations on how to complete independent tasks (e.g., cut and paste), verbal directions to perform group activities (i.e., class asked to put hands in the air) and direct questions. At these times, the participant displayed the target behaviour by remaining silent and positioning his face/body away from the person giving the instruction. Theme 3 antecedents exposed the participant to confusion about how to complete class tasks due to him missing out on key instructions. Once the participant became aware that the rest of the class was working on the allocated task, he was observed to exhibit the target behaviour by redirecting his attention to searching for items (often in the same location) instead of asking for help.
Table 4.4. Summary of antecedents for participant 01

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proximity to peer interaction</td>
<td>19</td>
</tr>
<tr>
<td>Teacher direction</td>
<td>8</td>
</tr>
<tr>
<td>Confusion about work requirements</td>
<td>5</td>
</tr>
</tbody>
</table>

After determining the antecedents for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent antecedent was the participant watching peer interactions. On these occasions, he was engaged in quiet observation and consistently refrained from speaking or participating in the interaction in a meaningful way. It was hypothesized that this form of non-speaking could have been an attempt to learn how to interact via observation. It was also hypothesized that non-speaking during peer interactions might have assisted the participant to maintain internal control of some aspect of the interaction that was causing him annoyance.

**4.1.7.3 Observed consequences for the target behaviour.**

The primary consequence which followed the target behaviour was “no response” with 28 of the 34 instance of behaviour producing no discernible reaction from teachers or peers. The target behaviour assisted the participant in gaining access to peer attention (i.e., students initiated brief interaction) on three occasions and teacher attention (i.e., direct question or comment) on a further three occasions during the observation period (see: Table 4.5 on summary of consequences for participant 01).
Table 4.5. Summary of consequences for participant 01

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>28</td>
</tr>
<tr>
<td>Gaining peer attention</td>
<td>3</td>
</tr>
<tr>
<td>Gaining teacher attention</td>
<td>3</td>
</tr>
</tbody>
</table>

After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent consequence was a lack of response from peers and adults. It was hypothesized that this form of consequence to non-speaking assisted in maintaining the behaviour by providing the desired outcome of no social interaction and thus placing no added requirement to engage in the aversive (from his perception) obligation to reciprocate interaction.

4.1.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of avoidance of interaction with peers and adults. This was supported by the finding that most instances of non-speaking result in no social response or removal/refocusing of the other person away from the participant. It was hypothesized that each time the participant successfully avoided or escaped an (from his perspective) aversive social interaction, the behaviour of non-speaking was negatively reinforced.

4.1.8 Comparison of data trends across assessment methods.

This Functional Assessment used a multi-source (i.e., participant, parent and teacher) and multi-method (i.e., interview, standardised self-report scales and direct
observation) model to collect in-depth data on one target behaviour. The primary focus of the assessment was on emphasizing the participant’s perspective on his own behaviour and its maintaining variables with a particular focus on any covert or internal factors to which only he would have access. The secondary focus of the assessment was on incorporating data from two different caregivers (i.e., mother and teacher) and two social contexts (i.e., home and school) to ensure adequate sampling of behaviour and identification of maintaining variables. This secondary focus was also considered to represent the informant-driven methodologies customarily used to conduct traditional Functional Assessments of child behaviour. The question of whether multi-source assessments result in consistent trends which might be used for development of behavioural interventions is considered below via discussion of agreement and disagreement between data obtained from the participant vs. his mother vs. his teacher.

4.1.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated Mood and Anxiety Disorders at the highest levels of concern on their respective scales. There was some variation in degree of concern with the participant himself reporting that both subscales remained in the slightly elevated range, thus not indicating a significant problem in anxiety and mood from his perspective. All three informants also rated the Conners CI Learning/Language Disorder index items in the average or slightly elevated range suggesting that they agreed these were not of concern. There was also reasonable agreement in the ADHD index scores for all three informants with each one rating the items “trouble concentrating” and “trouble staying organized” similarly on their scales. In
addition to this, comments on trouble with academics and bullying others were ranked “not true at all” by all individuals.

All three informants were required to respond to the same questions during the Functional Assessment interviews. They agreed that the participant was most likely to remain quiet in the classroom and communicate on a consistent basis at home. The informants also remained in agreement on their responses to the QABF with non-social functions ranked among the highest and attention ranked the lowest. This finding coincides with the trend in higher ratings for covert behaviours (e.g., “worries about many things,” “feels rejected” and “I feel like things are not going well in my life and I can’t do anything about it”) and lower ratings for attention-seeking responses (e.g., “threatens others,” “leaves seat when he/she should stay seated” and “I do dangerous things”) obtained via Conners CI administration. These non-social themes were again corroborated by patterns discovered by direct observation of the participant’s behaviour. His lack of interaction due to refraining from speaking appeared to succeed in keeping him disengaged from social situations which had to potential to cause him emotional disturbance (e.g., annoyance or anxiety).

4.1.8.2 Areas of disagreement between respondents across assessment methods.

Overall ratings on the Conners CI showed some variation regarding the frequency with which individualised items reportedly occurred; the participant consistently identified statements as “not true at all” or “just a little true” while the teacher consistently identified statements as “pretty much true” or “very much true.” This variation in reported frequency was possibly due to the perceptions of the observer and not necessarily an accurate representation across the various environments.
The Functional Assessment interviews, despite being identical in content and presentation format, elicited very different responses from the three informants depending on their own priorities and concerns. The teacher focused on non-participation and poor communicative responses in the school environment and expressed a strong interest in identifying the antecedent events which might have impacted on these behaviours. The parent focused on discussions of the participant’s capacity to speak and interact with family members and viewed the target behaviour as being restricted to the school environment. Participant 01 began by discussing the specific conditions which prompted speaking versus silence. However, as the interview progressed, he became more open in relation to the non-speaking behaviour itself was able to provide specific descriptions of how this occurred in the classroom environment. Responses to questions regarding the possible antecedents and consequences to staying quiet were met with long silences. The researcher trialled several methods of eliciting verbal communication through increased wait time, rewording the question to promote better understanding and changing the context of the question. These approaches resulted in short answers pertaining to the maintaining variables for the target behaviour. The participant was also the only one who discussed covert, emotion-based information during his interview, describing he got annoyed with a particular classmate and he found loud noises scary rather than simply aversive.

The pattern in rating frequency of the QABF was similar to that of the Conners CI with the teacher consistently rating items with higher frequency, the parent rating items with lower frequency and the participant providing moderate ratings for items. These frequency differences identified across forms were a matter of perspective when discussing
the behaviours and could be attributed to the setting in which individual completing the form experienced the behaviours. The disagreements in frequency observations were mainly due to the perspective from which the behaviours were observed. These differences were helpful when combined as part of a complete assessment as they provided a more comprehensive view of the behaviour in various settings. The disagreement in information was not conflicting per se; it provided a different view, and each viewpoint was necessary in understanding the variables that reinforced the participant’s non-speaking behaviour.

4.1.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was highly informative, and represented a perspective that cannot be duplicated through reports by the parent and teacher. Participant 01 responded positively to rating scales, as he could remain on task without encountering social interactions that lead to an increase in his target behaviour of “refraining from using speech when this verbal response was necessary to deal with an academic and/or social demand.” Rating scale responses showed elevated score of covert behaviours as opposed to overt observable behaviours, which provided insight into the areas in which the participant felt he struggled. Responses on the Conners CI-SR showed elevated scores in the area of mood and anxiety, and responses to the QABF indicated his behaviour was a function of non-social outcomes. During the Functional Assessment interview, he was further able to confirm and elaborate on details brought up in parent and teacher interviews, as he was the common factor that exists across all settings. The participant was the only individual who discussed covert antecedents, such as personal emotions (i.e., anger and frustration with the habits of other students) that
increase instances of remaining quiet. Information gained from the participant’s point of view was valuable in understanding what he was thinking and feeling in situations where he remained silent, where caregivers could only provide details about the environments and interactions that surrounded his quiet behaviour. The Functional Assessment data would be considered incomplete without information gained from the participant’s perspective.

4.2 **Experiment 2 (Participant 02)**

Participant 02 was a boy age 8 years 4 months who attended grade 3 at a state primary school. He was referred to the researcher for Functional Assessment by the principal of the school due to long-term and pervasive behavioural difficulties (e.g., impulsive behaviour, difficulties in completing school work and inappropriate socialization with peers) which were reported to disrupt the participant’s academic achievement and social integration.

4.2.1 **Standardised testing to establish eligibility for inclusion of participant 02.**

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.6 for PPVT-IV and SIT-R test scores).

**4.2.1.1 Summary of PPVT-IV testing results.**

Participant 02 earned a standard score of 92 and a percentile rank score of 30 on the PPVT-IV (see: Table 4.6 on standardised test scores for participant 02). This standard score falls within the Low Average range of performance and indicates age appropriate
development of receptive vocabulary skills. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

4.2.1.2 Summary of SIT-R testing results.

Participant 02 earned a Total Standard Score (TSS) of 76 and a percentile rank score of 7 on the SIT-R (see Table 4.6 on standardised test scores for participant 02). This TSS falls within the Borderline M/H range of performance and indicates sub-average cognitive ability, however, this score does not represent a clear indication of substantial impairment in cognitive functioning. It was concluded, on the basis of the SIT-R scores, that this participant had achieved at least part fulfilment of the condition set out by criterion 2, and he was included in the study.

Table 4.6. Standardised test scores for participant 02

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>92</td>
<td>30</td>
</tr>
<tr>
<td>SIT-R</td>
<td>76</td>
<td>7</td>
</tr>
</tbody>
</table>

4.2.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the father and grade-level teacher of participant 02. The father was the biological parent of the participant and responded to queries pertaining to his child’s behaviour from a lifespan perspective. The teacher taught participant 02 for approximately eight months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided information on her observations of the participant’s behaviour in the classroom and during break times.
4.2.2.1 Summary of parent responses to the semi-structured interview.

The father of participant 02 was invited to discuss the behaviours which caused him concern about his child. He reported that the participant was a quiet boy who could play independently with toys for several hours. The father attributed this preference for isolated play to his son’s lack of understanding and skill when interacting with other children. Additionally, the father reported that the participant had trouble concentrating on a given task that did not include play activities and became distracted easily.

The father of participant 02 also stated that the participant did not understand basic social rules and struggled with ideas such as personal space. He reported that the behaviour causing the greatest disruption in the home environment was making inappropriate comments during situations involving other family members or peers. Examples of this verbal behaviour included the participant making statements or telling jokes which inadvertently caused adverse (and from the participant’s perspective) unpredictable reactions from other children. Because the participant judged his own reactions to be positive, he did not understand why other children responded to him with angry statements, physical aggression (e.g. push or kick) or walking away from him. The father reported that these responses caused the participant to get upset and often cry due to confusion about why his efforts to initiate interaction ended poorly. He also reported that participant 02 had been the victim of bullying in the school environment on account of his poor socialisation skills.

4.2.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported she had observed participant 02 to be absorbed in a fantasy world and not attending to the task at hand or relevant environmental stimuli whilst at
other times he quickly and energetically engaged in working on the presented activity. She reported that the participant regularly alternated between these two states during the school day. The teacher stated that the participant could sit for periods up to 30 minutes without engaging in an activity then suddenly raise his hand because he did not know what to do. She further stated he displayed a constant need for attention and reassurance in order to complete academic activities which were well within his ability level. The teacher reported that the participant spoke quickly when attempting to converse with her and classmates and did not provide others with adequate personal space. The teacher reported the behaviours which caused the most disruption in the school environment were his inattention and lack of focus. His listening style was described as fading in and out, and it often took more than one explanation before he was able to attend to all the details required to complete a task. The teacher reported that a common strategy she used to help him focus was to remind him to stop and think, and these reminders were needed constantly and were not 100% effective in refocusing his attention.

4.2.3 Standardised testing for presence of behaviour problems for participant 02.

4.2.3.1 Summary of Conners CI-P testing results.

The father of participant 02 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the Anxiety Disorder (i.e., T score ≥ 90), Learning and Language Disorder (i.e., T score = 88), Mood Disorder (i.e., T score = 84) and ADHD (i.e., T score = 77) indicators of the Conners CI-P. These scores indicated that there appear to be many more concerns about participant responses than would be expected for a child of his age. These elevated scores
also suggested that a significant problem existed in these listed areas of functioning. The T scores for the Disruptive Behaviour Disorder indicator (i.e., T score = 54) fell within the average range and indicated typical levels of concern from the father’s perspective (see: Table 4.7 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.2.3.2 Summary of Conners CI-T testing results.

The grade level teacher of participant 02 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. A very elevated T score for the Learning and Language Disorder indicator (i.e., T score = 73) suggested a significant problem in functioning. The participant earned elevated scores for the ADHD (i.e., T score = 66) and Anxiety Disorder (i.e., T score = 64) indicators of the Conners CI-T. Both scores indicated that a significant problem existed in these areas of functioning. Average scores were earned on the Mood Disorder (i.e., T score = 50) and Disruptive Behaviour Disorder (i.e., T score = 44) indicators, signifying a typical level of concern in both areas of functioning (see: Table 4.7 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.2.3.3 Summary of Conners CI-SR testing results.

Participant 02 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed very elevated scores for Anxiety Disorder (i.e., T score ≥ 90), Learning and Language Disorder (i.e., T score = 82), Mood Disorder (T score = 71) and Disruptive Behaviour Disorder (i.e., T score = 70) indicators, which reported many more concerns than typical. T scores for the ADHD (i.e., T score = 53) indicator fell within the average range and indicated typical levels concern in the participant’s responses for these
areas (see: Table 4.7 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

Table 4.7. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD&lt;sup&gt;a&lt;/sup&gt;</th>
<th>LLD&lt;sup&gt;b&lt;/sup&gt;</th>
<th>MD&lt;sup&gt;c&lt;/sup&gt;</th>
<th>AD&lt;sup&gt;d&lt;/sup&gt;</th>
<th>ADHD&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>54</td>
<td>88</td>
<td>84</td>
<td>≥ 90</td>
<td>77</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>44</td>
<td>73</td>
<td>50</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>70</td>
<td>82</td>
<td>71</td>
<td>≥ 90</td>
<td>53</td>
</tr>
</tbody>
</table>

<sup>a</sup>Disruptive Behaviour Disorder indicator.
<sup>b</sup>Learning and Language Disorder indicator.
<sup>c</sup>Mood Disorder indicator.
<sup>d</sup>Anxiety Disorder indicator.
<sup>e</sup>Attention Deficit Hyperactivity Disorder indicator.

4.2.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., father and teacher) and administration of the three Conners rating scales were inspected in order to decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “making a statement (i.e., question or comment) which does not relate to the topic under current discussion” or “volunteering to answer a question without having attended to what has been asked by the teacher” would become the target for further assessment. Results of semi-structured interviews indicated comments inappropriate to a situation and a lack of focus caused the greatest interference in the classroom and home environments. Discussions with both caregivers suggested that these off-topic comments resulted from inattention to the salient details of a social situation or interaction. It was anticipated that these behaviours would create long-term problems in socialisation and were thus worthy of further investigation. The Conners CI results
showed that all three respondents reported high levels of difficulty in the areas of anxiety and learning and language disorder with less emphasis being placed on disruptive behaviour. This finding supported the decision to focus investigations on overt behaviours (i.e., speaking) that might relate to inattention and elevated anxiety as these two states possess covert components that are not readily observable.

4.2.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour of “making a statement (i.e., question or comment) which does not relate to the topic under current discussion” or “volunteering to answer a question without having attended to what has been asked by the teacher.” It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The administration of the QABF was used as a basis for determining relevant functions and placing these in a hierarchy of importance, which was the subject of further investigation during the in-depth interview. This interview-based questionnaire was completed by the father, grade level teacher and participant.

4.2.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “attention” (total score = 9) and “non-social” (total score = 8). A lower ranking option for possible function was “physical” (total score = 2). All items associated with the function labels of “escape” and “tangible” remained unendorsed by the father. These data suggested that, from the father’s perspective, the target behaviour
was most likely to assist the participant in gaining access to “attention” and “non-social” outcomes.

4.2.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that highest-ranking function was “non-social” (total score = 9). Lower rankings were given to “tangible” (total score = 4), “attention” (total score = 3), “escape” (total score = 2) and “physical” (total score = 2) as possible functions. These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in gaining access to “non-social” outcomes.

4.2.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 14) and “escape” (total score = 12). Lower ranking options for possible functions included “attention” (total score = 6) and “physical” (total score = 1). Items associated with the remaining function label “tangible” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” and “escape” outcomes.

4.2.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 02 and his caregivers (i.e., father and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.
4.2.6.1 Summary of parent responses to the individualised FA interview.

The father reported that participant 02 showed signs of poor attention when he made comments which indicated that he had comprehended the first part of a sentence but not the second part. He also reported that the participant tended to over-focus on one initially-occurring aspect of a conversation and became fixated on commenting on that aspect when it was his turn to speak. This often resulted in the participant’s statements becoming disconnected from the overall point of the discussion. The father also reported that the participant could only follow one direction at a time and struggled with multi-step instructions. “Attention to verbal cues” was described as the participant making eye contact and facing the speaker without becoming distracted by incidental stimuli. Non-attention to verbal cues was reported to occur when the participant disengaged eye contact, maintained a glazed look and used off-topic statements. It was reported that non-attention or distracted and off-topic speaking had been present in the participant’s repertoire for approximately five years indicating that these behaviours appeared to be an entrenched part of the participant’s response repertoire.

In discussing the major antecedents to the target behaviour, the father of participant 02 reported exciting events (e.g. a birthday party or a weekend spent with his mother) and increased sugar intake appeared to trigger the behaviour with higher intensity. He also reported that that the participant struggled more in conversation with peers rather than adults thus suggesting that peer-based antecedents might be significant to the behaviour. He also reported a general antecedent to participant 02 speaking off-topic was anything that he found interesting at the time, which could range from an item (e.g. a toy, a pencil, grass) to a verbal cue (i.e., something he heard that he needed to comment on).
In discussing the major consequences to the target behaviour, the father reported that the most frequent outcome to the participant speaking off-topic was that adults redirected him to the topic under discussion while other children responded to him in a negative manner (e.g., call him names, walk away from him and limit further interactions).

In reviewing the father’s responses to this more in-depth interview, the major function for off-topic speaking was identified as “access to a preferred activity in which the participant freely verbalises the thoughts on his mind rather than staying quiet, a situation that proves aversive to the participant when something was on his mind.” This function provides additional information regarding the ways in which the participant uses off-topic speaking to cope with social demand. The QABF data suggest the participant succeeds in initiating interactions by speaking about topics that are of high interest to him (i.e., attention), however the participant’s focus appears to be on discussing rather than eliciting a verbal response from others (i.e., non-social). Therefore the same behaviour was linked with both attentional and non-social functions. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to: gain attention from interactions with adults who politely acknowledged and/or redirected his comments and interactions with peers who responded (i.e., laugh or call names) to questions or comments not relevant to the situation. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” function for the target behaviour but more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of responses to the behaviour, the participant succeeded in accessing attention to a preferred topic while limiting social responses from peers, it is highly probable that this behaviour
has become an effective coping tool relevant to day-to-day life in the home and school environment.

**4.2.6.2 Summary of teacher responses to the individualised FA interview.**

The teacher had reported several instances of participant 02 providing off-topic responses due to non-attention to the discussion to which he was required to listen (statement made during semi-structured interview). The teacher also reported that the participant often engaged in quick and thoughtless responding to questions in an attempt to please her (i.e., any answer was better than no answer). This behaviour had occurred the entire school year in her class and she estimated that one in three comments made by the participant was either incorrect or irrelevant to the topic due to this inattention. The teacher reported that the participant also exhibits off-topic writing behaviour and had observed him to write off topic for up to 15 minutes without recognizing that his efforts did not relate to the instructions with which he was provided.

In discussing the major antecedents to the target behaviour, the teacher reported that off-topic comments occurred during written work, oral work and personal discussion. She stated that the behaviour occurred in response to interactions with anyone, including both teacher and peers. She also reported that home-based situations could cause the participant to be off-topic at school, especially following weekends he spent with his biological mother. Other antecedents reported to increase off-topic speaking included big events, such as birthdays. The teacher reported that off-topic speaking was pervasive and occurred in the classroom during most conversation and across all activities.

In discussing the major consequences to the target behaviour, the teacher reported a common consequence resulting from off-topic speaking was that she interrupted him and
redirected him to stop, listen and repeat what was said. She also reported providing him with extra explanation after instances of off-topic speaking to ensure that he fully understood the presented verbal material. The teacher noted no significant reaction from peers, stating they “don’t mind” his comments.

In reviewing the teacher’s responses to this more in-depth interview, the major function for speaking off topic due to inattention was identified as “gaining attention from another individual following instances of vocalizing his current thoughts,” however, teacher-derived QABF results indicated that “attention” was not a highly significant function. This might suggest that the in-depth Functional Assessment interview may have encouraged the teacher to reflect in more detail on the participant’s behaviour and to clarify the significance of the “attention” function. In reviewing the specific valued outcomes associated with attention, it was hypothesised that the target behaviour assisted the participant to: seek attention from others, specifically in reference to having his thoughts heard. The Functional Assessment data suggest that the participant had consistently succeeded in gaining attention by using his own particular ideas and interests to initiate numerous social and academic interactions. Therefore it was hypothesised that off-topic speaking was a highly reinforced behaviour which had become an effective tool for dealing with social demand in the school environment.

4.2.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 02 (the Conners CI-SR was completed by the participant subsequent to this interview). When asked to provide a form description of the target behaviour, the participant reported that he did not always think about answers before he
expressed them. He also reported that when he responded in this manner, his answer was usually incorrect. The participant estimated that off-topic speaking had been a strong feature of his response pattern for approximately five years and the frequency of responding quickly was approximately six times per class.

In discussing the major antecedents to the target behaviour, the participant identified locations in the classroom as being significant triggers. Specifically, sitting on the floor during morning carpet time or standing around a table for visual demonstrations. He reported that he spoke off topic to his teachers, parents, family and peers. The participant stated that subjects which increased his off-topic speaking included Christmas, his baby brother, going to third grade and highly anticipated treats (e.g., going out for ice cream). He reported that any time he was excited, he was more likely to speak quickly without focusing on the details of the topic. The participant also stated that he frequently spoke off-topic when someone asked him a direct question.

In discussing the major consequences to the target behaviour, the participant reported that he often experienced shocked disappointment if he responded incorrectly to a question (i.e., “awe man!”). Other responses he reported included the teacher telling him he was incorrect or another student answering correctly. On these occasions, he reported that he was given the opportunity to answer another question later.

In reviewing the participant’s responses to this more in-depth interview, the major function for off-topic speaking was identified as an “an internal change from anticipation of contributing to discussion to feelings of happiness when he was provided the opportunity to speak,” which was confirmed by the identification of “non social” as a function label on the student-derived QABF results. In reviewing the specific valued
outcomes associated with non-social functions, it was hypothesised that the target behaviour assisted the participant to: feel happy when he got the opportunity to answer a question, feel confident at the opportunity to speak about his own interests and ideas and feel excited about the opportunity to raise his hand and answer a question in the future. The participant’s exposure to these events paired with success in creating positive feelings suggested that it was highly probable that off-topic speaking had become an effective mechanism for functioning in daily life. The knowledge of internal valued outcomes with an emphasis on emotion was not identified by either the parent or teacher.

4.2.7 Summary of findings from three direct observation sessions involving participant 02.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 02 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the afternoon during a math lesson in the classroom. Eighteen students sat in desks positioned in rows of four. Students were required to undertake independent work in workbooks involving measurement and the use of rulers. Observation 4 occurred in the beginning of the day during a morning circle routine. Seventeen students sat in a circle on the floor in the back of the classroom with one student (i.e., lead student) directing the routine as the teacher observed and prompted from a distance. The morning routine included taking class attendance and conversation about the schedule of daily activities. The lead student invited class members to respond verbally to basic prompts. Observation 5 was conducted in the morning during an English lesson in
the classroom. Eighteen students sat in desks positioned in rows of four. The lesson focused on creating Christmas cards using common holiday greetings (see: Table 4.8 on description of direct observations contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.8. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Math lesson</td>
<td>Measurement task</td>
<td>18</td>
</tr>
<tr>
<td>4</td>
<td>Morning routine</td>
<td>Q&amp;A on daily routines</td>
<td>17</td>
</tr>
<tr>
<td>5</td>
<td>English lesson</td>
<td>Create Christmas cards</td>
<td>18</td>
</tr>
</tbody>
</table>

4.2.7.1 Frequency of the target behaviour.

A total of 21 instances of target behaviour were recorded over the three 30-minute observations. Specific examples of target behaviour involved the participant in: telling the teacher she smelled like roses in response to her saying she liked the smell of the beach; putting on a hat and stating “my Dad says it’s funny” while waiting for the morning routine to conclude; and raising his hand to answer a question and stating “I forget what I was going to say!” In each instance of target behaviour, the participant was observed to speak impulsively without a full understanding to the topic being discussed.

4.2.7.2 Observed antecedents for the target behaviour.

A total of 21 antecedents for off-topic speaking behaviour were recorded during the observation period and these can be classified into three pre-behaviour themes: a statement made by the teacher or a peer which was not directed at the participant but which
appeared to trigger a verbal response from him (8), a question posed to the class that resulted in the participant immediately and enthusiastically raising his hand to be called on (7) or movement perceived visually by the participant (e.g. someone increasing proximity to participant) made by a teacher or peer that triggers something he wanted to comment on (6) (see: Table 4.9 on summary of antecedents for participant 02). Theme 1 antecedents exposed the participant to a verbal interaction between peers or a peer and a teacher that triggered him to comment on an aspect of their conversation. Specific incidences included a group of peers talking about New Years Eve, a peer near him asking another peer a question and the teacher commenting on a girl’s hat. At these times, the participant exhibited the target behaviour by interjecting into the conversation with a personal comment on the last sentence spoken, which may not necessarily have been the focus of the conversation. Theme 2 antecedents exposed the participant to direct questions, for example the teacher asking a review question about the previous day’s work, the lead student asking if there were any questions and the teacher inviting the class to help another student to answer a question correctly. At these times, the participant displayed the target behaviour by raising his hand quickly, extending his arm in the direction of the questioner, often lifting his bottom out of his chair and vocalising for attention (i.e., “ooo ooo”) and producing an incorrect answer or no answer at all when called upon. Theme 3 antecedents exposed the participant to non-verbal social cues, such as the teacher walking by his desk, the teacher creating sound while flipping through papers and a girl holding out a pencil in the direction of the participant as a cue for him to look at the design on it. At these times, the participant displayed the target behaviour by commenting to the individual regarding the activity in which he/she was currently engaged.
After determining the antecedents for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent antecedent was the participant hearing a verbal cue. On these occasions, the verbal stimulus appeared to result in him ceasing his work, looking in the direction of the stimulus and commenting on the fragment of the stimulus of interest to him.

**4.2.7.3 Observed consequences for the target behaviour.**

The primary consequence which followed the target behaviour was gaining teacher attention (i.e., the teacher acknowledged and responded to a large proportion of participant comments) accounting for nine of the 21 instances of target behaviour. The target behaviour elicited “no response” (i.e., produced no discernible reaction from teacher or peers) on seven occasions and assisted the participant in gaining access to peer attention (i.e., peers responded to comments) on five occasions (see: Table 4.10 on summary of consequences for participant 02).

After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to reinforce the behaviour across observed contexts and tasks. A common theme in consequences was gaining access to teacher or
peer attention. It was common for the participant’s off-topic speaking to elicit some form of reaction from the person to whom he was speaking.

Table 4.10. Summary of consequences for participant 02

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining teacher attention</td>
<td>9</td>
</tr>
<tr>
<td>No response</td>
<td>7</td>
</tr>
<tr>
<td>Gaining peer attention</td>
<td>5</td>
</tr>
</tbody>
</table>

### 4.2.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of gaining attention of adults and peers. It was suggested that each time the participant successfully gained attention, the behaviour of off-topic speaking was positively reinforced. It was also suggested that reinforcement was provided on an intermittent schedule, with some incidences of behaviour being met with a desired outcome (i.e., attention) and others are met with no response. This schedule of reinforcement is known to be effective in strengthening behaviour by exposing the individual to variable access to reinforcers – in this instance social reinforcers.

### 4.2.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 02 himself.


4.2.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated Anxiety and Learning and Language Disorders at high levels of concern on their respective scales. There was also agreement for the Conners CI Disruptive Behaviour Disorder index, with all respondents indicating low ratings in this area suggesting that they agreed this was not a concern for the participant. All respondents showed agreement in reporting on the items “worries about many things” and “interrupts others” with descriptions of “very much true.” In addition to this, comments regarding threatening and bullying others were ranked “not true at all” by all individuals.

The informants also showed agreement in responses on the QABF with “non-social” functions ranked among the highest and “physical” generally ranked among the lowest. The father and teacher also showed agreement in rating all items associated with “tangible” outcomes as “never.” These data are consistent with those obtained from the Conners CI, in that for both scales, endorsed items were more likely to pertain to internal or covert responses as opposed to overt displays of behaviour.

All three informants were required to respond to the same questions during the Functional Assessment interviews. They agreed that participant 02 had generalised his use of off-topic comments across locations, social interactions and individuals. These respondents also agreed that off-topic statements were not restricted to particular topic areas but the respondent was more likely to comment during conversations which were somehow connected to his experiences and interests. All three respondents reported that participant 02 often received some type of re-direction from an adult when he either made an off-topic statement or responded to a question incorrectly in the school and home
environments. The parent and teacher both described consequent events (following the target behaviour) which indicted its function was to gain attention, usually from an adult.

**4.2.8.2 Areas of disagreement between respondents across assessment methods.**

Overall ratings on the Conners CI showed some variation regarding the frequency with which particular behaviours were reported to occur. The largest area of fluctuation in responses occurred for the ADHD indicator. The father’s ratings resulted in a very elevated ADHD score whilst the teacher appeared to report slight difficulties in this area. Item endorsement from participant 02 resulted in an average for the ADHD indicator.

QABF results showed some fluctuation pertaining to the functions of the target behaviour. The most notable discrepancy occurred for the “attention” function. The father ranked “attention” as the most probable function while the teacher and participant ratings indicated that this function had a moderate association with the target behaviour.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited very different responses from the three informants depending on their perceptions of the behaviour and their specific concerns. The father emphasized the responses of peers, often noting that they pulled away from the participant in response to his off-topic speaking and sometimes teased and bullied him. The parent also stated that the valued outcomes of the participant’s behaviour appeared to him to be embedded in attempts to gain attention in the form of acknowledgement of his own ideas. From the father’s observations, the participant was not interested in eliciting a response from the listener or initiating a sustained exchange of ideas. The teacher disagreed with the father’s proposal that off-topic speaking sometimes resulted in teasing from peers by stating that peers were tolerant of the participant in the classroom. Her description of the valued
outcomes gained from the target behaviour emphasized that the participant was interested in initiating an interaction which actively elicited responses from the listener. Participant 02 reported that his behaviour did vary in relation to topic and social situation. For instance, the participant used off-topic speaking more when he was excited about an event, speaking about his own interests and describing his emotions. In contrast to the adult belief that he remained unaffected when responding incorrectly, the participant clearly stated that he felt disappointed when his answers did not correspond with the question being asked. Most interestingly, the participant emphasized that his most valued outcomes were associated with some change in emotional state. For instance, he reported feeling “happy” and “excited” when given the opportunity to speak spontaneously or respond to a question.

4.2.8.3 Participant’s contribution to Functional Assessment.

Information reported by participant 02 on his own behaviour was highly informative and represented a perspective that could not be duplicated via information obtained from the parent and teacher. Participant 02 was able to corroborate adult-derived data obtained from the Conners CI (e.g., list indices) and QABF (e.g., list functions). This corroboration was important to establishing the sources of student difficulties and functions of the target behaviour. During the Functional Assessment interview, the participant was able to provide new insight into his emotional state before, during and after the target behaviour occurred – this information was not reported by either of the adult respondents. The participant was open in discussing intense feelings of excitement when contributing to a topic and his feelings of shock and disappointment when his answers were incorrect or poorly received. These reports provided a basis for further exploring the
covert variables which maintained the behaviour and possibly removed the focus on it simply being “attention-seeking.” Interestingly, the feelings of disappointment (which constituted a basis for punishing off-topic speaking) were reported to be short-lived and replaced by feelings of excitement at the prospect of another opportunity to speak arising in the near future. Therefore, the reported “excitement” and “happiness” in anticipating an opportunity to speak (antecedent events) appeared to be more significant to the target behaviour than any negative consequences (e.g., disappointment, no or negative response from the listener). Therefore, the participant’s data provided important information on his feeling state and how moment-by-moment changes to this impacted on the probability of the target behaviour recurring. Adult-derived data did not tap into this aspect of the participant’s experience.

4.3 Experiment 3 (Participant 03)

Participant 03 was a boy age 13 years 4 months who attended grade 7 at a state primary school. He was referred to the researcher for Functional Assessment by the principal of the school due to long-term and pervasive behavioural difficulties (e.g., oppositional behaviour, bullying and physically fighting with peers) which were reported to disrupt the participant’s academic achievement and social integration.

4.3.1 Standardised testing to establish eligibility for inclusion of participant 03.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.11 for PPVT-IV and SIT-R test scores).
4.3.1.1 Summary of PPVT-IV testing results.

Participant 03 earned a standard score of 120 and a percentile rank score of 91 on the PPVT-IV (see: Table 4.11 on standardised test scores for participant 03). This standard score falls within the Moderately High range of performance and indicates age appropriate development of receptive vocabulary skills. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

4.3.1.2 Summary of SIT-R testing results.

Participant 03 earned a Total Standard Score (TSS) of 103 and a percentile rank score of 57 on the SIT-R (see: Table 4.11 on standardised test scores for participant 03). This TSS falls within the Average range of performance and indicates age appropriate development of cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.11. Standardised test scores for participant 03

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>120</td>
<td>91</td>
</tr>
<tr>
<td>SIT-R</td>
<td>103</td>
<td>57</td>
</tr>
</tbody>
</table>

4.3.2 Data from the initial semi-structured interview.

The semi-structured interview was administered to the mother and grade-level teacher of participant 03. The mother was the biological parent of the participant and responded to queries pertaining to her child’s behaviour from a lifespan perspective. The teacher taught participant 03 for approximately 20 months and had a general knowledge of his patterns of behaviour prior to having him in class. This second respondent provided
information on his observations of the participant’s behaviour in the classroom and during break times.

4.3.2.1 Summary of parent responses to the semi-structured interview.

The mother of participant 03 was invited to discuss the behaviours which caused her concern about her child. She reported that he had very high expectations for himself, and if he thought his assignments were not perfect, he tore them up and threw them in the trash. The mother also reported that the participant frequently used inappropriate language (i.e., swear words) in situations that caused him to become frustrated.

The mother of participant 03 reported that the behaviour causing the greatest disruption in the home environment was verbal and physical outburst behaviour resulting from frustration. This verbal and physical outburst behaviour was defined as the participant yelling (vocal response) and hitting walls (physical response) when told to do something (e.g. chores) that he did not want to do. Similar outbursts were reported to occur when he argued with his brother. The mother reported that verbal and physical outburst behaviour was a result of frustration and an inability to communicate about his needs and achieve his planned outcomes. She also reported that the participant was able to calm himself down over time by reading in his room.

4.3.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported that he had observed participant 03 initiate many negative interactions with particular peers which involved him in swearing, making derogatory comments and physically handling them. The teacher also stated that the participant engaged in low-level behaviours which included walking around with an angry look on his face and throwing things. He reported that the participant often initiated fights in the
playground and elaborated on a chain of actions which occurred as the fights escalated from verbal to physical aggression (e.g., making eye contact with a target student – calling the student names – teasing the student – holding the student against a wall – wrestling the student to the ground). The teacher stated that following fights, the participant typically met with him or the principal and consistently reported that his actions were justified, stating that he was the victim in the situation.

4.3.3 Standardised testing for presence of behaviour problems for participant 03.

4.3.3.1 Summary of Conners CI-P testing results.

The mother of participant 03 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the Disruptive Behaviour Disorder (i.e., T score ≥ 90), Anxiety Disorder (i.e., T score = 72) and ADHD (i.e., T score = 72) indicators of the Conners CI-P. All scores indicated that a significant problem existed in these areas of functioning. T scores for the Mood Disorder indicator (i.e., T Score = 57) and the Learning and Language Disorder indicator (i.e., T score = 47) fell within the average range and indicated typical levels of concern in the participant’s responses for these areas (see: Table 4.12 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.3.3.2 Summary of Conners CI-T testing results.

The grade level teacher of participant 03 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very elevated scores for the Disruptive Behaviour Disorder (i.e., T score ≥ 90), Mood Disorder (i.e., T score ≥ 90) and the Anxiety Disorder (i.e., T score ≥ 90) indicators of the Conners
CI-T. All scores indicated that a significant problem existed in these areas of functioning. An elevated T score for the AHDH indicator (i.e., T score = 68) suggested that moderate problems were evident in this area. An average score of 54 was earned on the Learning and Language Disorder indicator, signifying a typical pattern of responses for this domain of functioning (see: Table 4.12 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.3.3.3 Summary of Conners CI-SR testing results.

Participant 03 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed scores within the average range for Disruptive Behaviour Disorder (i.e., T score = 49), Learning and Language Disorder (i.e., T score = 43), Mood Disorder (T score = 43) and ADHD (i.e., T score = 42) indicators, suggesting the absence of problem behaviours in these domains. A low T score for the Anxiety Disorder indicator (i.e., T score ≤ 40) signified that functioning was not affected by anxiety-based behaviours (see: Table 4.12 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

Table 4.12. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>DBD(^a)</th>
<th>LLD(^b)</th>
<th>MD(^c)</th>
<th>AD(^d)</th>
<th>ADHD(^e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>≥ 90</td>
<td>47</td>
<td>57</td>
<td>72</td>
<td>72</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>≥ 90</td>
<td>54</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>68</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>49</td>
<td>43</td>
<td>43</td>
<td>≤ 40</td>
<td>42</td>
</tr>
</tbody>
</table>

\(^a\)Disruptive Behaviour Disorder indicator.  
\(^b\)Learning and Language Disorder indicator.  
\(^c\)Mood Disorder indicator.  
\(^d\)Anxiety Disorder indicator.  
\(^e\)Attention Deficit Hyperactivity Disorder indicator.
4.3.4 Identification of target behaviours for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., mother and teacher) and administration of the three Conners CI rating scales were inspected in order to decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “any outburst of anger that includes yelling or physical contact with a person or object with intent to cause harm” would become the target for further assessment. Results of semi-structured interviews indicated anger, frustration and fighting caused the greatest interference in the home and school environments. This was corroborated with results from the caregivers’ reports of the Conners CI showing that both respondents reported high levels of difficulty in the disruptive behaviour category, however the participant himself reported lower scores on the Conners CI and did not verify the data obtained by the caregivers.

4.3.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour of “any outburst of anger that includes yelling or physical contact with a person or object with intent to cause harm.” It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The administration of the QABF was used as a basis for determining relevant functions and placing these in a hierarchy of importance, which was the subject of further investigation during the in-depth interview. This interview-based questionnaire was completed by the mother, grade level teacher and participant.
4.3.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “escape” (total score = 8) and “tangible” (total score = 7). Lower ranking options for possible functions included “non-social” (total score = 4), “physical” (total score = 4) and “attention” (total score = 2). These data suggested that, from the mother’s perspective, the target behaviour was most likely to assist the participant in “escape” and access to “tangible” outcomes.

4.3.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “non-social” (total score = 5) and “escape” (total score = 4). All items associated with the remaining function labels of “attention,” “physical” and “tangible” were answered with a response of never (0). These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in accessing “non-social” or “escape” outcomes.

4.3.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that the highest ranking function was predominately “escape” (total score = 3). Items associated with the remaining function labels of “attention,” “non-social,” “physical” and “tangible” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining “escape” outcomes.
4.3.6 Data from individualised Functional Assessment (FA) interview.

This interview, which was designed to elicit in-depth information on the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 03 and his caregivers (i.e., mother and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.3.6.1 Summary of parent responses to the individualised FA interview.

The mother reported that participant 03 experienced difficulty in monitoring his verbal content and insistence on being the last person to speak in an argument. She reported that arguing and fighting often escalated to verbal (i.e., yelling) and physical (i.e., punching and kicking) behaviours, which have caused significant disruption to functioning at home and school for approximately 10 years. She reported that instances of explosive anger occurred once or twice a week (more frequently in the summer months) with prolonged duration (i.e., episodes lasting 30 minutes, with residual anger lasting several hours or overnight). The contexts in which the mother had observed the participant arguing or fighting were in the morning, during sports, during unstructured play activities with peers or in the presence of particular neighbours, school peers and his older brother. The mother also reported that the participant was unable to cease interacting with peers with whom he had a history of arguing and fighting.

In discussing the major antecedents to the target behaviour, the mother of participant 03 reported a history of “butting heads” with particular peers at school, and their presence acted as a trigger for instances of verbal and physical outbursts. The mother also reported that experiences of elevated frustration earlier in the day (at either home or
school) could predispose the client to fighting at a later time in that day. She stated that sport represented an activity which was highly likely to trigger the target behaviour. This was especially the case if the participant viewed himself as being unfairly treated by a peer and, at these times, verbal outbursts could escalate to physical fights reasonably quickly. Because frustration was located well outside of the situation in which the target behaviour occurred and sport represented a global activity, both factors were classed as distal antecedents for the target behaviour. The mother reports never having seen him instigate a fight, stating he was usually provoked by a peer or sibling who teased him.

In discussing the major consequences to the target behaviour, the mother reported that the most frequent outcome to the participant fighting was that he was sent to an isolated area and privileges were withdrawn. She further stated that his brother and peers were more likely to instigate situations following an outburst because they became aware of what they could do to get a similar reaction in the future. She hypothesized that the fighting behaviour was often a response to the provocation of others who purposely initiated adverse interactions with the participant in order to elicit an intense reaction from him.

In reviewing the mother’s responses to this more in-depth interview, the major function for fighting was identified as “escape from negative peer- or sibling-based interactions” and this supported the “escape” function label previously identified via parent completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesized that the target behaviour assisted the participant to: evade the negative social stimuli associated with being teased and provoked, terminate a highly aversive social situation, diffuse intense feelings of frustration and anger and reduce the
possible physiological arousal associated with these negative affective states. The analysis of data generated from the in-depth interview confirmed the significance of the “escape” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of adverse (from the participant’s perspective) events the participant engaged in which escalated to a physical fight, it is highly probable that this behaviour had become an effective coping tool relevant to day-to-day life.

4.3.6.2 Summary of teacher responses to the individualised FA interview.

The teacher described instances of the target behaviour to include participant 03 grabbing his target’s shirt, pushing him against a wall and giving a deadly look. He also reported that the participant was slow to disengage his use of these behaviours, with verbal and physical fighting persisting until an adult intervened to terminate the conflictual interaction. The teacher reported the context of the fighting behaviour included being on the playground or in class, usually during break times (i.e., before school, morning break and lunch), while the participant was eating or playing a game often surrounded by peers. The fighting behaviour was reported to occur frequently (i.e., approximately once a week) and to be part of the participant’s repertoire for the entire span of time the teacher had known him (i.e., two years).

In discussing the major antecedents to the target behaviour, the teacher reported a long lasting resentment for a particular student (i.e., distal antecedent). He also reported that involvement in a game with heavy physical contact appeared to predispose the participant to engage in the target behaviour. The actual antecedents in the “game playing
context” were reported to be negative comments from peers or the participant interpreting peer physical contact as being offensive and intended to cause him harm.

In discussing the major consequences to the target behaviour, the teacher reported a common outcome of the fighting behaviour was that the teacher engaged the participant in conversation to assist in calming him down. On occasions, such conversations were followed up with removal of the participant from the conflictual social situation by sending him to the principal’s office. The teacher stated that a negative consequence for the target behaviour arose from some peers systematically ignoring the participant as a result of his regular and intense fighting. He also reported that the target behaviour had received substantial punishment on several occasions as a result of the school placing the participant on suspension.

In reviewing the teacher’s responses to this more in-depth interview, the major function for fighting was identified as “escape from peer-based interactions resulting in feelings of anger or frustration” and this supported the “escape” function label previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to: evade the negative stimuli during social or gaming situations that were perceived as exceeding appropriate norms of physical touch or verbal antagonism resulting in feelings of being overly aggressed and extinguish the highly aversive social situation. The teacher alluded to the function of gaining attention in the form of teacher conversation and referrals to administration following instances of the target behaviour. The valued outcomes associated with the function label of “attention” include: repeated interactions with adults to calm or chastise the participant following instances of the target behaviour.
The analysis of data generated from the in-depth interview confirmed the significance of the “escape” and “attention” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms.

4.3.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 03 (the Conners CI-SR was completed by the participant subsequent to this interview). When asked to provide a form description of the target behaviour, the participant reported that he yelled or pushed a peer backward to increase the space between them. He reported that the target behaviour occurred in the home and school contexts, typically when he was playing with his peers (e.g. rugby or handball). The participant also stated that he used verbal and physical fighting with one particular boy due to consistent provocation during social situations. Fights were reported to be short in duration (i.e., two to three minutes) and occurred approximately once every two weeks and the participant reported that he has used this pattern of behaviour since first grade (i.e., seven years).

In discussing the major antecedents to the target behaviour, the participant stated that the close proximity of a specific student (who teased him) acted as a trigger, especially when this student followed him around and called him names. The participant also reported that rugby games which involved a peer tackling (instead of simply blocking) him acted as an antecedent to him becoming frustrated and pushing or hitting someone or something.
In discussing the major consequences to the target behaviour, the participant reported a common outcome of the fighting behaviour was that the target student involved in the fight either pushed him back or began to cry. He also stated that, when his friends witnessed him fighting, they approached the scene to check on him and on occasion chased the target student around the playground. The participant reported that teachers responded to the fighting by separating the participant from the target student, directing both them to remain seated for the remainder of the break and sometimes assigning a formal detention.

In reviewing the participant’s responses to this more in-depth interview, the major function for fighting was identified as “escape from negative peer interactions (related to one specific peer) which evoked negative feelings of frustration and anger” and this supported the “escape” function label previously identified by the participant during completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to: escape negative social interactions associated with a peer, ease feelings of frustration and anger brought on by repeated negative peer interactions and reduce the social demand following required removal from social situations. While the participant did not elaborate on the function of attention, his comments indicated he received access to attention from both his peers and teachers as a form of camaraderie or de-escalation tactics. It was hypothesised that the specific valued outcomes associated with attention produced by the target behaviour assisted the participant to: change the reaction of a peer who began to cry on occasion in reaction to retaliation, receive social support from friends who often engaged in similar chasing behaviours to defend the participant and gain access to teacher attention in attempt to quell the fighting behaviour. The participant’s exposure to overcoming these
adverse events paired with success in gaining attention via assistance from peers in retaliating against an undesirable stimulus yields a high probability that this behaviour has been an effective coping mechanism for daily life. All three informants agreed on the escape function label and the teacher made a mild reference to attention, however the participant made strict emphasis delineating his behaviour was under the influence of the teacher and peer attention.

4.3.7 Summary of findings from three direct observation sessions involving participant 03.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 03 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the morning during a highly structured gym class located in the gymnasium. Twenty-six students stood in pairs facing each other while the teacher directed them in martial arts practice moves of punching, kicking and blocking. Observation 4 occurred in the afternoon during lunchtime. Students from all seventh grade classes were given access to the picnic tables and open spaces of the eating area. The participant chose to eat with a group of eight students and later play a game involving ball handling and physical contact with other peers. Observation 5 was conducted in the afternoon during an English lesson in the classroom. Twenty-four students sat in three rows of nine desks with the participant sitting in a desk separate from others next to the window. The lesson involved independent work on a previously assigned task with the participant focused on completing a detailed drawing for a manual he had created (see:}
Table 4.13 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.13. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Gym class</td>
<td>Martial arts practice</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>Free time after lunch</td>
<td>Eating and wall-ball game</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>English lesson</td>
<td>Drawing to create a manual</td>
<td>22</td>
</tr>
</tbody>
</table>

4.3.7.1 Frequency of the target behaviour.

No instances of fighting behaviour were displayed during these observations. The participant remained calm and on task and was observed to interact in an appropriate and polite manner with both the teacher and his peers.

4.3.7.2 Observed antecedents for the target behaviour.

Could not be performed.

4.3.7.3 Observed consequences for the target behaviour.

Could not be performed.

4.3.7.4 Functions for the target behaviour.

Could not be performed.

4.3.8 Comparison of data trends across assessment methods.

This Functional Assessment used a multi-source (i.e., participant, parent and teacher) and multi-method (i.e., interview, standardised self-report scales and direct observation) model to collect in-depth data on one target behaviour. The primary focus of
the assessment was on emphasizing the participant’s perspective on his own behaviour and its maintaining variables with a particular focus on any covert or internal factors to which only he would have access. The secondary focus of the assessment was on incorporating data from two different caregivers (i.e., mother and teacher) and two social contexts (i.e., home and school) to ensure adequate sampling of behaviour and identification of maintaining variables. This secondary focus was also considered to represent the informant-driven methodologies customarily used to conduct traditional Functional Assessments of child behaviour. The question of whether multi-source assessments result in consistent trends which might be used for development of behavioural interventions is considered below via discussion of agreement and disagreement between data obtained from the participant vs. his mother vs. his teacher.

4.3.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated Disruptive Behaviour Disorder at a higher level than other indicators, with the parent and teacher providing it the highest levels of concern on their respective scales. The participant reported a level of concern which fell within the average range for a typical adolescent, suggesting that he did not judge his behaviour to be problematic for himself or others. All three informants rated the Conners CI Learning/Language Disorder index items in the average range, suggesting that they agreed this was not an area of concern. There was also reasonable agreement in elevated ratings for the overt behaviours of “bulling” and “not following directions” and lower ratings for the cognitive behaviours (i.e., “trouble sequencing steps in math” and “slow reader”) involved in academic tasks.
QABF results showed consistently low frequency responses across all individuals, indicating no strong suggestion of functions for the target behaviour. While scores were generally low, all individuals ranked escape as a predominant function arising from fighting. All informants identified the statement “engages in the behaviour to try to get other people to leave him alone” as a reasonable outcome of the participant’s fighting. The teacher and the participant himself both rated all statements in the categories of “attention,” “physical” and “tangible” as never occurring, and the mother similarly ranked “physical” and “attention” lowest on the scale, indicating that all three informants agreed that these function labels were not relevant to understanding why the fighting behaviour occurred.

All three informants agreed that the participant was most likely to engage in fighting behaviour as a way to escape an aversive social situation. Their verbal responses to open-ended questions confirmed the function labels identified on the QABF and were able to more fully explain the specific outcomes that the participant found advantageous enough to maintain the behaviour. Informants also identified that fighting was most likely to occur during unstructured activities, such as a lunch time or during sports. The caregivers and participant also agreed that he had a strong history of negative interactions with a particular peer, which turned that peer’s presence into an antecedent for the participant to feel immediate anger and frustration which escalated to fighting if the peer persisted in the interaction.

### 4.3.8.2 Areas of disagreement between respondents across assessment methods.

Review of item endorsement for the Conners CI showed significant variation regarding the frequency with which individualised items reportedly occurred indicating
particular behaviours reported to impact on the participant’s functioning. The teacher reported the greatest elevation in scores for the Disruptive Behaviour, Mood and Anxiety scales of the Connors CI. In contrast, the parent ranked Anxiety as the greatest problem, but indicated Mood was within the average range. The participant indicated that Disruptive Behaviour, Learning and Language, Mood and ADHD were all within the average range and Anxiety was of the least concern to him.

There was minimal variation between informants on the QABF with the exception that the mother ranked “tangible” as the highest possible function (i.e., total score = 7) which conflicted with results from the teacher and participant who described tangible reinforcement as non-existent (i.e., total score = 0) following the target behaviour.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited slightly different responses from the three informants depending on their own perceptions and concerns. The parent was the only informant to describe fights in the home environments, occurring mainly with the participant’s older brother. And while all individuals reported on the possible function of fighting as escape, the description of valued outcomes varied between informants. The mother suggested that fighting was the participant’s way of escaping interactional situations which caused him frustration. The teacher suggested that fighting served the function of escape from particular students who caused the participant to become angry.

The participant clearly described his behaviour as reaction-based, and emphasised that fighting always occurred due to some negative initiation by another peer. Therefore, from his perspective, fighting occurred as a result of provocation from another person and was not his problem. While the mother and teacher agreed that the participant was often
provoked, they reported that constant fighting interfered greatly with his social and academic functioning.

The participant was the only one who viewed his behaviour as non-aggressive and explained that his motivation (during times of fighting) was not to hit but to use pushing as a means of increasing the physical space between him and another peer.

4.3.8.3 Participant’s contribution to Functional Assessment.

The participant’s descriptions of his own behaviour were highly informative, and represented a source of data that could not be obtained from caregivers reports. Participant 03 reported that the fighting behaviour was not a problem and it did not limit him in daily life. Responses to the Functional Assessment interview allowed for further investigation into the participant’s feelings and perceptions of the target behaviour and its maintaining variables. He was able to elaborate on the social stimuli associated with the peer he regularly fought that led him to name calling and pushing. The participant referred to the support received from his friends who were clearly “on his side” during fights and often chased the other peer away. Information gained from the participant’s point of view was valuable in understanding what he was thinking and feeling before, during and after episodes of fighting. Data obtained from Functional Assessment was enhanced by this discussion of covert behaviours and the impact of attention-based factors.

4.4 Experiment 4 (Participant 04)

Participant 04 was a boy age 12 years 10 months who attended grade 7 at a state primary school. He was referred to the researcher for Functional Assessment by the principal of the school due to long-term and pervasive behavioural difficulties (e.g. falling behind in school work, inappropriate interactions with peers and provoking peers to engage
in arguments) which were reported to disrupt the participant’s academic achievement and social integration.

4.4.1 Standardised testing to establish eligibility for inclusion of participant 04.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.14 for PPVT-IV and SIT-R test scores).

4.4.1.1 Summary of PPVT-IV testing results.

Participant 04 earned a standard score of 100 and a percentile rank score of 50 on the PPVT-IV (see: Table 4.14 on standardised test scores for participant 04). This standard score falls within the Average range of performance and indicates age-appropriate development of receptive vocabulary. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

4.4.1.2 Summary of SIT-R testing results.

Participant 04 earned a Total Standard Score (TSS) of 78 and a percentile rank score of 29 on the SIT-R (see: Table 4.14 on standardised test scores for participant 04). This TSS falls within the Borderline M/H range of performance and indicates sub-average cognitive ability. However, this score does not represent a clear indication of substantial impairment in cognitive functioning. Therefore, it was concluded, on the basis of the SIT-R scores, that this participant had achieved at least part fulfilment of the condition set out by criterion 2 and he was included in the study.
Table 4.14. Standardised test scores for participant 04

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>SIT-R</td>
<td>78</td>
<td>29</td>
</tr>
</tbody>
</table>

4.4.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the mother of participant 04 and his guidance counsellor. The mother was the biological parent of the participant and responded to queries pertaining to her child’s behaviour from a lifespan perspective. The counsellor had worked with participant 04 for approximately twelve months and had reasonable knowledge of his patterns of behaviour prior the referral for guidance. This second respondent provided information on her observations of the participant’s behaviour in the classroom, during one-on-one sessions and during break times.

4.4.2.1 Summary of parent responses to the semi-structured interview.

The mother of participant 04 was invited to discuss the behaviours which caused her concern about her child. She reported that he delayed daily preparation tasks (e.g. getting ready for school and eating breakfast) to a degree that required repeated prompting before he self-initiated the given task. She also reported that he showed signs of becoming aggressive (e.g. intent staring and agitated gestures) while reviewing comments on “friend” webpages (i.e., myspace.com). His response typically involved yelling (verbal response) and refusals (verbal and physical response) when directed to cease this computer activity. The mother also reported that the participant had a history of negative peer interactions at school and appeared to her to be becoming a target for bullying. She reported that
instances of bullying were reasonably minor and infrequent and reiterated that her main concern was on the participant’s pattern of repeatedly delaying everyday tasks.

4.4.2.2 Summary of counsellor responses to the semi-structured interview.

The counsellor reported that she had observed a “general inappropriateness” of interactions in the classroom from participant 04. She stated that he engaged in several overt verbal (i.e., calling out, making noises with his mouth and arguing with the teacher) and physical (i.e., hitting/banging objects to create loud noises and bumping/poking other children) behaviours during instruction and independent work in the classroom. The counsellor reported that the participant spent much of his time focused on insignificant classroom activities of other students (i.e., them sharpening pencils and asking questions) and this interfered with his ability to stay on task. She stated that the participant had difficulty sitting quietly and often walked around the room, wiggled extremities or put his head on his desk at times when he was expected to be engaged in class work. The counsellor reported that these behaviours were constant and not viewed as a reaction to any particular social stimulus in the classroom environment. She hypothesizes that he engaged in these behaviours to gain attention from peers and may have been an attempt at becoming part of the “popular group.” Finally she reported the constant off task behaviours had caused him to struggle with individual assignments and fall behind in academics.

4.4.3 Standardised testing for presence of behaviour problems for participant 04.

4.4.3.1 Summary of Conners CI-P testing results.

The mother of participant 04 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. Very elevated scores were obtained for the
Mood Disorder (i.e., T score = 89), ADHD (i.e., T score 87), Anxiety Disorder (i.e., T score = 79) and Disruptive Behaviour Disorder (i.e., T score = 78) indicators of the Conners CI-P. All scores indicated that a significant problem existed in these areas of functioning. Elevated T scores were earned on the Learning and Language Disorder indicator (i.e., T Score = 66) indicating more concerns than typical in the mother’s responses for this domain (see: Table 4.15 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.4.3.2 Summary of Conners CI-T testing results.

The guidance counsellor of participant 04 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. Very elevated scores were recorded for the Disruptive Behaviour Disorder (i.e., T score = ≥ 90), ADHD (i.e., T score = 89), Mood Disorder (i.e., T score 84) and Anxiety Disorder (i.e., T score = 77) indicators of the Conners CI-T. All scores indicated that a significant problem existed in these areas of functioning. An average score of 57 was earned on the Learning and Language Disorder indicator, signifying a typical level of concern for this domain (see: Table 4.15 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.4.3.3 Summary of Conners CI-SR testing results.

Participant 04 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. This self-assessment revealed very elevated scores for the Learning and Language Disorder (i.e., T score ≥ 90), Mood Disorder (i.e., T score = 84) and Disruptive Behaviour Disorder (i.e., T score = 70) indicators, which suggested the participant was experiencing significantly more concerns than would be typically expected. An elevated T score of 67
was earned on the Anxiety Disorder indicator, which suggested more concerns than typically reported in this area. A T score of 50 on the ADHD indicator fell within the average range and indicated typical functioning for this domain (see: Table 4.15 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

Table 4.15. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD&lt;sup&gt;a&lt;/sup&gt;</th>
<th>LLD&lt;sup&gt;b&lt;/sup&gt;</th>
<th>MD&lt;sup&gt;c&lt;/sup&gt;</th>
<th>AD&lt;sup&gt;d&lt;/sup&gt;</th>
<th>ADHD&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>78</td>
<td>66</td>
<td>89</td>
<td>79</td>
<td>87</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>≥ 90</td>
<td>57</td>
<td>84</td>
<td>77</td>
<td>57</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>70</td>
<td>≥ 90</td>
<td>84</td>
<td>67</td>
<td>50</td>
</tr>
</tbody>
</table>

<sup>a</sup>Disruptive Behaviour Disorder indicator.
<sup>b</sup>Learning and Language Disorder indicator.
<sup>c</sup>Mood Disorder indicator.
<sup>d</sup>Anxiety Disorder indicator.
<sup>e</sup>Attention Deficit Hyperactivity Disorder indicator.

### 4.4.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., mother and counsellor) and administration of the three Conners rating scales were inspected in order to decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “delaying required tasks (e.g. morning routine and class work) by engaging in any behaviour not contributing to the completion of the given task” would become the target for further assessment. Results of semi-structured interviews indicated being off task caused the greatest interference in the school and home environment, and discussions with both caregivers suggested that specific actions demonstrated while delaying tasks were causing interference in academic and social functioning. The Conners CI results showed that respondents reported high levels of
difficulty in the areas of mood, ADHD and disruptive behaviour. This finding supported the decision to focus further investigations on behaviours which delayed task completion.

4.4.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour defined above. It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The QABF was administered to determine relevant functions and place these in a hierarchy of importance. This interview-based questionnaire was completed by the mother, guidance counsellor and participant.

4.4.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “escape” (total score = 11) and “non-social” (total score = 9). Lower ranking options for possible functions included “tangible” (total score = 5), “physical” (total score = 4) and “attention” (total score = 3). These data suggested that, from the mother’s perspective, the target behaviour was most likely to assist the participant in “escape” and “non-social” outcomes.

4.4.5.2 Summary of counsellor responses to the QABF.

Scores calculated on the basis of guidance counsellor reports indicated that high-ranking functions were predominantly “attention” (total score = 15) and “tangible” (total score = 14). Lower rankings were given to the possibility of “escape” (total score = 8) and “non-social” (total score = 7) as functions. All items associated with the remaining function label of “physical” were answered with a response of never (0). These data
suggest that, from the guidance counsellor’s perspective, the target behaviour was most likely to assist the participant in gaining access to “attention” or “tangible” outcomes.

4.4.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “escape” (total score = 9) and “non-social” (total score = 5). Lower ranking options for possible functions included “physical” (total score = 3) and “tangible” (total score = 1). Items associated with the remaining function label “attention” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in “escape” or access to “non-social” outcomes.

4.4.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 04 and his caregivers (i.e., mother and counsellor). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.4.6.1 Summary of parent responses to the individualised FA interview.

The mother reported that participant 04 delayed beginning requested (by an adult) tasks at home by continuing with previous activities because these were viewed as more reinforcing than the request which usually involved a chore. She reported that the preferred activities the participant commonly engaged in included watching television, playing on the computer or sitting and staring at nothing in particular. The participant was observed to engage in these activities in a variety of locations (i.e., his bedroom, lounge or
kitchen) and social situations (i.e., during meal times and when direction was being provided by a parent – especially the mother). This delay behaviour had been present in the participant’s repertoire for several years and individual instances of delaying tasks were estimated to last for approximately 15 minutes.

In discussing the major antecedents to the target behaviour, the mother of participant 04 reported the request to wake up and prepare for school triggered continuous delay behaviour. She also reported an instruction to engage in household chores or an interruption (by a parent) of a preferred activity (e.g. watching television or playing on the computer) were also antecedents to delaying tasks.

In discussing the major consequences to the target behaviour, the mother reported that the most frequent outcome to the participant delaying a task was that an adult repeated instructions with increasing intensity (i.e., volume and punitive tone). Another reported consequence of his delay behaviour was that the participant was forced to rush through activities due to lack of time and frequently arriving at school or other events late.

In reviewing the mother’s responses to this more in-depth interview, the major function for delaying tasks was identified as “avoidance of non-preferred tasks which the participant viewed as aversive in favour of continued engagement in preferred activities,” and this supported the “escape” and “non social” function labels previously identified via parent completion of the QABF. In reviewing the specific valued outcomes associated with avoidance, it was hypothesised that the target behaviour assisted the participant in: avoiding tasks and chores around the house which he viewed as less desirable than other activities (e.g. sleeping, watching television and playing on the computer) and evading tasks that preceded leaving the house to attend school or other social situations associated
with aversive social and academic stimuli. The analysis of data generated from the in-depth interview confirmed the significance of the “avoidance” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of aversive events the participant succeeded in avoiding by delaying a task, it is highly probable that this behaviour has become an effective coping tool in his day-to-day life.

4.4.6.2 Summary of counsellor responses to the individualised FA interview.

The counsellor had reported several instances of participant 04 delaying tasks required of him during the semi-structured interview. Therefore, this Functional Assessment interview aimed at elaborating on the counsellor’s perspective of this behaviour and the variables that maintained it. The counsellor reported that the participant’s delaying behaviour was often displayed by him engaging in verbal arguments with the teacher in the form of unnecessary responses to directions and creating excuses for non-engagement in activities. She reported that delay behaviour took place in the classroom especially during unstructured transitions. She stated that the participant possessed an understanding of social boundaries, and he curbed delay behaviour immediately prior to receiving an undesired consequence (i.e., detention). The counsellor reported that delay behaviours had a short duration and high frequency in the school environment and posed an ongoing problem in social and academic performance.

In discussing the major antecedents to the target behaviour, the counsellor reported that the necessity to engage in tasks which required significant effort or tasks viewed by the participant as academically arduous triggered the delay behaviour. The counsellor also
identified chains of behaviour where one instance of off task behaviour led to additional instances of off task behaviour.

In discussing the major consequences to the target behaviour, the counsellor reported a common consequence to the delay behaviour was negative attention from the teacher (i.e., teacher engaged in multiple reminders, questions and non-verbal prompts in attempt to reengage the participant in the given activity) or peers (i.e., peers criticized the participant for his actions). As mentioned earlier, the counsellor reported that participant 04 was aware of negative outcomes such as these and typically returned to tasks immediately prior to the imposition of a major undesired consequence (i.e., detention or suspension).

In reviewing the counsellor’s responses to this more in-depth interview, the major function for delaying tasks was identified as “gaining attention from adults and peers in an attempt to be notice and stand out from the crowd,” and this supported the “attention” function label previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with attention, it was hypothesised that the target behaviour assisted the participant to: gain attention from classmates by drawing their focus to him and increase the chances of being noticed by the “popular” peer group. It is also hypothesised that the target behaviour provided access to teacher attention (e.g., teacher approach, verbal reminders) for prolonged periods of time that would not otherwise be accessible. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms.
4.4.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 04 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated he delayed activities at home and at school utilizing different methods for each. At home, he reported a tendency to continue engagement in preferred activities (e.g. staying in bed, playing games or browsing computer internet sites), and at school he delayed academic tasks by initiating peer interactions. The participant reported that this behaviour had been a pattern for approximately three years and that he delayed work at school infrequently (i.e., once per class) for a duration of approximately five minutes.

In discussing the major antecedents to the target behaviour, the participant identified that he delayed activities that followed a directive from a parent or teacher. He also reported that delay behaviour increased following instances of discovering comments or videos on social “friend” websites, acting as both an immediate antecedent to delaying a task, as well as a distal antecedent by providing a topic to discuss the following day. He also reported that the proximity of certain peers (historically involved in off-task interactions) was likely to cause him to delay work during class time.

In discussing the major consequences of the target behaviour, the participant described parent reprimands and punishment (e.g. sent to his room) at home. He stated that he received redirection from peers in school who wanted to help him avoid teacher reprimand. The participant also reported engagement in delaying behaviours resulted in
removal from the classroom environment to a designated area (a perceived punishment) or removal to an administrator’s office for further lecture or consequences (i.e., detention or call home). He described a delayed consequence of missing academic work and having to complete it at a later time (i.e., for homework or the next day in class).

In reviewing the participant’s responses to this more in-depth interview, the major function for delaying tasks was identified as “gaining attention from adults/peers.” QABF data suggested the major function of the target behaviour was to postpone beginning undesirable tasks (i.e., avoidance/escape). However, these interview data suggest that the participant’s focus appeared to be on accessing teacher and peer interactions. Therefore the same behaviour was linked with both attention and escape functions. In reviewing the specific valued outcomes associated with attention, it was hypothesised that the target behaviour assisted the participant in: gaining attention from peers via engagement in conversation during times designated for academic tasks, from teacher and administrator via reprimand or assigning consequences to the participant and from his mother via providing multiple verbal reminders when the participant engaged in delay behaviour. The participant’s exposure to these apparently punitive events also provided him with access to attention and respite from completing non-preferred tasks thus increasing the probability that the target behaviour was an effective tool for coping with demand in daily life at home and school environment. The function of gaining attention was also identified by the counsellor, including the participant’s specific focus on social interaction with peers.
4.4.7 Summary of findings from three direct observation sessions involving participant 04.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 04 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the afternoon during an English lesson in the classroom. Twenty students sat in desks in three rows, with the participant’s desk separate from others. The lesson involved independent work on a Christmas colouring project. Observation 4 occurred in the morning during a history lesson in the same classroom setup previously described. The lesson involved 18 students in groups of four engaging in discussion in preparation for a debate. Observation 5 was conducted in the beginning of the day in the same classroom setup with 21 students present. The teacher orally reviewed plans with the class for the upcoming week and the current day’s essential tasks (see: Table 4.16 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.16. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>English lesson</td>
<td>Independent work</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>History lesson</td>
<td>Group work on debate</td>
<td>18</td>
</tr>
<tr>
<td>5</td>
<td>Morning routine</td>
<td>Listen to teacher directions</td>
<td>21</td>
</tr>
</tbody>
</table>
4.4.7.1 Frequency of the target behaviour.

A total of 42 instances of the target behaviour were recorded over the three 30-minute observations. Specific examples of target behaviour involved the participant in: walking to the front of the classroom, taking markers from someone’s desk and beginning a conversation with a peer; moving his desk to a new position and lightly rocking his desk on two legs while looking around the room. For each instance of target behaviour, the participant was observed to be off task and not engaged in the activity as directed.

4.4.7.2 Observed antecedents for the target behaviour.

A total of 42 antecedents for off task behaviour were recorded during the observation period, and these can be classified into four pre-behaviour themes: looking away from the teacher when she instructed and took questions from students in the class (13), tasks requiring independent work and minimal teacher guidance (9), peer comments directed toward the target student (9) and lacking the supplies needed to complete the assigned task (see: Table 4.17 on summary of antecedents for participant 04).

Table 4.17. Summary of antecedents for participant 04

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher addresses the class</td>
<td>13</td>
</tr>
<tr>
<td>Independent work</td>
<td>9</td>
</tr>
<tr>
<td>Student interaction</td>
<td>9</td>
</tr>
<tr>
<td>Lack of supplies</td>
<td>7</td>
</tr>
</tbody>
</table>

The remaining four antecedents could not be adequately classified and were discarded from the analysis. Theme 1 antecedents exposed the participant to the teacher explaining
the requirements of an assignment, the teacher answering a question that provided information for the class and the teacher writing tasks on the board while describing them verbally. At these times, the participant exhibited the target behaviour by not attending to the teacher and talking to others or amusing himself. Theme 2 antecedents exposed the participant to peers working independently on different stages of an assignment, peers assigning roles for presentation of a group project and peers working together in a group to answer to a question. At these times, the participant displayed the target behaviour by talking on subjects not related to the topic under discussion or remaining silent rather than contributing. Theme 3 antecedents exposed the participant to a peer engaging him in off task conversation, nearby peers engaged in conversation not involving the participant and a peer commenting that the participant was always off task. At these times, the participant exhibited the target behaviour by responding to the peers comments while ceasing work on the current assignment. Theme 4 antecedents involved the participant not possessing the correct supplies for a task, returning borrowed supplies and requiring his pencil be sharpened. At these times, the participant exhibited the target behaviour by ceasing progress on a task and leaving his seat to remedy his supply problems.

After determining the antecedents for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent antecedent was the requirement that the participant listen to teacher directions. On these occasions, he was engaged in constant but unrelated (to the task at hand) activity during a time he was required to listen to the teacher. It was hypothesized that this form of off task behaviour was an attempt to increase sensory stimulation to deal with the demands of passive listening. It was also hypothesized that off
task behaviour might have been attributed to the participant’s attempts at gaining attention from others.

4.4.7.3 Observed consequences for the target behaviour.

The primary consequence which followed the target behaviour was gaining access to peer attention with 19 of the 42 instances of behaviour producing some form of interaction with a peer. A frequent consequence of “no response” was recorded following 15 instances of the behaviour, noting no discernible reaction from teachers or peers. The target behaviour also assisted the participant in gaining access to an item (e.g. marker or pencil sharpener) on six occasions and teacher attention (i.e., direct question or comment) on a further two occasions during the observation period (see: Table 4.18 on summary of consequences for participant 04).

Table 4.18. Summary of consequences for participant 04

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining peer attention</td>
<td>19</td>
</tr>
<tr>
<td>No response</td>
<td>15</td>
</tr>
<tr>
<td>Gaining access to an item</td>
<td>6</td>
</tr>
<tr>
<td>Gaining teacher attention</td>
<td>2</td>
</tr>
</tbody>
</table>

After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to reinforce the behaviour across observed contexts and tasks. A common theme in consequences was the participant gaining access to peer attention. On these occasions, his off task behaviour was met with a reaction from
an individual to whom he spoke or who witnessed his actions. It was hypothesized that the participant’s attempts to gain attention, either positive or negative, were highly reinforcing.

4.4.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of gaining attention from peers. This was supported by the finding that most instances of off task behaviour result in a social response. It was hypothesized that each time the participant successfully interacted with a peer rather than completed the assigned task, the behaviour of being off task was positively reinforced. It was also suggested that reinforcement was provided on an intermittent schedule, with some incidences of behaviour being met with a desired outcome (i.e., attention) and others met with no response. This schedule of reinforcement is known to be extremely effective in strengthening behaviour by exposing the individual to variable access to reinforcers – in this instance social reinforcers.

4.4.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 04 himself.

4.4.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated Mood and Disruptive Behaviour Disorders most evident in the participant’s repertoire thus signifying a significant level of concern in these domains. The Anxiety Disorder indicator also received very elevated or elevated scores from all three participants. The parent and counsellor also
showed agreement in ranking the Conners CI Learning and Language Disorder index as their lowest area of concern. All three informants reported that items dealing with excessive worrying and feelings of hopelessness were “not true at all,” indicating negative internal feelings were not relevant to participant difficulties.

The mother and participant showed similar responses on the QABF, ranking “escape” as the most likely possible function of off task behaviour and “attention” as the least likely option. All three respondents acknowledged the participant frequently engaged in off task behaviour “when asked to do something” and “when he does not want to do something,” and when he was off task, “he seems to be saying ‘leave me alone’ or ‘stop asking me to do this.’”

All three informants were required to respond to the same questions during the Functional Assessment interviews. The mother and counsellor agreed that common antecedents involved instances where the participant was being instructed to engage in an activity of low interest and/or high effort. All informants reported that consequences included some form of verbal interaction from an adult aimed at clarifying, reminding or reprimanding. The counsellor and participant both identified “attention” as a possible function during their respective interviews, which was verified through results from direct observations in the school environment. These three sources individually identified social responses from peers and adults as a common reinforcing outcome of off task behaviour.

4.4.8.2 Areas of disagreement between respondents across assessment methods.

The most significant difference noted on the Conners CI related to the Learning and Language Disorder index with the mother and counsellor indicating that this domain was of least concern and the participant reporting it was his highest area of concern. This
suggested that the participant’s self-perception on his intellectual ability and academic achievement was low, which may be a contributing factor as to why he delayed assignments in school. A similar difference between adult informants and the participant was noted for the ADHA indicator. Both the mother and counsellor indicated significant concerns regarding ADHD-type behaviours, while the student ranked the same indicator as being of the least concern to him. These areas of discrepancy show the participant had a different insight into his behaviour than the adults who had observed responses in the natural environment.

A significant discrepancy was noted on the correlating forms of the QABF, this time with the counsellor’s responses showing opposite trends to those reported by the mother and participant. While these two informants ranked “escape” as a highly probable function, the counsellor ranked it in the middle range of possibilities. The mother and participant also ranked “attention” at the bottom of possibilities for function of off task behaviour on the QABF, while the counsellor ranked “attention” as the highest probable function, endorsing all statements associated with attention-seeking as occurring “often.” This was in complete contrast to the participant’s responses, who endorsed all similar items as occurring “never.” This contrast in QABF responses showed a clear distinction between perspectives regarding functions of off task behaviours that should be further investigated and clarified.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited different responses from the three informants depending on their own perceptions and concerns. While both the participant and mother identified avoidance as the function of off task behaviour, it was the mother who elaborated on the
possibility that the target behaviour helped distance the participant from tasks he found aversive in favour of preferred activities. She was also the only informant to suggest that delay behaviours at home were an attempt to avoid morning routine tasks associated with the transition of leaving home to attend school. The mother made the connection that the participant might have been avoiding situations at school but was not able to identify any specific reasons for this. The counsellor-generated data focused on the function of gaining attention, with valued outcomes specifically associated with being noticed by classmates in the “popular group.” Finally, the participant’s responses to the same set of interview questions showed agreement in the identification of attention as a function of the target behaviour in the school environment. However he also detailed specific negative consequences to delaying tasks such as adults yelling at him, grounding (at home) or putting him in detention (school), and removing him from close proximity to peers who commented on his off task behaviour. While he viewed these events as aversive they also appeared to provide him with access to positive social reinforcement (i.e., attention and social interaction). In addition to this, the strategies based on removal (from his desk or the classroom) would have resulted in negative reinforcement by removing him from the tasks he was attempting to avoid. The multiple functions arising from the participant’s off task behaviour were identified from the unique contributions of each participant to the Functional Assessment process.

4.4.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was highly informative, and represented a perspective that could not be duplicated through reports by the parent and counsellor. Participant 04 reported on significant concerns related to his
learning capabilities and potential to deal with academic tasks, these concerns were not detected by the adults involved in the assessment. He also showed a point of view that directly contradicted responses from his counsellor on the QABF, indicating that “escape” was a likely function of being off task, while “attention” was not a contributing factor. However, the participant’s responses during the Functional Assessment interview did not agree with his QABF ranking of functions. This apparent inconsistency in self-reports can be viewed as arising from the more comprehensive discussion and self-reflection necessary to deal with the queries of an in-depth interview. The interview provided the participant with the opportunity to report on his own experiences, perceptions and motivations for responding, while the QABF presented a narrow basis for understanding behaviour by limiting the analysis to five function labels without tapping the person-specific reasons for behaviour. The participant’s insights were considered to add new and important information to the assessment process.

4.5 **Experiment 5 (Participant 05)**

Participant 05 was a boy age 12 years 4 months who attended grade 7 at a state primary school. He was referred to the researcher for Functional Assessment by the principal of the school due to long-term and pervasive behavioural difficulties (e.g., constant talking that interfered with tasks, falling behind in school work and emotional outbursts leading to prolonged tantrums) which were reported to disrupt the participant’s academic achievement and social integration.
4.5.1 Standardised testing to establish eligibility for inclusion of participant 05.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.19 for PPVT-IV and SIT-R test scores).

4.5.1.1 Summary of PPVT-IV testing results.

Participant 05 earned a standard score of 106 and a percentile rank score of 58 on the PPVT-IV (see: Table 4.19 on standardised test scores for participant 05). This standard score falls within the High Average range of performance and indicates age-appropriate development of receptive vocabulary. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

4.5.1.2 Summary of SIT-R testing results.

Participant 05 earned a Total Standard Score (TSS) of 89 and a percentile rank score of 25 on the SIT-R (see: Table 4.19 on standardised test scores for participant 05). This TSS falls within the Borderline Average range of performance and indicates close to age-appropriate cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.19. Standardised test scores for participant 05

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>106</td>
<td>58</td>
</tr>
<tr>
<td>SIT-R</td>
<td>89</td>
<td>25</td>
</tr>
</tbody>
</table>
4.5.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the father and grade-level teacher of participant 05. The father was the biological parent of the participant and responded to queries pertaining to his child’s behaviour from a lifespan perspective. The teacher taught participant 05 for approximately eight months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided information on her observations of the participant’s behaviour in the classroom and during break times.

4.5.2.1 Summary of parent responses to the semi-structured interview.

The father of participant 05 was invited to discuss the behaviours which caused him concern about his child. He reported that the participant constantly engaged others in conversation requiring that full attention be focused on him. He also reported that participant 05 often engaged in performance-based activities that drew attention to him and required positive reinforcement in the form of visual acknowledgment and verbal praise. These overt behavioural displays were preceded with verbal prompts to his intended audience (e.g. “watch this” or “check this out”) to ensure their undivided attention. The father reported that these talking and performing behaviours interfered with the participant’s ability to transition to a new activity because of his reluctance to cease the interaction, and he verbally bargained for extended time in the preferred activity (e.g. “one more minute” or “I just have to do this”). The father reported that, on occasion, the attempt by another person to disengage from conversing with the participant or to cease watching his performance resulted in an anger outburst involving both verbal and physical behaviours.
The father of participant 05 reported that the behaviour causing the greatest disruption in the home environment was anger outbursts. These outbursts were defined as the participant “yelling (vocal response), crying, clenching fists, stomping feet and slamming doors (physical response) when the focus was shifted away from the participant or he was required to engage in a non-preferred activity (e.g. chores).” Anger outbursts were reported to be high-intensity low-frequency behaviours following cessation of the low-intensity high-frequency behaviour of engaging others in conversation. The father reported that adults almost always attended to the participant’s verbal initiations to avoid the onset of anger outburst. From his perspective, initiating attention-gaining conversations constituted the target behaviour to be addressed during assessment. The father reported social reinforcement via access to attention was sought equally from all familiar individuals (e.g. parents, relatives, friends, neighbours, grandparents), and the participant exuded feelings of happiness when receiving attention but reacted dramatically (i.e., outbursts of anger) when reinforcement was unable to be provided.

4.5.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported that the participant engaged in a variety of behaviours intended to gain attention from others in the classroom. She stated that the participant frequently attempted to interact with peers and adults via verbal (i.e., asking questions or engaging in conversations) or physical (i.e., repeatedly dropping his pencil on the floor and making noises with his mouth) behaviours that elicited some form of attention from others. The teacher reported that most of the participant’s verbal behaviours were incompatible with engaging in independent assignments and making meaningful contributions to group work with his peers. His ineffective attempts at initiating interactions with peers resulted
in the participant eventually withdrawing from these exchanges because they often became aversive (i.e., peer teasing and ridiculing). The teacher reported the behaviour that interfered most in the classroom was the participant’s continuous use of speaking to elicit attention from peers and adults (i.e., comments to peers, conversation with peers and requesting reassurance on work from the teacher). The rare instances of anger outbursts (i.e., yelling, red face, making fists and a few tears) due to insufficient amounts of attention, were reported to be short in duration and associated with a quick recovery.

4.5.3 Standardised testing for presence of behaviour problems for participant 05.

4.5.3.1 Summary of Conners CI-P testing results.

The father of participant 05 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the Disruptive Behaviour Disorder (i.e., T score = 83), AHDH (i.e., T score = 83), Mood Disorder (i.e., T score = 77) and Anxiety Disorder (i.e., T score = 73) indicators of the Conners CI-P. These scores indicated that a significant problem existed in these areas of functioning. The Learning and Language Disorder indicator (i.e., T score = 66) fell within the elevated range and this suggested more concerns than typical in the participant’s responses for this areas (see: Table 4.21 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.5.3.2 Summary of Conners CI-T testing results.

The grade level teacher of participant 05 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very elevated scores on all indicators: Mood Disorder (i.e., T score ≥ 90), Anxiety Disorder
(i.e., T score ≥ 90) ADHD (i.e., T score = 86), Learning and Language Disorder (i.e., T score = 76) and Disruptive Behaviour Disorder (i.e., T score = 73). All scores indicated that a significant problem existed in these areas of functioning in the school environment (see: Table 4.21 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.5.3.3 Summary of Conners CI-SR testing results.

Participant 05 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his behaviour across the home and school environments. The self-assessment revealed very elevated scores on all indicators: Disruptive Behaviour Disorder (i.e., T score ≥ 90), Learning and Language Disorder (i.e., T score ≥ 90), Mood Disorder (i.e., T score ≥ 90), Anxiety Disorder (i.e., T score ≥ 90) and ADHD (i.e., T score = 84). All scores indicated that the participant reported that significant concerns existed in these areas of functioning (see: Table 4.20 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

Table 4.20. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD(^a)</th>
<th>LLD(^b)</th>
<th>MD(^c)</th>
<th>AD(^d)</th>
<th>ADHD(^e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>83</td>
<td>66</td>
<td>77</td>
<td>73</td>
<td>83</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>73</td>
<td>76</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>86</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>84</td>
</tr>
</tbody>
</table>

\(^a\)Disruptive Behaviour Disorder indicator.  
\(^b\)Learning and Language Disorder indicator.  
\(^c\)Mood Disorder indicator.  
\(^d\)Anxiety Disorder indicator.  
\(^e\)Attention Deficit Hyperactivity Disorder indicator.

4.5.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., father and teacher) and administration of the three Conners rating scales were inspected in order to
decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “initiating verbal interactions using statements (that did or did not relate to the current activity or conversation) to gain access to attention from another individual” would become the target for further assessment. While results of semi-structured interviews indicated anger outbursts caused concern in the classroom and home environments, discussions with both caregivers suggested that excessive talking and attention-seeking were low-level behaviours occurring more frequently and early in the “anger outburst” chain and were thus worthy of further investigation. The Conners CI results showed that all three respondents reported high levels of difficulty in the areas of disruptive behaviour. This finding supported the decision to focus further investigations on talking behaviours which appeared to be significant to understanding the participant’s experiences and reactions.

4.5.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour. It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). QABF administration was the basis for determining relevant functions and placing these in a hierarchy of importance. This interview-based questionnaire was completed by the father, grade level teacher and participant.

4.5.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “attention” (total score = 13) and “non-social” (total score =
11). Lower ranking options for possible functions included “escape” (total score = 9) and “tangible” (total score = 5). All items associated with the function label “physical” remained unendorsed by the father. These data suggested that, from the father’s perspective, the target behaviour was most likely to assist the participant in gaining access to “attention” and “non-social” outcomes as initially identified in the semi-structured interview.

4.5.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “attention” (total score = 11), “escape” (total score = 8) and “non-social” (total score = 8). A lower ranking was given to the possibility of “tangible” (total score = 3) as a function. All items associated with the remaining function label of “physical” were answered with a response of “never” (0). These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in gaining access to “attention,” “escape” and “non-social” outcomes.

4.5.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 4) and “tangible” (total score = 4). Lower ranking options for possible functions included “escape” (total score = 2), “attention” (total score = 1) and “physical” (total score = 1). These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” and “tangible” outcomes thus creating disagreement between him and the adult informants on the issue of behavioural functions.
4.5.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions, and valued outcomes) was administered to participant 05 and his caregivers (i.e., father and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.5.6.1 Summary of parent responses to the individualised FA interview.

The father reported that participant 05 engaged peers and adults in conversations on a variety of topics. He reported the participant had a tendency to become a dominating force in the conversation by interjecting comments that directed the topic toward his own experiences and knowledge-base. The father stated that the participant gravitated toward people who listened thoughtfully to his elaborations. The participant appeared to be satisfied when listeners made eye contact and reassuring sounds and typically did not seek any significant verbal response from them. The father reported that this excessive style of talking occurred across all social contexts, spanning all locations of the home and school environments and targeting any person willing to listen. Activities that reportedly caused participant 05 to use excessive talking included him noticing that an intended listener was focused on an activity which did not involve him and the requirement that he engage in a non-preferred task (i.e., doing homework or chores). The father reported that the duration of excessive talking could last indefinitely, averaging approximately 20 minutes. He also reported that the target behaviour occurred approximately five times per day and had been part of the participant’s response repertoire for eight years. It was noted that the
participant required three to five reminders to disengage from conversation if the listener was previously occupied or he had a task to complete.

In discussing the major antecedents to the target behaviour, the father of participant 05 reported that the presence of a peer or adult in the participant’s general vicinity was likely to act as a trigger for talking. It was also reported that the entry of a new person into the immediate environment could elicit excessive talking in the form of a summary of actions which had occurred in the person’s absence (e.g., the father entering the house after work instigated discussion on the participant’s experiences during school).

In discussing the major consequences to the target behaviour, the father reported that the most frequent outcome to excessive talking was the other person involved in the interaction focused attention on the participant. Another frequently occurring outcome involved the person in acknowledging the participant and requesting the conversation take place after a specific amount of time. The father also reported that he sometimes yelled at the participant at times when excessive talking progressed to a higher intensity (i.e., more frequent attempts to engage in conversation at a time when the listener was focused on an important alternate activity). He also reported on a rare consequence which arose when others ignored the participant’s talking and continued the conversation or activity (they were focused on) without incorporating him.

In reviewing the father’s responses to this more in-depth interview, the major function for excessive talking was identified as “gaining attention via acknowledgement and interest in the comments or questions posed by the participant” and this supported the “attention” function label previously identified via parent completion of the QABF. In reviewing the specific valued outcomes associated with attention, it was hypothesised that
the target behaviour assisted the participant to: gain attention from his father, other adults or peers in the form of close proximity, eye contact, focused attention and some verbal responding. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the strength of reinforcement provided by the attention from listeners and the exacerbation of the target behaviour during instances of ignoring on the part of others, it is highly probable that this behaviour has become an effective tool for gaining attention in day-to-day life.

4.5.6.2 Summary of teacher responses to the individualised FA interview.

The teacher reported the participant’s excessive talking to gain attention was most likely to occur in the form of verbal statements irrelevant to the topic under discussion, frequently followed by smiling and laughing from the participant indicating that comments were meant to elicit laughter from others. She stated that the participant was most likely to engage in the behaviour in the classroom, seated at his desk during independent or small group activities. The teacher reported that participant 05 talked with greatest regularity to peers seated in close proximity to him and less frequently to her. Instances of excessive talking for attention had a reported duration of 30 minutes in the classroom (if the teacher did not intervene) and occurred frequently (i.e., three out of four comments made were not relevant to the task). This behaviour has been present over the course of the school year, and the teacher hypothesized the participant engaged in similar behaviour in previous years.
In discussing the major antecedents to the target behaviour, the teacher reported unstructured time with peers provided him with an opportunity to inform others of events from earlier in the day. The participant was reported to frequently engage in excessive talking when assigned independent writing tasks or required to complete difficult (from the participant’s perspective) academic tasks.

In discussing the major consequences to the target behaviour, the teacher reported that excessive talking to gain attention often resulted in peers appearing to become agitated at the participant’s remarks and attempting to ignore him. She also reported that she frequently called the participant’s name and provided eye contact as a means of prompting him to focus on the task at hand.

In reviewing the teacher’s responses to this more in-depth interview, the major function of the target behaviour was identified as “escape from academic demands with which he was unable to cope” and this supported the “escape” function label previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to: escape academic activities he perceived to be outside his interest and ability levels. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms.

4.5.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 05 (the Conners CI-SR was completed by the participant
subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated that excessive talking involved him in conversing with peers, specifically the person in closest proximity (i.e., seated next to him) on topics, such as football, soccer, girls and friends, while simultaneously engaging in class work activities. The participant reported that this target behaviour has been in his repertoire for “a few years.” He was able to state that the maximum duration of off-topic talking was five minutes, with individual instances occurring approximately five times in a 30-minute period. The participant also reported that during verbal interactions in class, he spoke at a low volume in an attempt to create minimal disruption to others in the classroom. He stated that the locations in which the target behaviour occurred included the classroom, the playground or at home; before and after lunch and during math, technology or computer classes. The participant reported that he talked mostly to peers, family and his teacher.

In discussing the major antecedents to the target behaviour, the participant reported that the anticipation of large, exciting events (e.g. birthdays and holidays) caused an increase in off topic talking, citing his feelings of excitement as the immediate antecedent. The participant also reported his talking was in direct response to peers initiating verbal interactions with him. He identified specific peers who, when in close proximity to him, elicited his use of the target behaviour.

In discussing the major consequences to the target behaviour, the participant stated that his talking during class resulted in reciprocated verbal interaction with peers. He also stated an immediate consequences to talking included his teacher either verbally directing
him to cease the behaviour or ignoring him. The participant identified severe punishment from a teacher or an administrator (i.e., detention) was uncommon and, more frequently, punishment was delivered via his retention in the classroom or withholding of the reinforcing activity of peer interaction during unstructured social activities (i.e., lunch recess).

In reviewing the participant’s responses to this more in-depth interview, the major function for excessive off topic talking was identified as “gaining access to the preferred activity of peer interaction while escaping aversive (i.e., high in difficulty and low in interest) academic demands” and this somewhat supported the “non social” and “escape” function labels previously identified by the participant during completion of the QABF. In reviewing the specific valued outcomes associated with gaining access to a preferred activity, it was hypothesised that the target behaviour assisted the participant to: engage in social interactions with peers while simultaneously escaping engagement in an undesirable academic tasks. The function of gaining attention from peers was also identified by the participant’s father and escaping academic demand was also identified by the teacher, therefore participant corroborated the differing reports from both caregivers.

4.5.7 Summary of findings from three direct observation sessions involving participant 05.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 05 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.
Observation 3 took place in the afternoon during a history lesson in the classroom. The lesson involved 22 students in groups of four preparing for a debate. Observation 4 occurred in the morning during an English lesson in a computer room. The lesson involved 15 students each at their own computer working independently on slide show presentations. Observation 5 was conducted in the morning during an English lesson in a classroom with 21 students sitting in three rows of eight desks each, with the participant sitting at a desk slightly to the side with no peer directly next to him. The lesson involved students working independently on creating a Christmas book with a story and illustrations (see: Table 4.21 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.21. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>History lesson</td>
<td>Group work</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>English lesson</td>
<td>Independent computer work</td>
<td>15</td>
</tr>
<tr>
<td>5</td>
<td>English lesson</td>
<td>Creating a story book</td>
<td>21</td>
</tr>
</tbody>
</table>

4.5.7.1 Frequency of the target behaviour.

A total of 24 instances of target behaviour were recorded over the three 30-minute observations. Specific examples of target behaviour involved the participant in: repeating another student’s response to a question while making a funny face, reading a piece of paper aloud that was not related to the task and making loud, dramatic vocalizations (i.e., “ouch, that hurts!”) after lightly bumping his knee on a desk. In each instance of target
behaviour, the participant was observed to speak at a volume loud enough for other class members to clearly hear what he was saying.

4.5.7.2 Observed antecedents for the target behaviour.

A total of 24 antecedents for off topic talking were recorded during the observation period and these can be classified into three pre-behaviour themes: engagement in independent work in the classroom (10), interaction with a specific student prone to off task behaviour (9) and student interaction relevant to the current activity (5) (see: Table 4.22 on summary of antecedents for participant 05). Theme 1 antecedents exposed the participant to a quiet environment where peers worked independently on an assignment which required reading, writing or use of a computer. At these times, the participant exhibited the target behaviour by making comments not related to the task at hand to no one in particular. Theme 2 antecedents exposed the participant to noises and off task comments from a specific peer with whom he had a history of negative interactions. At these times, the participant displayed the target behaviour by responding directly to the student with mocking or derogatory comments. Theme 3 antecedents exposed the participant to verbal interactions with peers when the initial statements were on topic, but the participant regressed to irrelevant comments or jokes.

Table 4.22. Summary of antecedents for participant 05

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent work</td>
<td>10</td>
</tr>
<tr>
<td>Off topic interaction with specific peer</td>
<td>9</td>
</tr>
<tr>
<td>On topic interaction with peers</td>
<td>5</td>
</tr>
</tbody>
</table>

After determining the antecedents for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent antecedent was the class being engaged in independent work assignments. On these occasions, the participant was disengaged in his work and made unfocused comments or sounds with no specific intended listener. It was hypothesized that this form of off topic talking could have been an attempt to gain attention from anyone willing to respond to his comments. It was also hypothesized that off topic speaking during independent work might have been an escape from work he found challenging, overwhelming or confusing.

4.5.7.3 Observed consequences for the target behaviour.

The most consistent consequence which followed the target behaviour was “no response” with 13 of the 24 instances of behaviour producing no discernible reaction from teachers or peers. The target behaviour assisted the participant in gaining access to peer attention (i.e., students initiated brief interaction) on eight occasions and teacher attention (i.e., redirection) on a further three occasions during the observation period (see: Table 4.23 on summary of consequences for participant 05).

Table 4.23. Summary of consequences for participant 05

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>13</td>
</tr>
<tr>
<td>Gaining peer attention</td>
<td>8</td>
</tr>
<tr>
<td>Gaining teacher attention</td>
<td>3</td>
</tr>
</tbody>
</table>
After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent consequence was a lack of response from peers and adults. On these occasions, the participant was engaged in making comments or noises unrelated to the task being completed by the rest of the class. A further theme in consequences was the participant gaining access to peer attention. On these occasions, the participant gained access to social reinforcement from a peer via his/her verbal response.

4.5.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of gaining attention from peers. This was supported by the finding that, aside from “no response,” most instances of off-topic talking succeeded in initiating a social interaction. It was hypothesized that each time the participant successfully elicited a verbal response from a peer rather than completing the assigned task, the behaviour of off-topic speaking was positively reinforced. The fact that off-topic speaking occurred in preference to task completion indicates that this target behaviour was also being negatively reinforced by allowing the participant to escape from focusing on assigned tasks. The data also suggest that positive social reinforcement occurred on an intermittent basis, with some incidences of target behaviour being met with a desired outcome (i.e., attention) and others eliciting no response. This schedule of reinforcement is known to be effective in strengthening behaviour by exposing the individual to variable access to reinforcers – in this instance social reinforcers.
4.5.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 05 himself.

4.5.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated all three informants reported significant concern on all but one indicator (i.e., the parent rated Learning and Language Disorder indicator with elevated scores rather than very elevated). The teacher and participant both ranked Mood and Anxiety Disorders at the highest possible levels of concern on their respective scales. These results suggest that all areas of functioning examined by the Conners CI were of great concern from the perspective of all respondents.

Responses on the QABF showed some agreement among respondents, with the parent and teacher both ranking “attention” as the most probable function of off task talking. All three informants ranked “escape” in the top three possibilities for function of the target behaviour. Finally, all respondents reported that “physical” outcomes were least likely to account for the function of the target behaviour, with the parent and teacher leaving all statements regarding this function label unendorsed and the participant only providing an overall frequency rating of one.

All three informants were required to respond to the same questions during the Functional Assessment interviews. All informants reported that close proximity of an adult or peer acted as a common antecedent which elicited comments not related to the assigned task. Similarly, each respondent described consequences that included someone
listening to the verbal communication of the participant or someone ignoring his comments. The participant described a function of gaining access to preferred activities, which incorporated some aspects of information obtained from both adults. The father and participant agreed that the participant valued gaining attention in the form of someone listening to what he was saying. The teacher and the participant agreed that the participant valued escaping undesirable academic tasks. These valued outcomes were also corroborated with information grained from the analysis of direct observations of the participant in the natural environment at school which suggested he gained attention from peers while simultaneously escaping engagement in academic tasks.

4.5.8.2 Areas of disagreement between respondents across assessment methods.

Overall ratings on the Conners CI showed slight variation regarding the ranking of areas which showed greatest concern. While all areas with the exception of one were considered to show very elevated levels of concern, the father and participant ranked Disruptive Behaviour as the top concern, while the teacher ranked this as the area of least concern. The participant also ranked Learning and Language at the highest level of concern, while his father ranked the same category as being of the least concern. Similar slight variations occurred for the QABF, with the father and teacher suggesting “tangible” outcomes as being the least probable function of off topic talking, while the participant reported it as being the top function option. The participant also ranked “attention” as the least probable reason for him engaging in the target behaviour, while the father and teacher ranked it the most probable function.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited very different responses from the three informants depending
on their own priorities and concerns. The parent focused on person-based antecedents, stating that any person in the participant’s general vicinity was a possible trigger to initiating conversation. The teacher focused on task-based antecedents, stating that literacy assignments and tasks the participant perceived as challenging were a likely trigger of off task comments. The participant focused on emotion-based antecedents indicating that he commented more when he felt excited about upcoming events. He was also the only informant to report that other people (i.e., peers) initiated conversation which caused him to respond with off-topic comments. Consequences, functions and valued outcomes varied from interview to interview. The father reported that the participant made off topic comments in order to gain attention, but the teacher described the same behaviour was a function of escaping the demands of difficult academic tasks. The participant was the only informant who described both aspects as valuable, stating that he preferred social interaction with peers to the act of engaging in demanding academic tasks.

4.5.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was highly informative, and represents a perspective that cannot be duplicated through reports by the parent and teacher. He reported high QABF ratings for “non-social” and possibly internal outcomes (i.e., change in emotional state) as potential reinforcers for the target behaviour. During the Functional Assessment interview, the participant showed insight into his behaviour by explaining his preference for engaging in social interaction with peers when presented with academic tasks he disliked or had minimal interest in. He was able to speak on two functions of behaviour (i.e., attention and access to preferred activity), while the parent and teacher tended to emphasise only one of these. The participant was also the
only individual who discussed emotions, stating that he spoke more when feelings of excitement were heightened prior to anticipated events. Information gained from the participant’s point of view was valuable in understanding how his actual and anticipated emotions contributed to the need to redirect attention to himself and his immediate interests.

4.6 Experiment 6 (Participant 06)

Participant 06 was a boy age 12 years 11 months who attended grade 7 at a middle school. He was referred to the researcher for Functional Assessment by the principal of the school due to long-term and pervasive behavioural difficulties (e.g., delaying completion of tasks, internal frustration with relationships and aggressive behaviour toward people and property) which were reported to disrupt the participant’s academic achievement and social integration.

4.6.1 Standardised testing to establish eligibility for inclusion of participant 06.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.24 for PPVT-IV and SIT-R test scores).

4.6.1.1 Summary of PPVT-IV testing results.

Participant 06 earned a standard score of 106 and a percentile rank score of 66 on the PPVT-IV (see: Table 4.24 on standardised test scores for participant 06). This standard score falls within the High Average range of performance and indicates age-appropriate development of receptive vocabulary. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.
4.6.1.2 Summary of SIT-R testing results.

Participant 06 earned a Total Standard Score (TSS) of 100 and a percentile rank score of 50 on the SIT-R (see: Table 4.24 on standardised test scores for participant 06). This TSS falls within the Average range of performance and indicates an age-appropriate development of cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.24. Standardised test scores for participant 06

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>106</td>
<td>66</td>
</tr>
<tr>
<td>SIT-R</td>
<td>100</td>
<td>50</td>
</tr>
</tbody>
</table>

4.6.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the mother and grade-level teacher of participant 06. The mother was the biological parent of the participant and responded to queries pertaining to her child’s behaviour from a lifespan perspective. The teacher taught participant 06 for approximately eight months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided information on her observations of the participant’s behaviour in the classroom and during break times.

4.6.2.1 Summary of parent responses to the semi-structured interview.

The mother of participant 06 was invited to discuss the behaviours which caused her concern about her child. She described his behaviour difficulties as a failure to acknowledge paired with disregard for instructions to engage in obligatory activities in the
home (i.e., homework and chores). She reported that this type of refusal behaviour had increased and resulted in verbal disagreements, often escalating to the participant yelling, slamming doors and punching walls. The mother reported these aggressive behaviours were intensified when the participant had experienced physical exhaustion or stress and, at these times, his emotional state transitioned from calm to aggressive within minutes. In response to these angry outbursts, the mother reported she engaged in verbal reciprocations with the participant which exacerbated the yelling and commonly culminated with submission from the mother (i.e., walk away) and noncompliance from the participant. These interactions also resulted in the participant escaping the intended aversive (from his perspective) activity. The mother reported that participant 06 was able to deescalate his aggressive state following an outburst by remaining in an isolated environment (i.e., his bedroom) while engaging in a preferred calming activity (i.e., playing guitar and writing music). Finally, the mother reported that the participant harboured an intense interest in music and guitar resulting in multiple hours spent playing and writing songs while neglecting obligatory household duties.

4.6.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported that she had observed the participant physically navigating through the classroom engaging in continuous verbal interactions with peers during times of independent work. She reported that the moment at which a written assignment was presented as an independent task, the participant engaged in a variety of behaviours intended to delay beginning the assignment (i.e., moving around the room, talking with peers, searching for supplies and writing for personal satisfaction unrelated to the assignment), however was able reengage in the task with enough time to complete the
requirements. The teacher also reported that the participant expressed feelings of excitement when provided the opportunity to incorporate his interests (i.e., music and his band) in discussion or assignments. She stated that his behaviour at school was not severe; the most aggressive behaviour demonstrated was a mild physical altercation with similar-aged peers. The teacher acknowledged that the participant showed signs of frustration on a weekly basis and took to internalizing his feelings, showing signs of becoming physically agitated (i.e., red face and stiff body posture) but never engaging in overt displays of behaviour.

4.6.3 Standardised testing for presence of behaviour problems for participant 05.

4.6.3.1 Summary of Conners CI-P testing results.

The mother of participant 06 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the Mood Disorder (i.e., T score ≥ 90), Anxiety Disorder (i.e., T score ≥ 90), ADHD (i.e., T score ≥ 90) and Disruptive Behaviour Disorder (i.e., T score = 88) indicators of the Conners CI-P. All scores indicated that a significant problem existed in these areas of functioning. The T score for the Learning and Language Disorder indicator (i.e., T score = 66) fell within the elevated range and indicated a level of concern for the participant’s responses in this domain (see: Table 4.25 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.6.3.2 Summary of Conners CI-T testing results.

The grade level teacher of participant 06 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very
elevated scores for the ADHD (i.e., T score = 82) and Mood Disorder (i.e., T score = 77) indicators of the Conners CI-T. These scores indicated that a significant problem existed in these areas of functioning. Elevated T scores for the Learning and Language Disorder indicator (i.e., T score = 68) and Anxiety Disorder indicator (i.e., T score = 60) suggested a significant problem in functioning in these domains. An average score of 44 was earned on the Disruptive Behaviour Disorder indicator, signifying a typical level of concern in that area of functioning (see: Table 4.25 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.6.3.3 Summary of Conners CI-SR testing results.

Participant 06 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed very elevated scores for the Mood Disorder (i.e., T score ≥ 90) and ADHD (i.e., T score = 75) indicators, which signified the presence of many more concerns than typical. Elevated T scores for the Anxiety Disorder indicator (i.e., T score = 63) and Learning and Language Disorder indicator (i.e., T score = 60) suggested significant problems in functioning. T scores for the Disruptive Behaviour Disorder indicator (i.e., T score = 59) fell within the average range and indicated typical levels concern in the participant’s responses for these areas (see: Table 4.25 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).
Table 4.25. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD\textsuperscript{a}</th>
<th>LLD\textsuperscript{b}</th>
<th>MD\textsuperscript{c}</th>
<th>AD\textsuperscript{d}</th>
<th>ADHD\textsuperscript{e}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>88</td>
<td>66</td>
<td>$\geq 90$</td>
<td>$\geq 90$</td>
<td>$\geq 90$</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>44</td>
<td>68</td>
<td>77</td>
<td>60</td>
<td>82</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>59</td>
<td>60</td>
<td>$\geq 90$</td>
<td>63</td>
<td>75</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Disruptive Behaviour Disorder indicator.
\textsuperscript{b}Learning and Language Disorder indicator.
\textsuperscript{c}Mood Disorder indicator.
\textsuperscript{d}Anxiety Disorder indicator.
\textsuperscript{e}Attention Deficit Hyperactivity Disorder indicator.

4.6.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., mother and teacher) and administration of the three Conners rating scales were inspected in order to decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “displaying physical signs of frustration (i.e., red face and stiff body) and outbursts of anger in the form of yelling, pushing people or objects, slamming doors and hitting walls or other objects” would become the target for further assessment. Results of semi-structured interviews indicated angry outbursts caused the greatest interference in the home environment while not fully being displayed in the school context, and it was agreed that frustration behaviours at school contributed to outbursts at home, and therefore both were targeted for investigation. The Conners CI results showed that all three respondents reported high levels of difficulty in mood disorder with slightly less emphasis being placed on disruptive behaviour. This finding supported the decision to investigate low-level behaviours of frustration at school while simultaneously investigating severe outbursts of anger at home.
4.6.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour. It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). QABF administration was the basis for determining relevant functions and placing these in a hierarchy of importance. This interview-based questionnaire was completed by the mother, grade level teacher and participant.

4.6.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “escape” (total score = 15) and “non-social” (total score = 11). Lower ranking options for possible functions included “attention” (total score = 9), “physical” (total score = 9) and “tangible” (total score = 9). These data suggested that, from the mother’s perspective, the target behaviour was most likely to assist the participant in gaining access to “escape” or “non-social” outcomes.

4.6.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “escape” (total score = 11) and “physical” (total score = 9). Lower rankings were given to “attention” (total score = 8), “tangible” (total score = 7) and “non-social” (total score = 5) as possible functions. These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in gaining access to “escape” or “physical” outcomes.
4.6.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “physical” (total score = 8) and “non-social” (total score = 6). Lower ranking options for possible functions included “escape” (total score = 3) and “tangible” (total score = 1). Items associated with the remaining function label “attention” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “physical” or “non-social” outcomes.

4.6.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 06 and his caregivers (i.e., mother and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.6.6.1 Summary of parent responses to the individualised FA interview.

The mother provided a form description of angry outbursts that included the participant engaging in verbal (i.e., shouting and swearing) and physical (i.e., face turning red, slamming doors and punching walls) behaviours. The setting events for anger outbursts included being required to remain inside the house, the afternoon (i.e., after school) or evening time periods, and directions to perform an undesirable task (e.g. homework and chores). She stated that the people most likely to be targeted during these outbursts included her, the participant’s father, and a neighbour with whom the participant had a history of conflict. The mother reported that an anger outburst episode occurred for
a duration of approximately five minutes with a frequency of once per week. The magnitude of these outbursts was reported to be very high on rare occasions (i.e., 9 on 10 point scale), but typically reached an intensity of seven. The mother indicated that these anger outbursts had been part of the participant’s behavioural repertoire for two years, a time when several life changes occurred (i.e., moving states to avoid interaction with his aggressive/depressive father).

In discussing the major antecedents to the target behaviour, the mother reported an immediate trigger was a request from her to the participant to engage in an undesirable task (i.e., cleaning his room, making his bed, taking out the garbage, washing dishes and doing homework). She also reported her denial of a request from the participant (e.g. being allowed to undertake social activities with peers) acted as an antecedent to an outburst of anger.

In discussing the major consequences to the target behaviour, the mother reported the most frequent outcome was a prolonged argument between her and the participant that escalated in relation to volume, voice tone and feelings of anger of both individuals concluding in the cessation of the original task and the participant being removed to his room. The mother also reported that she had previously attempted to deal with the target behaviour by delivering punishment (i.e., grounding) but discontinued using this strategy, acknowledging the ineffectiveness of the punishment in decreasing the behaviour.

In reviewing the mother’s responses to this more in-depth interview, the major function for an anger outburst was identified as “escape from undesirable but necessary household chores and negative parental reactions demonstrated in response to the initial refusal to undertake such a chore.” This finding supported the “escape” function label
previously identified via parent completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to: escape from engaging in chores, housework tasks or homework which were all viewed by the participant as being aversive and meaningless; escape from argumentative interactions with his mother regarding his refusal comply with her requests to complete chores and escape from the responsibilities associated with daily life by retreating into his room. The analysis of data generated from the in-depth interview confirmed the significance of the “escape” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of adverse (from the participant’s perspective) events the participant succeeded in escaping by displaying an anger outburst, it is highly probable that this behaviour has become an effective coping tool relevant to day-to-day life.

4.6.6.2 Summary of teacher responses to the individualised FA interview.

The teacher provided a form description of the behaviour which focused on the participant appearing frustrated as indicated by various physical signs (i.e., a certain “look” in his face and body), however she stated that she had not observed any anger outbursts at school. The teacher reported that the participant showed frustration upon returning to the classroom after lunch and during sport, specifically around male peers. The teacher reported that the magnitude of frustration was three on the same 10-point scale used to measure intensity of anger outbursts. Individual incidents of frustration reportedly lasted for five minutes and occurred infrequently (two to three times per week). The teacher reported that episodes of frustration had become “more obvious” in the past 15 weeks.
In discussing the major antecedents to frustrated behaviour, the teacher reported the requirement of submitting an assignment at the designated time (i.e., the end of class) in instances when the participant had not completed the task caused him to show signs of frustration. She also reported that the participant showed signs of frustration when he was re-directed away from a preferred activity (i.e., writing song lyrics) to a non-preferred activity (i.e., classroom assignment). The teacher also stated that social interactions with a target peer (his neighbour) in the school environment were a known cause of frustration.

In discussing the major consequences to the target behaviour, the teacher reported that no social repercussions occurred as a result of his frustration in the classroom. She noted that the participant occasionally requested and was granted a time-out from situations in the classroom that caused frustration, and he utilized this time to walk to the water fountain to get a drink and then return to the classroom in a relaxed state. The teacher stated that a consequence which resulted from interactions with the peer involved in previous frustrating incidents included both students yelling at each other and receiving in school detention as punishment.

In reviewing the teacher’s responses to this more in-depth interview, the major function for frustration at school was “avoidance of academic demand which the participant appeared unable to meet” and “avoidance of undesirable social interactions with a peer with whom he had a history of conflict” and this supported the “escape” function label previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to avoid: excessive academic demand and social contexts involving the presence of the target peer. The analysis of data generated from the
in-depth interview confirmed the significance of the “avoidance” function for the target behaviour but, more importantly, elaborated on the specific thoughts to reinforce this behaviour in more precise terms.

### 4.6.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 06 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated that “anger outbursts” involved him yelling, screaming into a pillow and punching holes in walls. He described a history of anger-related challenges spanning “all [his] life.” The participant reported that the contexts in which his anger was most likely to escalate were at school during lunch time or at home during after school hours (between three o’clock and five o’clock). He stated that the individuals present during these outbursts were his biological dad, his friends and his mother. The participant reported that the maximum duration for a display of anger was approximately 45 minutes and episodes occurred frequently, up to once a day. Participant 06 was able to report that the magnitude of anger outbursts potentially reaching a nine on a 10-point scale.

In discussing the major antecedents to the target behaviour, the participant identified hearing a peer’s actual negative comments (or comments the participant viewed as negative) about him. Hearing these comments prompted the participant to become intently focused on any adverse emotions he was experiencing leading him to react with anger to situations that did not warrant such an intense response. Further events identified
by the participant as antecedents for anger outbursts included witnessing peers engage in bullying behaviour (directed him or others) and observing a mess in the home (e.g. water on the bathroom floor).

In discussing the major consequences to the target behaviour, the participant identified that his mother verbally reprimanded him. He also reported that peer reactions to his anger outbursts were altered evidenced by their “looking at him differently.” The participant also reported that negative self-statements and feelings lingered to the point of obsession as he analysed the details of the situation that triggered the anger outburst.

In reviewing the participant’s responses to this more in-depth interview, the major function for an anger outburst was identified as “escape from negative emotions following aversive interactions” and this somewhat supported “escape” previously identified as a possible function label by the participant during completion of the QABF. In reviewing the specific valued outcomes associated with escape, it was hypothesised that the target behaviour assisted the participant to escape the ruminative negative thoughts and adverse emotions associated with sadness arising from becoming involved with continuous conflict-based interactions with others. The participant also identified the valued outcome of avoidance of academic tasks he experienced as uninteresting, difficult and boring. Therefore, the target behaviour appeared to be maintained by consistent negative reinforcement. The functions of escape and avoidance were also identified by the adult informants but the additional information on how emotional state was altered by the target behaviour was predominantly reported on by the participant himself.
4.6.7 Summary of findings from three direct observation sessions involving participant 06.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 06 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the morning in outside sport during a game of capture the flag. Twenty-four students played an organized game with teacher supervision involving running, strategy and tagging individuals out. Observation 4 occurred in the morning during an English class. Twenty-two students sat in desks in horizontal groups of three working independently on a writing activity. Observation 5 was conducted in the afternoon lunch and free time. The participant ate and walked around the court yard in a group of four boys while other students in the school engaged in various activities around them (see: Table 4.26 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.26. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Sport</td>
<td>Capture the flag game</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>English class</td>
<td>Writing activity</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>Lunch and free time</td>
<td>Eat and walk around</td>
<td>4</td>
</tr>
</tbody>
</table>
4.6.7.1 **Frequency of the target behaviour.**

No instances of frustration or anger outbursts were displayed during the observation period. The participant was observed to remained calm and interact appropriately and positively with peers at all times.

4.6.7.2 **Observed antecedents for the target behaviour.**

Could not be performed.

4.6.7.3 **Observed consequences for the target behaviour.**

Could not be performed.

4.6.7.4 **Functions for the target behaviour.**

Could not be performed.

4.6.8 **Comparison of data trends across assessment methods.**

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 06 himself.

4.6.8.1 **Areas of agreement between respondents across assessment methods.**

The Conners CI data indicated that all three informants rated difficulties in Mood and ADHD at the highest levels of concern. These respondents also reported significant concerns regarding the behaviours associated with the Learning and Language Disorder index. The teacher and participant both ranked Disruptive Behaviour Disorder as being of no concern. QABF results indicated that the adult informants showed agreement in identifying “escape” as a likely function of frustration and anger outbursts. All three respondents reported a high probability that “physical” outcomes maintained the target
behaviour as well. These respondents agreed that the participant “sometimes” or “often” “engages in the behaviour as a form of refocus when overwhelmed” and “when something is bothering his physically” thus confirming that the target behaviour functioned to create changes in internal state rather than in the social environment. In responding to the Functional Assessment interview, the informants agreed that the target behaviour related to “escape” or “ avoidance” functions.

4.6.8.2 Areas of disagreement between respondents across assessment methods.

Overall ratings on the Conners CI showed very little variation in responses across the three informants. The mother did express greater concern (than the teacher and participant) for the Mood, Anxiety and ADHD indices. Minor variations occurred between informants on the QABF, with the most notable difference being that the adult informants rated “attention” as a possible function of behaviour while the participant did not endorse any of the items associated with the “attention” function.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited very different responses from the three informants depending on their own priorities and concerns. The mother focused her interview on anger outbursts which she reported occurred with high intensity and regularity. The teacher reported not observing these anger outbursts, and her interview concentrated on overt signs of frustration (intensity rating = 3). The participant agreed with this mother in stating that anger outbursts (intensity rating = 9/10) were a substantial problem at home but also stated that this behaviour was associated with frustrations which occurred earlier at school. The participant was the only informant to discuss antecedents associated with him attempting to deal with adverse emotion rather than task demand. He was able to explain that he
became intensely frustrated when people treated him or others badly. The participant also elaborated on valued outcomes arising from the target behaviour assisting him to escape and avoid his negative thoughts and feelings of sadness.

4.6.8.3 Participant’s contribution to Functional Assessment.

Data provided by the participant were most useful exploring the influence of covert factors on the target behaviour. Most of these data were gathered during the Functional Assessment interview, when the participant discussed the range of thoughts, self-statements and feelings that related to his anger outbursts. The participant was able to report that witnessing or receiving disrespectful behaviours from peers caused him substantial frustration. He also described how he often ruminated about previous events which had caused him frustration and how this rumination led him to experience thoughts of depression, on these occasions outbursts appeared to assist him to escapes these thoughts and begin the process of calming down. This information assisted in providing insights into the target behaviour and its maintaining variables that could not be obtained from interviews with caregivers.

4.7 Experiment 7 (Participant 07)

Participant 07 was a boy age 15 years 3 months who attended grade 9 in a high school. He was referred to the researcher for Functional Assessment by a teacher due to long-term and pervasive behavioural difficulties (e.g., constant talking and noise making, struggling to stay on task and falling behind in school work) which were reported to disrupt the participant’s academic achievement and social integration.
4.7.1 Standardised testing to establish eligibility for inclusion of participant 07.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.27 for PPVT-IV and SIT-R test scores).

4.7.1.1 Summary of PPVT-IV testing results.

Participant 07 earned a standard score of 98 and a percentile rank score of 45 on the PPVT-IV (see: Table 4.27 on standardised test scores for participant 07). This standard score falls within the Low Average range of performance and indicates age-appropriate development of receptive vocabulary. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

4.7.1.2 Summary of SIT-R testing results.

Participant 07 earned a Total Standard Score (TSS) of 82 and a percentile rank score of 64 on the SIT-R (see: Table 4.27 on standardised test scores for participant 07). This TSS falls within the Average range of performance and indicates age-appropriate development of cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.27. Standardised test scores for participant 07

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>98</td>
<td>45</td>
</tr>
<tr>
<td>SIT-R</td>
<td>82</td>
<td>64</td>
</tr>
</tbody>
</table>
4.7.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the father and English teacher of participant 07. The father was the biological parent of the participant and responded to queries pertaining to his child’s behaviour from a lifespan perspective. The teacher taught participant 05 for approximately five months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided information on her observations of the participant’s behaviour in the classroom and during break times.

4.7.2.1 Summary of parent responses to the semi-structured interview.

The father of participant 07 was invited to discuss the behaviours which caused him concern about his child. He reported that the participant displayed distracting verbal behaviour, such as asking questions and complaining when an alternate task required completion. The father also reported the participant regularly argued with adults when they attempted to discuss conflict-based situations involving him. The participant was reported to fabricate details and offer multiple excuses to shift the blame for a negative situation or negotiate a lesser consequence for his wrongdoing. The father also stated that the participant mimicked the behaviours of siblings or peers which he perceived as receiving social reinforcement from others. The behaviour causing the greatest disruption in the home environment was the participant’s excessive talking and noise, defined as him verbally interjecting with comments, asking questions and making noises with his body (e.g. tapping his hands creating drumming noises) or mouth. The father reported that instances of excessive talking were met with verbal reprimands from adults and negative reactions from peers, both consequences the participant did not anticipate or appear to be affected by. The father reported in previous years, the negative reactions from peers
created a social anxiety associated with school resulting in the participant’s refusal to attend on daily basis – this behaviour pattern has not occurred in the high school context.

**4.7.2.2 Summary of teacher responses to the semi-structured interview.**

The teacher reported that she observed a general talkativeness from participant 07 in the classroom during all activities. She stated the participant displayed verbal interactions with any individual in close proximity (adults or peers) during independent assignments and required continuous prompting to focus on the current task. The teacher also stated the participant had recently begun making loud noises with his mouth and throat that produced a similar level of disruption as his verbal engagements. She reported that negative verbalisations increased and escalated to refusal when the participant was presented with tasks he perceived as “dumb” but no pattern had emerged as to the types of tasks which elicited this response. During times of work refusal, the teacher reported that the participant’s negative verbalisations increased in intensity and duration and it became more difficult for her to re-direct the participant to the task at hand. The teacher reported that instances of excessive talking in class (without escalation to task refusal) commonly occurred during transitions between classes in the school and activities in the class. She noted that peer responses to the target behaviour varied depending on the content of excessive talking and their own interest in the academic activity requiring completion. The teacher also reported that when excessive talking occurred she was most likely to provide attention via close proximity, verbal redirections and one-on-one tutoring to prompt engagement in the assignment.
4.7.3 Standardised testing for presence of behaviour problems for participant 07.

4.7.3.1 Summary of Conners CI-P testing results.

The father of participant 07 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores on all indicators: Disruptive Behaviour Disorder (i.e., T score ≥ 90), Learning and Language Disorder (i.e., T score ≥ 90), Mood Disorder (i.e., T score ≥ 90), ADHD (i.e., T score ≥ 90) and Anxiety Disorder (i.e., T score = 81). These scores indicated that a significant problem existed in all areas of functioning (see: Table 4.28 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.7.3.2 Summary of Conners CI-T testing results.

The English teacher of participant 07 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very elevated scores for the ADHD (i.e., T score = 87), Anxiety Disorder (i.e., T score = 83), Learning and Language Disorder (i.e., T score = 75) and Disruptive Behaviour Disorder (i.e., T score = 71) indicators of the Conners CI-T. All scores indicated that a significant problem existed in these areas of functioning. An average score of 42 was earned on the Mood Disorder indicator, signifying a typical level of concern in that area of functioning (see: Table 4.28 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.7.3.3 Summary of Conners CI-SR testing results.

Participant 07 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed a very elevated score for the Disruptive Behaviour Disorder
(i.e., T score ≥ 90) indicator, which reported many more concerns than typical. Elevated T scores were reported for the Learning and Language Disorder (i.e., T score = 66), ADHD (i.e., T score = 65), Mood Disorder (i.e., T score = 62) and Anxiety Disorder (i.e., T score = 61) indicators, which suggested more concerns than typical in the participant’s responses for these areas (see: Table 4.28 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

Table 4.28. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD&lt;sup&gt;a&lt;/sup&gt;</th>
<th>LLD&lt;sup&gt;b&lt;/sup&gt;</th>
<th>MD&lt;sup&gt;c&lt;/sup&gt;</th>
<th>AD&lt;sup&gt;d&lt;/sup&gt;</th>
<th>ADHD&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>81</td>
<td>≥ 90</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>71</td>
<td>75</td>
<td>42</td>
<td>83</td>
<td>87</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>≥ 90</td>
<td>66</td>
<td>62</td>
<td>61</td>
<td>65</td>
</tr>
</tbody>
</table>

<sup>a</sup>Disruptive Behaviour Disorder indicator.
<sup>b</sup>Learning and Language Disorder indicator.
<sup>c</sup>Mood Disorder indicator.
<sup>d</sup>Anxiety Disorder indicator.
<sup>e</sup>Attention Deficit Hyperactivity Disorder indicator.

4.7.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., father and teacher) and administration of the three Conners rating scales were inspected in order to decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “engaging in verbalising (i.e., commentary or questioning) or noise making (i.e., any noise made with his mouth, hands or feet) when required to complete an adult-directed task” would become the target for further assessment. Results of semi-structured interviews indicated continuous talking caused the greatest interference in the classroom and home environments.
4.7.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour. It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). QABF administration was the basis for determining relevant functions and placing these in a hierarchy of importance. This interview-based questionnaire was completed by the father, English teacher and participant.

4.7.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “escape” (total score = 13) and “tangible” (total score = 12). Lower ranking options for possible functions included “non-social” (total score = 11), “physical” (total score = 10) and “attention” (total score = 9). These data suggested that, from the father’s perspective, the target behaviour was most likely to assist the participant in “escape” and accessing “tangible” outcomes.

4.7.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “attention” (total score = 15) and “non-social” (total score = 14). Lower rankings were given to “escape” (total score = 10) and “tangible” (total score = 5) as possible functions. All items associated with the remaining function label “physical” were answered with a response of never (0). These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in gaining access to “attention” or “non-social” outcomes.
4.7.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 9) and “escape” (total score = 8). Lower ranking options for possible functions included “tangible” (total score = 7), “attention” (total score = 5) and “physical” (total score = 3). These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” or “escape” outcomes.

4.7.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 07 and his caregivers (i.e., father and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.7.6.1 Summary of parent responses to the individualised FA interview,

The father reported that participant 07 engaged in the target behaviour by elaborating on personal thoughts or previous topics of conversation, often including exaggerations rather than facts. The father stated that the target behaviour had been present in the participant’s behavioural repertoire as an attention gaining mechanism for many years. The contexts in which the father had observed the participant to use this form of verbalising included evenings, particularly during social activities (i.e., playing video games, watching television eating dinner and hanging out) with parents, siblings, other family members, peers and other adults. The father reported that participant 07 often interjected with intent to dominate the conversations of others. The duration of this talking
lasted a minimum of 20 minutes per conversation, with a reported frequency of interjecting with off topic comments two to three times in a period of 30 minutes.

In discussing the major antecedents to the target behaviour, the father reported that immediate triggers included any non-verbal or verbal social signal (during an interaction involving others) that attracted the participant’s attention. For instance, people known to provide attention via listening (i.e., parents or friends) and involving themselves in conversation were themselves antecedents for the target behaviour. Finally, the father stated that the participant’s perception that an individual other than himself was gaining attention prompted him to use the target behaviour in an attempt to shift the attention to himself.

In discussing the major consequences to the target behaviour, the father reported a frequent outcome was that the other individual attended to his verbal behaviour, often in the form of listening, answering a question or making a reciprocal comment on the topic. Other consequences included peers laughing or adults reprimanding the participant by prompting him to stop talking. The father also reported that interactions discontinued due to dispersement of the group following the participant’s attempt at verbally engagement.

In reviewing the father’s responses to this more in-depth interview, the major function for talking was identified as “attention from adults or peers at times when the participant perceived personal attention to be lacking” which supported the identification of “attention” as a possible function label identified via parent completion of the QABF. In reviewing the specific valued outcomes associated with attention, it was hypothesised that the target behaviour assisted the participant to: initiate interactions with adults or peers who were willing to listen to his conversation and shift attention from other
individuals to himself. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” function for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the frequency with which the participant received attention from others, it is highly probable that the target behaviour has become an effective tool for controlling the immediate social environment.

4.7.6.2 Summary of teacher responses to the individualised FA interview.

The teacher had reported participant 07 made verbal comments and sounds with his mouth and body which interfered with classroom processes. She reported that talking during class has been part of the participant’s repertoire for the entire time he had attended her class, and she suspected it extended back for several years. She reported that the behaviour was able to be redirected using several prompts, however talking had escalated on several occasions requiring removal from the classroom. The teacher described the contexts in which excessive talking occurred and these included the classroom during activity-based transitions, particularly in the beginning of the class. She stated that duration of an instance of excessive talking lasted approximately two minutes and required about five verbal redirections for the participant to return to the intended topic.

In discussing the major antecedents to the target behaviour, the teacher reported the participant engaged in excessive talking immediately after hearing a word or phrase to which he could make a personal connection. If he was unable to form a personal connection to the discussion he generally initiated a verbal interaction on a different topic with a peer.
In discussing the major consequences to the target behaviour, the teacher reported a common outcome of the participant’s excessive talking was the opportunity to verbalize his thoughts and ideas. She also reported that adults provided attention by verbally redirecting the participant to engage in topics relevant to the class. The teacher stated that the participant’s excessive talking ultimately contributed to him not understanding the assigned topic, which resulted in one-to-one attention to provide extra instruction as well as extended time on the deadlines for assignments.

In reviewing the teacher’s responses to this more in-depth interview, the major functions for excessive speaking were “attention from an individual willing to acknowledge the behaviour” and “avoidance of academic demands which provided a challenge for the participant” and this supported the “attention” and “escape” function labels previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with attention and escape, it was hypothesised that the target behaviour assisted the participant to: gain undivided attention from adults and peers in the social context of the classroom (especially when the participant witnessed another person receiving attention) and avoid academic demands associated with task completion. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” and “avoidance” functions for the target behaviour.

4.7.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 07 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked
to provide a form description of the target behaviour, the participant stated that excessive
talking involved him in making verbal comments to the teacher or to peers during class
discussion and completion of academic activities. The participant reported this behaviour
had been a part of his repertoire for approximately three years and the duration of
excessive talking was short but occasionally lasted an entire class period (i.e., 45 minutes).
Participant 07 reported the contexts for excessive talking included all classes, more on the
last day of the school week, during any classroom activity including reading, writing,
taking notes and engaging in class discussions.

In discussing the major antecedents to the target behaviour, the participant
identified the presence of any thought caused him to talk, particularly if he considered his
thought to be humorous. He also reported class topics that he perceived as interesting
prompted him to ask questions which led him to use to an excessive amount of queries and
comments that were not pertinent to the original topic. The participant also reported that a
verbal comment from a peer, which may or may not have been directed toward him, was
an antecedent to his own verbal commentary.

In discussing the major consequences to the target behaviour, the participant
identified that people often responded verbally in a friendly manner, providing answers to
his questions or elaborating on his comment. On other occasions, the participant reported
the teacher reprimanded him and any peers involved in the interaction and demanded they
discontinue speaking. He also noted that extreme cases of excessive talking which
included confrontational comments from him led to removal from class and punishment
(i.e., detention).
In reviewing the participant’s responses to this more in-depth interview, the major function for excessive talking was identified as “gaining attention from adults/peers via social/verbal interactions, especially those involving humour” and this somewhat supported the previously identified function label of “attention” obtained via completion of the QABF. In reviewing the specific valued outcomes associated with attention, it was hypothesised that the target behaviour assisted the participant to: gain attention from peers in the classroom environment via engagement in conversation and cause a reaction involving laughter. The participant also identified internal valued outcomes of feeling happier when he was engaged in conversation. The function of attention was also identified by the parent and teacher, but the knowledge of internal valued outcomes with an emphasis on emotion had not been identified by either caregiver.

4.7.7 Summary of findings from three direct observation sessions involving participant 07.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 07 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the morning during history lesson in a self-contained classroom. Five students sat in desks with at least one empty seat between them spanning three rows across and four row back. The lesson involved independently reading and answering questions based on a written passage. Observation 4 occurred in the afternoon during a science lesson with the same five students and classroom setup. The lesson involved reading from the text as a class and completing questions based on the reading.
Observation 5 was conducted in the morning during a similar history lesson with six students. The lesson involved note-taking and class discussion lead by the teacher (see: Table 4.29 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.29. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>History lesson</td>
<td>Independent work</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Science lesson</td>
<td>Read aloud with questions</td>
<td>5</td>
</tr>
<tr>
<td>5</td>
<td>History lesson</td>
<td>Notes and discussion</td>
<td>6</td>
</tr>
</tbody>
</table>

4.7.7.1 Frequency of the target behaviour.

A total of 53 instances of the target behaviour were recorded over the three 30-minute observations. Specific examples of the target behaviour involved the participant in: making noises with his mouth and looking around to check for a response while the class was engaged in independent work, pretending to hit his arm on the desk and yelling out sounds of pain during a reading activity and repeating words in the class notes, and asking questions of interest to him. In each instance of the target behaviour, the participant was observed to initiate noise or speech during a quiet activity and to check for opportunities to involve another person in an interaction.

4.7.7.2 Observed antecedents for the target behaviour.

A total of 53 antecedents for the target behaviour were recorded during the observation period and these can be classified into five pre-behaviour themes: the teacher
speaking to the class or directly to the participant on a topic related to the task being completed (16), a peer initiating an interaction with the participant (15), a visual cue in the classroom involving a movement or interaction which elicited comment from the participant (11), a verbal interaction between two individuals not including the participant (7) and everyone working independently and in silence (4) (see: Table 4.30 on summary of antecedents for participant 07). Theme 1 antecedents exposed the participant to the teacher addressing the class or him regarding an academic topic via lecture or delivery of instruction. At these times, the participant exhibited the target behaviour by making sounds with his mouth, singing, tapping items on the desk or asking a question not related to the topic being discussed. Theme 2 antecedents exposed the participant to a peer speaking directly to him in an attempt to provoke a comment. At these times, the participant displayed the target behaviour by responding to the peer often at a loud voice volume, usually followed with visually scanning the room to identify if anyone was watching the interaction. Theme 3 antecedents exposed the participant to a visual cue in the classroom not involving him (e.g. someone entering the room or someone moving to get a piece of paper). At these times, the participant displayed the target behaviour by commenting at a time when everyone else simply acknowledged and ignored the same situation. Theme 4 antecedents exposed the participant to witnessing a verbal interaction in the classroom that did not include him. At these times, the participant displayed the target behaviour by interjecting a comment into the conversation repeatedly until acknowledged. Theme 5 antecedents exposed the participant to a quiet environment with the teacher and peers working independently on an assignment. On these occasions, the participant typically made a noise or comment not related to the task at hand.
Table 4.30. Summary of antecedents for participant 07

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher lecture or direction</td>
<td>16</td>
</tr>
<tr>
<td>Peer interaction with participant</td>
<td>15</td>
</tr>
<tr>
<td>Visual cue</td>
<td>11</td>
</tr>
<tr>
<td>Verbal cue</td>
<td>7</td>
</tr>
<tr>
<td>Independent work</td>
<td>4</td>
</tr>
</tbody>
</table>

After determining the antecedents for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent antecedent was the participant initiating a comment during teacher lecture or direction. On these occasions, the class was listening to the teacher and the participant interrupted the flow of conversation with noise, questions or comments to draw attention away from the topic. A similarly high frequency antecedent was a peer interaction known to elicit comments from the participant. Verbal and visual cues further served as antecedents that provoked comments from the participant. It was hypothesized that these forms of noise making and speaking were an attempt to draw attention to the participant. It was also hypothesized that speaking might have assisted the participant in drawing attention away from school-based activities which he found disinteresting and difficult to understand.

4.7.7.3 Observed consequences for the target behaviour.

A total of 52 consequences for noise making and talking behaviour were recorded during the observation period. Four themes were determined to maintain the target
behaviour, including: gaining access to peer attention (19), “no response” from teacher or peers (19), teacher reaction (i.e., the teacher responded directly to what the participant said) (10) and teacher redirection (i.e., the teacher attempted to get the participant back on topic) (4) (see: Table 4.31 on summary of consequences for participant 07). The remaining two consequences could not be adequately classified and were discarded from the analysis.

Table 4.31. Summary of consequences for participant 07

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining peer attention</td>
<td>19</td>
</tr>
<tr>
<td>No response</td>
<td>19</td>
</tr>
<tr>
<td>Gaining teacher attention</td>
<td>10</td>
</tr>
<tr>
<td>Teacher redirection</td>
<td>4</td>
</tr>
</tbody>
</table>

After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to reinforce the behaviour across observed contexts and tasks. A common theme in consequences was the participant gaining access to peer or teacher attention. On these occasions, the participant’s behaviour was met with a verbal reaction in direct response to his comment or noise. It was hypothesized that the target behaviour was used by the participant to ensure conversation revolved around the topics of his choosing and of high interest to him. It was also hypothesized that comments were used to escape the topic being taught and replace it with conversation he could control.
4.7.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of gaining attention from teacher and peers. This was supported by the finding that, aside from “no response,” most instances of target behaviour resulted in a social response from another person. It was hypothesized that each time the participant successfully elicited a verbal response rather than completing the assigned task, the target behaviour was positively reinforced. Another hypothesis was that the target behaviour served the function of escape from academic demand. This was supported by the finding that most instances of target behaviour resulted in a response to the topic he had introduced despite this topic not relating to the task he had been instructed to complete. Each time the participant successfully elicited a verbal response on his comments, the target behaviour was negatively reinforced by removing the focus from academic topic he experienced as being aversive. The data also suggested that social reinforcement was provided on an intermittent schedule, with some instances of behaviour being met with a desired outcome (i.e., attention or task removal) and others with no response.

4.7.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 07 himself.
4.7.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated Disruptive Behaviour Disorder at the very elevated level of concern. The father and participant reported the greatest level of concern for this domain. No significant areas of similarity were uncovered on respondent forms of the QABF.

During the Functional Assessment interview, all respondents agreed that the participant talked excessively about any topic which was of interest to him and that this talking was typically triggered by an auditory cue in the environment that caused him to discuss what he was already thinking about whether this was relevant or not. The three respondents agreed that the consequences to the target behaviour included a verbal response from another person. They all reported that the social attention gained from engaging in the target behaviour was highly valued by the participant.

4.7.8.2 Areas of disagreement between respondents across assessment methods.

Overall ratings on the Conners CI showed little variation regarding the frequency with which individual behaviours were reportedly to occur with the exception of the Mood Disorder index. In this instance, the teacher was the only informant report that there were no difficulties in this area of functioning. Conversely, the QABF data showed great levels of variation among the three informants. The father ranked the possible function of “escape” as the most probable, with “tangible” a close second, while the teacher and participant ranked these two function labels in the middle range. The teacher ranked “attention” as the most probable function for the target behaviour, while the participant identified “non-social” outcomes as the most probable function of the behaviour.
The Functional Assessment interviews elicited different responses from the three informants depending on their own perceptions and concerns. The father stated that antecedents to the target behaviour involved social interactions that occurred without inclusion of the participant. He reported that consequences to the target behaviour included listening, speaking and laughing responses from others. The teacher reported that any discussion which provided the participant with the opportunity to discuss his thoughts and experiences could act as an antecedent to the target behaviour. She was the first to acknowledge that, while gaining attention for his comments was highly reinforcing for the participant, his behaviour also functioned to help him avoid academic demands. Participant 07 explained that he spoke whenever something came to his mind, which may or may not have been triggered by his surroundings. He placed emphasis on being funny and eliciting laughter from peers. He also reported that he could monopolize conversation on topics he found interesting and steer them to meet his interests rather than follow the plan intended by the teacher. The participant agreed that he received attention for his comments, however the participant was the only one to place value on getting his peers to laugh. The participant was also the only informant who discussed emotion-based information during his interview, describing his feelings of happiness and acceptance when he made others laugh.

4.7.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was important to understanding the reasons for his behaviour. According to participant 07’s QABF results, the target behaviour was associated with predominately “non-social” outcomes suggesting that his emphasis was on the internal changes arising from the behaviour despite its
success in securing positive social consequences. The participant was the only informant who discussed the personal emotions (i.e., happiness) that increased instances of the target behaviour. Information gained from the participant’s point of view was valuable in exploring the covert antecedents and consequences for the target behaviour.

4.8  Experiment 8 (Participant 08)

Participant 08 was a boy age 14 years 8 months who attended grade 9 in a high school. He was referred to the researcher for Functional Assessment by a teacher due to long-term and pervasive behavioural difficulties (e.g., socialising with peers during class and falling behind in school) which were reported to disrupt the participant’s academic achievement.

4.8.1  Standardised testing to establish eligibility for inclusion of participant 08.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.32 for PPVT-IV and SIT-R test scores).

4.8.1.1  Summary of PPVT-IV testing results.

Participant 08 earned a standard score of 119 and a percentile rank score of 90 on the PPVT-IV (see: Table 4.32 on standardised test scores for participant 08). This standard score falls within the Moderately High range of performance and indicates age appropriate development of receptive vocabulary skills. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.
4.8.1.2 Summary of SIT-R testing results.

Participant 08 earned a Total Standard Score (TSS) of 119 and a percentile rank score of 99+ on the SIT-R (see: Table 4.32 on standardised test scores for participant 08). This TSS falls within the Above Average range of performance and indicates a superior level of cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.32. Standardised test scores for participant 08

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>119</td>
<td>90</td>
</tr>
<tr>
<td>SIT-R</td>
<td>119</td>
<td>99+</td>
</tr>
</tbody>
</table>

4.8.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the aunt and science teacher of participant 08. The aunt was the legal guardian of the participant and responded to queries pertaining to her nephew’s behaviour from a lifespan perspective. The teacher taught participant 08 for approximately five months and had minimal knowledge of his patterns of behaviour prior to having him in the class. This second respondent provided information on his observations of the participant’s behaviour in the classroom and during break times.

4.8.2.1 Summary of parent responses to the semi-structured interview.

The aunt of participant 08 was invited to discuss the behaviours which caused her concern about her nephew. She reported the participant frequently engaged in verbal interactions with family members with conversations averaging a duration of 30 minutes. She described the participant’s talking as unmonitored, rapid and dominant, sometimes
irrelevant and occasionally nonsensical (i.e., speaking lyrics to songs) which he and peers perceived as humorous. The aunt acknowledged challenges in the school environment stemmed from the slow pace of the classes which lead to the participant’s disengagement in the topic, and he engaged in a preferred verbal interaction with peers. The aunt reported off topic talking did not cause problems in the home environment but was becoming increasingly detrimental to his performance in the school environment.

4.8.2.2 **Summary of teacher responses to the semi-structured interview.**

The teacher reported that he observed a lack of engagement in the educational process from participant 08, describing continued patterns of submitting incomplete assignments. The teacher described the participant’s behaviour as purposeful non-engagement displayed by remaining motionless and unfocused. He also reported the participant engaged peers in verbal interactions during structured (i.e., lectures, group activities, videos and independent work) and unstructured (i.e., free time) activities.

4.8.3 **Standardised testing for presence of behaviour problems for participant 08.**

4.8.3.1 **Summary of Conners CI-P testing results.**

The aunt of participant 08 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the ADHD (i.e., ADHD ≥ 90), Anxiety Disorder (i.e., T score = 82), and Mood Disorder (i.e., T score = 75) indicators of the Conners CI-T. All scores indicated that a significant problem existed in these areas of functioning. Average scores were earned on the Disruptive Behaviour Disorder indicator (i.e., T score = 53) and Learning and Language Disorder indicator (i.e., T score = 43), which signified a typical level of concern
in these areas of functioning (see: Table 4.3 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

**4.8.3.2 Summary of Conners CI-T testing results.**

The science teacher of participant 08 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned elevated scores for the Mood Disorder (i.e., ADHD = 66) and ADHD (i.e., T score = 63) indicators of the Conners CI-T. Both scores indicated that a problem existed in these areas of functioning. Average scores were earned on the Learning and Language Disorder (i.e., T score = 46), Anxiety Disorder (i.e., T score = 44), and Disruptive Behaviour Disorder (i.e., T score = 44) indicators, which signified a typical level of concern in these areas of functioning (see: Table 4.3 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

**4.8.3.3 Summary of Conners CI-SR testing results.**

Participant 08 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed a very elevated score for Anxiety Disorder indicator (i.e., T score = 84), which reported many more concerns than typical. Elevated T scores for the ADHD (i.e., T score = 68) and Learning and Language Disorder (i.e., T score = 64) indicators signified more concerns than typically reported. Scores on the Mood Disorder indicator (i.e., T score = 56) and Disruptive Behaviour Disorder indicator (i.e., T score = 48) fell within the average range and indicated typical levels concern in the participant’s responses for these areas (see: Table 4.3 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).
Table 4.33. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD\textsuperscript{a}</th>
<th>LLD\textsuperscript{b}</th>
<th>MD\textsuperscript{c}</th>
<th>AD\textsuperscript{d}</th>
<th>ADHD\textsuperscript{e}</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>53</td>
<td>43</td>
<td>75</td>
<td>82</td>
<td>≥ 90</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>44</td>
<td>46</td>
<td>66</td>
<td>44</td>
<td>63</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>50</td>
<td>64</td>
<td>60</td>
<td>84</td>
<td>68</td>
</tr>
</tbody>
</table>

\textsuperscript{a}Disruptive Behaviour Disorder indicator.
\textsuperscript{b}Learning and Language Disorder indicator.
\textsuperscript{c}Mood Disorder indicator.
\textsuperscript{d}Anxiety Disorder indicator.
\textsuperscript{e}Attention Deficit Hyperactivity Disorder indicator.

4.8.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., aunt and teacher) and administration of the three Conners rating scales were inspected in order to decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “engaging individuals in conversation irrelevant to the completion of a required task” would become the target for further assessment. Results of semi-structured interviews indicated side conversations caused the greatest interference in the classroom, and discussions with both caregivers suggested that this caused a disruption to his academic achievement and the attention other students pay to the teacher. The Conners CI results showed that all three respondents reported high levels of difficulty in the areas of attention with less emphasis being placed on disruptive behaviour. This finding supported the decision to focus further investigations on verbal behaviours which appeared to interfere with academic demands and the participant’s progress in the classroom.
4.8.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour of “engaging individuals in conversation irrelevant to the completion of a required task.” It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The administration of the QABF was used as a basis for determining relevant functions and placing these in a hierarchy of importance, which was the subject of further investigation during the in-depth interview. This interview-based questionnaire was completed by the aunt, science teacher, and participant.

4.8.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of the aunt’s reports indicated that high-ranking functions were predominantly “non-social” (total score = 11) and “escape” (total score = 9). Lower ranking options for possible functions included “attention” (total score = 8) and “tangible” (total score = 5). All items associated with the function label “physical” remained unendorsed by the aunt. These data suggested that, from the aunt’s perspective, the target behaviour was most likely to assist the participant in gaining access to “non-social” and “escape” outcomes.

4.8.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “escape” (total score = 12) and “attention” (total score = 10). Lower rankings were given to “tangible” (total score = 9), “non-social” (total score = 7) and “physical” (total score = 1) as possible functions. These data suggest that, from the
teacher’s perspective, the target behaviour was most likely to assist the participant in “escape” or gaining accessing to “attention” outcomes.

**4.8.5.3 Summary of participant responses to the QABF.**

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 8) and “escape” (total score = 5). Lower ranking options for possible functions included “attention” (total score = 2), “tangible” (total score = 2) and “physical” (total score = 1). These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” or “escape” outcomes.

**4.8.6 Data from individualised Functional Assessment (FA) interview.**

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 08 and his caregivers (i.e., aunt and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

**4.8.6.1 Summary of parent responses to the individualised FA interview.**

The aunt reported that participant 08 failed to use transitions when interchanging among topics during conversational sessions and often initiated a new topic prior the conclusion of the previous. She reported the participant engaged in this style of verbal communication for several years. She reported the frequency of these conversations was daily, and each instance had a duration averaging 30 minutes. The aunt also stated that the participant showed no discrimination in the location or setting where he engaged in conversation, and he engaged anyone including family members, peers and strangers.
In discussing the major antecedents to the target behaviour, the aunt of participant 08 reported he engaged others in conversation following a verbal direction to complete a household task. The aunt described his behaviour as “constant and indiscriminate,” and therefore struggled to identify specific antecedents to the participant’s style of speaking.

In discussing the major consequences to the target behaviour, the aunt reported that the most frequent outcome to engaging in conversation was the intended listener provided attention in the form of acknowledging and responding to the participant’s remarks. She also stated that the participant was redirected on occasion to delay elaboration of a topic until a required task or previous conversation had concluded.

In reviewing the aunt’s responses to this more in-depth interview, the major functions for conversation were identified as “avoidance of engaging in household chores” and “gaining attention from adults and peers in the form of engagement in a drawn out discussion” and this supported the “escape” and “attention” function labels previously identified via aunt’s completion of the QABF. In reviewing the specific valued outcomes associated with avoidance and attention, it was hypothesised that the target behaviour assisted the participant to: avoid tasks which he perceived as uninteresting (i.e., chores and homework) and gain attention (in the form of the listener engaging in conversation, usually accompanied by smiling and laughing) from a variety of individuals on topics that provides a high level of interest. The analysis of data generated from the in-depth interview confirmed the significance of the “avoidance” and “attention” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of adverse (from the participant’s perspective) events the participant succeeded in avoiding by engaging in
conversations paired with the desired outcome of receiving attention, it is highly probable that this behaviour has become an effective tool in daily life.

4.8.6.2 Summary of teacher responses to the individualised FA interview.

The teacher reported several instances of participant 08 engaging in off topic conversation with peers while not engaging in the required academic activity. The teacher reported that the participant was most likely to engage in conversations during lecture, class discussion, note taking, class review and transitions. He reported that during these times participant 08 engaged peers and sometimes the teacher off topic discussion. The teacher reported the duration of these conversations was between five and eight minutes and had the potential to last a full class period if not frequently redirected. The teacher stated that this behaviour had been consistent since the participant transferred to the school six months prior.

In discussing the major antecedents to the target behaviour, the teacher reported the transition required when entering the classroom environment (typically late) provided an opportunity to engage in conversation. The teacher also stated that sitting in his seat triggered a conversation with peers in close proximity. He also reported that activities that required students to remain quiet acted as an antecedent to the participant’s verbal behaviour.

In discussing the major consequences to the target behaviour, the teacher reported a common consequence to participant 08 engaging others in conversation was attention from peers in the form of listening and responding, a social prompt to continue the behaviour. He also reported the participant was redirected to reengage in the class activity and his location was altered in the classroom to remove the presence of specific peers, a
consequence that proved not to hinder the behaviour. The teacher reported a delayed consequence of contacting home, however this also prompted no change in the behaviour.

In reviewing the teacher’s responses to this more in-depth interview, the major functions for engaging in conversations were identified as “gaining attention in the form of conversation with another individual” and “avoidance of academic tasks which did not sufficiently peak his interest” and this supported the “attention” and “escape” function labels previously identified via teacher completion of the QABF. In reviewing these specific valued outcomes associated with attention and avoidance, it was hypothesised that the target behaviour assisted the participant to: gain attention from peers in the form of pleasant conversation and from teachers in the form of redirection and avoid school tasks, academic demands and the responsibility of school work which he found aversive. The analysis of data generated from the in-depth interview confirmed the significance of the “attention” and “avoidance” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms.

4.8.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 08 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated that he engaged peers in conversation, sometimes relevant to the class but other times regarding social topics. The participant reported he was “always a social individual” with a long history of
engaging others in conversation. He described that he monitored the amount of time he engaged peers in conversation during class, discontinuing the behaviour when the amount of time in class was sufficient to complete the given assignment, a reported duration of 10 to 15 minutes. He reported to engage in conversation less during situations in which he was frequently redirected and more when the environment was noisier and the behaviour went unnoticed. He also identified a specific peer group with whom he engaged in conversations due to similar social interests.

In discussing the major antecedents to the target behaviour, the participant identified the presence of peers triggered him to engage in conversation irrelevant to class. He described class activities not requiring eye contact or immediate participation caused him to engage in personal conversations. He also stated that the necessity to engage in individual assignments and group work triggered him to engage peers in conversation.

In discussing the major consequences to the target behaviour, the participant identified that peers reciprocated his verbal interaction, which provided greater reinforcement (i.e., interest and entertainment) than academics. He also described consequences from the teacher which included verbal reprimands and instances of punishment (i.e., detention). He also admitted off topic conversations led to incomplete assignments due to the incompatible nature of the two activities.

In reviewing the participant’s responses to this more in-depth interview, the major function for engaging in conversation was identified as “gaining attention from adults/peers via social interactions of elaborate conversations” and “avoidance of requirements in school and at home which the participant viewed as uninteresting” and this supported the “attention” and “escape” function labels previously identified by the
participant during completion of the QABF. In reviewing the specific valued outcomes associated with attention and avoidance, it was hypothesised that the target behaviour assisted the participant to: gain attention from peers during class time via engagement in elaborate conversations on topics which the participant found interesting and entertaining while avoiding academic tasks, particularly those he must complete independently or in a group or avoiding aversive chores required in the home environment. The function of attention and avoidance/escape were also identified by the parent and teacher, including the participant’s specific value of attention from peers and avoidance of home chores and academic demands.

4.8.7 Summary of findings from three direct observation sessions involving participant 08.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 08 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the morning during a Spanish lesson in a classroom. Twenty students sat in desks evenly spaced seven rows across, six seats back. The lesson involved elements of independent work, students writing on the board and choral repetition of sentences. Observation 4 occurred in the morning during a science lesson in a classroom. Twenty-six students sat at lab tables in groups of four. The lesson involved class discussion, note-taking and independent work. Observation 5 was conducted in the morning during the same Spanish class previously described with 30 students. The lesson involved engaging in an assignment from a textbook in pairs (see: Table 4.34 on
description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.34. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Spanish lesson</td>
<td>Independent work/class repetition</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Science lesson</td>
<td>Class discussion and notes</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>Spanish lesson</td>
<td>Bookwork in pairs</td>
<td>30</td>
</tr>
</tbody>
</table>

4.8.7.1 Frequency of the target behaviour.

A total of 33 instances of the target behaviour were recorded over the three 30-minute observations. Specific examples of target behaviour involved the participant in: quietly repeating what the teacher says while missing the remainder of what she was talking about; elaborating on a topic to a friend until conversation turns off topic (e.g. discussing movies in Spanish turns into social conversation about movies in English) and drawing pictures during class and engaging in full conversation with a peer regarding the drawing. In each instance of the target behaviour, the participant was observed to engage in off topic talking which often escalated into a full discussion remaining off topic for a duration lasting three to five minutes without reference to the class activity.

4.8.7.2 Observed antecedents for the target behaviour.

A total of 33 antecedents for talking during class were recorded during the observation period and these can be classified into three pre-behaviour themes: peer proximity or peer response that elicited further comment or conversation from the
participant (16), teacher lecture to the class or discussion with a peer who was not the participant (10) and no task provided during a transition period (7) (see: Table 4.35 on summary of antecedents for participant 08). Theme 1 antecedents exposed the participant to peers who were engaged in similar independent tasks or peers responding to an action performed by the participant which initiated or prolonged off topic talking. At these times, the participant exhibited the target behaviour by initiating or continuing a verbal interaction not relevant to the current activity. Theme 2 antecedents exposed the participant to verbal directions from the teacher regarding the activity to be completed, an explanation of a word or concept from the teacher and coral repetitions of words or phrases in Spanish. At these times, the participant displayed the target behaviour by speaking to a peer on a topic not related to the content at a time when it was inappropriate for students to have personal discussions. Theme 3 antecedents exposed the participant a time of transition when the he completed the assignment and had no further tasks. On the occasions, the participant was observed to exhibit the target behaviour by engaging in a conversation with a peer while the rest of the class was quietly working or waiting for direction.

Table 4.35. Summary of antecedents for participant 08

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer interaction</td>
<td>16</td>
</tr>
<tr>
<td>Teacher direction</td>
<td>10</td>
</tr>
<tr>
<td>Transition with no work</td>
<td>7</td>
</tr>
</tbody>
</table>
After determining the antecedents for the target behaviour, these were placed in a hierarchy of importance based on their potential to trigger the behaviour across observed contexts and tasks. The most prevalent antecedent was the participant being exposed to peers, including occasions when the peer responded to the initial off task comment. On these occasions, he was engaged in talking during class at a time when most students were doing work or responding to a comment from the participant. It was hypothesized that this form of talking during class was an attempt to draw attention to himself. It was also hypothesized that talking during class was an escape from work that the participant found uninteresting or overly complex.

4.8.7.3 Observed consequences for the target behaviour.

The primary consequence which followed the target behaviour was the participant gaining peer attention in the form of verbal response or conversation positively reinforcing 30 of the 33 instances of behaviour. The remaining three instances of behaviour produced consequences of “no response” (i.e., no social reaction observed from teacher or peers) (2) and teacher redirection (i.e., teacher verbally redirecting the talking behaviour) (1) (see: Table 4.36 on summary of consequences for participant 08).

Table 4.36. Summary of consequences for participant 08

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gaining peer attention</td>
<td>30</td>
</tr>
<tr>
<td>No response</td>
<td>2</td>
</tr>
<tr>
<td>Teacher redirection</td>
<td>1</td>
</tr>
</tbody>
</table>
After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to reinforce the behaviour across observed contexts and tasks. A common theme in consequences was the participant gaining access to peer attention. On these occasions, his off topic talking during class was met with a verbal reaction in the form of comment or conversation from the individual to whom the initial comment was directed. It was hypothesized that this impulsive speaking was used to gain peer attention in the form of conversation.

4.8.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of gaining peer attention. This was supported by the finding that the majority of instances of off topic talking during class resulted in social interactions/conversations with peers. It was hypothesized that each time the participant successfully engaged a peer in conversation rather than completing the assigned task, the behaviour of engaging in off topic talking was positively reinforced.

4.8.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 08 himself.

4.8.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated Disruptive Behaviour Disorder in the average range, indicating typical levels of concern in this area on their respective scales. Respondents also showed agreement that the ADHD indicator was
ranked among the top two areas of concern, with both the teacher and participant indicating it was second on their list of areas of concern. The aunt and teacher also described very elevated levels of concern in the area of Anxiety Disorder on the Conners CI scales.

The QABF data indicated that all three informants identified “escape” and “attention” outcomes as highly probable functions of the participant’s off topic conversations. All informants highly endorsed the statement regarding the participant talking “when asked to do something” suggesting “escape” outcomes. The aunt and participant both identified “non-social” as the most probable outcome to the target behaviour, and all respondents noted an “often” frequency description for the statement “he seems to enjoy the behaviour, even when no one is around.” And all three respondents reported a total of zero or one for “physical” outcomes, indicating this was most likely not the function of off topic conversation.

All three informants were required to respond to the same questions during the Functional Assessment interviews. They agreed that off topic talking took place when a direction was provided that he should engage in a task that required individual focus on his part (i.e., chore or independent classwork assignment). They also agreed that his comments were met with attention from peers that would escalate into a full conversation at a time when they should be doing work. Identical function labels were identified by all three individuals: attention and avoidance, with similar valued outcomes of positive attention from peers and avoidance of an unwanted task.
4.8.8.2 Areas of disagreement between respondents across assessment methods.

Overall ratings on the Conners CI showed some variation regarding the frequency ratings provided for different areas of functioning. The participant ranked Learning and Language Disorder with very elevated scores, suggesting this was an area with which he showed great concern, however the same scale produced average levels of performance as described by the aunt and teacher, indicating typical levels of concern. The Mood Disorder indicator showed great fluctuation in scores with the aunt indicating very elevated levels of concern, the teacher indicating elevated levels of concern and the participant indicating average performance in this area. And while the teacher indicated concerns about Mood Disorder were in the mid-range of elevation, it remained her top concern for the participant.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited different responses from the three informants depending on their own priorities and concerns. The teacher identified transitions between classes as a major antecedent to engaging in off topic conversation, which was not identified by other informants. Many of the outcomes of the interview were similar, with attention and avoidance being identified by all the informants, but reports of valued outcomes showed some variance. The aunt and focused mainly on avoiding tasks that the participant did not enjoy, such as chores, homework and class work and gaining attention from others in the form of pleasant conversation. Participant 08 elaborated on a variety of consequences to his off topic conversations which lead to more specific valued outcomes. He described that when he spoke with peers and they spoke back, he was being provided with entertainment. He also gained new knowledge on the topics they discussed, even if it was
not relevant to the class. He also described the topic of his conversations was more interesting than the activity required during class. Finally, the participant reported that he often forgot his obligation to complete work when he was absorbed in his conversations, which caused him to leave work incomplete. This new information from the student provided insight into his behaviour regarding thoughts and feelings during off topic conversations that would not have otherwise been discovered through interviews with his aunt and teacher.

4.8.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was highly informative, and represents a perspective that cannot be duplicated through reports by the parent and teacher. Participant 08 responded well to rating scales, providing information that correlated with responses from his aunt and teacher. The main contribution of new information came from the Functional Assessment interview, when the participant described many of his conversations were off topic, however several were private conversations relating to the topic being discussed in class, which no other informant mentioned as they were not aware of the general topics of his discussions. He also described that his conversations were entertaining and he was exchanging information with peers so that he was learning, despite the fact that it was not relevant to the class topic. No other informant elaborated on personal feelings of entertainment and engagement during their respective interviews. The participant uncovered a valued outcome of gaining attention from a peer on an interesting topic, as opposed to the perceived uninteresting topics of school. Information gained from the participant’s point of view was valuable in
understanding the target behaviour. The Functional Assessment data would be considered incomplete without information gained from the participant’s perspective.

4.9 Experiment 9 (Participant 09)

Participant 09 was a boy age 16 years 7 months who attended grade 11 in a high school. He was referred to the researcher for Functional Assessment by a teacher of the school due to long-term and pervasive behavioural difficulties (e.g., engaging in off task behaviours and falling behind in school work) which were reported to disrupt the participant’s academic achievement and social integration.

4.9.1 Standardised testing to establish eligibility for inclusion of participant 09.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.37 for PPVT-IV and SIT-R test scores).

4.9.1.1 Summary of PPVT-IV testing results.

Participant 09 earned a standard score of 118 and a percentile rank score of 88 on the PPVT-IV (see: Table 4.37 on standardised test scores for participant 09). This standard score falls within the Moderately High range of performance and indicates age appropriate development of receptive vocabulary skills. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

4.9.1.2 Summary of SIT-R testing results.

Participant 09 earned a Total Standard Score (TSS) of 109 and a percentile rank score of 71 on the SIT-R (see: Table 4.37 on standardised test scores for participant 09). This TSS falls within the Average range of performance and indicates age appropriate
development of cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.37. Standardised test scores for participant 09

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>118</td>
<td>88</td>
</tr>
<tr>
<td>SIT-R</td>
<td>109</td>
<td>71</td>
</tr>
</tbody>
</table>

4.9.2 Data from the initial semi-structured interview.

This semi-structured interview was administered to the father and history teacher of participant 09. The father was the biological parent of the participant and responded to queries pertaining to his child’s behaviour from a lifespan perspective. The teacher taught participant 09 for approximately eight months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided information on her observations of the participant’s behaviour in the classroom and during break times.

4.9.2.1 Summary of parent responses to the semi-structured interview.

The father of participant 09 was invited to discuss the behaviours which caused him concern about his child. He reported his main concern in the home environment was a lack of engaging in meaningful activity, and he described the participant’s preferred activities included playing on the computer and watching television. The father expressed concern for the participant’s behaviour in the school environment, noting a lack of interest in scholastics reflected in incomplete work and poor grades. The father stated the participant provided excuses (e.g. “I didn’t know the assignment was due”) when describing school
functioning. He also reported that the participant skipped classes and punishments (i.e., detentions) in favour of social interaction with peers.

4.9.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported she observed a general lack of meaningful participation in classroom activities from participant 09. She described a number of off-task activities in which the participant frequently engaged, including walking around the classroom, touching and picking things up off the teacher’s desk, opening desk drawers, sitting on the radiator, shouting across the classroom, talking to peers, twirling and tossing writing utensils, looking around the room and turning around in his seat. She also described more obtrusive behaviours, such as instances where he wrestled with a peer in the classroom and he pulled the wire out of a computer mouse. The teacher stated that she was unable to identify a pattern to his behaviours and he engaged in any activity unrelated to academic work.

4.9.3 Standardised testing for presence of behaviour problems for participant 09.

4.9.3.1 Summary of Conners CI-P testing results.

The father of participant 09 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the Disruptive Behaviour Disorder (i.e., T score ≥ 90), ADHD (i.e., T score = 79) and Mood Disorder (i.e., T score = 73) indicators of the Conners CI-P. All scores indicated that a significant problem existed in these areas of functioning. Elevated T scores for the Anxiety Disorder indicator (i.e., T Score = 69) and the Learning and Language Disorder indicator (i.e., T score = 62) suggested more concerns than typical in the participant’s
responses for these areas (see: Table 4.38 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.9.3.2 Summary of Conners CI-T testing results.

The history teacher of participant 09 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very elevated scores for the AHDH (i.e., T score ≥ 90), Learning and Language Disorder (i.e., T score = 77), and Disruptive Behaviour Disorder (i.e., T score = 70) indicators of the Conners CI-T. All scores indicated that a significant problem existed in these areas of functioning. Elevated T scores for the Mood Disorder indicator (i.e., T score = 69) and Anxiety Disorder indicator suggested a significant problem in functioning (see: Table 4.38 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.9.3.3 Summary of Conners CI-SR testing results.

Participant 09 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed an elevated scores for Learning and Language Disorder (i.e., T score = 66) and ADHD (i.e., T score = 63) indicators, which reported more concerns than typical. T scores for the Disruptive Behaviour Disorder (i.e., T score = 57), Anxiety Disorder (i.e., T score = 55) and Mood Disorder (i.e., T score = 51) fell within the average range and indicated typical levels concern in the participant’s responses for these areas (see: Table 4.38 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.9.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., father and teacher) and administration of the three Conners rating scales were inspected in order to
decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “engaging in any action, active (i.e., physical movement or verbal comments) or passive (i.e., a lack of engaging in any activity), that does not contribute to the completion of a required task” would become the target for further assessment. Results of semi-structured interviews indicated a variety of off task behaviours that the participant engages in that conflict with making progress on academic tasks. The Conners CI results showed that all three respondents reported elevated levels of ADHD and disruptive behaviour which coincide with results of the interviews. This finding supported the decision to focus further investigations on the functions and valued outcomes of off task behaviour which appeared to be significant in understanding the participant’s experiences and reactions.

4.9.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour of “engaging in any action, active (i.e., physical movements or verbal comments) or passive (i.e., a lack of engaging in any

Table 4.38. TSS Scores from the Conners CI-P, Conners CI-T and Conners CI-SR

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD^a</th>
<th>LLD^b</th>
<th>MD^c</th>
<th>AD^d</th>
<th>ADHD^e</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>≥ 90</td>
<td>62</td>
<td>73</td>
<td>69</td>
<td>79</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>70</td>
<td>77</td>
<td>69</td>
<td>60</td>
<td>≥ 90</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>57</td>
<td>66</td>
<td>51</td>
<td>55</td>
<td>63</td>
</tr>
</tbody>
</table>

^a = Disruptive Behaviour Disorder indicator.
^b = Learning and Language Disorder indicator.
^c = Mood Disorder indicator.
^d = Anxiety Disorder indicator.
^e = Attention Deficit Hyperactivity Disorder indicator.
activity), that does not contribute to the completion of a required task.” It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The administration of the QABF was used as a basis for determining relevant functions and placing these in a hierarchy of importance, which was the subject of further investigation during the in-depth interview. This interview-based questionnaire was completed by the father, history teacher, and participant.

4.9.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “escape” (total score = 12) and “non-social” (total score = 11). Lower ranking options for possible functions included “attention” (total score = 9), “tangible” (total score = 5) and “physical” (total score = 4). These data suggested that, from the father’s perspective, the target behaviour was most likely to assist the participant in “escape” or “non-social” outcomes.

4.9.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “escape” (total score = 12), “attention” (total score = 9) and “non-social” (total score = 9). A lower ranking was given to the possibility of “tangible” (total score = 2) as a function. All items associated with the remaining function labels of “physical” were answered with a response of never (0). These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in “escape” or accessing “attention” or “non-social” outcomes.
4.9.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 8) and “escape” (total score = 6). Lower ranking options for possible functions included “attention” (total score = 3) and “tangible” (total score = 2). Items associated with the remaining function label “physical” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” or “escape” outcomes.

4.9.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions and valued outcomes) was administered to participant 09 and his caregivers (i.e., father and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.9.6.1 Summary of parent responses to the individualised FA interview.

The father reported that participant 09 mainly exhibited off task behaviour in the school environment but also displayed similar behaviours in the home environment which he described as engaging in preferred activities (e.g. watching television, listening to music, playing video games and playing basketball) rather than engaging in required tasks (e.g. doing homework). The father reported this has been a behaviour of concern throughout his academic career with an endless duration indicating the required task (i.e., homework or chores) was never accomplished. The father reported that participant 09 only
engaged in the required task when the intensity of redirection and prompts increased to a level perceived as more aversive than the activity he was avoiding.

In discussing the major antecedents to the target behaviour, the father of participant 09 reported that he initiated engagement in off task behaviours following the request to accomplish an aversive (from the participant’s perspective) chore (e.g. school work, particularly writing activities and research, and household chores). The father also reported that the current engagement in a preferred activity (e.g. playing basketball, watching television, playing video games) caused him to continue that activity despite verbal direction to stop and begin homework or chores.

In discussing the major consequences to the target behaviour, the father reported the most frequent outcome to the participant engaging in off task behaviours was the cessation of the requirement to engage in the undesirable task. The father also reported that the participant received attention from him both visually and verbally in attempt to direct him toward the intended activity, and the participant experienced feelings of control when he chose preferred activities over others. The father also stated the participant previously lost privileges (e.g. mobile phone confiscated and driving lessons cancelled) however these did not curb the behaviour and these consequences are no longer imposed.

In reviewing the father’s responses to this more in-depth interview, the major function for engaging in off task behaviour was identified as “avoidance of academic tasks with which the participant expresses disinterest” and this supported the “escape” function label previously identified via parent completion of the QABF. The father also acknowledged attention as a possible function of behaviour, which was also identified via completion of the QABF. In reviewing the specific valued outcomes associated with
avoidance and attention, it was hypothesised that the target behaviour assisted the participant to: avoid engagement in academic tasks (i.e., reading, writing, research, discussion and group work) in which the participant showed a lack of understanding or perceived as uninteresting, avoid social interaction with peers when he was uncomfortable in a group or gain attention from peers as a continuation of his reputation of the class clown. The analysis of data generated from the in-depth interview confirmed the significance of the “avoidance” and “attention” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of adverse (from the participant’s perspective) events the participant succeeded in avoiding by engaging in off task behaviour paired with the desirable outcome of receiving attention for the same behaviour, it is highly probable that this behaviour has become an effective tool relevant to day-to-day life.

**4.9.6.2 Summary of teacher responses to the individualised FA interview.**

The teacher had reported several instances of participant 09 engaging in off task behaviours, which included wondering around the room, sitting on the radiator, picking up items from the teacher’s desk and doodling on his papers. She observed that these behaviours disrupted his progress in class since the beginning of the year. The teacher reported that the participant was most likely to be off task in the classroom or in the library, more toward the beginning and end of a class period. The teacher described that participant 09 stayed off task for the maximum duration of 45 minutes (i.e., an entire class period), and he required frequent redirections to remain on task (i.e., 10 times per class).

In discussing the major antecedents to the target behaviour, the teacher reported any non-specific visual or verbal cue had triggering power to cause the participant to
engage in off task behaviour. She described that the direction to engage in activities related to typical classroom functioning (i.e., engage in reading or writing assignments) provided an antecedent for off task behaviour.

In discussing the major consequences to the target behaviour, the teacher reported a common consequence resulting from off task behaviour was the cessation of engagement in academic tasks. She also described reinforcement from peers and adults in the form of laughing or verbally prompting him to return to the class activity. Delayed consequences of off task behaviour included failing grades, failing courses, retaking courses and jeopardizing his eligibility to graduate high school.

In reviewing the teacher’s responses to this more in-depth interview, the major functions for engaging in off task behaviours were identified as “escape from the engagement in academic tasks which he found aversive” and “attention from peers who acknowledged his actions as humorous” and this supported the “escape” and “attention” function labels previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with escape and attention, it was hypothesised that the target behaviour assisted the participant to: escape academic tasks, specifically those involving writing or research and gain attention from peers in the form of laughing at his humorous interactions in the classroom. The analysis of data generated from the in-depth interview confirmed the significance of the “escape” and “attention” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms.
4.9.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 09 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated that “off task behaviour” involved him engaging peers in conversation and using personal electronics (i.e., mobile phone and ipod) during class. The participant reported that he displayed these and various other off task behaviours over the span of his entire academic career. He reported that he engaged in off task behaviour in all classes, and he described that he sometimes remained off task all day without accomplishing any academic gains. He also said he required frequent redirections (i.e., a minimum of two) in order to reengage in his work.

In discussing the major antecedents to the target behaviour, the participant described that entering the classroom or the presence of work triggered him to engage in off task behaviour. He identified the requirement to engage in research and reading tasks as two activities which caused him to be off task.

In discussing the major consequences to the target behaviour, the participant identified positive reinforcement from peers in the form of laughing and conversation. Results of the conversations in which he engaged included scheduling social activities. Participant 09 described delayed consequences of punishment in the form of detentions and grounding as a result of off task behaviours that became disruptive.
In reviewing the participant’s responses to this more in-depth interview, the major function for engaging in off task behaviour was identified as “attention from adults/peers in the form of laughter following engagement in a particular style of off task behaviour” and “avoidance of academic demands to which the participant showed little interest” and this supported the “escape” function label previously identified by the participant during completion of the QABF. In reviewing the specific valued outcomes associated with attention and avoidance, it was hypothesised that the target behaviour assisted the participant to: gain attention from others in the form of laughter, with the targeted individuals often displaying flat affect prior to engagement in the behaviour intended to elicit the laughing response and avoid academic demands for tasks which generally include the aversive activities of reading, writing and research. The function of avoidance was similar to those of escape and avoidance identified by the parent and teacher, including the participant’s specific values regarding escape from academic demands. The knowledge of internal valued outcomes with an emphasis wanting a positive reaction from other was not identified by either the parent or teacher.

4.9.7 Summary of findings from three direct observation sessions involving participant 09.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 09 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the morning during a school Chemistry lab. Twenty five students stood around lab tables in groups of four mixing chemicals and recording
chemical reactions. Observation 4 occurred in the morning during an English class. Twenty students sat in desks in two rows facing each other with a space for the teacher to walk through the middle. The lesson involved independent work on a research project with the teacher checking individual progress. Observation 5 was conducted in the morning during a math class. Fifteen students sat in paired desks in three rows. The lesson involved teacher explanation of a concept displaying sample problems on the board for students to complete followed by independent work (see: Table 4.39 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.39. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Chemistry lab</td>
<td>Lab on chemical reactions</td>
<td>25</td>
</tr>
<tr>
<td>4</td>
<td>English lesson</td>
<td>Independent research</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Math lesson</td>
<td>Notes and independent work</td>
<td>15</td>
</tr>
</tbody>
</table>

4.9.7.1 Frequency of the target behaviour.

A total of 45 instances of target behaviour were recorded over the three 30-minute observations. Specific examples of target behaviour involved the participant in: walking around the classroom with no particular destination looking over the shoulders of other students, eating during class and not engaging in any work and stretching his arms and legs while talking to the person next to him. In each instance of target behaviour, the participant was observed to participate in a number of activities (e.g. talking, walking,
eating, putting head down) with no distinct pattern beyond not being relevant to the class activity.

4.9.7.2 Observed antecedents for the target behaviour.

A total of 45 antecedents for off task behaviour were recorded during the observation period and these can be classified into four pre-behaviour themes: all students engaged in independent work (14), teacher giving directions or explanation to the class (13), students engaged in group work involving talking and working together to ascertain answers (10) and a peer initiated a form of verbal interaction (6) (see: Table 4.40 on summary of antecedents for participant 09). The remaining two antecedents could not be adequately classified and were discarded from the analysis. Theme 1 antecedents exposed the participant to a room full of students engaged in independent work that required following directions and a form of writing and/or problem solving. At these times, the participant exhibited the target behaviour by sitting quietly in his seat and engaging in low level behaviours such as looking around, putting his head down and eating. Theme 2 antecedents exposed the participant to directions or explanations on how to complete the given work. At these times, the participant displayed the target behaviour by looking through papers or making quiet comments to peers. Theme 3 antecedents exposed the participant to a group of students working together in an atmosphere where other groups of students were moving around the room and talking about the project. At these times, the participant displayed the target behaviour by walking around the classroom and interacting socially with peers on topics unrelated to the assignment. Theme 4 antecedents exposed the participant to a peer who initiated a verbal interaction to which he responded. At
these times, the participant displayed the target behaviour by responding verbally to the off
topic comment, usually in the form of a joke.

Table 4.40. Summary of antecedents for participant 09

<table>
<thead>
<tr>
<th>Antecedent</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent work</td>
<td>14</td>
</tr>
<tr>
<td>Teacher direction</td>
<td>13</td>
</tr>
<tr>
<td>Group work</td>
<td>10</td>
</tr>
<tr>
<td>Peer initiated conversation</td>
<td>6</td>
</tr>
</tbody>
</table>

After determining the antecedents for the target behaviour, these were placed in a
hierarchy of importance based on their potential to trigger the behaviour across observed
contexts and tasks. The most prevalent antecedent was the requirement that the participant
engage in independent work. On these occasions, he was observed to engage in a variety of
behaviours that accomplished the contrary: not engage in his work. It was hypothesized
that this form of off task behaviour was an attempt to avoid or escape the assignment. It
was also hypothesized that off task behaviour during teacher direction might have caused
the participant to not have a full understanding of the content required to complete the task.

4.9.7.3 Observed consequences for the target behaviour.

The primary consequence which followed the target behaviour was “no response”
with 24 of the 45 instance of behaviour producing no discernible reaction from teachers or
peers. The target behaviour assisted the participant in gaining access to peer attention (i.e.,
responded with a laugh or a comment) on twelve occasions and teacher attention (i.e.,
redirection) on a further nine occasions during the observation period (see: Table 4.41 on summary of consequences for participant 09).

Table 4.41. Summary of consequences for participant 09

<table>
<thead>
<tr>
<th>Consequence</th>
<th>Number of instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>24</td>
</tr>
<tr>
<td>Gaining peer attention</td>
<td>12</td>
</tr>
<tr>
<td>Gaining teacher attention</td>
<td>9</td>
</tr>
</tbody>
</table>

After determining the consequences for the target behaviour, these were placed in a hierarchy of importance based on their potential to reinforce the behaviour across observed contexts and tasks. On these occasions, his being off task was met with a reaction from the individual to whom the comment was directed. It was hypothesized that off task behaviour was used to escape or avoid academic tasks. On occasions where he gains peer and/or teacher attention, it was hypothesized that his off task behaviour was a form of obtaining attention.

4.9.7.4 Functions for the target behaviour.

Examination of data obtained via direct observation indicated that the target behaviour served the function of avoiding academic tasks. This was supported by the finding that, off task behaviour occurred frequently during independent or group work and was often met with no response. It was hypothesized that each time the participant successfully engaged in off task behaviour with no response, he was negatively reinforced with removal academic demand. The same function of avoidance of work match occasions
that elicited peer and teacher attention, they were positively reinforced with social interactions and negatively reinforced with removal of academic demand.

4.9.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 09 himself.

4.9.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that all three informants rated ADHD and Disruptive Behaviour Disorders at a high levels of concern on their respective scales, with the father and teacher both indicating very elevated scores on both scales. All three informants also rated the Conners CI Anxiety Disorder index items in a low area of concern, with the father and teacher both indicating elevated scores and the participant indicating an average score, which suggested that they agreed these were not of particular concern. The father and teacher rated the statements “leaves seat when he should stay seated” and “actively refuses to do what adults tell him to do” with frequency ratings of “very much true” on their respective scales. All three respondents rated statements on worrying and bullying as “not true at all,” suggesting these are not areas of concern for the participant.

The QABF data indicated that the top three possible function labels for being off task were “escape,” “non-social” and “attention.” Data therefore also indicated that “tangible” and “physical” outcomes were less likely to be the function of off task behaviour for the participant. All informants provided high frequency ratings for the
statements when the suggested function was “to escape work or learning situations,” “when asked to do something” and “when he does not want to do something,” endorsing the category for “escape.” They also provided high frequency ratings for the statements that suggested the behaviour functions “as a form of refocus when bored,” “in a highly repetitive manner, ignoring his surroundings” and “he seems to enjoy the behaviour, even if no one is around,” endorsing the “non-social” category.

All three informants were required to respond to the same questions during the Functional Assessment interviews. They agreed that the participant engaged in a variety of off task behaviours, with no particular patterns. They also all reported that he engaged in the behaviour during times when other tasks were required, and each identified functions of avoidance or escape from academic demands and gaining attention from peers.

**4.9.8.2 Areas of disagreement between respondents across assessment methods.**

Overall ratings on the Conners CI showed slight variation regarding the frequency with which individualised items reportedly occurred; the participant typically ranked items with descriptors “just a little true” and “pretty much true,” never rating anything “very much true” which were frequent descriptors on the father and teacher’s forms. The biggest discrepancy was in the category of Learning and Language Disorder, which the participant ranked as the highest level of concern and the parent ranked the lowest. Data from the QABF showed little variation in the ranking of possible functions of behaviour between informants, with the only difference that the participant ranked “non-social” outcomes above “escape” rather than the reverse order identified by the father and teacher.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited slightly different responses from the three informants
depending on their own perception of the situation. The father was the only informant to discuss that off-task behaviour was displayed outside the school environment, stating that chores and job opportunities were also delayed or ignored. The teacher was the only informant to discuss long-term consequences of declining grades and failing classes, which may interfere with the participant’s eligibility for graduation in the future. The participant brought a new perspective to the interview, and was the only information to elaborate on the social outcomes of off-task behaviour. He described that he wanted to elicit laughter from others in an attempt to lighten the atmosphere, not necessarily draw attention to himself. He also described that, on occasions where he spoke to friends (in person during class, in person while skipping class or using a mobile phone during or outside of class), he was often making plans for later, a desirable outcome for his behaviour which was not indicated during interviews with other individuals.

4.9.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was highly informative, and represents a perspective that cannot be duplicated through reports by the parent and teacher. Participant 09’s responses to the rating scales confirmed reports from the father and teacher regarding which areas were of highest concern. He did show a priority for concerns with Learning and Language Disorder on the Conners CI-SR, which was not a priority indicated by others. The participant’s perception of his academic abilities might have contributed to his wanting to escape academic demands if he perceived this as his greatest area of weakness. The participant was the only informant to discuss that beyond the avoidance of academic demand such as research and writing, he was engaging in off-task behaviour to make others laugh. He specifically indicated that this
was not an attention gaining mechanism for him, as the father and teacher presumed, rather he described that people did not look happy and he wanted to do something that would make them laugh. The participant was the only individual who contributed this aspect of valued outcomes of off task behaviour. Information gained from the participant’s point of view was valuable in understanding his motivation to engage in the target behaviour. The Functional Assessment data would be considered incomplete without information gained from the participant’s perspective.

4.10 Experiment 10 (Participant 10)

Participant 10 was a boy age 15 years 4 months who attended grade 9 in a high school. He was referred to the researcher for Functional Assessment by a teacher due to long-term and pervasive behavioural difficulties (e.g., arriving to school late, leaving early and skipping an excessive amount of classes and school days) which were reported to disrupt the participant’s academic achievement.

4.10.1 Standardised testing to establish eligibility for inclusion of participant 10.

The findings obtained from the standardised testing undertaken to establish eligibility for inclusion in the study are presented below (see: Table 4.42 for PPVT-IV and SIT-R test scores).

4.10.1.1 Summary of PPVT-IV testing results.

Participant 10 earned a standard score of 91 and a percentile rank score of 27 on the PPVT-IV (see: Table 4.42 on standardised test scores for participant 10). This standard score falls within the Low Average range of performance and indicates age appropriate
development of receptive vocabulary skills. It was concluded, on the basis of the PPVT-IV scores, that this participant fulfilled the condition set out by criterion 1.

**4.10.1.2 Summary of SIT-R testing results.**

Participant 10 earned a Total Standard Score (TSS) of 85 and a percentile rank score of 18 on the SIT-R (see: Table 4.42 on standardised test scores for participant 10). This TSS falls within the Below Average range of performance and indicates age appropriate development of cognitive ability. It was concluded, on the basis of the SIT-R scores, that this participant fulfilled the condition set out by criterion 2.

Table 4.42. Standardised test scores for participant 10

<table>
<thead>
<tr>
<th>Standardised test</th>
<th>Standard score</th>
<th>Percentile rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPVT-IV</td>
<td>91</td>
<td>27</td>
</tr>
<tr>
<td>SIT-R</td>
<td>85</td>
<td>18</td>
</tr>
</tbody>
</table>

**4.10.2 Data from the initial semi-structured interview.**

This semi-structured interview was administered to the mother and English teacher of participant 10. The mother was the biological parent of the participant and responded to queries pertaining to her child’s behaviour from a lifespan perspective. The teacher taught participant 10 for approximately eight months and had minimal knowledge of his patterns of behaviour prior to having him in her class. This second respondent provided information on her observations of the participant’s behaviour in the classroom and during break times.
4.10.2.1 Summary of parent responses to the semi-structured interview.

The mother of participant 10 was invited to discuss the behaviours which caused her concern about her child. She reported that she did not perceive his behaviour in the home environment to be disruptive or challenging, however the participant frequently displayed challenging behaviour outside the home and at school. The mother reported the participant frequently skipped classes and full days of school. Despite threats of receiving failing grades due to poor attendance, the mother reported participant 10 continued this behaviour undaunted.

The mother reported that the behaviour causing the most disruption was skipping classes, which the participant recounted as arriving at school later than the required time to avoid his name being placed on the list of absent students, which provided him the opportunity to choose which classes to attend without being acknowledged for disciplinary action. The mother reported the participant felt proud of “beating the system” because the school was seemingly unaware of which classes he skipped. She described his behaviour when he skipped school to included walking out the front door of the school with his peers and engaging in social activities for the remainder of the day.

4.10.2.2 Summary of teacher responses to the semi-structured interview.

The teacher reported occasions where the participant displayed the avoidant behaviour due to negative moods upon entering the classroom. These behaviours reportedly included listening to music and browsing the internet rather than engaging in academic tasks on the computer. She stated that the participant ignored verbal directions and prompts to acknowledge school rules and procedures, with simple requests (e.g. take off your hat) met with physical and verbal refusal. The teacher reported awareness of the
participant’s reputation of skipping classes throughout the school year however he did not often skip her class. Toward the end of the academic year, the participant’s intentional skipping of classes was exacerbated by two weeks of missed school due to illness followed by a 10 day suspension for property damage at school. At that time, the teacher reported the participant lost interest in engaging in all academic tasks, and no longer attended classes of any kind.

4.10.3 Standardised testing for presence of behaviour problems for participant 10.

4.10.3.1 Summary of Conners CI-P testing results.

The mother of participant 10 completed the Conners CI-P in relation to problem behaviour exhibited in the home environment. The participant earned very elevated scores for the ADHD (i.e., T score = 83) and Learning and Language Disorder (i.e., T score = 78) indicators of the Conners CI-P. Both scores indicated that a significant problem existed in these areas of functioning. An elevated T score for the Anxiety Disorder indicator (i.e., T score = 63) suggested a significant problem in functioning. Scores on the Mood Disorder indicator (i.e., T score = 58) and Disruptive Behaviour Disorder indicator (i.e., T score = 54) fell within the average range and indicated typical levels of concern in the participant’s responses for these areas (see: Table 4.43 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

4.10.3.2 Summary of Conners CI-T testing results.

The English teacher of participant 10 completed the Conners CI-T in relation to problem behaviour exhibited in the school environment. The participant earned very elevated scores on all indicators: Mood Disorder (i.e., T score ≥ 90), Anxiety Disorder
(i.e., T score ≥ 90), Disruptive Behaviour Disorder (i.e., T score = 81), Learning and Language Disorder (i.e., T score = 79) and ADHD (i.e., T score = 76). All scores indicated that a significant problem existed in these areas of functioning (see: Table 4.43 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

### 4.10.3.3 Summary of Conners CI-SR testing results.

Participant 10 provided self-reports of behavioural difficulty by completing the Conners CI-SR in relation to his own behaviour across the home and school environments. The self-assessment revealed very elevated scores for all indicators: Learning and Language Disorder (i.e., T score ≥ 90), ADHD (i.e., T score ≥ 90), Disruptive Behaviour Disorder (i.e., T score = 82), Mood Disorder (i.e., T score = 80) and Anxiety Disorder (i.e., T score = 76). All scores indicated that a significant problem existed in these areas of functioning (see: Table 4.43 on TSS scores for the Conners CI-P, Conners CI-T and Conners CI-SR).

<table>
<thead>
<tr>
<th>Conners test</th>
<th>DBD&lt;sup&gt;a&lt;/sup&gt;</th>
<th>LLD&lt;sup&gt;b&lt;/sup&gt;</th>
<th>MD&lt;sup&gt;c&lt;/sup&gt;</th>
<th>AD&lt;sup&gt;d&lt;/sup&gt;</th>
<th>ADHD&lt;sup&gt;e&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conners CI-P</td>
<td>54</td>
<td>78</td>
<td>58</td>
<td>63</td>
<td>83</td>
</tr>
<tr>
<td>Conners CI-T</td>
<td>81</td>
<td>79</td>
<td>≥ 90</td>
<td>≥ 90</td>
<td>76</td>
</tr>
<tr>
<td>Conners CI-SR</td>
<td>82</td>
<td>≥ 90</td>
<td>80</td>
<td>76</td>
<td>≥ 90</td>
</tr>
</tbody>
</table>

<sup>a</sup>Disruptive Behaviour Disorder indicator.

<sup>b</sup>Learning and Language Disorder indicator.

<sup>c</sup>Mood Disorder indicator.

<sup>d</sup>Anxiety Disorder indicator.

<sup>e</sup>Attention Deficit Hyperactivity Disorder indicator.

### 4.10.4 Identification of target behaviour for Functional Assessment.

The data collected via semi-structured interview with caregivers (i.e., mother and teacher) and administration of the three Conners rating scales were inspected in order to
decide upon one target behaviour to be submitted to in-depth Functional Assessment. It was decided that the behaviour of “intentional non-attendance of a class/classes without the knowledge of his mother or school officials” would become the target for further assessment. While results of semi-structured interviews indicated instances of severe behaviour dealing with drug and alcohol use and property destruction, discussions with both caregivers suggested that skipping class was a frequent behaviour that required attention and was thus worthy of further investigation. The Conners CI results showed that all three respondents reported high levels of difficulty in the area of attention deficit. This finding supported the decision to refocus further investigations away from low-frequency high-intensity behaviours which went generally unobserved by caregivers and focus on behaviours which appeared to be more significant to understanding the participant’s daily experiences and reactions.

4.10.5 Summary of findings from the QABF.

The QABF was incorporated in the Functional Assessment in order to determine the functions served by the target behaviour of “intentional non-attendance of a class/classes without the knowledge of his mother or school officials.” It is relevant to reiterate that the QABF lists five one-word labels describing common functions for problem behaviour (i.e., attention, escape, non-social, physical and tangible). The administration of the QABF was used as a basis for determining relevant functions and placing these in a hierarchy of importance, which was the subject of further investigation during the in-depth interview. This interview-based questionnaire was completed by the mother, English teacher, and participant.
4.10.5.1 Summary of parent responses to the QABF.

Scores calculated on the basis of parent reports indicated that high-ranking functions were predominantly “non-social” (total score = 10) and “tangible” (total score = 5). Lower ranking options for possible functions included “attention” (total score = 3), “escape” (total score = 3) and “physical” (total score = 3). These data suggested that, from the mother’s perspective, the target behaviour was most likely to assist the participant in gaining access to “non-social” or “tangible” outcomes.

4.10.5.2 Summary of teacher responses to the QABF.

Scores calculated on the basis of teacher reports indicated that high-ranking functions were predominantly “non-social” (total score = 10) and “escape” (total score = 9). Lower rankings were given to “tangible” (total score = 7), “attention” (total score = 5) and “physical” (total score = 2) as possible functions. These data suggest that, from the teacher’s perspective, the target behaviour was most likely to assist the participant in accessing “non-social” or “escape” outcomes.

4.10.5.3 Summary of participant responses to the QABF.

Scores calculated on the basis of participant self-assessment reports indicated that high ranking functions were predominately “non-social” (total score = 11) and “escape” (total score = 8). A lower ranking option for possible function was “physical” (total score = 3). Items associated with the remaining function labels of “attention” and “tangible” were unendorsed by the participant. These data suggested that, from the participant’s perspective, the target behaviour was most likely to assist him in gaining access to “non-social” or “escape” outcomes.
4.10.6 Data from individualised Functional Assessment (FA) interview.

This in-depth interview which investigated the target behaviour itself (i.e., measurement of occurrence) and its maintaining conditions (i.e., setting events, antecedents, functions, and valued outcomes) was administered to participant 10 and his caregivers (i.e., mother and teacher). Interview data were analysed to determine the reasons for the target behaviour and key findings are summarised below.

4.10.6.1 Summary of parent responses to the individualised FA interview.

The mother reported that participant 10 began skipping classes in high school (i.e., seven months ago). She reported that he consistently skipped study skills, physical education, and study hall. The mother also reported the behaviour he engaged in while skipping classes included social interaction with peers. She reported unknown frequency of the participant skipping classes, however she described that the pattern was sporadic and without pattern.

In discussing the major antecedents to the target behaviour, the mother of participant 10 reported that his older brother leaving school (on an approved modified schedule) triggered the participant to skip the remainder of his own classes. She described more immediate antecedents to skipping classes were spontaneous instances of peer interactions resulting in the decision to leave together.

In discussing the major consequences to the target behaviour, the mother reported frequent immediate consequences to the participant skipping class included the participant engaging in social activities with peers (e.g. playing video games, playing pool and eating). She reported that delayed consequences included punishment (i.e., detentions) and calls home, following which she reported engaging in conversations with the participant
regarding his behaviour. The mother reported initiating several alterations to the
participant’s schedule in attempt to alter the behaviour. Details of these changes were
relevant in the pattern of establishing consequences to the behaviour. High school
graduation requirements stipulated four years of passing grades in PE, however due to the
prediction that skipping classes potentially jeopardized the participant’s eligibility for
graduation, the mother requested a letter detailing the level of swim training he received
outside school to exempt him from this requirement. At that time, the participant was
rescheduled to exclude PE and include study hall, which he had not attended to date. The
mother reported the participant frequently skipped the first class of the day and was unable
to keep up with the academic demand and was therefore moved to a lower level course
with less vigorous academic demands.

In reviewing the mother’s responses to this more in-depth interview, the major
function for skipping class was identified as “escape from the challenges associated with
academic requirements in the school environment” and this supported the “escape”
function label previously identified via parent completion of the QABF. Through in-depth
interview, the mother’s responses indicated a further possible function was “gaining access
to a preferred social activity while simultaneously escaping previously mentioned
academic demands.” In reviewing the specific valued outcomes associated with escape
and access to preferred activities, it was hypothesised that the target behaviour assisted the
participant to: escape academic demands with which the participant lacks understanding
due to non-attendance and escape from interactions with adults discussing his skipping
behaviour on a frequent basis while simultaneously engaging in behaviours that were more
desirable, such as peer social interaction. The analysis of data generated from the in-depth
interview confirmed the significance of the “escape” and “access to preferred activity” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. In considering the range of adverse (from the participant’s perspective) events the participant succeeded in escaping by skipping school, it is highly probable that this behaviour has become an effective coping tool relevant to day-to-day life.

4.10.6.2 Summary of teacher responses to the individualised FA interview.

The teacher had reported that participant 10 often skipped classes but rarely skipped her class (i.e., English) due to the academic nature of the class matching the participant’s ability level and interest. She reported that skipping classes has been a problem for his entire ninth grade year (i.e., eight months), stating that he skipped classes frequently in the first quarter, less in the second quarter, frequently in the third quarter, and spent most of fourth quarter on homebound instruction due to illness. The teacher described the contexts in which he skipped classes, indicating that the participant skipped English only four or five times in the year, but he skipped non-academic classes much more frequently, some on a daily basis.

In discussing the major antecedents to the target behaviour, the teacher reported siblings and peers departing school early triggered skipping classes because he left campus with them. The teacher reported that recently the participant was informed that his performance in classes paired with frequent absences required him to retake the several courses the following year, an announcement that triggered the participant to skip those classes daily.
In discussing the major consequences to the target behaviour, the teacher reported a common result of skipping class was social interaction with peers providing immediate gratification for his actions. She defined the delayed consequences of skipping classes were punishments, such as detentions, suspensions and a loss of credit requiring the need to retake particular courses.

In reviewing the teacher’s responses to this more in-depth interview, the major functions for skipping classes were identified as “access to a preferred activity which includes social interactions with peers rather than engagement in unfulfilling class obligations” and this was somewhat supported by the “escape” function label previously identified via teacher completion of the QABF. In reviewing the specific valued outcomes associated with access to a preferred activity, keeping the function label of escape in mind, it was hypothesised that the target behaviour assisted the participant to: escape the demand of school, particularly for non-academic classes, while gaining access to preferred activities of hanging out in social situations at a friend’s house. The analysis of data generated from the in-depth interview confirmed the significance of the “access to a preferred activity” and “escape” functions for the target behaviour but, more importantly, elaborated on the specific outcomes thought to reinforce this behaviour in more precise terms. The participant has been successful in escaping a variety of school demands while simultaneously gaining access to friends and social interactions by skipping classes, therefore it has likely become a dominant behaviour used to deal with the further demands of the school environment.
4.10.6.3 Summary of participant responses to the individualised FA interview.

This Functional Assessment interview comprised the first entry-point in the data-collection process for participant 10 (the Conners CI-SR was completed by the participant subsequent to this interview). He was invited to discuss the target behaviour and any possible maintaining variables for that behaviour purely from his perspective. When asked to provide a form description of the target behaviour, the participant stated that he skipped individual classes or entire days of school, a pattern which only began upon his entering high school. He also described that he had a pattern of hating school for several years, which only recently manifested in skipping classes. This reported hatred stemmed from the perception that school was “boring” and overly focused on rules with which he perceived as irrelevant (i.e., no hats and no headphones). Participant 10 reported that he skipped “nonsense classes” (i.e., study skills, study hall and lunch) and the first and last three classes of the day. The participant reported the frequencies at which he skipped various classes averaged two to three times per week, with the exception of eighth period study hall which he skipped daily, stating his belief that the teacher was unaware he was scheduled to attend the class, reinforced by never receiving consequences for non-attendance.

In discussing the major antecedents to the target behaviour, the participant identified the atmosphere of peers being off task instigated feelings of frustration which inevitably caused him to skip both classes later in the day and that specific class the following day. The participant described feelings of anxiety associated with dwelling on thoughts of boredom in classes triggered him to skip classes. He reported harbouring a
desire to be present for tests and important academic assignments, and the anticipation of unimportant (from his point of view) classes triggered skipping.

In discussing the major consequences to the target behaviour, the participant identified that desired social interactions with peers was an immediate result of skipping. He described specific activities in which the group of peers engaged included playing video games, sleeping, sitting around, eating and shopping. Punitive consequences he reported were receiving cut slips, which were often “pushed aside” by administration, providing the participant with feelings of “taking advantage of the system.” He also described reinforcement associated with pleasure from breaking the rules, which he perceived as positive in the eyes of his family by describing stories from his father about skipping school and having parties. The participant acknowledged the delayed consequence of losing credit for the school year and being required to repeat the ninth grade.

In reviewing the participant’s responses to this more in-depth interview, the major function for skipping classes was identified as “gaining access to preferred activities that included social interactions with peers rather than engaging in aversive (from the participant’s perspective) tasks in the rule-based school environment” and this somewhat supported the “escape” function label previously identified by the participant during completion of the QABF. In reviewing the specific valued outcomes associated with access to a preferred activity with an emphasis on escape, it was hypothesised that the target behaviour assisted the participant to: escape the non-stimulating school activities and escape the feelings of dread associated with upcoming classes in which the participant had previous negative perceptions. Valued outcomes associated with the preferred tasks
include the participant choosing to engage in social activities with peers that he perceived as more desirable than the events he wished to escape. The participant’s exposure to these adverse events paired with success in escaping and engaging in preferred activities via skipping class yields a high probability that this behaviour has been an effective coping mechanism for daily life in the school environment. The function of gaining access to preferred activities paired with escape was also identified by the mother and teacher, including the participant’s specific values regarding academic demands and social activities. The knowledge of internal valued outcomes with an emphasis on emotion was not identified by either the parent or teacher.

4.10.7 Summary of findings from three direct observation sessions involving participant 10.

Direct observations were conducted in the classroom environment within the typical routine of day-to-day activities to which participant 10 was normally exposed. The observational and data-collection procedures adopted in this instance were identical to those used with participant 01.

Observation 3 took place in the morning during an English class with six students; four student (including the participant) sitting at a back table with the teacher discussing background of a required reading and two students sitting at computers doing independent work. Observation 4 occurred in the morning during an English class with four students (including the participant) working independently on a computer directed reading program and two students in desks taking a written test. Observation 5 was conducted in the afternoon during a Study Skills class. Sixteen students sat in desks in evenly spaced rows around the classroom and worked independently on various assignments. The teacher
called them up for individual conferences throughout the class and provided assistance on assignments as needed (see: Table 4.44 on description of direct observation contexts). For each observation, the student researcher remained unobtrusive in the environment and was in a location outside the participant’s line of vision.

Table 4.44. Description of direct observation contexts

<table>
<thead>
<tr>
<th>Observation</th>
<th>Social context</th>
<th>Task</th>
<th>Number of students</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>English class</td>
<td>Group discussion</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>English class</td>
<td>Computer reading program</td>
<td>6</td>
</tr>
<tr>
<td>5</td>
<td>Study skills class</td>
<td>Individual assignments</td>
<td>16</td>
</tr>
</tbody>
</table>

4.10.7.1 Frequency of the target behaviour.

Instances of skipping class were not able to be observed due to the nature of the behaviour: observations were conducted in school and “skipping classes” indicated that the participant was not in class to observe at that time. The researcher did experience several unsuccessful attempts to observe the target behaviour in the classroom due to the participant skipping the class intended for observation.

4.10.7.2 Observed antecedents for the target behaviour.

Could not be performed.

4.10.7.3 Observed consequences for the target behaviour.

Could not be performed.

4.10.7.4 Functions for the target behaviour.

Could not be performed.
4.10.8 Comparison of data trends across assessment methods.

The data gathered from all five phases of the assessment process are compared below in order to determine areas of agreement versus disagreement between the three respondents and, most importantly, the particular contributions made by participant 10 himself.

4.10.8.1 Areas of agreement between respondents across assessment methods.

The Conners CI data indicated that two of the three informants (i.e., teacher and participant) provided very elevated ratings for all five areas, indicating all were concerning for the participant. The mother agreed that ADHD and Learning and Language were of high concern, reflected in her too ranking them with very elevated scores. All informants provided the highest frequency rating for statements regarding the participant struggling with concentration and organization on their respective scales. Results of the QABF indicated that all respondents ranked “non-social” outcomes the highest, all endorsing it with a total score of 10 or 11. All respondents reported frequent descriptors for statements describing the participant skipping “as a form of refocus when bored,” “because there is nothing else to do,” “in a highly repetitive manner ignoring his surroundings” and “he seems to enjoy the behaviour, even if no one is around.” The teacher and participant also showed agreement that “escape” was a possible function by ranking second with total scores of nine and eight. Each respondent agreed to the statement that the participant sometimes or often “seemed to be saying ‘leave me alone’ or ‘stop asking me to do this’” by skipping classes.

All three informants were required to respond to the same questions during the Functional Assessment interviews. They agreed that the participant began skipping classes
during the current year (i.e., his first year in high school). The mother and teacher agreed that an antecedent to skipping was his brother leaving school for the day (on an approved modified schedule) and a mutual decision among peers to skip class. All individuals described consequences involving the participant engaging in a variety of social activities with friends which he perceived as enjoyable. Similarly, all individuals acknowledged an escape of academic demands paired with consequences of detentions, suspensions and a possible loss of credit for the academic year.

### 4.10.8.2 Areas of disagreement between respondents across assessment methods.

Overall ratings on the Conners CI showed some variation regarding the frequency with which individualised items reportedly occurred. While the teacher and participant both provided very elevated scores in all areas, the teacher identified Mood and Anxiety at the highest rating possible, however the participant ranked them lowest on his respective scale. Similarly, the participant identified Learning and Language Disorder and ADHD indicators had the highest possible rating, which were ranked the lowest on the teacher’s scale. The mother placed Mood and Disruptive Behaviour Disorder indicators in the average level of concern suggesting she did not see a problem in these areas. Very little variation occurred on the outcomes of the QABF forms, however the mother rated “tangible” outcomes high while the participant left all statement concerning “tangible” outcomes unendorsed. Slight variations existed in the area of “attention” with the participant again leaving all statements relating to this unendorsed and the mother and teacher ranked it in the middle.

The Functional Assessment interviews, despite being identical in content and presentation format, elicited somewhat different responses from the three informants
depending on their own perceptions. The mother focused on the content of the classes that the participant skipped; the teacher focused on the times of day the participant skipped; and the participant focused on the classes where he described feeling frustrated by students or boredom in the class. These lead to different interpretations of valued outcomes even though similar functions of escape and preferred activities were identified in all cases. The mother believed the participant was escaping academic demands in the classes. The teacher believed he escaped academic activities at certain times relative to when his friends were available to leave school. The participant was the only one to discuss his emotions regarding the classes he skipped, stating he had a history of disliking school in general, and if he was dwelling on feelings of dread and boredom, he felt relief when he decided to skip class, escaping those feelings. Each informant provided a different view necessary to understanding the variables that reinforced the participant’s skipping class behaviour.

4.10.8.3 Participant’s contribution to Functional Assessment.

Information reported by the participant on his own behaviour was highly informative, and represents a perspective that cannot be duplicated through reports by the parent and teacher. Participant 10 provided information on the Conners CI rating scale that listed Learning and Language in the highest level of concern, indicating his perception of his academic ability was that he struggled, which could contribute to reasons he did not want to be in class. Information from the QABF suggested that, from the participant’s point of view, he did not skip classes to gain attention from anyone or gain access to tangible items, which were both listed as possible functions by the parent and teacher. This suggested that these areas were not a priority, and he had other reasons for not attending classes. During the Functional Assessment interview, the participant detailed
information on his thoughts and feelings that the researcher would not have had access to
by simply interviewing the mother and teacher. He was the only informant to identify that
he liked classes that provided academic demand, and that it was the students in the class
who frustrated him by not engaging in these activities. He described that the constant
redirections aimed at the other students disrupted the class and halted academic momentum
so that he was bored and was unable to continue work. He also described that basic school
rules were too harsh, and that it should be recognized that his general behaviour was
usually acceptable and he believed he should not be subjected to punishment because he
was wearing a hat or listening to music. All of these thoughts and feelings contributed to
the participant not wanting to be in school, and he also described that he gained a sense of
control by skipping classes and the school not providing any immediate repercussions. All
of the information gained from the participant’s point of view was valuable in
understanding what he was thinking and feeling in situations where he skipped classes,
where caregivers could only provide details about the supposed interactions that
surrounded skipping. The Functional Assessment data would be considered incomplete
without information gained from the participant’s perspective.
Chapter 5:

Results and Integrative Discussion of 10 Case Studies

This chapter presents a summary of group trends based on a comparison of data presented on a case by case basis in Chapter 4 of this thesis. This comparative analysis focuses on the question of whether including participants as informants during the Functional Assessment of their own behaviour contributed relevant details (on target behaviour and its maintaining variables) which would have remained unidentified if the assessment relied exclusively on caregiver-generated information as is the case with traditional Functional Assessment protocols. It was anticipated that this comparison would help elucidate the specific sources of information which assisted in understanding the reasons for problem behaviour and which were obtained exclusively via reports from the participants themselves. As previously reported in Chapter 3 (pages 31 – 55) of this thesis the methods used to collect data from participants and their caregivers (i.e., parent and teacher) included administration of: an in-depth Functional Assessment interview and self-report rating scales (i.e., Conners CI-P, Conners CI-T, Conners CI-SR and QABF). Data were also collected via observation of student behaviour in the classroom. This data-collection method provided samples of current participant behaviour and was therefore deemed to constitute a student-generated data source.

5.1 Participant-Generated Data Obtained via Rating Scale Completion

5.1.1 Participant-generated Connors CI findings.

The Connors CI was administered to identify the general behaviour problems which posed a concern (i.e., considered to cause significance disturbance to functioning) to
caregivers and the participant himself. The group review of participant rankings of the behaviour problem in relation to severity indicated that five participants identified areas of concern that varied to those identified by their caregivers (i.e., parent and teacher). Six participants matched either their parent or teacher in endorsing the same class of behaviour problem as the top priority, while one participant agreed with both caregivers in his ranking of the most concerning behaviour problem (see: Table 5.1 for similarities in area of concern on the Conners CI). Inspection of the Connors CI data shows that participant-caregiver agreement was at its maximum for the overt behaviours listed in the Disruptive Behaviour Disorder Index. Agreement between participants and one caregiver (i.e., either parent or teacher) occurred during endorsement of the overt behaviours belonging to the Connors CI categories of ADHD (i.e., 1 instance) and Disruptive Behaviour Disorder (2) and internal categories of Anxiety Disorder (3) and Mood Disorder (2). Interestingly, the instances in which participants ranked highly an additional class of behaviour problem were exclusively associated with the covert (and not readily observable) behaviours listed under the Connors CI categories of Learning and Language Disorder (4) and Anxiety Disorder (1).

Table 5.1. Similarities in area of concern on the Conners CI

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant identified new top ranked area of concern</td>
<td>5*</td>
</tr>
<tr>
<td>Participant’s top ranked area of concern matches parent or teacher</td>
<td>6*</td>
</tr>
<tr>
<td>Participant’s top ranked area of concern matches parent and teacher</td>
<td>1</td>
</tr>
</tbody>
</table>

*In one case, the participant ranked multiple with the top ranking T-score
5.1.2 Participant-generated QABF findings.

The QABF was administered to identify those function labels considered to be significant to describing the purpose of the particular target behaviours exhibited by the participants. The group review of participant rankings of possible functions for their target behaviour revealed that nine of the 10 participants ranked only one function (of a total of five function labels) as being relevant to their behaviour while, one participant reported that two function labels were significant to understanding the purpose of his behaviour. In addressing the question of whether participants varied in their report of function labels it was found that four participants identified new functions that were not reported to be significant by either their parent or teacher. Four participants reported on function labels that matched those endorsed as being significant by either their parent or teacher. Two participants identified a function label that corresponded with both their parent and teacher (see: Table 5.2 for similarities in function on the QABF). Inspection of the QABF data shows that participant-caregiver agreement was at its maximum for the function label “non-social” (2), agreement between participants and one caregiver (i.e., either parent or teacher) occurred during endorsement of the function labels “non-social” (2) and “escape” (2) and instances in which participants ranked highly an additional function label included “non-social” (3), “physical” (1) and “tangible” (1). The commonalities among participants’ and caregivers’ identified function labels span across agreement and disagreement, creating no specific patterns for overt, covert, internal or external functions, indicating further investigation is required via valued outcomes analysis to identify the maintaining conditions of the behaviour from the participants’ perspective.
Table 5.2. Similarities in function on the QABF

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Number of cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant identified new top ranked function</td>
<td>4*</td>
</tr>
<tr>
<td>Participant’s top ranked function matches parent or teacher</td>
<td>4</td>
</tr>
<tr>
<td>Participant’s top ranked function matches parent and teacher</td>
<td>2</td>
</tr>
</tbody>
</table>

*In one case, the participant ranked two functions with the top score, both were not ranked the most likely function by the parent or teacher

5.2 Participant Perspective on Target Behavior

The initial identification of the target behaviors were defined using only information from the caregivers (i.e., parent and teacher) via semi-structured interview. The definitions were later discussed with the participants who agreed with and refined the ultimate behavioral definition.

5.3 Participant-Generated Data Obtained via Functional Assessment Interview

The Functional Assessment interview was administered to gather in-depth data to assist in understanding the reasons why participants engaged in their particular target behaviour. All participants completed the same interview which was administered to their caregivers and findings on key maintaining variables (i.e., antecedents, consequences, functions and valued outcomes) are discussed below.

5.3.1 Participant perspectives on antecedents.

The group review of participant responses to the valued outcomes analysis indicated that eight participants identified antecedent factors that varied to those identified by their caregivers (i.e., parent and teacher) *(see: Table 5.3 on page 263 for similarities in Functional Assessment interviews).*
Each participant provided unique details regarding their specific behaviours, however certain trends in identifying new antecedents were uncovered during analysis. Three participants confirmed reports from their parent and/or teacher and also refined these reports with new details. Participant 07 confirmed that he talked any time a thought entered his mind, however he added the description that he was more likely to speak his thoughts if he considered his comments to be humorous. Participant 08 confirmed that many class activities caused him to engage friends in conversation, however he provided the details that if the class activity did not require his eye contact or participation, he was likely to engage in off task behaviour. Participant 09 agreed that a variety of class activities caused him to be off task and added the detail that an antecedent to being off task was excessive noise from others within the classroom.

Three participants reported on entirely new antecedent factors that were not mentioned in parent or teacher interviews. Participant 01 described a person-based antecedent, a specific peer in his class whose behaviour of “showing off” caused him to feel annoyed and thus remain silent. Participant 04 identified a specific behavioural antecedent of discovering interesting comments or videos on specific internet websites which triggered immediate delay of obligations when he was exposed to them, as well as delaying future work because he referred to these comments or videos in later conversation. Participant 06 reported on several unique instances that served as antecedents to his angry outbursts. He identified situations hearing a peer speak negatively about him started a chain of frustration, which included dwelling on the comments, making it increasingly likely that an event could trigger an outburst. He also identified general disrespect of any person toward another caused his feelings of frustration. And finally, he
reported that disorder in the home caused these same feelings of frustration that lead to an outburst of anger.

Two participants reported on thoughts and emotions that acted as antecedents to their target behaviour. Participant 05 confirmed the reports of his parent and teacher that significant events acted as antecedents to increasing verbally off task behaviour, however, he was the only one to tie in emotion, stating that these were exciting events and they caused him to feel excited. While others simply refer to the existence of the event as an antecedent, the participant tied in his feelings regarding the events. Participant 10 reported that he found several classes to be boring, which was confirmed by the parent and teacher, however the participant elaborated, identifying a new antecedent of his dwelling on these thoughts of boredom causing him to harbor feelings of dread for the classes. The continued build up of dread was a significant factor preceding cutting a class.

The eight cases in which participants refined details of antecedents mentioned in other reports, provided new instances of antecedents that triggered behaviour or described thoughts and emotions that acted as antecedents to behaviour better allowed the assessor to define and refine the final function and valued outcomes to which interventions needed to be catered.

5.3.2 Participant perspectives on consequences.

The group review of participant responses to the valued outcomes analysis indicated that five participants identified consequences that varied to those identified by their caregivers (i.e., parent and teacher) (see: Table 5.3 on page 263 for similarities in Functional Assessment interviews).
Each participant provided unique details regarding his specific behaviours, however certain trends in identifying new consequences were uncovered during analysis. One participant confirmed reports from his parent and/or teacher and also refined these reports with new details. Participant 03 confirmed that peer voyeurism was a maintaining consequence of fighting behaviour, however he added the description that peers often provided behavioural support following minor displays of fighting behaviour by engaging in a collaborative chase after the a particular peer who instigated the initial conflict.

One participant reported an entirely new consequent factor that was not mentioned in parent or teacher interviews. Participant 04 confirmed several consequences of his talking behaviour, including verbal reprimands from his parents and removal from the classroom, however he added the consequent factor that peers redirected off task behaviour in the classroom in attempt to avoid their inclusion in teacher imposed punishment.

Three participants reported on thoughts and emotions that acted as consequences to their target behaviour. These participants confirmed reactive consequences of other individuals, however they were the only ones to report on personalized feelings following instances of the behavior. Participant 02 described a consequence to off topic speaking (in regards to answering a question with an answer that did not correspond to what was being asked) was a feeling of shock, indicating that he believed his thoughts were on topic and that his answer was correct. This was also paired with a mild feeling of disappointment that he was incorrect. Participants 06 described that, following an outburst of anger, he experienced mental fixation on the events that led to the outburst continuing into his state of calm. Participant 10 described feelings of happiness following instances of skipping classes stemming from a history of hearing his father recount stories of similar behaviour.
The five cases in which participants refined details of consequences mentioned in other reports, provided new instances of consequences that maintain behaviour or described thoughts and emotions that acted as consequences to behaviour better allowed the assessor to define and refine the final function and valued outcomes to which interventions needed to be catered.

5.3.3 Participant perspectives on functions and valued outcomes.

The group review of participant responses to the valued outcomes analysis indicated that seven participants identified valued outcomes associated with functions that varied to those identified by their caregivers (i.e., parent and teacher) (see: Table 5.3 on page 263 for similarities in Functional Assessment interviews).

Each participant provided unique functional definitions regarding their specific behaviours, however certain trends in identifying new valued outcomes were uncovered during analysis. Two participants confirmed the identification of a function label and the valued outcomes associated with the label as reported by their parent and/or teacher and also elaborated on the valued outcomes with additional details. Participant 03 elaborated on the valued outcomes that supported the function of attention which maintained the fighting behaviour. The teacher identified interactions with adults (i.e., calming him down or enforcing punishment) following instances of the fighting behaviour, however he did not acknowledge this attention as a possible function of value to the participant. Participant 06 identified that outbursts of anger served the function of escaping or avoiding something, which was also identified by the parent and teacher, however the participant
elaborated on internal valued outcomes with an emphasis on emotion (i.e., escaping negative thoughts and feelings associated with the antecedent that triggered the outburst), which was only briefly mentioned by caregivers.

Four participants reported on entirely new valued outcomes associated with the function label previously identified by the parent and/or teacher interviews. Participant 01 confirmed the general function of escape similar to those of avoidance identified by caregivers, however the caregivers’ focus was on avoiding social interactions associated with academic demands while the participant described his behaviour of remaining silent (when verbal expression was necessary) was maintained by escaping feelings of being scared (by loud noises) or annoyed (by specific peers). Participant 09 acknowledged the function label of attention that follows instances of off task behaviour as reported by the parent and teacher, however he described the value of the attention in a new way, suggesting that he was interested changing the overall affect of another person (i.e., making them laugh) while not specifically valuing that he was the reason for their change. Participant 10 confirmed the function label of escape previously identified by the parent and teacher, however the caregivers’ focus was on gaining access to preferred activities while escaping the demand of school. The participant’s focus was conversely focused on escape from negative thoughts and feelings associated with attending classes, and the behaviour of skipping school alleviated these feelings, a maintaining consequence not touched upon by caregivers.

Two participants identified new function labels that were not reported by parents and/or teachers and elaborated on new valued outcomes associated with that label. Participant 02 solely identified the internal value that happiness contributed to the
maintenance of talking in the form of answering questions without listening to the entire question, while caregivers focused on gaining attention from external entities. Participant 07 uniquely identified the internal valued outcome that engaging in conversation produced increasing feelings of happiness as compared to instances when he was not engaged in conversation, while caregivers focused on gaining social attention from peers and avoiding academic demand.

The seven cases in which participants refined details of functions and valued outcomes mentioned in other reports, identified new valued outcomes associated with previously identified functions or reported entirely new descriptions of functions and their value to the individual better allowed the assessor to understand the behaviour and its role for the eventual creation of behavioural interventions. Of the seven cases that contributed unique information regarding functions and valued outcomes, five participants described that the value of the behaviour included some form of thoughts, feelings or emotions which served as a major factor in understanding why the participant engages in their particular behaviour. These internal states were not identified by caregivers in any of the instances, and this provides a basis for inclusion of the individual as an informant in a complete Functional Assessment.

Table 5.3. Similarities in Functional Assessment interviews

<table>
<thead>
<tr>
<th>Content of Interview</th>
<th>Number of participants who identified new information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antecedent</td>
<td>8</td>
</tr>
<tr>
<td>Consequence</td>
<td>5</td>
</tr>
<tr>
<td>Function/Valued Outcomes</td>
<td>7</td>
</tr>
</tbody>
</table>
5.4 Importance of Including the Participant in the Functional Assessment Process

This study aimed to investigate two questions considered to be pertinent to the recommendation by Kern et. al. (1994) and Sugai, et. al. (1999) that students with age-appropriate language and comprehension skills be formally incorporated in the Functional Assessment processes used to investigate their behaviour problems. The first question addressed the issue of whether these students are capable of providing otherwise not available information on their own behaviour. The Connors CI findings discussed above suggest that five participants provided a high ranking for behaviour problems that were not endorsed by either of their caregivers. This trend remained the same for the QABF results in which four participants identified previously unreported (by caregivers) function labels to explain the purpose of their target behaviour. Two of the participants identified a unique class of behaviour and function label for both the Conners CI and the QABF (no trends between the two participants could be identified as a possible correlation for identifying information different from caregivers).

The findings from the Functional Assessment interview suggest that most participants reported on antecedent and/or consequent factors their caregivers had not mentioned during interview. In addition to this, seven participants offered functions and/or valued outcomes for their behaviour that were not evident to their caregivers. This new information was primarily focused on the internal changes which occurred after the target behaviour and assisted participants to cope with immediate demand (e.g., a required verbal interaction with an adult/peer or required engagement in school work requiring reading and/or writing). The second question explored student responses to two common data-collection methods (i.e., rating scale and interview) to determine if one or both of these
represented a viable basis for student-assisted assessment. Observations of all participants during the completion of rating scales and interviews indicated that they understood the requirements of assessment and felt comfortable in rating and discussing their behaviour with the researcher. High school aged participants exuded a familiarity with the topic of discussion (i.e., in response to being informed of the topic of our meeting, they smile, nod in agreement and drop eye contact), often stating that they have had past conversations about their behaviour with caregivers (i.e., parents and teachers). These participants reported previous discussions about the target behaviour were punitive in nature, and participants were open to answer interview questions in detail to attempt to explain “their side” of the story. Other observations indicated that one participant (participant 01) displayed the target behaviour (i.e., quiet when a verbal response is required) during the interview, providing the student researcher an opportunity to trial different responses to the target behaviour (e.g. waiting quietly for the participant to process the question and formulate an answer, repeating the question to refocus the participant, restating the question in a different way to provide clarification and changing the topic to something that the participant was more comfortable discussing) in order to elicit a new behaviour (i.e., a verbal response).
Chapter 6: General Discussion on Student-Assisted Functional Assessment

Behavioural researchers (Carr, et. al., 1997; Dunlap, et. al., 1993; Iwata, et. al., 1994; Northup, et. al., 2004) have been persistent in their recommendation that challenging behaviour must be submitted to Functional Assessment prior to implementation of interventions. The rationale for this approach centers on the idea that identifying the key functions of challenging behaviour will assist in the development of tailored interventions capable of creating meaningful and long-term changes in response patterns (Iwata, et. al., 1994, Kern, et. al., 1994). Advances have been made in the data-collection procedures adopted during a Functional Assessment with researchers agreeing that assessment should be multi-method (e.g., use of interviews, questionnaires and rating scales) and strive to incorporate data obtained from various informants capable of describing the challenging behaviour and the factors that might be driving it (O’Reilly, et. al., 1997; Neef & Iwata, 1994).

The issue of who should be considered an informant during a Functional Assessment of challenging behaviour has received increasing attention in the literature as the client groups targeted for such investigation have extended to include individuals with emotional or behavioural difficulties with no accompanying intellectual impairment or developmental disorder. Cowick & Storey (2000), Kinch, et. al. (2001) and Reed, et. al. (1997) have argued that the Functional Assessment for such non-disabled groups should incorporate the clients themselves in the assessment process because they are capable of discussing aspects of their behaviour that cannot be readily observed by caregivers. Despite this suggestion, these types of Student-Assisted Functional Assessments have
rarely appeared in the literature. Therefore the questions of how an individual might be incorporated in a Functional Assessment and how any data obtained from such an individual might or might not facilitate the assessment remain largely unanswered.

The current study aimed to explore three broad issues relevant to Student-Assisted Functional Assessment. The first aim explored the question of whether students with challenging behaviours were capable of reporting with accuracy and in detail on their own behaviour and its maintaining variables. The second aim explored the question of whether incorporating self-reports from students with challenging behaviour added anything to the assessment process that could not be obtained from caregiver informants. The third aim explored the question of whether conducting additional assessments focused on identifying more numerous and specific reasons for challenging behaviour that could lead to a greater understand of the specific behaviour.

6.1 Effects of Student Inclusion in the Data-Collection Process

The 10 participants of this study were involved in five phases of the Functional Assessment process (i.e., semi-structured interview and administration of Conners CI-P and Conners CI-T to caregivers, Functional Assessment interview and administration of the QABF with caregivers, five 30-minute observations of the participant in the school environment, administration of PPVT-IV and SIT-R to the participant and Functional Assessment interview and administration of the Conners CI-SR and QABF to the participant). The researcher treated the participants and their self-reports pertaining to their experiences, their behaviour and their own views as to why it occurred with equal importance to that which was given to the two caregiver informants who contributed to the assessment. All 10 participants responded to queries centred on their “challenging
behaviour” in an open manner and often provided information which corroborated and extended upon caregiver definitions of the target behaviour to be investigated. Once rapport had been established with the researcher, these participants readily involved themselves in all assessment procedures and were particularly communicative during the in-depth Functional Assessment interview. During this procedure, they were able to elaborate on internal and not readily observable aspects of their behaviour, its antecedents and especially its consequences which often involved some change in emotion. On occasion, a participant was able to refocus the understanding of his behaviour by explaining his internal experiences. This was the case for participant 7 who stated that engaging in talking behaviour increased his personal feelings of happiness, which was a maintaining factor of the behaviour to assist in changing his mood from negative to positive. The assessment procedures followed in this study represent an elaboration on the student-assisted assessment done by Kern, et. al., (1994) who administered a Student-Assisted Functional Assessment Interview to an 11 year old boy with behaviour problems. In this instance, the student was exposed to an assessment method that varied from that used with his teachers. This assessment process resulted in different data from the student which might be considered a positive but the detail of these data was poor and was of limited value in understanding the behaviour from the student’s perspective.

The current study’s findings on collecting information directly from students support O’Neill, et. al., 1997 in their argument that information from all informants in an assessment should be considered as relevant; this is especially the case with students with challenging behaviour who are capable of contributing new information (Reed, et. al., 1997), different information (Parsons & Reid, 1990) or contradictory information (Green,
et. al., 1988) during the Functional Assessment process. It is noted that, in the current study, the informants in the participant-parent-teacher triad sometimes varied in their reports on the target behaviour and the factors that influenced it but there were no obvious contradictions between informants. These variations, which were expected because the two caregiver informants were reporting on behaviour in different contexts (i.e., home versus school), were incorporated into the analysis of the challenging behaviour to develop a more detailed picture of the participants’ experiences and the demands they faced on a day-to-day basis.

6.2 Student Responses to Different Assessment Procedures

In the current study, students in early primary school provided most information when responding to the Connors CI-SR and this is possibly due to the guided nature of this task (i.e., requirement to rate an item rather than respond to an open question). The short time period necessary to rate their responses did not tax students or cause them to become fatigued. In contrast to this, the open-ended style of questioning during the in-depth Functional Assessment interview challenged students to develop spontaneous verbal responses and some of them found this difficult. Students in the latter years of primary school and middle and high school were able to produce more comprehensive and descriptive answers during the Functional Assessment interview. They responded openly, discussing the history of their behaviour and its current maintaining variables – particularly their thoughts, feelings and perceptions. Interestingly, the findings of this study showed high consistently between participant and caregiver reports on the behaviour and the factors that sustained it, indicating that students were dealing with the interview in an honest manner. The Functional Assessment interviews were highly beneficial to the
assessment processes and elicited information from students that was different and complementary to that reported by their caregivers.

6.3 Elaborating on the Functions of Challenging Behaviour

Traditional Functional Assessment models have been criticized because of their limited utility in identifying the full range of functions which might be served by difficult behaviour (Cowick & Storey, 2000; Lewis & Sugai, 1996). Further to this, Fyffe, et. al. (2004) and Wilder, et. al. (2007) argue that challenging behaviour does not necessarily serve a single function and interventions designed to address only one predominant function will most likely be partially or temporarily effective in changing behaviour. Five participants in the current study engaged in some form of inappropriate verbal interaction behaviour which resulted in them being off-task. However, the data-collection indicated that this behaviour occurred for different reasons in each case and each participant would have required an individualised intervention approach that met his particular needs. In this study the consequences to target behaviour were analysed to identify function labels (i.e., one- to two-word description on the purpose of behaviour) and valued outcomes (i.e., elaboration on the function label to explain how the behaviour impacted on the environment). In each case, it was the valued outcomes that assisted both the participant and his caregivers to begin to understand why the challenging behaviour had become a necessary coping tool. This finding supports the utility of more detailed and meticulous methods for collecting and analysing data during a Functional Assessment especially in instances when the client is of average intelligence and capable of verbal communication (Bitsika, 2006).
6.4 Clinical Implications

Findings from the current study can be considered in relation to previous research (e.g., O’Neill, et. al., 1997) on Student-Assisted Functional Assessment to provide recommendations for conducting assessments of challenging behaviour in the school environment. In this study, the semi-structured interview with at least two caregivers was useful in generating discussion on student functioning in general terms and educating caregivers on the data-collection methods to which they were to be exposed. This interview provided a useful basis for explaining the outcomes of the assessment and how these could lead to behavioural improvements for the student. The in-depth Functional Assessment interview was a crucial step in collecting data to be used for analysing and understanding the target behaviour. The participant and caregivers were able to provide comprehensive responses to queries about antecedents, consequences and functions during this interview. The timing for administering the rating scales in this study also appeared to be important. Caregivers completed scales after the semi-structured interview and this assisted in generating information during the subsequent interview. The rating scales also proved to be important in generating responses in younger participants and it is suggested that they be readily used with this group. This study supports the view that it is imperative to conduct direct observations of student behaviour as it naturally occurs in day-to-day routines (Aikman, et. al., 2003; Carr, et. al., 1997). These observations provided the researcher with direct exposure to the behaviour (and its maintaining variables) and allowed her to make hypotheses about its functions as other data were collected.
6.5 Limitations and Suggestions for Future Research

There were a number of limitations in the study which must be acknowledged as they would impact on the generalisability of findings to a wider population of students. The participant group was relatively small, consisting of 10 school-aged boys with average receptive vocabulary and cognitive ability and no diagnosed disability. Future research could be expanded by replicating the procedures used in this study with a greater number of participants with the same characteristics.

This study focused on the issue of whether students would be capable of participating in the formal data-collection process which occurs during a Functional Assessment. The accuracy of this self-reported information from students was not investigated via application of a functionally-based intervention derived from the data obtained during the assessment. Future research is necessary to determine if interventions are more effective and efficient at reducing the challenging behaviour with the new information gathered via a Student-Assisted Functional Assessment.

The findings of the current study suggests that, for five of the participants, internal factors associated with self-talk, thoughts and emotions contributed in substantial ways to their target behaviour. Future research could investigate the relative impact of such internal factors on challenging behaviour in comparison with more readily observable (by caregivers) external factors in the environment.

6.6 Conclusion

The current study suggests that the quantity and quality of data collected during a Functional Assessment can be enhanced by including the student with challenging behaviour in the assessment process. While this inclusion will increase the time spent
gathering information, its potential to uncover trends which cannot be reported on by
caregivers cannot be underestimated. Student-Assisted Functional Assessment can provide
teachers and school administrators with a sound basis for communicating to the student
that s/he is an expert on his/her own behaviour and not the “problem.” Further, this type of
assessment can convey the message that the student is in possession of valuable insights
that can assist positive behaviour change. The ultimate objective in working with students
should be their positive and active engagement in resolving their own difficulties. Student-
Assisted Functional Assessment could be one way to achieve this objective.
Appendix A

**Topic Areas for Interview Protocol**

The interview of parent, teacher, and student will be administered in relation to a semi-structured format to ensure that all three parties are provided with the opportunity to report on issues that are significant to their situation. Decisions on the topic areas and level of language to be used with the student will be finalised after administration of the Peabody Picture Vocabulary Test – Third Edition.

Client: ___________________________________________ Age: ________________

Person Interviewed: ___________________________________________

Relationship to Client: ___________ How long know client: ________________

<table>
<thead>
<tr>
<th>TOPIC AREA</th>
<th>PARENT, TEACHER, STUDENT RESPONSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Modalities affected by anxiety experience:</td>
<td></td>
</tr>
<tr>
<td>- Action</td>
<td></td>
</tr>
<tr>
<td>- Vocalisation</td>
<td></td>
</tr>
<tr>
<td>- Emotion</td>
<td></td>
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<tr>
<td>- Cognition</td>
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<tr>
<td>- Somatic Response</td>
<td></td>
</tr>
<tr>
<td>2. Student specific units of behaviour</td>
<td></td>
</tr>
<tr>
<td>3. Student chain of behaviour</td>
<td></td>
</tr>
<tr>
<td>4. Severity range of behaviours</td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>5.</td>
<td>Low-level behaviours</td>
</tr>
</tbody>
</table>
| 6. | Significant antecedents:  
|     | • Social Interactions  
|     | • Task  
|     | • Location  
|     | • Internal Event |
| 7. | Combinations antecedents |
| 8. | Triggering power antecedents:  
|     | • Strong  
|     | • Weak  
|     | • Immediate  
|     | • Delayed |
| 9. | Significant consequences |
| 10. | Combinations consequences  
|     | • Attention  
|     | • Escape  
|     | • Tangible  
|     | • Internal |
| 11. | Triggering power consequences  
|     | • Strong  
|     | • Weak  
|     | • Immediate  
|     | • Delayed |
| 12. | Additional student-specific details |
Appendix B

Questions About Behavioural Function (QABF) [modified]

Client: ___________________________________________  Age: __________________
Name of person completing QABF: ____________________  Date: __________________
Relationship to client: ____________________  How long know client: ____________________
Target Behaviour: ____________________________________________

Rate how often the client demonstrates the behaviours in situations where they might occur.
Be sure to rate how often each behaviour occurs, not what you think a good answer would be.

<table>
<thead>
<tr>
<th></th>
<th>X</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Does Not Apply</td>
<td>Never</td>
<td>Rarely</td>
<td>Some</td>
<td>Often</td>
</tr>
</tbody>
</table>

___1. Engages in the behaviour to get attention.
___2. Engages in the behaviour to escape work or learning situations.
___3. Engages in the behaviour as a form of refocus when (a) bored or (b) overwhelmed (circle one).
___4. Engages in the behaviour because he/she is in pain.
___5. Engages in the behaviour to get access to items.
___6. Engages in the behaviour because he/she likes to be reprimanded.
___7. Engages in the behaviour when asked to do something.
___8. Engages in the behaviour even if he/she thinks no one is in the room.
___9. Engages in the behaviour more frequently when (s)he is ill.
___10. Engages in the behaviour when you take something away from him/her.
___11. Engages in the behaviour to draw attention to him/herself.
___12. Engages in the behaviour when he/she does not want to do something.
___13. Engages in the behaviour because there is nothing else to do.
___14. Engages in the behaviour when there is something bothering him/her physically.
___15. Engages in the behaviour when you have something he/she wants.
___16. Engages in the behaviour to try to get a reaction from you.
___17. Engages in the behaviour to try to get people to leave him/her alone.
___18. Engages in the behaviour in a highly repetitive manner, ignoring his/her surroundings.
___19. Engages in the behaviour because he/she is physically uncomfortable.
___20. Engages in the behaviour when a peer has something he/she wants.
___21. Does he/she seem to be saying “come see me” or “look at me” when engaging in the behaviour?
___22. Does he/she seem to be saying “leave me alone” or “stop asking me to do this” when engaging in the behaviour?
___23. Does he/she seem to enjoy the behaviour, even in no one is around?
___24. Does the behaviour seem to indicate to you that he/she is not feeling well?
___25. Does he/she seem to be saying “give me that (item)” when engaging in the behaviour?

Modified from: Disability Consultants, LLC.
Appendix C

Valued Outcomes Analysis Procedure Form

I. CLIENT DETAILS

Client: ___________________________________________ Age: _________

Presenting Issues: ____________________________________________________

Person Interviewed: ___________________________________________________

Relationship to Client: ________________ How long know client: _________

II. INFORMAL ASSESSMENT OF CLIENT BEHAVIOUR

The information presented in this section of the analysis is based on the interview data the clinician has obtained from the client. The focus is on exploring the behaviour in relation to the client’s perceptions and interpretations.

1. Description of Behaviour

Behavioural difficulties as expressed by the client and/or caregiver. The words used by the client to describe his/her experience of the behaviour should be included here.

________________________________________________________________________

Length of time the behaviour has been a concerning or limiting factor in the client’s life. Please place number of days/weeks/months/years in relevant column below.

<table>
<thead>
<tr>
<th>Days</th>
<th>Weeks</th>
<th>Months</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Presence of any chains of behaviour with identification of low-level behaviours. To be recorded in the sequence that behaviours occur in the natural setting.

________________________________________________________________________
2. Possible maintaining conditions

Location or setting in which behaviour occurs:

________________________________________________________________________

Times at which behaviour occurs:

________________________________________________________________________

Activity being undertaken when the behaviour occurs:

________________________________________________________________________

People present when the behaviour occurs:

________________________________________________________________________

III. FORMAL ANALYSIS OF BEHAVIOUR

This part of the Valued Outcomes Analysis is based on a formal and detailed investigation of all factors that are thought to contribute to the occurrence of the behaviour. Data to be used in completing the remaining sections of this form can include interview information, completion of standardized rating scales, and direct observations of client behaviour by the clinician. The aim of this section is to use all sources of information to conduct a thorough Valued Outcomes Analysis of the client’s behaviour.

1. Form Analysis of the Behaviour

This analysis will be based on a maximum of two target behaviours that will be analysed in relation to topography (listed under the heading “Target Behaviour” below) and dimensions.

Target Behaviour 1: ______________________________________________________

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Reported by Client</th>
<th>Measured Directly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duration</td>
<td></td>
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<td>Frequency</td>
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<td>Latency</td>
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<tr>
<td>Magnitude</td>
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</tbody>
</table>
2. Functional Analysis of Behaviour

**PRE-BEHAVIOUR MAINTAINING VARIABLES**

Setting events (*minimum* of one month prior to behaviour):

________________________________________________________________________

Distal Antecedents (*maximum* of twenty-four hours prior to behaviour):

________________________________________________________________________

Proximal Antecedents (*immediately* prior to the behaviour):

________________________________________________________________________

Setting: __________________________________________________________________

Interactions: __________________________________________________________________

Tasks: __________________________________________________________________

**POST-BEHAVIOUR MAINTAINING VARIABLES**

**Immediate Consequences**

*Positive Reinforcement*: __________________________________________________________________

*Negative Reinforcement*: __________________________________________________________________

**Delayed Consequences**

*Positive Reinforcement*: __________________________________________________________________

*Negative Reinforcement*: __________________________________________________________________
3. Valued Outcomes Analysis

<table>
<thead>
<tr>
<th>Escape</th>
<th>Sensory Reinforcement</th>
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</thead>
<tbody>
<tr>
<td>Avoidance of Task</td>
<td>Avoidance of Social Context</td>
</tr>
<tr>
<td>Attention</td>
<td>Change Reaction of Others</td>
</tr>
<tr>
<td>Access to Preferred Activity</td>
<td>Internal Change – Subvocalisations</td>
</tr>
<tr>
<td>Internal Change – Feelings</td>
<td>Internal State - Physiological</td>
</tr>
</tbody>
</table>
Appendix D

A-B-C Observation

Student: _________________________________  Date: _________________________

Setting: _________________________________________________________________

Task: ___________________________________________________________________

<table>
<thead>
<tr>
<th>Interpersonal Context</th>
<th>Target Behaviour</th>
<th>Social Consequence</th>
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<tbody>
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References


Individuals with Disabilities Education Act Amendments of 1997.


