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Keywords

education, misunderstood, young, case, study, giftedness, specific, learning, system, disabilities

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Young and misunderstood in the education system: A case study of giftedness and specific learning disabilities

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Abstract

An academically child who is gifted with learning disabilities is not readily recognised within the education system as demonstrating such contradictory traits. While there is a growing body of literature on such twice-exceptional children, effective means of identification and educational interventions still lags behind. To understand how this situation impacts individuals, an intensive case study of a young man, Thomas, with both gifts and learning disabilities was undertaken. Outstanding knowledge but an inability to demonstrate and express that knowledge meant frustration for Thomas. As a consequence, his disability meant that he manifested as a student with behavioural issues in the classroom, including a lack of self-control. At home he expressed his dissatisfaction with his education and specifically with his teachers. He had his own ideas of what his education should look like and how this could be implemented. This case study discusses the challenges his mother experienced with identifying her child's disability and giftedness and ensuring that both exceptionalities were optimally developed. Through this case study, the roles an education system and parents of such a child must assume, if this development is going to occur, are highlighted.

Introduction

Thomas's story is part of a larger research project that considered why students with disabilities and academic giftedness were not being identified and provided with appropriate educational programs. Thomas is the younger of two children with an older sister and his mother is a single parent. He demonstrated a level of maturity and understanding of his abilities and learning difficulties well beyond his years. However, this understanding and the lack of knowledge by his teachers about students such as Thomas led to conflict at school. Thomas spent many hours outside the principal's office and demonstrated inappropriate behaviours at school.

After Thomas started school, his mother became aware that he had some difficulties with reading but it was his unacceptable behaviour at school that led her to investigate further. As a result of testing, he was identified as gifted with learning disabilities. A prime example of how this unique situation exhibited itself was that, at the age of six, Thomas had considered stealing a car with one of his friends.

The research literature on twice-exceptional students in Australia is almost non-existent, especially when compared to the research literature on disabilities and on giftedness, respectively. This has meant that educators and

parents in the Australian school system have not been able to source relevant information in order to address the needs of children such as Thomas. A review of what is known is discussed in this paper.

Identification

Research in the field of young gifted students is limited and often entails retrospective accounts of the early years of eminent gifted adults (Goertz & Goertz 1962; Robinson, 2008). There is no clear consensus on any one definition for giftedness, but even within the various definitions that exist, the special case of those who are young and gifted is often overlooked. A common theme in definitions of giftedness is the potential for high level performance beyond what would be expected for a child of the same age. Assessing such potential in young children, though, may be difficult. Coleman (1994) suggested that one means of identifying young gifted students is through portfolio assessment. He noted that this method is not without its problems and that more research needed to be conducted. Sankar-DeLeeuw (2004) noted in her study profiling gifted kindergarten children that identification and assessment was difficult in this population and concurred with Coleman that more research needed to be done. To be young, academically gifted and have a learning disability is a group for which almost no research exists.

Identification processes for gifted programs and learning disability services in Australia are mutually exclusive and there is at present no identification protocol that fully takes into account those students who would fit in both populations (Assouline, Foley Nicpon, & Whitman 2010; Boodoo, Bradley, Frontera, Pitts, & Wright, 1989). Students are identified for gifted programs or for remediation, or may not be identified for either because they are performing at a level commensurate with their chronological cohort. Of great importance has been the 20-year review of the literature on twice-exceptional identification produced by Foley Nicpon, Allmon, Sieck, and Stinson in 2011. In their search of the ERIC and PsycINFO databases, 11 studies regarding the identification of, and programming for gifted students with specific learning difficulties (GT/SLD) were located for the period, 1990-2009. Of the 11 studies, five dealt specifically with identification issues, with many differences in what each set of researchers viewed as the psychosocial factors of this form of twice exceptionality. One study among these (Assouline, Foley Nicpon, & Whiteman, 2010) was particularly important when considering psychosocial factors and identification procedures. The researchers conducted a quantitative case study of 14 GT/SLD students, finding that parents were likely to identify more 'at risk' behaviours than were teachers; further, when self-reporting using the BASC-2 and the Piers-Harris instruments, students placed themselves in the 'average' range of behaviours, not recognising their behaviours as 'at risk' for SLD. But with the subjectivity of the instruments currently used, the likelihood of a valid diagnosis is slim. And where there is disagreement among professionals and family, there is the risk that the child's specific needs will not be addressed.

Baum, Owen and Dixon (1991) suggested that there are three subgroups of gifted students with a learning disability. The first group are students identified as gifted who have subtle learning difficulties. These difficulties become apparent as the level of work undertaken at school increases in difficulty. This group is often placed in programs for gifted students, but this placement creates frustration for the teacher and the student when the student fails to reach expected outcomes as the work becomes more difficult. The second group are those who are not identified as gifted or as having a learning disability because they are achieving at grade level. This is a group that is most likely overlooked because they are achieving at grade level and will fail to reach their potential as they will be working very hard to maintain average grades. The third group are the students who are identified for their learning disability. These students are often placed in remedial programs.

The possibility that they may also be gifted is not considered by special educators and classroom teachers, let alone addressed.

Some research exists on ways to identify gifted students with a learning disability. Schiff, Kaufman, and Kaufman (1981) compared the WISC-R scores of 30 children with at least one IQ score above 120, to determine whether a pattern of IQ subtest scores or index scores could be established and used to identify gifted learning disabled students. They found Verbal and Performance index discrepancies but no consistent pattern of subtest scores for identifying gifted students with a learning disability. Barton and Starnes (1989) duplicated the research by Schiff et al. (1981) and compared the WISC-R scores of two groups of students – gifted and gifted learning disabled – from public schools within a county in the US. Both groups of researchers found Verbal and Performance index discrepancies, with Verbal generally being higher. In general, the most recent study comparing the identification measures for children with Dyslexia who are gifted or not gifted in verbal performance, showed that GT/SLD students outperformed SLD comparisons with superior verbal reasoning but not on verbal working memory unless the memory tasks were integrated within "intellectually engaging" lessons (Beringer & Abbott, 2013, p. 223). These data, though, did not show a consistent pattern of subtest scores for the identification of gifted learning disabled students. The researchers found that analysis of the subtest scores on the WISC-R can give an indication that a student is gifted and has a verbal or performance weakness but it is not enough by itself to identify these students as twice exceptional. Identification of these students, therefore, cannot rely solely on IQ scores. Waldron and Saphire (1990) also established through the comparison of WISC-R sub-test scores of students who were gifted and students who were gifted with a learning disability "that there is no evidence that rank ordering of WISC-R subtests is an effective method of identifying the existence of a disability" (p. 497). Assouline, Foley Nicpon, and Whitman (2010) note that students who are gifted with a learning disability have a wide range of score variability, supporting the conclusion that it is difficult to establish a specific profile for identification of these students.

Maker and Udall (1997) suggested that a wide variety of information is required in order to identify gifted learning disabled students. IQ tests, diagnostic achievement tests, parent interviews, tests of aptitude and creativity are some of the means recommended by Maker and

Udall for identification of these students. It has been suggested that rather than trying to find a pattern of scores for identifying gifted students with a learning disability, consideration should be given to the three defining characteristics of: an outstanding ability or talent, a discrepancy between expected and actual achievement, and a processing deficiency. Identification of a processing deficiency occurs through IQ testing or specific processing tests (Brody & Mills, 1997). Additionally Brody and Mills suggested that behavioural observation measures of cognitive processing and a battery of achievement tests be administered. McCoach, Kehle, Bray, and Siegle (2001) noted that assessment should be undertaken in any curriculum area that a student may have a suspected disability. In their description of 'best practices' in the identification of gifted students with learning disabilities, the researchers concluded that best practice needs to include (1) a complete assessment battery that consists of behavioural observations, an individual intelligence test, cognitive processing measures, in addition to the school or district's evaluations of the student's functional levels within the curriculum; (2) longitudinal monitoring of changes (i.e., declines in) achievement and academic performance data; and (3) referral for additional assessments when there seems to be a pattern of declining achievement.

One approach for identification is dynamic assessment/interactive evaluation. This method assesses a student's knowledge in a specific area while scaffolding the student's knowledge in other areas. The assessor helps the student undertake assessment tasks and notes the conditions under which the student's ability to demonstrate knowledge is facilitated. The scaffolding consists of providing guided assistance. Munro (2002) argued that the use of dynamic assessment/interactive evaluation is one appropriate method that would be useful in identifying gifted students with a learning disability in addition to assessing their "general ability, creativity and divergent thinking, motivation, learning disability, aptitude in a particular area, self-concepts, metacognition and self-management" (pp. 27-28). Olenchak and Reis (2002) recommended that teachers rely on discrepancies between scores on achievement and ability tests as well as analysis of IQ subtests for identifying gifted learning disabled students and, at times, use qualitative data such as structured interviews and observations of students to aid in the identification process.

Findings from Rogers' (2011) research corroborated this approach, suggesting a number of strategies for identification of these students. These strategies included but were not limited

to, a tiered system of identification, a specialist team with training, and looking at the 'family tree' of individual students. Foley Nicpon (2013) also noted that comprehensive assessment is required for accurate identification of twice exceptional students.

Through observation and research, the characteristics of gifted students with a learning disability have been determined and some information provided about various strategies that are useful when identifying these students. In general, though, they are underrepresented in gifted programs. For example, Boodoo et al. (1989) surveyed Special Education teachers and directors of gifted programs in Texas and found that teachers and schools did not deal well with identifying and therefore providing for gifted learning disabled students. At the time, Boodoo et al. undertook this research, programs for gifted students were not mandated in Texas. Mandating did not occur until later in 1990 and made little difference to the number of gifted learning disabled students participating in programs for the gifted in Texas. For example, research undertaken by Tallent-Runnels and Sigler (1995) in which they surveyed gifted program coordinators in Texas, found that little had changed since the research undertaken by Boodoo et al. and that the rate of identification of gifted learning disabled students had in fact dropped from 23% to 19.7%. It may be that, with identification efforts declining, schools see little point in providing programs for these students if they cannot be formally identified for placement.

Similar results were found by Karnes, Shaunessy, and Bisland (2004) when they surveyed directors of public school programs for the disabled. These directors were also responsible for the gifted students in the state of Mississippi. The research concluded that identification was poorly done and that further research was required in order to understand why these students were not being identified and placed in appropriate educational programs.

Although research has identified the characteristics of gifted learning disabled students and recommendations have been made about appropriate strategies that can be used to identify these students, it can be generally stated that teachers and schools have not dealt well with identifying and, subsequently, providing for these students.

Programming

Over time, gifted learning disabled education has received increased attention in developing and

providing appropriate educational programming for these students (Baum, 1988; Bees, 1998; Hishinuma & Nishimura, 2000; Rogers, 2011; Shevitz, Weinfeld, Jeweler, & Barnes-Robinson, 2003; Weinfeld, Barnes-Robinson, Jeweler, & Shevitz, 2002), in addition to integration and teaching strategies (Baum, Cooper, & Neu, 2001; Bisland, 2004; Reis & Ruban, 2005; Rogers, 2011). Crim, Hawkins, Rubin, and Johnson (2008) compared the accommodations provided by the IEPs of SLD/low-ability (n=225), SLD/average ability (n=708), and SLD/high ability (n=112) students. The researchers found that GT/SLD students were offered fewer modifications than other groups. Yet, the accommodations these GT/SLD students might have needed do not appear to be extraordinarily intensive. In a qualitative study of teachers and administrators, Mann (2006) concluded that a caring atmosphere that focuses on strength-oriented accommodations and student-centred learning, was considered best practice for GT students who were verbally disabled. Olenchak's (2009) study of 57 GT/SLD students found substantial affective gains (self-concept) for students engaged in Schlichter's Talents Unlimited program, coupled with individual counselling. Certainly Weinfeld et al.'s (2002) study with severely learning disabled gifted students showed the efficacy of placing these students in special 'Centre' classrooms that focus on self-direction, self-reflection, problem solving, and inquiry-based curriculum experiences. Likewise, Baum, Cooper, and Neu's (2001) description of Project High Hopes indicated that helping GT/SLD students focus on problem-solving, analysis and creativity is beneficial to them educationally. But, as Foley Nicpon pointed out in 2011, the focus of empirical research on GT/SLD specific interventions, including the part assistive technology may play, is not extensive enough for the field to 'rest on its laurels'. As Nielsen (2002) concluded, not only must these students' strengths be addressed, as they work in learning environments with others like themselves, but they must also be allowed to develop compensatory strategies for their weaknesses.

Rogers (2011) found that gifted students with learning disabilities had distinct learning differences that needed to be addressed by implementing a number of strategies. Her initial strategy is interesting in that she notes that no single strategy addressing a particular issue works for long and that it is necessary to initiate a new strategy to address that particular issue. She concluded that "strategies must be developed and integrated within the differentiated curriculum to cover several components of the whole learner... a child profiling team must plan the specific strategies

that address the child's strengths and weaknesses... it is important not to water down the gifted curriculum provided for the 2e child" (pp. 62, 65).

Research on programs and strategies that have focused on students' giftedness rather than their disabilities has found that such programs have led to an increase in self-esteem, improved learning behaviour, and creative productivity. For example, Bees (1989) studied a program implemented in Vancouver that included resource room support for the student's learning disability and enrichment for their giftedness and concluded that providing meaningful school connections for gifted learning disabled students contributed to the success of the program. Baum and Owen (1988), in their research comparing high ability students, high ability/learning disabled and average/learning disabled students, concluded that feelings of self-efficacy are improved by providing programs that recognise these learners' giftedness as well as their learning disability, and this in turn leads to greater achievement when the students' gifts were acknowledged. In another study, Baum, Emerick, Herman, and Dixon (1989) undertook case studies of four programs specifically designed for gifted learning disabled students. They concluded that when the students' giftedness was recognised and nurtured, there was an increased willingness by the students to complete tasks, and a decrease in unsuitable behaviours (including disruptive tendencies, inattentiveness, short attention span, task avoidance and manipulation tactics) that affected their learning.

Baum (1988), in a study of an enrichment program for seven gifted learning disabled students in grades four and five, concluded that as a result of the enrichment program, students demonstrated improvement in motivation and behaviour when they were allowed to choose their own area of study and end product. As a result of this work, she constructed guidelines for educators working with gifted learning disabled students. These guidelines include provision of a talent-supportive environment, instruction in compensatory strategies, along with awareness of personal strengths and weaknesses. Both she and Hannah and Shore (1995) have subsequently confirmed these four guidelines. In another example, Weinfeld et al. (2002) established that four major components are required for successful programs for gifted learning disabled students. These components were determined as the result of a specialist program that was developed and implemented in one county in the US. Their guidelines were very similar to Baum's earlier list, with the addition of the idea of comprehensive case management

to coordinate all aspects of the student's individual education plan.

A recent mixed methods study by Willard-Holt, Weber, Morrison, and Horgan (2013) updated the field on the most recent innovations in practice for GT/SLD students. The research team included a table that listed sources for strategies to enhance giftedness and compensation strategies, all of which have been researched by leaders in the gifted education field. In addition, they described proposals by those in the field that may not have empirical evidence to support them, including academic acceleration (Assouline & Whiteman, 2011), interest-based learning with authentic curriculum (Baum et al., 2001; Hua, 2002), and strength-oriented accommodations (Leggett, Shea, & Wilson, 2010; Pereles, Omdal, & Baldwin, 2009).

Successful programs for gifted students with a learning disability are programs that recognise their giftedness and provide educational opportunities that allow for enrichment and extension. At the same time, the program must recognise that the students have learning disabilities that require help and the development of strategies for overcoming their learning disabilities. Research by Foley Nicpon, Allman, Sieck, and Stinson (2011) found that a number of students who are academically gifted with learning disabilities have not received appropriate educational services. Placement in programs that correspond to Baum's (1988) and Weinstein et al.'s (2002) program guidelines depends on educational professionals recognising and identifying these students. If teachers cannot identify these students there seems little point in establishing specialist programs. With this review in mind, how the school system to which the case study described in this article responded to the talents and deficits they found, illustrates the pain and frustration the learner with twice exceptionality, his parent, and the teachers and schools who have this learner in their setting may experience. What this case study will address is to what degree the education system recognised both the gifts and disabilities of this young child and how they engaged in providing appropriate strategies for his education. The study will explore what each stakeholder — student, parents, and school — could contribute to the ultimate development of this individual's talents.

Method

This study was part of a larger research project that used a multiple case study method of inquiry to address the following research questions:

- What part does the school contribute to optimal development of talent in students who are gifted and learning disabled?
- What part does the family contribute to optimal development of talent in students who are gifted and learning disabled?
- What part does the student contribute to optimal development of personal talents?
- In what ways does the identification process for twice exceptionality impact school adjustment?
- In what ways does the programming provided in schools and the community impact the student's talent development?

Case studies were deemed the most appropriate research approach because they provide an in-depth understanding of the subject and allow for a focus on discovery (Burns, 1996). In the larger study for which this is one case, GT/SLD students were located through an advertisement placed in an Australian journal in gifted education. Thomas and his mother were recruited to the research by responding to an advertisement requesting participants for a project that would follow the educational development of gifted learners with varying learning disabilities. After an initial discussion, Thomas' mother agreed to be part of the research study. Thomas was interviewed once for an hour. His mother was also interviewed once and provided documentation such as specialist and school reports. All interviews were conducted by the researcher and digitally recorded. Ethics approval was granted by the supervising university to conduct the research.

In keeping with the recommendations for case study research (Yin, 2003), multiple sources of data were collected to enable triangulation of data, which in turn strengthened the validity of the findings. The forms of data collection were semi-structured interviews conducted informally, researcher observations, and relevant artefacts. Semi-structured interviews were deemed an appropriate form of data collection because they allow the researcher to establish rapport with the participant and thereby increase the likelihood of in-depth responses. They also have the flexibility for the researcher to probe participant responses and address any contradictions or ambiguities in the participant's responses.

This research was seeking to understand why students were not being identified by schools as being gifted with a learning disability. Additionally, understanding from the student perspective provided insights into their world

and the issues with which they were dealing. Interviewing allowed the participant and the parents to reflect on what they had experienced, particularly in relation to what processes had been undertaken to try and achieve an appropriate education. Some examples of the broad questions that were asked of the participant were:

- Tell me about school and what you like and dislike about it.
- What do you find easy to do, difficult to do?
- Describe your ideal teacher/school/classroom.
- What do you do outside school?
- Can you give me an analogy of how you feel about yourself?
- If you had the option to have input into work undertaken in the classroom and assignments set for you, what sort of things would you tell the teacher you would like?

And some questions that were asked of the parents:

- Tell me about your child.
- When was your child first identified as gifted with a learning disability?
- Who identified the disability or giftedness?
- How was your child identified as gifted with a learning disability?
- What strategies have you implemented to support your child?
- Has the school/teacher addressed the issues your child has at school, with school work, and how have they done this?
- What has been the effect on the family?

Additional data were collected through reports from the various therapists who had provided assessments of Thomas' abilities and intervention programs. These broad questions allowed the respondents to initiate issues of concern to them and minimise the possibility of leading questions that might be inferred by a more closed form of questioning. The researcher was able to follow-up with additional questions and prompts as the interviews unfolded. The interview questions were designed to elicit the information required to answer the research questions.

The researcher observations were conducted during the interview process and allowed the recording of "relevant phenomena" (Johnson & Christensen, 2004, p. 188) in the natural setting. Observations of participants' behaviour provided

additional non-verbal information such as the participant's degree of comfort with particular incidents being recounted and so on. In this way, the non-verbal observations allowed insight into the participant's feelings and behaviours, and in so doing provided an important form of data triangulation.

The final source for data triangulation entailed the collection and examination of relevant artefacts. These included official documents provided by the parents of the participant, such as reports and test results from school counsellors, psychologists, occupational therapists, speech therapists, physiotherapists, paediatricians, alternative therapists, general practitioners, teachers, optometrists, hearing specialists and educational consultants. These documents provided official evidence of identification of the participant as gifted with a learning disability. Artefacts in the form of student work samples were also collected, for example, the original of a handwriting assessment.

Thomas was initially annoyed at having to talk to the researcher, understandably so as it was school holidays and he was watching one of his favourite DVDs. He admitted that he was a bit annoyed about the situation but when told that he could go back to watching the DVD after the interview he was happier. Thomas then opened the discussion by asking, "Do you want to know something?" He was keen to tell the researcher that he now slept in a bunk bed. This set the tone for the interview and demonstrated that he was happy to talk about his life.

Thomas' mother's contribution was valuable as it provided data about what the family did in order to support Thomas and the effect that having a child who was both gifted and had learning disabilities had on the family. Her contribution also reinforced the data that Thomas provided and was another important form of data triangulation. In addition to the interviews, correspondence via email with her was undertaken. This helped to clarify data collected and to collect additional data.

The first form of data analysis focused on the documents provided by Thomas' mother because these were provided prior to the interview. The documents included IQ reports, a report from an optometrist and another from an occupational therapist. The reports provided results of tests and assessments undertaken as well as recommendations for various interventions for the student. The information in the reports was divided into categories, such as Identification, Interventions, Effects on student learning, Schooling, and Professional recommendations.

This first wave of analysis provided an initial picture of Thomas' case while also raising specific questions to be explored in the interviews.

The interviews were recorded and later transcribed. Following each interview, the researcher listened to the recordings and made additional notes. These notes consisted of a summary of the interview, initial analysis of the information provided, tentative conclusions and further questions or information that needed to be sourced from Thomas and his mother. These notes were appended to the transcripts of each interview where appropriate. A reading of the transcripts identified recurring ideas, which were coded and the data entered into a table (Miles & Huberman, 1994). An example of this process is depicted in Table 1. As these codes were identified and repeated across the various forms of data collection, the categories were refined into a number of themes based on the frequency of occurrence and the relationships among the categories. For example, having Thomas' desk directly face the board, printed handout of information to be copied and regular access to a computer were all important in Thomas' experience of schooling and were thus combined into the single theme 'classroom accommodations'. The final themes that emerged included disability, resources, school attitude, behaviour, classroom accommodations, identification, and school achievement. The themes were supported through the triangulation of all forms of data collected.

These themes were used to respond to the research questions and a narrative of the case was drafted by the researcher. This draft was sent to Thomas and his mother for member checking, thereby allowing any errors in the analysis to be raised by the participants. Thomas

and his mother indicated that they were satisfied with the accuracy of the draft document.

Results

Mother's understanding

Thomas' mother became aware of the issues and implications of academic giftedness as a result of her eldest child, and the child's change of behaviour and attitude to learning after starting school. She was aware that both her children, after a short period at school, had lost the "spark" for learning and that Thomas was engaging in inappropriate behaviour, which resulted in him being on permanent detention by the end of kindergarten.

Because of Thomas' behaviour, his disengaged attitude towards learning at school, and his mother's concern that he may be dyslexic, she embarked on a series of assessments in order to help him. She did not want to push him beyond his capabilities, yet if he had problems she wanted to ensure that he got the help he needed.

Thomas was assessed at seven years of age using the Stanford-Binet Intelligence Scale: Fifth Edition (SB5). His Verbal IQ (VIQ) placed him on the 99th percentile while his Nonverbal IQ (NVIQ) placed him at the 98th percentile, with a Gifted Composite Score (GIQ) placing him at the 99th percentile. These results indicated that Thomas was a gifted student and, as such, needed to be provided with an appropriate educational program at school. At this time the IQ assessment did not highlight any particular learning disability. The psychologist's report noted that Thomas' strengths were in the areas of knowledge, quantitative reasoning and visual spatial processing and that he had a high ability to manipulate visual concepts and thought in an

Table 1: Example of Coding of Participants' Interviews

Description	Data	Code
Classroom accommodations/ alternatives	I wanted them to have me in it last year. (gifted and talented class) With home reading they decided the best thing to do was to send home the home reading with the CDs, home reading books that have CDs	CLSA
Disability	Yeah, because I kind of don't really remember what six plus six is, and that's an easy one for most kids. Why do you think that is? Because I'm good at a different things. He has never learnt how to write letters properly and his pencil grip has never been corrected.	DIS

abstract manner. As information in the early years of schooling is presented in a concrete rather than an abstract way in the classroom, this would have led to severe frustration for Thomas.

IQ testing identified Thomas' academic giftedness but did not provide answers as to why he was struggling at school, particularly with reading. As a result, his mother organised for further testing by an optometrist and occupational therapist. These assessments included fine and gross motor skills, handwriting abilities, visual perceptual skills and body awareness.

The optometrist noted that Thomas had difficulty with convergence and divergence indicating that he would have trouble copying work from the board. He also stated that "Thomas' visual system is unable to take in information and process it efficiently, resulting in extra effort to obtain satisfactory academic results" (Optometrist report). A program of vision therapy was recommended but his mother did not implement the program as the optometrist "couldn't tell me whether it would help".

The occupational therapist who assessed Thomas noted that he had difficulty integrating his visual and motor systems. This inability to efficiently integrate his visual and motor systems would have been observed while he was undertaking fine motor tasks such as controlling his pencil when drawing, writing, or copying. Thomas also demonstrated difficulty with planning and evaluating the best way to complete required tasks during the assessment. The assessor suggested that Thomas would need to work very hard to be able to achieve average results when he should be performing at an above average level.

In assessments of his handwriting, Thomas demonstrated some appropriate for age skills but also showed that he had some difficulties. He was able to hold the pencil consistently in his dominant hand and stabilise his paper with the appropriate tilt when writing. He was able to change direction when writing his letters and was able to copy all the letters of the alphabet and demonstrated consistent sizing and spacing of letters when writing a sentence. Although he could copy all the letters of the alphabet he formed the letters 'e', 'f', and 'j' from the bottom up, rather than vice versa and formed 'p' from the circle first, instead of from the top to the bottom then completed the circle (Occupational therapist report).

When motor and postural skills were assessed, Thomas' total weighted score ranked him below the normal range for his age. He was able to copy slow movements, but not perform them smoothly. In addition, he could hold but not maintain a weight-bearing posture on his stomach and back. The inability to maintain these postures indicated that he had a weakness in his core muscles. A weakness in postural muscles possibly meant that Thomas would not be able to sit still for long periods of time and would be demonstrating restlessness as he fidgeted to find a comfortable position. This would mean that Thomas would become distracted. Thomas was required to touch his finger to his nose with which he had some difficulty, indicating that he has a problem with motor planning. This was also highlighted in the visual and motor integration assessments. As a result of these problems, he had difficulties processing visual and tactile cues and converting them into smooth movements, which would have made handwriting difficult.

In the conclusion of the occupational therapy report it was noted that Thomas was performing at a lower level than that expected for a child with his intellectual capabilities. The main issues for Thomas were sensory processing, particularly proprioceptive and, additionally, tactile and visual processing. The recommendations made on the report were that the school be informed of the results and appropriate implementations put in place and that he undertake some occupational therapy. His mother followed these recommendations but did not find that the occupational therapy helped. The school made no effort to accommodate Thomas' needs in the areas of visual and motor processing.

The recommendations that were made for adjustments for Thomas as a result of the assessments undertaken were:

- That his mother discuss the implications of the report with the school;
- Thomas' desk should directly face the board;
- Visual distractions and displays around the board should be minimal when he is required to copy from it;
- If possible a handout printed version of information should be provided for him to copy at his desk;
- All information should be large, clearly written and on a good contrasting surface (black on white);
- That Thomas have a scribe for the NAPLAN tests [National Literacy and Numeracy Testing Program in Australia];
- That Thomas have regular access to a computer to gain experience in typing.

Thomas's mother had worked hard to educate herself about gifted education. She had wanted to support her children and work with the school but instead had realised "that being a pushy parent is something that you need to be. You need to advocate, you have to. And his self-esteem had hit rock bottom and they weren't helping, all they were doing was punishing, not understanding, not assisting, interventions needed to happen" (Mother).

Thomas' mother had sourced information about giftedness and spent considerable time taking her children to extra-curricular activities that provided them with intellectual stimulation in order to compensate for the lack of stimulation at school.

Thomas' understanding

Thomas is an articulate young boy who was a "bit annoyed" at having to talk to the researcher but he disengaged from school within six months of starting kindergarten and exhibited behavioural issues. The first indication that there may be a problem was with his reading. It seemed that he would take the first and last letters of a word, blend them together and guess the rest. Despite this difficulty, Thomas was aware that he was intelligent and found school work easy. He was very vocal about the fact that he was being taught things he already knew and said he would get annoyed when his teacher kept repeating the work over and over again.

Thomas did not mind having to work hard but when the teacher's response to him finishing his work before the other students was to do more of the same, he chose to complete his work slowly to avoid the additional work. Thomas was very articulate and firm when talking about his efforts in the classroom and the teacher's response to those efforts, and in particular the double standards displayed within the classroom.

Yeah but it'll be hard to do that [demonstrate his knowledge] because it will be likely that they'll only believe you if you act good, and they can see you do it. I do give them the chance. Like, I wait a lot of time. I wait for one term and that's like ten, eleven weeks and then I start getting angry. Wait for them to actually notice that I'm all right to do different work. So if I know it straight away then they should actually keep going on with it [letting him move onto the next level of work]. (Thomas)

Thomas did not enjoy Kindergarten or grade one, but was hoping that grade two would be better as he would be in a grade 1/2/3 composite class. He expected that the work would be at a faster

pace because he would be able to work with the year three students.

Despite his young age, Thomas displayed a real insight into his teachers' methods of teaching and, sadly, was already demonstrating intolerance to the school system. It was another example of his astuteness and understanding beyond his years.

Yeah, but I don't like it either because they don't teach me anything. I've already got taught that, and they can see it, but they don't care. They even saw it in kindergarten and they didn't care. (Thomas)

Outside school, Thomas participated in science programs, visited museums and art galleries and was involved in activities organised by an association for gifted children and their families. At these activities, Thomas once again became the inquisitive child who asked non-stop questions and who responded enthusiastically when he had the answers. Within school he had little patience for the school's lack of recognition of his ability and the lack of fairness on the part of the adults.

At the end of a school day his teacher said to him, "Now Thomas I want you to go home and have a good think about your actions today," and he said, "Well, only if you do because you're in the wrong too." (Mother)

A lack of appropriate schooling has started Thomas on the path of underachievement and possible continued behavioural issues, which may escalate and become more serious. At this point in time, Thomas gave the impression that he had no intention of conforming to the school system any more than he already had. He felt he had done his part and that if the school chose not to recognise his ability and provide an appropriate curriculum then he was going to react in a way that he felt was appropriate despite the consequences. He would simply shut down and not work or comply with the instructions given in the classroom. Thomas had a realistic attitude towards his abilities, but as yet did not acknowledge that he had a learning disability: "Not really everyone's good at everything" (Thomas).

School perceptions

The reports from the professionals consulted, as well as recommendations, were provided to the school. At one stage, this included an Individual Education Program (IEP) that had been specifically designed for Thomas by an educational specialist from outside the school.

The school's response was to file the information and state that they would only respond appropriately when Thomas exhibited correct behaviour and output. Thomas demonstrated this behaviour because his academic giftedness was not being addressed and he was not provided support and strategies for his disabilities.

In grade two, Thomas totally disengaged from school, and exhibited inappropriate behaviour, which resulted in him being placed on an in-school suspension. This meant that he had to sit outside the principal's office for long periods of time instead of being in the classroom.

Thomas had been identified as gifted through IQ testing and, as a result, should have been provided with an appropriate educational program. The psychologist recommended that Thomas be grouped with like-minded students, that he be taught by teachers who had an understanding of the special needs of gifted students, that teaching strategies be adapted to meet Thomas' education needs and that he receive counselling, when appropriate, to help him deal with his giftedness and learning difficulties. The occupational therapist acknowledged that due to Thomas' intellectual capacity he should have been performing at an above average level. The school chose to focus on his behaviour and did not respond to either the results or recommendations.

Family responses

Having a child who is gifted with learning disabilities had meant that there had been a cost to the family financially, in time, in research, in planning, as well as an emotional cost. In Term 4, his mother noted:

I was having a mental breakdown and could no longer cope with all the running around and pulled the plug on as much as possible in the hope that things would work themselves out. They haven't but I have recharged ready to take it all on again. (Mother)

Even though Thomas's mother had consulted with professionals and had been prepared to share this information with the school, she had to endure disbelief from teachers and the principal. The school's reaction highlighted for her that there are many in the educational field who have little or no understanding of gifted education.

And I said it's going to be such a relief to be able to stop running around like a maniac on weekends trying to stimulate them because I thought that the school would educate them, I'm such an idiot and

they [the school] said, "No, no you'll have to probably do even more of that now." (Mother)

The time involved in taking Thomas to the assessments and intervention programs had meant balancing the family's various commitments. Undertaking assessments and consulting with a variety of professionals in the private sector became very expensive very quickly and at times dictated the period of time the intervention was applied. For some assessments, the cost necessitated going onto a waiting list for public health assessments, which meant that they were completed with no charge to the parent. Some interventions were not undertaken due to the cost and lack of a guarantee for the parent that the intervention would be effective. The optometrist recommended a program of visual therapy, which Thomas' mother did not implement. She did not have the financial resources to pay for the intervention and, as the optometrist could not guarantee that it would make a difference, she chose not to go through with it.

This family is just at the beginning of their educational journey as Thomas was only in grade two. He had been placed in a 'gifted class' but it remains to be seen whether this class would deliver an educational program that provided appropriate intellectual stimulation for him, and whether, as a result, he could turn around his behavioural issues and begin to achieve to his potential at school.

Discussion

A number of themes emerged as the interviews and documentary data were triangulated. In the discussion that follows, each theme will be explained with evidence across data sources. Further, connections of the theme to previous research on twice exceptionality will be discussed in terms of the specific case.

Theme One: Means for specifically identifying what a child's multiple exceptionalities might be is generally received with mistrust.

Thomas was tested to demonstrate his intellectual abilities, but even with this information it seems evident that his teachers had not provided him with some access to advanced learning. It seems clear that the controversies surrounding discrepancies between ability and performance, the "masking" controversy argued by McCoach et al. (2001) have not paved the way towards evidence-based practice. Certainly Thomas had the "benefits" recommended as best practice by McCoach et al. (2001) through assessment, but those results

were not used with any consistency in planning his academic progress in school or providing strategies for his learning disability.

Theme Two: The resources – physical, psychological, academic, and medical – and the personnel involved, directly affect the multi-exceptional child's academic achievement as much as the child's own capacity and disability.

Many researchers have been quite specific on specific classroom resources, professional and therapeutic resources that must be integrated within a child's learning plan (e.g., Bees, 1989; Foley Nicpon, 2011; Willard-Holt, Weber, Morrison, & Horgan, 2013).

Theme Three: Classroom accommodations allow for a child to thrive academically and socially – or not.

The accommodations that were recommended for Thomas did not occur in the first couple of years of his schooling. This means that he had already had a couple of non-productive years as a result of the significant educators in his school setting not understanding, or choosing not to understand, what he had to contend with. This meant that no accommodations for his disabilities and no support for his giftedness would be provided. Previous research by Mann (2006) and Nielsen (2002), for example, have described the direct impact teachers have upon twice exceptional students when the classroom context is consistently caring, student-centred, and balanced between addressing the strengths and developing compensatory strategies for these students in their learning.

Theme Four: Teacher and school attitudes about the twice exceptional child's abilities and disabilities contribute directly to the child's adjustment to school and talent development.

Students such as Thomas, who demonstrate learning disabilities and academic giftedness, present a challenge to the education system. In the absence of school support, parents are generally the ones who identify the contradictions in their child and who go to great expense to ensure that their child has the opportunities to achieve. Thomas' story exemplifies the role of the primary caregiver in the child's ultimate opportunity to succeed as also concluded in the recent work of Neumeister, Yssel, and Burney (2013).

Theme Five: School success can be acquired by the twice exceptional child when there is sufficient support in place that is coupled with the personal motivation of the child through a creative problem solving process that is ongoing.

While many teachers are willing to work with parents to find educational solutions for these children, some may be confused by these

students and deny they exist and therefore determine not to provide appropriate educational programs for them.

Thomas, so far, had not had the support of his teachers which had made his schooling more difficult. At this early stage, he was already beginning to underachieve which, without intervention, may mean that he would not realise his academic potential. The idea that a student can be gifted and have learning disabilities has not been widely accepted. It is clear more research and awareness raising needs to be undertaken so that students such as Thomas have a chance to reach their academic potential. Thomas was currently in a specialist gifted class and had been accelerated in mathematics. His last school report was a complete reversal from the previous year. His mother was currently experiencing a positive and supportive relationship with her children's school and was endeavouring to further support and nurture Thomas in the home environment.

Conclusion

The purpose of writing this paper was to highlight the need for students who are young, gifted and have learning disabilities to be recognised and provided with appropriate educational programs at school. This paper demonstrated some of the responses and behaviour that may be displayed by a young academically gifted child with learning disabilities who is not identified in the educational system. Whilst unequivocal recommendations cannot be drawn from a single case study, much of what has been described in this paper can provide readers with a picture of what could have been done to make Thomas' education more productive. Some of the issues that need to be addressed for students such as Thomas follow.

Thomas' school administration and teachers needed training in how to develop and implement a plan such that both disabilities and abilities were addressed. A good first step in ensuring that twice exceptional students will find support in the school setting would be to require undergraduate level training in gifted and special education of all pre-service teachers. Currently at Australian universities, only special education training is compulsory, and this often does not include a gifted education component. With training, teachers would have understanding and knowledge of how to address the giftedness components as well as the special education components in an Individual Education Plan (IEP) and when differentiating the curriculum.

The professionals in Thomas' life needed to work as a team to provide the best outcomes for his academic, psychological, physical, and social development. The school counsellor, teachers of the gifted, as well as special needs and other relevant professionals, such as occupational therapists, need to work together and be involved in identifying and planning for these students. As an individual learning plan is developed amongst these professionals, the plan should include the use of assistive technology. This technology might include programs such as Dragon speak, Co-Writer, and the LiveScribe Pen. Technological aids are continually being developed and are an essential tool for students with twice exceptionality.

As parents of a twice exceptional child are the most accurate as well as first identifiers of a child's behavioural characteristics, schools and professionals need to heed the information they provide. Continuous assessment to confirm what has already been established wastes time, money, and effort on the part of all who are involved. The impact of this constant re-confirmation can be shown to have a negative impact on the child undergoing the process. As the child matures, parents and professionals should include the child in the decision making concerning both therapies and education. Students can help themselves as well. Being involved in the planning of their education will provide students with a sense of ownership and belonging. Many of these students have an excellent understanding of what they are good at. They need to use these strengths to their advantage and negotiate with their teachers to undertake work that focuses on these strengths.

Speech therapists, occupational therapists, and psychologists are just some of the professionals required to support and help twice exceptional students. These are valued members of the community and, in consultation with teachers and school authorities, can ensure that these students are provided with the opportunities to reach their full potential and be valuable members of society. Finally, we should listen to the voices of such unique individuals: "I have fun at most things like Questacon where you can look and touch stuff. I want to be taught things I don't already know" (Thomas).

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