



Self evaluations of children with Specific Learning Difficulties

Adam Oei¹⁺, Albert Lee^{1*}, Laura Lim²

1 DAS Academy

2 National Council of Social Service

Abstract

Children with specific learning difficulties (LD) face significant hurdles with learning compared to their normally achieving peers. While the difficulties of LD children manifest mainly in poor academic performance and learning, they potentially also have co-occurring socio-emotional difficulties. In this study, we compared self perception and self efficacy of LD children with their normally achieving peers. In addition, we administered a behavioral screening questionnaire to determine whether children with LD displayed more behavioural issues. LD children were recruited from various Voluntary Welfare Organisations that provided specialist remediation for LD while normally achieving students were recruited from various schools in Singapore. Findings showed that students with LD rated themselves as having more conduct problems compared to their normally-achieving peers. In addition, in contrast to existing works, students with LD had elevated levels of self perception in General Intellectual Ability, Reading and Spelling compared to their normally achieving peers. Therefore, we argue that identifying children with LD and providing them with learning support through specialist remediation may result in a secondary benefit to socio-emotional domains.

Keywords: Specific Learning Difficulties, self evaluation, self perception, self efficacy

* Correspondence to:

Albert Lee, DAS Academy email: albert@das.org.sg

+ Adam Oei has moved to the Singapore University of Technology and Design—Email: adam_oei@sutd.edu.sg

How do children with specific learning difficulties view themselves?

Adolescence represents a tumultuous stage of life whereby one experiences significant upheavals in psychological and physical development. It is at this phase where an individual's views of the world, his or her place in it and the relationship with peers undergo significant reorganisation (Cole & Cole, 2001). Arguably, for adolescents in many countries, these upheavals are magnified due to significant milestones in their life, like school transition and high stakes examinations. These life stressors and changes faced by adolescents will undoubtedly affect their self evaluations. It is therefore unsurprising to find evidence showing a sharp decline in one's self evaluations from childhood to adolescence, with greater decline in females' self esteem compared to males (Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002).

The decline in self evaluations from childhood to adolescence is further exacerbated in children with a learning difficulty (LD). Although children with LD primarily face problems in learning and academic performance, there is now a large body of evidence to show that these students also face increased emotional, behavioural and social problems compared to their peers without LD (Elbaum, 2002; Gallegos, Langley, & Villegas, 2012; Johnson, 1995; Wilcutt & Pennington, 2000).

Students with LD also face poorer self evaluations compared to their normally achieving peers (Alexander-Passe, 2006; Crabtree & Rutland, 2001; Jarvis & Justice,

1992; Möller, Streblov, & Pohlmann, 2009). One possibility for the increased risk of socio-emotional problems may be related to individuals with LD facing repeated poor academic performance as well as feelings of discrimination and rejection by peers and teachers (Conderman, 1995). Another possibility may be the result of unfavourable social comparisons between them and their non-LD peers in an inclusive classroom (Crabtree & Rutland, 2001). Such comparisons may arise from class teachers and peers not being aware of the child having an LD. On the contrary, knowledge of a child's LD may also result in comforting feedback from teachers that hold an entity view of the child's ability (cf. Rattan, Good, & Dweck, 2012).

Gender differences in self-esteem among children with LD are also evident. For instance, Alexander-Passe (2006) found that females scored lower than their male counterparts in academic and general self-esteem measures. Females were also more likely to engage in emotional and avoidance-based coping relative to males thus resulting in higher ratings of depression.

Despite the aforementioned findings of poorer self evaluations of students with LD, some inconsistencies have also been noted. For example, although students with LD rated themselves to be less competent across academic and organisational domains (e.g., reading, spelling, writing, math and strategy use) compared to their non-LD peers, they still rated themselves as average or above average (Meltzer, Roditi, Houser, & Perlman, 1998). Importantly, Meltzer et al. (1998) found a discrepancy between

teachers' ratings of LD students and how LD students rated themselves, with teachers rating being far more negative. This is consistent with research showing that children with LD tended to overestimate their own academic performance relative to their actual performance (Stone & May, 2002). From these studies, it is plausible that children with LD may not have realistic self evaluations of their own capabilities.

The need to understand how children view themselves cannot be overstated. While externalising behaviors can be easily observed and dealt with, it is often the internalising behaviors like poor self esteem, depression and anxiety that go unnoticed. These behaviours may have adverse consequences as children with LD face increased risks for social withdrawal, depression and feelings of worthlessness (Vaugh, Zaragoza, Hogan, & Walker, 1993; Wright-Strawderman & Watson, 1992).

Impact of negative self evaluations may exacerbate their academic and learning issues. There is clear evidence of the importance of positive self evaluations and academic achievements (Daniel & King, 1997; Román, Cuestas, & Fenollar, 2008). For instance, Román et al. (2008) demonstrated that while family and others' expectations influence academic achievement, the factor that had the greatest impact was one's self esteem. While the direction of causality is not clear, we argue that this relationship is likely to be a vicious cycle with poor self evaluations affecting scholastic performance and poor scholastic performance also in turn negatively impacting self evaluations.

The motivation of the current study is to replicate and conceptually extend previous works to investigate the self evaluations of students with LD. We compared students with LD in specialist remediation with normally achieving students. To provide a more comprehensive outlook of their self evaluations we compared these two groups across a range of self-report measures - the Self Perception Profile of Learning Disabled children (SPPLD; Renick & Harter, 2012), the Strengths and Difficulties Questionnaire (SDQ; Goodman, Meltzer, & Bailey, 1998) and the Self Efficacy Questionnaire for Children (SEQ-C; Muris, Meesters, & Fijen, 2003).

The advantage of these measures is that they allow for more specific insights into different areas that a child might have difficulties with. For instance, the SPPLD and SEQ-C allows ratings of self perceptions across many different domains such as academic, social and physical (see Methods section). These instruments thus allowed us to determine which areas children with LD perceive themselves as inferior. This in turn enables translation of research findings into specific interventions that target areas of weaknesses.

Method

Participants

Children with LD receiving intervention at various Voluntary Welfare Organisations (VWOs) were recruited via email and word of mouth to parents. Students in this group all have either an officially diagnosed LD or are suspected to have an LD. Nevertheless, students in this group

are all facing significant literacy difficulties severe enough to be receiving specialist intervention at various VWOs. Only students from the ages of 10-18 were eligible to participate. Conversely, the sample of normally achieving children were recruited via a direct approach to schools who sought permission from parents for their child's participation in the survey.

The criteria for the normally achieving group was that the students in this group must have (1) at least average academic grades, (2) must not have a current diagnosis of a learning, physical or psychiatric disability and (3) be between 10-18 years old. All participants were given a \$10 shopping voucher as reimbursement for their participation.

In total, 288 children completed the survey. However, we included only children under 17 years of age in the analysis because of the lack of LD diagnosed children above 17 in our sample. This is because intervention services in these VWOs are only available for children in primary and secondary school ages (6-16 years) in Singapore.

This resulted in the underrepresentation of children with an LD diagnosis in the 17-18 age band, which made comparisons between LD and normally achieving children at that age band difficult. Hence, our final sample submitted for analyses included 254 children (145 boys) with a mean age of 12.42 years ($SD = 1.59$, range = 10-16). The majority of LD children were diagnosed with dyslexia ($n = 102$) followed by Specific Language Impairment ($n = 13$), Autism Spectrum

Disorder ($n = 3$), Central Auditory Processing Disorder ($n = 2$) and Attention Deficit Hyperactivity Disorder ($n = 1$).

Materials

Self Perception Profile for Learning Disabled Students (SPPLD)

The SPPLD (Renick & Harter, 2012) is a survey designed for assessing self-perception in children with learning disabilities from ages 8 - 18. It is freely available from <https://portfolio.du.edu/SusanHarter/page/44210>. The SPPLD is a 46 item self-report measure of students' perception of their competence in 10 different domains: General Intellectual Ability, Reading, Writing, Spelling, Math, Social, Athletic, Physical Appearance, Behavioural and Global self-worth. Accordingly, the General Intellectual Ability domain refers to one's perception of one's level of intellect and learning ability. Reading, Spelling, Writing and Math competence refers to the perception of one's ability to read, spell, write and do math well respectively. Additionally, Athletic and Social competence refers to one's perception of himself/herself having competence in athletic or sporting activities, making friends and having good social skills respectively. Behavioural self-worth refers to the extent to which children like their behaviour whereas physical appearance refers to how much they like the way they look. Finally Global self worth refers to the degree they like themselves. The subscales of the SPPLD have high reliabilities between .78 and .89

Respondents were required to read two opposite statements and determine

whether they are more like one (e.g., Some kids are sure that they are pretty smart in school) than the other (Other kids are not so sure they are all that smart in school). Following that, they were to decide whether their chosen statement is "Really true of them" or "Sort of True". Each item is scored on a 4-point scale ranging from least competent (score of 1) to most competent (score of 4).

Strengths and Difficulties Questionnaire (SDQ)

The SDQ (Goodman et al., 1998) is a 25-item behavioural screening questionnaire designed for 3-16 year olds. Three different versions exist for teachers, parents and students rating themselves. We used only the self-rated version in the current study. This is suitable for children aged between 11-16. The 25 items in the SDQ covers 5 broad scales - Emotional symptoms, Conduct Problems, Hyperactivity/Inattention, Peer relationship and Prosocial behavior. A total difficulties score comprises the sum of the first four scales. To complete the SDQ, respondents were required to read statements and rate themselves on a three point scale (0 = Not true; 1 = Somewhat True; 2 = Certainly True) corresponding to the degree they deem the statements to be true of themselves.

Self Efficacy Questionnaire for Children (SEQ-C)

The SEQ-C (Muris et al., 2003) is a 24-item survey that requires participants to rate themselves on a 5 point scale (1 = not at all and 5 = very well) on the degree of their perceived self efficacy. The survey

consists of items that represent three domains of self efficacy. First, Social self efficacy refers to the perceived capability for peer relationships and assertiveness. Second, Academic self efficacy refers to the capability to manage one's learning and mastery of subjects in school and to fulfil academic expectations. Third, Emotional self-efficacy reflects the capability to cope with negative emotions (Muris, 2001). In addition to the subscale scores, a total self efficacy score can be derived by adding all three sub scale scores. Internal consistency for the SEQ-C ranged from between .85 (total self efficacy) to .88 (subscale scores).

Procedure

Participants were given either two or three survey forms depending on their age. Specifically, students above 14 years completed all three surveys while students between below 14 completed the SDQ and the SPPLD only. Participants completed the paper and pencil surveys in one sitting. They were asked to complete the survey independently but were allowed to ask questions if they needed clarification.

Results

All analyses were conducted using R (R Core Team, 2013). As there were multiple t-tests conducted, a Bonferroni correction was done to correct for familywise error rate. Hence, the criterion for statistical significance was set at $\alpha = .0025 (.05/20)$.

Self evaluation comparisons between LD children and normal achievers

A series of independent samples t-test

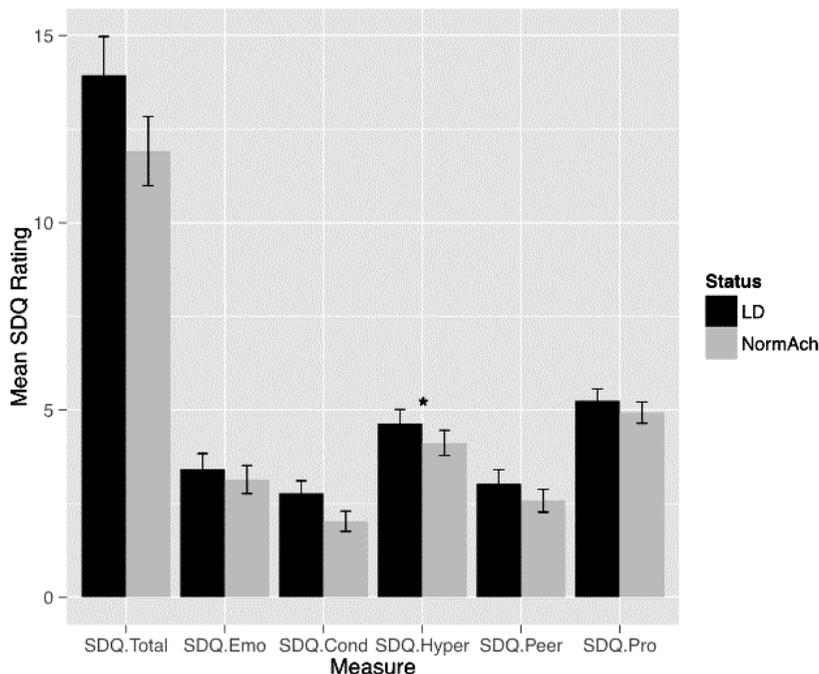


Figure 1. SDQ ratings for LD children (LD) and normal achievers (NormAch). * $p < .001$

was conducted first to compare self ratings on each instrument (SPPLD, SDQ and SEQ-C) between LD children and those of their normally achieving peers. These independent samples t-tests revealed that LD children ($M = 2.77$, $SD = 1.84$) rated themselves with more conduct problems than the normal achievers ($M = 2.03$, $SD = 1.57$), $t(235.21) = 3.34$, $p = .0007$ (see Figure 1) on the SDQ.

Interestingly, LD children rated their general intellectual (GIA), $t(227.89) = 3.36$, $p = .0009$, reading, $t(224.13) = 6.45$, $p < .0001$ and spelling competencies, $t(240.48) = 6.76$, $p < .0001$ as higher than the normal achievers (see Figure 2) on the SPPLD. All other comparisons failed to reach statistical significance. Similarly, no statistically significant difference was

found between LD children and their normally achieving peers using the SEQ-C.

Self evaluation comparisons between children with dyslexia and normal achievers

As the majority of diagnosed LD students consist of children with a diagnosis of dyslexia, we excluded children with other diagnosed LD and repeated the above analyses to determine whether children diagnosed with dyslexia would differ from the normal achievers. We conducted a series of independent samples t-tests to compare self ratings on each instrument (SPPLD, SDQ and SEQ-C) between these two groups. These independent samples t-tests revealed that those diagnosed with

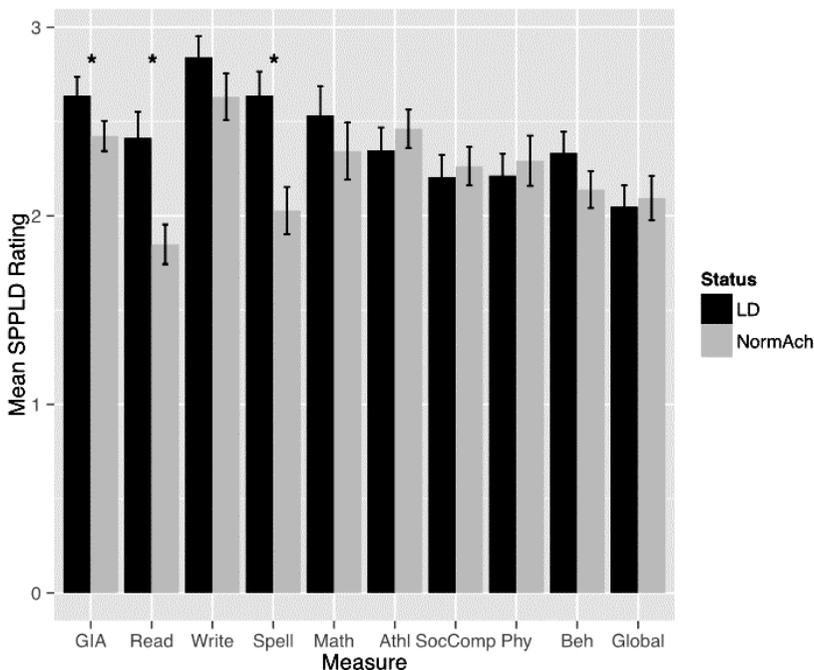


Figure 2. PPLD ratings for LD children (LD) and normal achievers (NormAch). * $p < .001$

dyslexia ($M = 2.82$, $SD = 1.88$) rated themselves with more conduct problems than the normal achievers ($M = 2.03$, $SD = 1.57$), $t(193.84) = 3.41$, $p = .0007$ (see Figure 3) on the SDQ.

Similarly, those with diagnosed with dyslexia rated their general intellectual ability (GIA), $t(183.73) = 3.42$, $p = .0008$, reading, $t(212.23) = 5.89$, $p < .0001$, and spelling competencies, $t(212.23) = 6.79$, $p < .0001$, as higher than the normal achievers on the SPPLD (see Figure 4).

All other comparisons failed to reach statistical significance. Similarly, no statistically significant difference was found between LD children and their normally achieving peers using the SEQ-C.

Gender differences in self-evaluations

Finally, we also evaluated whether there were any gender differences in self-evaluations among those with a diagnosis of dyslexia. As we have corrected for family-wise error rates due to the large number of t-tests conducted, none of the gender comparisons were statistically significant, although the comparisons between females ($M = 6.22$, $SD = 1.38$) and males ($M = 5.16$, $SD = 1.75$) on SDQ prosocial approached significance ($p = .004$).

Discussion

In this study, we set out to determine whether LD children have lower levels of self-perception and self-efficacy.

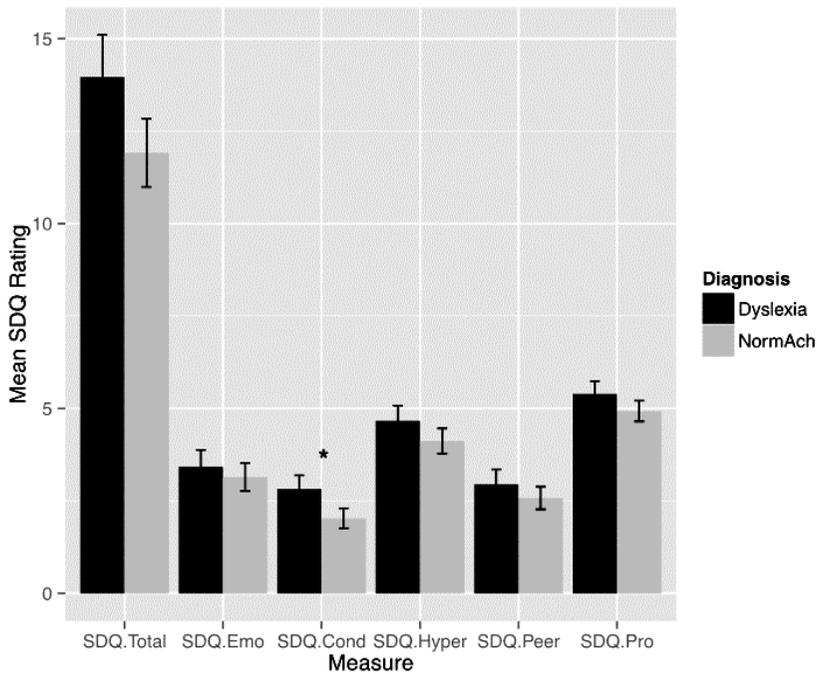


Figure 3. SDQ ratings for children with dyslexia and normal achievers (NormAch). * $p < .001$

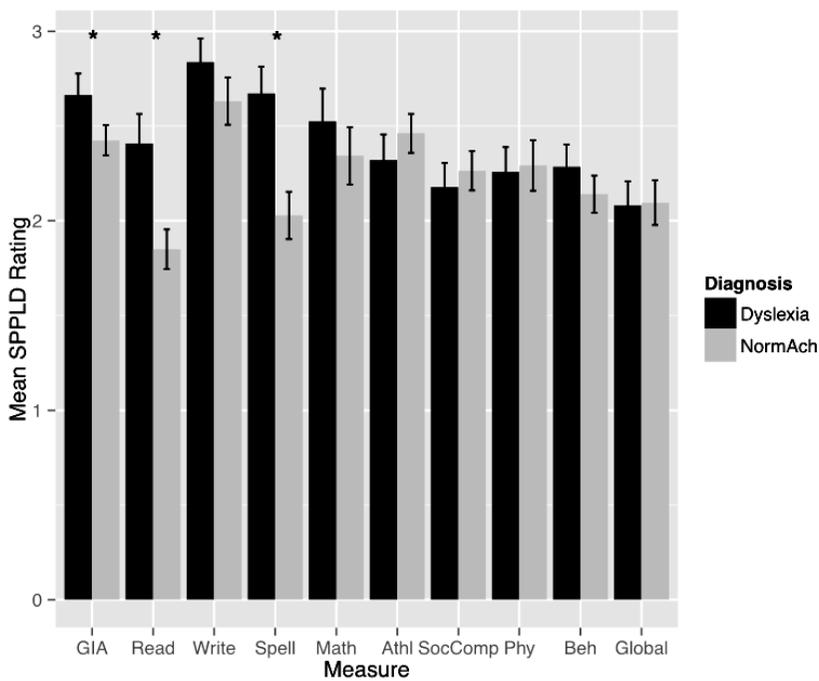


Figure 4. SPPLD ratings for children with dyslexia and normal achievers (NormAch). * $p < .001$

Surprisingly, and by contrast with much of the literature, children with LD rated themselves as more competent in general intellectual ability and have higher self-perceptions of their reading and spelling competency. As the majority of respondents were students diagnosed with dyslexia, further analyses excluding children with other LD yielded the same finding. Specifically, students diagnosed with dyslexia had higher levels of perceived general intellectual ability as well as reading and spelling competencies. Children with LD also rated themselves to have more conduct problems than their normally achieving peers.

Our finding of better self evaluations in academic related domains (General Intellectual, Reading and Spelling competencies) among LD children in the current study is inconsistent with the large body of longitudinal and cross-sectional studies that showed deflated academic and intellectual self concepts among LD children compared to their non-LD and normally achieving peers (Akande, 1997; Grolnick & Ryan, 1990; Hagborg, 1998, 1999; Harter, Whitesell, & Junkin, 1998; Meltzer et al., 1998; Polychroni, Koukoura, & Anagnostou, 2006; Rogers & Saklofske, 1985; Stanovich, Jordan, & Perot, 1998; Stone & May, 2002; Zeleke, 2004).

The reasons for these surprising but discrepant findings are not clear-cut but we speculate that such a pattern of findings may be due to the special attention and encouragement given to LD children by those who are aware of their LD. These encouragements may come from three sources - teachers in their school, parents and educational

therapists in their specialist remediation classrooms. Teachers in class and parents may give children with LD special praise and afford them special attention to highlight their achievements and progress.

Educational therapists delivering specialist remediation in small classes may also further buffer learners with LD's self concepts in two ways. One is via direct encouragement and affirmation. Two is via the implementation of specialist teaching approaches. All the children diagnosed with LD in our sample are currently receiving specialist remediation in voluntary welfare organisations with the majority of them receiving specialist remediation by trained educational therapists at the Dyslexia Association of Singapore by means of the Orton-Gillingham (OG) approach.

A key teaching principle of this approach is to ensure learning is conducted in an emotionally sound manner (Academy of Orton-Gillingham Practitioners and Educators, 2012). For example, educational therapists constantly review previously taught materials and build in opportunities for success and mastery. This helps LD students become more confident in their literacy skills.

Another important component of the OG-Approach is the personalised approach which recognises the needs and pace of the learners. Whereas these are easy to implement in a small group setting characteristic of these specialist remediation classes, these may often be absent in a mainstream school classroom where the large number of students make

it harder to tailor to individual student's needs. In comparison to children undergoing classes with specialised instruction, the normally achieving children may not receive the affirmation and encouragement they need in the regular classroom. Hence, placing children with LD in specialist remediation classes may have indirect benefits to their self-concept due to them learning in a more "learner-friendly" environment.

Children with LD placed in specialist remediation classes are also shown to exhibit higher levels of self evaluations (Coleman, 1983; Humphery & Mullin, 2002; Ribner, 1980). For instance, Humphery and Mullins (2002) found that children with dyslexia placed in SpLD units receiving intervention had higher self esteem and self concepts compared to dyslexic children in mainstream schools. Those placed in SpLD units also had comparable self-esteem and self concept with control students without LD (Humphrey & Mullins, 2002).

Possibly, these specialist classrooms may have added benefits for self-esteem and self concept as it creates a different reference group for children with LD for social comparison (i.e. LD students comparing themselves to other LD children rather than children in their regular classrooms; Marsh, 1987). In other words, it is harder for normally achieving children to "stand out" for academic success as the grades baseline in the classroom may be higher. In comparison, the baseline for achievement in the specialist intervention classroom is lower and hence LD students have much more opportunities to "stand out" and attain affirmation and

encouragement for their achievements.

However, it must be recognised that although positive self evaluations resulting from affirmation and encouragement are good in itself, these must be tempered with realistic evaluations of LD children's capabilities. It was previously shown that LD children tended to overestimate their academic performance relative to their actual performance. Comparatively, non-LD children tended to have more realistic estimations of their performance (Stone & May, 2002). Therefore, even though LD children may have high self evaluations of their scholastic abilities, these may not be in line with reality.

In the SDQ, LD children rated themselves as having more conduct problems than their normally achieving peers. One possibility may be that children with LD may have comorbid attentional and hyperactivity difficulties that resulted in conduct and behavioural issues. However, this is unlikely because their ratings on the Hyperactivity scale on the SDQ did not differ from their normally achieving peers. Another possibility is that children with LD may be misunderstood and singled out by their peers, thus resulting in the problem behaviours displayed. Some, especially those with concurrent language difficulties, may also not express themselves clearly and understand instructions well thus resulting in misunderstandings in school. Therefore, an important implication of this finding is the implementation of behavioural management techniques in classrooms and specialist remediation classes. Additionally, training of educational

therapists in special remediation classes in behavioural management could also be beneficial for managing difficult classroom behaviours.

Limitations

We highlight a few limitations of the current study so as to place its findings in perspective. First, the criteria for selection for the normally achieving group is that the child must not have a diagnosed LD and must have an average to above average academic performance in school. However, since we did not conduct psycho-educational assessments for students in this group, we do not rule out the possibility that some could have an undiagnosed LD. Second, there is an over-representation of children with dyslexia in the current sample of students with LD.

Hence, while we could conclude that LD children displayed better self-evaluations of their reading, spelling and general intellectual ability, this finding is mainly driven by children with dyslexia. Third, due to the age that the SEQ-C was designed for (14-18 years), we could only administer it to about 20% of the sample ($n = 61$) in our current study. Hence, one possibility for the failure to find differences in different domains of self efficacy could be due to the small n-size that completed the SEQ-C. Lastly, it is important to highlight that we only asked students to rate themselves and did not include concurrent ratings by teachers, parents or peers. The lack of these concurrent ratings may thus raise doubts about the reliability of the survey responses.

Future directions

Although our study benefitted from having a large number of children with LDs, the majority of them were children diagnosed with dyslexia. Thus, we could not assess whether different LDs differed in terms of their self evaluations. Future studies could include more students with different LDs so that differences in self evaluations between LD subgroups could be further examined.

Conclusions

In this study, contrary to expectations, we demonstrated that children with LD showed more positive self evaluations of their reading, spelling and intellectual ability than their normally achieving peers. Importantly, the LD children in the current study are all receiving specialist remediation. These results thus suggest that although the goal of specialist remediation is not to raise self esteem and provide emotional support, it may nevertheless lead to an indirect positive impact on academic self concept. Practically, this thus calls for better identification of children who may show LD symptoms and the provision of timely remediation support. Additionally, owing to the elevated ratings of conduct problems in LD children found in this study, perhaps, future investigations could also obtain concurrent ratings by parents and teachers to determine the reasons for this. The findings from such an investigation can then motivate and inform training of those working in specialist remediation to provide more holistic behavioural support.

References

- Academy of Orton-Gillingham Practitioners and Educators. (2012). *The Orton-Gillingham Approach*. Retrieved 19 May 2015, 2015, from <http://www.ortonacademy.org/approach.php>
- Akande, A. (1997). The perception of ability scale for students (pass) in Africa and New Zealand. *School Psychology International*, 18(2), 179-189. doi: 10.1177/0143034397182006
- Alexander-Passe, N. (2006). How dyslexic teenagers cope: An investigation of self-esteem, coping and depression. *Dyslexia*, 12, 256-275. doi: 10.1002/dys.318
- Cole, M., & Cole, S. R. (2001). *The development of children* (4th ed.). New York: Worth Publishers.
- Coleman, J. M. (1983). Handicapped labels and instructional segregation: Influences on children's self-concepts versus the perceptions of others. *Learning Disability Quarterly*, 6, 3-11.
- Conderman, G. (1995). Social Status of Sixth- and Seventh-Grade Students with Learning Disabilities. *Learning Disability Quarterly*, 18(1), 13-24. doi: 10.2307/1511362
- Crabtree, J., & Rutland, A. (2001). Self-evaluation and social comparison amongst adolescents with learning difficulties. *Journal of Community & Applied Social Psychology*, 11(5), 347-359. doi: 10.1002/casp.634
- Daniel, L. G., & King, D. A. (1997). Impact of inclusion education on academic achievement, student behavior and self-esteem, and parental attitudes. *The Journal of Educational Research*, 91(2), 67-80.
- Elbaum, B. (2002). The self-concept of students with learning disabilities: A meta-analysis of comparisons across different placements. *Learning Disabilities Research & Practice*, 17(4), 216-226. doi: 10.1111/1540-5826.00047
- Gallegos, J., Langley, A., & Villegas, D. (2012). Anxiety, depression, and coping skills among mexican school children: A comparison of students with and without learning disabilities. *Learning Disability Quarterly*, 35(1), 54-61. doi: 10.1177/0731948711428772
- Goodman, R., Meltzer, H., & Bailey, V. (1998). The strengths and difficulties questionnaire: A pilot study of the self-report version. *European Child and Adolescent Psychiatry*, 7, 125-130.
- Grolnick, W. S., & Ryan, R. M. (1990). Self-perceptions, motivation, and adjustment in children with learning disabilities: A multiple group comparison study. *Journal of Learning Disabilities*, 23(3), 177-184. doi: 10.1177/002221949002300308
- Hagborg, W. J. (1998). School membership among students with learning disabilities and nondisabled students in a semirural high school. *Psychology in the Schools*, 35(2), 183-188.
- Hagborg, W. J. (1999). Scholastic competence subgroups among high school students with learning disabilities. *Learning Disability Quarterly*, 22(1), 3-10. doi: 10.2307/1511147
- Harter, S., Whitesell, N. R., & Junkin, L. J. (1998). Similarities and differences in domain-specific and global self-evaluations of learning-disabled, behaviorally disordered, and normally achieving adolescents. *American Educational Research Journal*, 35(4), 653-680. doi: 10.3102/00028312035004653
- Humphrey, N. & Mullins, P. M. (2002). Self-concept and self-esteem in developmental dyslexia. *Journal of Research in Special Educational Needs*. 2(2). doi: 10.1111/j.1471-3802.2002.00163.x.
- Jarvis, P. A., & Justice, E. M. (1992). Social sensitivity in adolescence and adults with learning disabilities. *Adolescence*, 27(108), 977-988.
- Johnson, D. J. (1995). An overview of learning disabilities: Psychoeducational perspectives. *Journal of Child Neurology*, 10(10), S2-S5.

- Marsh, H. W. (1987). The big-fish-little-pond-effect on academic self-concept. *Journal of Educational Psychology, 79*, 280-295.
- Meltzer, L., Roditi, B., Houser, R. F., & Perlman, M. (1998). Perceptions of academic strategies and competence in students with learning disabilities. *Journal of Learning Disabilities, 31*(5), 437-451. doi: 10.1177/002221949803100503
- Möller, J., Streblov, L., & Pohlmann, B. (2009). Achievement and self-concept of students with learning disabilities. *Social Psychology of Education : An International Journal, 12*(1), 113-122. doi: 10.1007/s11218-008-9065-z
- Muris, P., Meesters, C., & Fijen, P. (2003). The Self-Perception Profile for Children: further evidence for its factor structure, reliability, and validity. *Personality and Individual Differences, 35*(8), 1791-1802. doi: 10.1016/S0191-8869(03)00004-7
- Polychroni, F., Koukoura, K., & Anagnostou, I. (2006). Academic self-concept, reading attitudes and approaches to learning of children with dyslexia: do they differ from their peers? *European Journal of Special Needs Education, 21*(4), 415-430. doi: 10.1080/08856250600956311
- Rattan, A., Good, C., & Dweck, C. S. (2012). "It's ok – Not everyone can be good at math": Instructors with an entity theory comfort (and demotivate) students. *Journal of Experimental Social Psychology, 48*(3), 731-737. doi: 10.1016/j.jesp.2011.12.012
- Renick, M. J., & Harter, S. (2012). *Self-perception profile for learning disabled students: Manual and questionnaires*. Denver, CO: University of Denver.
- Ribner, S. (1980). The effects of special class placement on the self-concept of exceptional children. *Journal of Learning Disabilities, 13*, 319-323.
- Robins, R. W., Trzesniewski, K. H., Tracy, J. L., Gosling, S. D., & Potter, J. (2002). Global self-esteem across the life span. *Psychology and Aging, 17*(3), 423-434. doi: 10.1037//0882-7974.17.3.423
- Rogers, H., & Saklofske, D. H. (1985). Self-concepts, locus of control and performance expectations of learning disabled children. *Journal of Learning Disabilities, 18*(5), 273-278. doi: 10.1177/002221948501800505
- Román, S., Cuestas, P. J., & Fenollar, P. (2008). An examination of the interrelationships between self-esteem, others' expectations, family support, learning approaches and academic achievement. *Studies in Higher Education, 33*(2), 127-138. doi: 10.1080/03075070801915882
- Stanovich, P. J., Jordan, A., & Perot, J. (1998). Relative differences in academic self-concept and peer acceptance among students in inclusive classrooms. *Remedial and Special Education, 19*(2), 120-126. doi: 10.1177/074193259801900206
- Stone, C. A., & May, A. L. (2002). The accuracy of academic self-evaluations in adolescents with learning disabilities. *Journal of Learning Disabilities, 35*(4), 370-383. doi: 10.1177/00222194020350040801
- Vaugh, S., Zaragoza, N., Hogan, A., & Walker, J. (1993). A Four-Year Longitudinal Investigation of the Social Skills and Behavior Problems of Students with Learning Disabilities. *Journal of Learning Disabilities, 26*(6), 404-412. doi: 10.1177/002221949302600606
- Wilcutt, E. G., & Pennington, B. F. (2000). Psychiatric comorbidity in children and adolescents with reading disability. *Journal of Child Psychology and Psychiatry, 41*(8), 1039-1048.
- Wright-Strawderman, C., & Watson, B. L. (1992). The Prevalence of Depressive Symptoms in Children with Learning Disabilities. *Journal of Learning Disabilities, 25*(4), 258-264. doi: 10.1177/002221949202500407
- Zelege, S. (2004). Self-concepts of students with learning disabilities and their normally achieving peers: a review. *European Journal of Special Needs Education, 19*(2), 145-170. doi: 10.1080/08856250410001678469