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Quantifying Changes in Learning Disabled Students' Self-Esteem Following Special School Placement

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Abstract

This study was initiated to explore observed changes in the self-esteem of children with learning disabilities following their admission to a small, special school. The children, ages 7 to 13, completed individually-administered questionnaires at the start and end of their first school year. Their responses revealed a significant increase in self-esteem over that time period. Item analysis supported the relationship between self-esteem and both social and academic acceptance and success. Parents completed child behaviour questionnaires during corresponding time periods. Changes in parent report were non-significant, although a trend toward lower report of externalizing behaviours such as rule-breaking and aggression was noted. The failure to find corresponding changes in child and parent perception was discussed in the context of qualitative differences in the assessment instruments selected for this study. The need for a parent measurement more closely targeting the experiences reported by the children was discussed. Discussion also focused on implications of the current findings for parents and educators and on limitations of the current study and directions for further research.

Key words: Learning disabilities, self-concept, self-esteem, self-perception, social comparison, parent-report

Introduction

Observations, made by the authors and others who parent or work with learning disabled children, suggest that placement in a small, specialised school generates behavioural changes that range from subtle to remarkable. Children who were initially reluctant to volunteer a response begin to ask questions and offer opinions. Children who seldom smiled chatter with friends in the hallways and join in group play during recess. Nearly all become more actively engaged in learning and begin to identify and develop individual interests and talents. For some, these changes begin almost immediately, as when one youngster returned home after her first day and announced to her parents that she loved her new school because everyone there was like her – smart but unable to read! For others, these changes take place over time. Anecdotal evidence suggests that, more often, children who have previously struggled in school often require the better part of a year to build the trust necessary to take risks in a new environment. This includes trust in their teachers and classmates as well as trust in themselves, faith that they have something worthwhile to contribute and that others will recognise and acknowledge that contribution. It was from observations of these children, as they enter a new, specialised learning environment begin to blossom, and become active members of the learning community that the idea for the pilot study reported here was born.

Literature Review

The self-esteem of children with learning differences has been a major topic for contemporary authors in this field. In her seminal work on learning disabled

children, Sally Smith (1980) wrote about the need of children who struggle academically for positive reinforcement and of the damaging effects of repeated school failure. Robert Brooks (1991), who addresses self-esteem and resiliency in children with learning differences, observes that when a student experiences a sense of genuine accomplishment in school he or she becomes less anxious about their own abilities and about the likelihood of their future success. Sally Shaywitz (2003), in her cutting-edge work on dyslexia, identifies self-esteem as a dyslexic child's area of greatest vulnerability and cites the preservation of self-esteem as the primary goal of parents and teachers of children with reading problems.

The literature suggests that the need to attend to self-esteem in children with learning disabilities is universal. The research in this area, however, has been highly divergent in focus and design. The variable 'self-esteem', for example, has encompassed a range of *terms*, including self-concept, self-image, and self-perception (Bender & Wall, 1994; Cosden et al 1999) and has been viewed as multi-dimensional or global (Han et al., 2005; Kelly & Norwich, 2004; Weist, Wong, & Kreil, 1998; Marsh & Shavelson, 1985). The age of participants has ranged from pre-school (Margalit, 1998) to adolescence (Howard & Tryon, 2005), although most studies have targeted elementary school children (e.g. Han et al 2005). Placement has also varied among studies. Researchers have, for example, explored self-esteem in learning disabled (LD) children in public school settings (Han et al., 2005; Martinez & Semrud-Clikeman, 2004) and have compared these same children in public and private schools (Kelly & Norwich, 2004; Margalit, 1998). In general, findings support the hypothesis that LD children, regardless of age and placement, have lower self-esteem (e.g. sense of inadequacy, poor self-concept) than their non-disabled peers.

Methodological considerations such as choice of research *instrument* and *reporter* have also varied in studies exploring self-esteem in LD students. Researchers have used rating scales (Han et al., 2005; Martinez & Semrud-Clikeman, 2004; Heath & Ross, 2000), semi-structured interviews (Kelly & Norwich 2004), and anecdotal records (Banerji & Dailey, 1995). Where data are self-report, most studies reveal lower self-esteem in LD versus non-LD children (Han et al., 2005; Heath & Ross, 2000; Martinez & Semrud-Clikeman, 2004). Where these findings are inconsistent, relatively stronger self-esteem in LD children has been attributed to moderating variables such as self-protection, social comparison, compensatory comparisons, and maturity. From these perspectives, the tendency of LD children in some studies to over-estimate their academic ability may function as a means of self-protection (Heath & Glen, 2005; Stone, 1997); comparison to others in their immediate reference group may contribute to more positive self-perceptions of educational abilities in children in special schools than those of their counterparts in mainstream schools (Kelly & Norwich, 2004); positive perceptions of non-academic attributes may compensate for academic struggles in LD children (Cosden et al., 1999); and older LD children may form more appropriate and practical self-perceptions (Sabornie, 1994). Data provided by school counsellors (Howard & Tryon, 2002) suggest that LD students in general education classes are more depressed than their counterparts in special education classrooms. Meta-analysis of research using peer ratings (Ochoa & Olivarez, 1995) yields more negative perceptions of LD peers versus non-LD peers in elementary and middle schools regardless of gender, grade, sociometric measurement, and research design. Teacher data documents greater difficulties with social and emotional functioning in pre-school children at risk for learning disabilities (Margalit, 1998) and in first graders (Gadeyne et al., 2004) and adolescents (Stone, 1997) diagnosed with LD.

Finally, data suggests that parent perceptions of their children's level of difficulty may be higher than those of other reporters. Blanchard et al., (2006) reviewed data from the 2003 National Survey of Children's Health and found significantly higher parental concerns about learning difficulties than rates of diagnosed learning disabilities suggest. The authors suggest that this discrepancy may indicate under-diagnosis of children's problems. Other research (Stone, 1997) suggests that parents of LD adolescents have much more negative perceptions of their adolescent's capabilities than either the adolescents themselves or their teachers.

None of the studies referenced above have explored the impact of a change in school placement on self-esteem over time. The study most closely related to this topic (Kelly & Norwich, 2004) suggests that the self-perception of children with learning disabilities is an active, individual process involving their own perception and that of others. In their discussion, the authors note that this process implies a differential impact of school setting. They also suggest that their finding of more positive self-perceptions of educational abilities in students in special schools should be examined more closely. The study described herein was initiated to explore potential changes in self-concept in children newly placed in a school for children with learning disabilities. For the purposes of the present study, self-esteem and self-concept are used interchangeably and measured as a global concept. The authors hypothesised that, consistent with anecdotal data, the self-esteem of learning disabled students would increase over the course of their first year in a small, specialised school. It was also hypothesised that parent report of problem behaviours would decrease over that same period.

Method

Participants

Subjects were students at a small private school providing specialised instruction to children in kindergarten through 8th grade. The school is situated in a predominantly rural setting but students come from a broad geographic area and represent a wide socio-economic spectrum. Eighteen children entered the school as new students in the Fall (Autumn) of the year this study was conducted and the parents of all of these children were contacted regarding participation. The children ranged in age from 7 to 13 and included 17 boys and one girl. All of the children had previously struggled with learning in public school settings. In addition to learning differences, 15 of the children had been diagnosed with Attention Deficit/Hyperactivity Disorder and/or mood or anxiety disorders, and one also had a diagnosis of Asperger's Disorder.

Measures

The Joseph Picture Self-Concept Scale (JPSCS; Joseph, 2004) was selected as a measure of student self-concept. The scale, which was originally developed to evaluate children ages 3-1/2 through to 9-11, had been re-standardized and expanded to include ages 3 through to 7, 7 through to 13, and 13 through to elder adult. The JPSCS was considered particularly appropriate for the purposes of this study as it is administered individually and does not require questions to be read by the student. Permission to use the revised instrument pre-publication was obtained from the author, Dr. Jack Joseph, and the publisher, Western Psychological Services. Measurement difficulties inherent in the use of a self-report scale were addressed through the use of a validity scale included in the

JPSCS and statistical analyses (described below) ensuring normal distribution of pre- and post-test difference scores.

The Child Behaviour Checklist (CBCL; Achenbach & Rescorla, 2001) was selected as a means of obtaining parents' perceptions of their child's emotional/ behavioural functioning. The CBCL covers an age range of 6 through to 18 and contains 113 questions to be answered 'Not True,' 'Somewhat or Sometimes True,' or 'Very True or Often True.' Behaviours fall within the following categories: Anxious/depressed, Withdrawn/depressed, Somatic complaints, Social problems, Thought problems, Attention problems, Rule-breaking behaviour, and Aggressive behaviour. Data from the first three categories are combined to obtain a measure of Internalising behaviours. Data for the last two categories are combined to obtain a measure of Externalising behaviours. Data from all categories are combined to obtain a total score.

Procedure

Prior to participation, parents were given a letter describing the purpose of the study and the procedures to be used in collecting parent and child data. They were assured that the information collected would be confidential, with numbers assigned to the data collected from each family and no identifying information used in any file or report. Parents were also assured that they would be notified of any concerns raised by their children's responses. Finally, parents were informed that, should they choose to participate, they or their child would have the right to discontinue participation at any time. Permission slips signed by the parents contained a similar statement regarding the right to discontinue participation. These slips were kept in a separate file from test results. The assent of the children to participate was obtained at the time of data collection. The described procedures were followed throughout the study.

Pre-test and post-test data were collected. The JPSCS was individually administered to all students in September and October and again in May. Three of the children were administered the form for ages 3 to 7; 15 were administered the form for ages 7 to 13. The CBCL was mailed to parents at the start and end of the school year. All but two of the pre-test parent questionnaires were returned to the school in October. The remaining two were completed in November and early December. Most post-test questionnaires were completed in May, June, and July; three were completed in August and September.

Collection of pre- and post-test data was initiated with all 18 families. One parent failed to complete the post-test parent questionnaire. Of the 18 children administered the JPSCS both pre- and post-test, five failed to pass criteria for validity. These criteria included the Response Distortion Index contained within the form for 7 to 13 year old children and behaviours observed during task administration (e.g. children who obviously responded without thinking about the question, were too distracted to attend, or reacted in a defensive or argumentative fashion). Data from these five children and their parents were not included in the analysis. Findings are based on data obtained from the remaining 13 children and 12 of the 13 parents (excluding both pre- and post-test data from the parent who did not complete the post-test questionnaire). Of the 13 children whose data were analysed, 10 had co-existing disorders of attention, mood, and/or anxiety.

Results

Data analysis was done using the Statistical Package for the Social Sciences, Version 13 (SPSS; SPSS, Inc. 2005). The assumptions for conducting paired samples t-tests on the difference scores were evaluated and, due to the interval nature of the data and the non-significant results of the Kolmogorov-Smirnov test for all four difference score distributions (JPSCS, *Z=.693*, ns; CBCL Internal, *Z=.575*, ns; CBCL External, *Z=.660*, ns; CBCL Total, *Z=.667*, ns), indicating normal distributions, the assumptions were found to have been met.

It was hypothesised that children's self-concept would improve over time, with higher self-concept reported at post-test than at pre-test. As shown in Table 1, there was a significant increase in children's self-concept ($t = -7.389$, $p < 0.001$, two-tailed). Item analysis suggests that the greatest change occurred in the area of social acceptance, where responses of more than half of the children were more positive at post-test. In this regard, the children's responses revealed a perception that they had more friends, were more respected for their abilities, and were included in more social activities than had previously been the case. Other items endorsed more positively by some children at post-test reflected an increased ease and pleasure in learning, improved grades, and a sense that their individual contribution in the classroom was valued and respected.

Table 1 Student Data - Joseph Picture Self-Concept Scale (JPSCS)

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std Deviation	Std Error Mean	Lower	Upper	t	df	Sig (2-tailed)
JPSCS Pre – JPSCS Post	-7.000	3.416	0.947	-9.064	-4.936	-7.389	12	0.000

Table 2 Parent Data - Child Behaviour Checklist (CBCL)

	Paired Differences							
				95% Confidence Interval of the Difference				
	Mean	Std Deviation	Std Error Mean	Lower	Upper	t	df	Sig (2-tailed)
Internal Pre-Internal Post	-0.667	7.935	2.291	-5.709	4.375	-0.291	11	0.776
External Pre-External Post	3.000	6.030	1.741	-0.831	6.831	1.723	11	0.113
Total Pre – Total Post	1.167	6.013	1.736	-2.654	4.987	0.672	11	0.515

It was hypothesized that parents would report fewer problems in their children at post-test. As shown in Table 2, however, differences between pre- and post-test parent reports were non-significant for Internalizing ($t = -0.291$, $p < .776$, two-tailed) and Externalising ($t = 1.723$, $p < .113$, two-tailed). Among these results, a trend toward lower report of Externalising behaviours at post-test is of interest.

The pre- and post-difference for total score was non-significant ($t = .672$; $p < .515$, two-tailed).

Discussion

Prior studies have consistently documented lower self-esteem in children with learning disabilities than in their non-disabled peers. The study reported herein focused on changes in self-esteem in children with learning disabilities over the first year of their placement in a small, specialised school. All of the children in this study had previously attended public schools. Anecdotal data and observations of similar children entering the school in prior years suggested that many viewed their abilities negatively, felt socially isolated, and were initially unavailable for learning. While some responded to their new environment quickly and positively, others took months to demonstrate comfort in their surroundings and confidence in their ability to learn. As a means of measuring the validity of these observations, first-year students were administered measures of self-concept at the start and end of that year. Results support observations of significant, positive changes in self-concept or self-esteem. Analysis of children's responses further suggests that much of this change occurs in the social arena. That is, children view themselves as more socially accepted in their new environment. They also appear to feel more comfortable with their ability to learn, think that they have more to contribute in the classroom, and perceive that their contributions are valued.

Child report of self-concept and parent report of child behaviour are not directly comparable. The current study did, however, hypothesise that parent perceptions of their children's functioning would improve over the course of the first school year. This hypothesis was not upheld by the data, either in the areas of Internalising or Externalising behaviours. The literature indicates that parents view their children as experiencing greater difficulty than do the children themselves. The current finding suggests that parent perceptions tend, at least in the short term, to remain fairly static and that, if change occurs, it tends to occur more slowly, and perhaps more cautiously, than changes in self-concept experienced by their children. A trend toward lower report of Externalising behaviours at post-test suggests a potential shift in the perception of behaviours that are overt and worrisome to parents. It is possible that the parent questionnaire used in this study failed to capture the more subtle, internal changes implicit in a shift in a child's self-concept or self-esteem. The development of an instrument more directly targeting behaviours that reflect changes in a child's social acceptance (e.g. the quality of relationships with classmates) and attitude toward learning (e.g. willingness to attend school) might therefore be an important addition to further research in this area.

Although the sample size in this initial, pilot study is small, the findings of increased self-esteem in the children and the range of responses contributing to that finding are consistent with prior researchers' observations that the self-esteem of learning disabled children is a dynamic process (Kelly & Norwich, 2004). As noted above, these authors hypothesised that greater self-concept in learning disabled children in a small private school versus those in a mainstream setting may be attributable to comparison with their immediate peer group, all of whom are children with learning disabilities. The current findings therefore provide substantial support for the impact of social comparison on self-esteem and, by extension, the positive effects of specialised versus mainstream placement of children with learning disabilities.

Other potential contributors to improved self-esteem in these children can be hypothesised. These contributors are inherent in the academic environment of the school targeted in the present study and are relatively common in small, specialised schools. They include small class size, low student: teacher ratio, and the provision of intensive multi-sensory instruction and supplemental services (e.g. speech-language and social skills support) across the school day. The training and cohesiveness of school staff and the level of warmth and support inherent in their commitment to these students could also be considered contributors. The latter variables were discussed by Kelly and Norwich, (2004) as other potential contributors to the differences observed in their study. Similarly, Rock, Fessler and Church (1997) discussed the potential interactive effects of environment (specifically, teachers who were highly effective and accepting of learning disabilities) and social competence of LD students. While many of these variables are difficult to quantify, all should be considered in further research.

The absence of control groups (e.g., children with learning disabilities entering a smaller, more specialised programmes within their larger public school setting or children newly diagnosed as LD receiving services in a mainstream setting) limits generalisation of the current findings and should be included in future research. The small sample size in the current study is also a limitation. It will therefore be important to replicate these findings in a larger population of first-year students in more than one specialised school and to measure self-concept in these children over a more extended time period. The addition of teacher report would also provide important information about ways in which changes in self-concept evidence themselves in the classroom. Further, attention should be paid to variables inherent in the group of children included in this and other studies. While it is beyond the scope of the current paper, researchers have documented a higher incidence of learning problems in children with emotional disabilities than in children in the general population and, conversely, up to four times the incidence of significant emotional/behavioural problems in children with rather than without learning disabilities (Rock, Fessler & Church, 1997).

Conclusion

The current findings contribute to what is known about self-esteem in learning disabled students and have implications for LD children and for the teachers and parents interacting with them. The present research strongly suggests that children's sense of self-esteem is influenced by their daily school experience and, more specifically, by variables inherent in educational placement. In this regard, questionnaire responses generated during the current study were consistent with anecdotal observations referenced at the start of this article. For the educator, the current study weighs rather heavily on the side of specialised education placement (if not placement in special schools) versus the mainstreaming of children with learning differences. At the least, it underscores the need to carefully examine the components of a special education classroom, including the need for teacher training on the impact of LD on emotional functioning and an awareness of the need to consider the whole child in academic planning. Discussion of the results of this study by educators in the setting in which the study took place has provided strong validation for this approach. For parents of children with learning differences, the results of this study reinforce the impact of learning differences on self-esteem and underscore the need for vigilance in considering all aspects of their child's school placement. Findings also encourage parents to attend to their child's self-perception as an important gauge of progress and success.

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