The Relationship between attributional style, self-concept, and class placement in students with and without learning disabilities

Lynette Ship
The Relationship Between Attributional Style, Self-concept, and Class Placement in Students With and Without Learning Disabilities

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By

Lynette Ship

In Partial Fulfillment of the Requirements for the Degree of Master of Science


Approved: G. T. Gurly

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Brian Barry
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Lynette C. Ship

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Abstract

The current investigation was conducted to examine the relationship between attributional style, self-concept, and class placement in students with and without learning disabilities. Subjects included both students with and without learning disabilities from third, fourth, and fifth grade classrooms. The students who participated in the study were involved in either general or full inclusion programs. Students classified with learning disabilities in the general education program were pulled out for resource room services, while those in the full inclusive programs did not receive pull out services. All students were given the Children’s Attributional Style Questionnaire and the Piers-Harris Children’s Self-concept Scale. Three hypotheses were tested. Based on past research it was proposed that students classified with learning disabilities would possess a more negative attributional style in addition to a lower self concept in the area of academic achievement compared to their general education peers. Finally, it was predicted that attributional style, and not class placement, would be a stronger predictor of academic self-concept. Results show strong support for all three hypotheses. Results are discussed in terms of implications for interventions as well as directions for further research.
The Relationship Between Attributional Style, Self-concept, and Class Placement in Students With and Without Learning Disabilities

Extensive research has been conducted on factors impacting the self-concept of both students possessing learning disabilities, and their general education peers (Colman & Minnett, 1992; Kurtz-Costes, & Schneider, 1994; Smith, Dolecki, & Davis, 1977). Several studies have examined the effect of educational environment on the self-concept of students with disabilities (Forman, 1988; Colman, 1983; Wang, & Birch, 1984). Other researchers have concentrated their efforts on looking at how students’ attributional style will affect his or her self-concept (Cooley & Ayres, 1988; Marsh, 1984). Despite the plethora of research in these areas, exploration into the interaction of all three factors has been neglected. The purpose of the present study is to investigate the relationship between self-concept, attributional style, and classroom placement in both students with and without learning disabilities. By determining which factor, attributional style or educational environment, correlates more strongly with the self-concept of students, educators can implement more effective interventions aimed at increasing the self-concept of students with learning disabilities.

Self Concept and Students with Learning Disabilities

Research examining the self-concept of students possessing learning disabilities is extensive. These studies, however, have produced mixed results depending on the specific area of self-concept being examined. Some research has shown no differences in the general self-concept of students with and without learning disabilities (Sabornie, 1994; Vaughn, Hager, Hogan, & Kouzenkananik, 1992). Most research has found that in the domain of scholastic competence, students with learning disabilities possess a self-concept
that is significantly lower in comparison to their general education peers (Ayres, Cooley, & Dunn, 1990; Cooley & Ayres, 1988). These studies have concluded that self-concept is highly correlated with academic achievement, and because of this, students with learning disabilities possess a lower academic self-concept compared to their regular education peers (Rogers & Saklofske, 1985). Although these studies looked at the differences between students with and without learning disabilities in the area of self-concept, they failed to critically consider the educational environment of each group of students, and how this may affect their results.

**Special Education and Least Restrictive Environment**

In 1986, a paper entitled “Educating Students with Learning Problems: A Shared Responsibility” was presented by the assistant secretary of the Office of Special Education and Rehabilitation Services. This paper has since been titled the Regular Education Initiative (REI) and was written with the intention of creating better education services for students with special needs. Among the problems noted with regard to the current service delivery system was the belief that segregation of students with special needs causes poor self-esteem and negative attitudes towards school (Carnine & Kameenui, 1990). Some advocates of the REI believe that children with mild disabilities (such as learning disabilities) will develop a more positive self-concept when placed among their regular education peers (Wang & Birch, 1984).

Legislation aimed at decreasing the amount of segregation in special education resulted from this and other similar beliefs (Marston, 1996). With the implementation of PL-94-142, and more recently, the amendment to that act, the Individuals with Disabilities Education Act (IDEA), school districts are mandated to place students with disabilities in
the least restrictive environment (Coben & Zigmond, 1986; Sale & Carey, 1995; Vaughn & Schumm, 1995). As a result of such legislation, schools are being pressured to decrease the number of special education classrooms for kids with special needs and provide more inclusive educational environments (Turnbull, 1996, p. 134).

**Self-concept and Classroom Placement**

Much of the research examining the effects of more inclusive educational environments on the self-concept of students with learning disabilities has not found a correlation between the two factors (Forman, 1988; Yauman, 1980). For the most part these studies have determined that the academic self-concept of students with learning disabilities is lower in comparison to their typical peers regardless of class placement (Bear, Juvonen, & McIrerney, 1993; Vaughn, Elbaum, & Schumm, 1996).

Vaughn et al. (1996) compared the self-concept of students with and without learning disabilities in inclusive classrooms. Results from this study found that the two groups differed only in the area of academics, with the typical kids possessing a higher scholastic self-concept compared to their peers with learning disabilities. No differences were found between the groups on overall self-worth. These results are consistent with those found by Bear et al. (1993) who examined the self-perceptions of boys with and without learning disabilities in full time integrated classrooms. Again it was found that the students with learning disabilities maintained a lower academic self-concept compared to their non-disabled peers, however the two groups did not differ in overall self-worth.

Other studies looked only at general self-concept without examining scholastic competence as a specific domain. Consistent with other research, no differences were noted between students with and without learning disabilities. Yauman (1980) investigated
the relationship between amount of time spent in special education classrooms and self-concept among students with learning disabilities. Results from this study determined that those students enrolled in full time special education classrooms did not differ in general self-concept from those students mainstreamed for parts of the day. Forman (1988) also looked at variables affecting self-concept of students. Results from this study again found no relationship between self-concept and classroom placement among students with learning disabilities.

**Self-concept within a Theory of Social Comparison**

Much of the research conducted on the effects class placement has on the self-concept of the students has been based on a theory of social comparison. Social comparison theory states that “in the absence of objective standards of comparison, people will employ others in their environment as a basis for forming estimates of his self-worth” (Festinger, 1954). Festinger stressed the cognitive determinants of self-esteem, and in his theory he maintained that we form our self-perceptions by comparing our performances with others. This research, however, has produced mixed results questioning the validity of the effects of social comparison on the self-concept of students with learning disabilities.

Studies indicating that classroom placement has an effect on the self-concept of students with and without learning disabilities have had specific limitations that make the results questionable. Bear, Clever, and Proctor (1991) examined the effects of classroom placement on students with and without learning disabilities. These researchers compared both students with learning disabilities and typical students in blended classrooms, as well as typical students in general education classrooms. Based largely on the social
comparison theory, it was hypothesized that the students with learning disabilities would possess a lower academic self-concept compared to their typical peers in the blended classrooms. In addition, it was further hypothesized that the typical students in the blended classroom would possess a greater overall as well as academic self-concept compared to the typical students in the regular education classrooms. The researchers based this assumption on belief that if students formulate their self-concept through comparisons with those around them, the typical students in the blended classrooms would protect and enhance their self-concept by using the students with learning disabilities in the classroom as a comparison group.

The results based on their first hypothesis suggested that the students with learning disabilities did possess a lower academic self-concept compared to the typical students in the integrated classroom. Results based on their second hypothesis found that the typical boys in the blended classrooms possessed a greater academic self-concept compared to the boys in the general education classroom, whereas no effect was found between the girls with and without learning disabilities. However, in the study there were 43 typical girls in the integrated classroom compared to 9 girls with learning disabilities. The researchers determined that the lack of an adequate comparison group of girls with learning disabilities prevented the typical girls in the integrated classrooms from making comparisons with lower achieving girls, and therefore they had only themselves as a basis of comparison (Bear, Clever, & Proctor, 1991). These researchers, however, did not look at students with learning disabilities receiving resource room services or typical students in regular classrooms. Without examining the self-concept of these students, no conclusions could be
made regarding the effects such inclusive programs have on the self-concept of both students with and without learning disabilities.

Using the Piers-Harris Self-concept Scale, Smith, Dokecki, and Davis (1977) conducted investigations on the self-concept of students with learning disabilities in different classroom placements. In the first investigation, the researchers examined the self-concept of students with learning disabilities in self-contained classrooms. Results from this investigation found that the self-concept of the students with learning disabilities in the self-contained classroom were similar to those found in the normative group presented in the Piers-Harris manual. The second investigation focused on the self-concept of students with learning disabilities integrated for part of the day in regular education classrooms compared to those in the self-contained classrooms. The results from this investigation suggested that the integrated students possessed a higher self-concept compared to the self-contained group. The researchers then determined that their results add support for social comparison theory in that the students utilized their reference groups in order to formulate their self-concept. They maintained that since the students who were mainstreamed for a portion of the day could utilize a higher reference group, they developed a higher self-concept compared to their self-contained peers. These students, however, were mainstreamed for only a portion of the day, and for purposes of this study only. This sudden placement change, as well as the "newness" of it may have temporarily boosted their overall self esteem and affected the results. In addition, these researchers looked at overall self-concept without looking specifically at academic self-concept. Since research has shown this to be an area of lower self-concept in students with learning disabilities, this investigation would provide more conclusive results.
Wang and Birch (1984) found differing self-perception between students with learning disabilities receiving resource room services and similar students in full inclusion (blended) classrooms. These researchers found that students with learning disabilities receiving pull out resource room services for reading and math possessed a lower general and academic self-concept compared to similar students in a blended program with no pull out services. In addition, there were no differences found between the self-esteem of the students with learning disabilities and general education students within the blended classroom. Based on these results, Wang et al., argued for more inclusive programs such as blended classrooms to help increase the self-perceptions of students with special needs. These researchers, however, failed to include statistical data to support their claims.

A specific goal of the present study is to further the research in this area by expanding on the Bear, et al., 1991 study. The studies to date have failed to examine students both with and without learning disabilities in blended and non-blended general education classrooms. By looking at students with learning disabilities educated in both blended and resource room settings, as well as typical students in blended and non-blended classrooms, a thorough examination of the effect classroom placement has on self-concept can be examined.

Attributional Style

Another body of research has looked at the effects of attributional style on the development of self-concept. A person's attributional style (often referred to as explanatory style) is considered a cognitive personality variable which interprets the way in which individuals' explain the cause of events in their lives (Peterson & Barrett, 1987). Some research has found that people with similar abilities may interpret success and
failures differently depending on their own attributional style (Seligman, Abramson, Semmel, & von Baeyer, 1979). As a result, they develop different expectancies regarding future outcomes (Abramson, Seligman, & Teasdale, 1978).

Abramsom et al. (1978) proposed the reformulation of helplessness theory. According to this theory, the explanations people give for good and bad outcomes influence their expectations about future outcomes and the reactions that they have to them (Anderson, Horowitz, & French, 1983). Attributional style can be measured along three dimensions; internal-external, stable-unstable, and global-specific (Nolen-Hoeksema, Girus, & Seligman, 1986). Causes of events can be internal or external to the individual, meaning that the individual may feel they caused the event, or it was a result of some external happening. Second, an event can be considered stable or unstable. If an individual views an event as stable, he or she expects that it may again occur in the future. An unstable event is one which occurs and is unlikely to occur again. Finally, events can be considered to have global or specific effects. If an individual feels as though the event influenced all aspects of his or her life, it is said to have a global effect. However, if only a specific part of his or her life is effected, than he event is said to have a specific effect (Abramson, et al., 1978). Individuals who explain bad events in terms of stable, internal, and global causes, while explaining good outcomes in terms of unstable, specific, and external causes are said to be experiencing learned helplessness according to the reformulated helplessness theory (Abramson et al., 1978).

A learned helplessness (or maladaptive) explanatory style is correlated with a number of maladaptive factors such as; depression (Klein, Fencil-Morse, & Seligman, 1976; Rizley, 1978; Kuiper, 1978; Fowler & Peterson, 1981; Colin, Sweeney, &
Schaeffer, 1984), poor peer relations, (Aydin, 1988), poor job related productivity, and an increase in quitting (Seligman & Schulman, 1986), and physical illness (Peterson, 1988). Several studies have also found a relationship between explanatory style and achievement, with low achieving students possessing a more maladaptive explanatory style compared to their normal achieving peers (Seligman, Peterson, Kaslow, Tanenbaum, Alloy, & Abramson, 1984; Nolen-Hoeksema et al., 1986). Other researchers confirm these findings and also have found that this maladaptive explanatory style leads to self-disapproval, self-punishment, and negative future expectations (Cook, 1983; Licht, 1983). Children who exhibit learned helplessness have acquired a habit of not trying as a consequence of having repeatedly experienced failure (Luchow, Crowl, & Kahn, 1985). It effects their expectations, motivation, and performance (Abramson et al., 1978). The type of explanatory style that an individual forms has been found to be stable over the years (Nolen-Hoeksema et al., 1986).

Attributional Style in Students Possessing Learning Disabilities

Some research has shown that under circumstances of early and repeated failure, students with learning disabilities often attribute failure to insufficient ability and in turn become debilitated by that failure (Dalley, Bolocofsky, Alcorn, & Baker, 1992). These researchers have determined that students with learning disabilities feel their failures are beyond personal control. Therefore, they may not attempt to overcome difficulties encountered in the classroom, displaying a learned-helpless attributional pattern (Ayres, Cooley, & Dunn, 1990).

Rodriquez and Routh (1989) looked at depression, anxiety, and attributional style in students recently placed in a class for students with learning disabilities, those who had
been in such a classroom for more than a year, and typical kids in the general education program. Their results showed that both groups of students with learning disabilities were more depressed, anxious, and possessed a more maladaptive attributional style compared to their typical peers. No differences were noted between the two groups of students with learning disabilities.

Pearl, Bryan, and Donahue (1983) used a neutral game context to determine the explanations that students with learning disabilities and typical kids give for high (success) and low (failure) scores on a game. The results showed that when the typical kids received several low scores on a game, they generated new game techniques and attributed failure to a lack of effort (unstable causes). However, the kids with learning disabilities did not generate new strategies and indicated that they had little or no control over their scores (stable, ability causes). These kids also overestimated the number of low scores they obtained and had lower expectations for future success compared to their typical peers.

Dalley, Bolocofsky, Alcorn, and Baker (1992) investigated the attributional style in students with and without learning disabilities using the Children’s Attributional Style Questionnaire. The results of this study showed that the students with learning disabilities possessed a more maladaptive attributional style compared to their same age peers. The students with learning disabilities attributed successes to external factors (such as luck) more than their typical peers who attributed their success to more internal, stable, and global factors.

Nolen-Hoeksema et al. (1986) conducted a longitudinal study on learned helplessness in children. Results from their study found a correlation between a child’s
The Relationship between academic achievement and attributional style. The children with achievement related problems were found to possess a maladaptive explanatory style described by the reformulated helplessness theory. These children tended to explain bad events by internal, stable, and global causes and good events by external, unstable, and specific causes.

Palmer, Drummond, Tollison, and Zinkgraff, (1992) found that when comparing performance outcomes of students with learning disabilities to their typical peers, the students with learning disabilities reported lack of ability as important in scholastic failure situations and were rated by teachers as exhibiting more learned-helpless behavior.

A goal of the present study is to further research examining the relationship between achievement and attributional style in students with and without learning disabilities.

The Relationship Between Attributional Style and Self-concept

Abramson et al. (1978) suggested that children displaying a maladaptive attributional style are vulnerable to several helpless deficits including a lowered self-concept. A number of studies have confirmed this theory by linking a maladaptive explanatory style with poor academic self-concept.

Ayres et al. (1990) investigated the attributional style and self-concept of students with and without learning disabilities. The students with learning disabilities were all receiving resource room services daily. The results differed significantly between the two groups of students. The students with learning disabilities demonstrated a significantly lower academic self-concept compared to the students without learning disabilities. In addition, the students possessing learning disabilities were much more likely to make maladaptive attributions. This pattern of maladaptive attributional responses, and a lower
self-concept is consistent with the learned helpless model proposed by Abramson et al. in 1978.

Kurtz-Costes and Schneider (1994) looked at attributional style, achievement, and academic self-concept in forty-six school age children across a two year period. Results from their study indicate that the children's attributions of success to ability were positively related to academic self-concept and achievement. Attributions of success to external factors (effort) were negatively related to academic self-concept and achievement. In other words, these results show that children with a low academic self-concept and lower achievement levels often attribute their failures to a lack of ability.

Cooley and Ayres (1988) looked at the attributional style and self-concept of those students with and without learning disabilities. The results of the study indicated that the academic self-concept of the students with learning disabilities was significantly lower than the academic self-concept of the general education students, however, there were no significant differences noted between the two groups in relation to attributional style. Despite these results, further analysis found a relationship between maladaptive attributional patterns and a lower academic self-concept.

In summary, the purpose of the present study is to investigate the relationship between self-concept, attributional style, and educational environment in students with and without learning disabilities. By determining which factor has the most significant impact on students' self-concept, educators will be able to implement specific interventions designed to target the most influential areas.

From the research to date, it is hypothesized that academic self-concept will correlate more strongly with attributional style compared to classroom placement. Based
largely on the learned helplessness theory, it is hypothesized that those students with learning disabilities will possess a maladaptive attributional style compared to their typical peers. This will result in a lower self-concept in the area of scholastic competence regardless of classroom placement.

Method

Participants

One hundred and four students in the third, fourth, and fifth grade (46 females and 58 males, mean age = 10 years) from six public schools in upstate New York participated in this study. Students were chosen from two different school districts based upon the service delivery model each district provides to students identified as Learning Disabled. Thirty students classified as Learning Disabled receiving resource room services along with fifty general students with no classification from school district “A” were given letters to take home asking parental consent for their child’s participation in the study. Forty-two letters (57.5%) were returned for a sample of 18 students classified as Learning Disabled (13 males, 5 females) and 24 students without disabilities (12 males, 12 females). All students with learning disabilities were receiving one hour of resource room daily.

Sixty-two students from school district “B” participated in the study as well. These students were all from third, fourth, and fifth grade blended classrooms. The blended program incorporates students with and without disabilities within the same classroom, allowing all students to be educated without the necessity of pull out resource room services. The blended classrooms within school district “B” includes up to twelve students receiving special education services along with fifteen general education students. (For the purpose of this study, only students classified as Learning Disabled and non-classified
students participated). A special education teacher and a general education teacher work collaboratively to meet the academic needs of all students within the classroom. Students from the blended classroom were given informed notification forms to be brought home to the parents. If parents did not want their child to participate in the study, the forms were returned to the examiner. Only 2% of the letters were returned yielding 98% participation. A total of sixteen students classified as Learning Disabled (8 males, 8 females), and forty-six non-classified students (25 males, 21 females) were included from the blended program.

The two school districts were matched on socioeconomic status, size, geographic location, and ethnicity of the student population. School districts differed only in the service delivery model implemented for special education services.

**Measures**

*Measure of self-concept.* The Piers-Harris Children’s Self-concept Scale is a measure of global self-worth, with six cluster scales including: Behavior, Intellectual and School Status, Physical Appearance and Attributes, Anxiety, Popularity, and Happiness and Satisfaction. A overall global score is also calculated and is based on the total of all cluster scales. The child is asked to answer yes or no to 80 declarative statements. Piers (1969) reported Kuder-Richardson Formula 21 Homogeneity coefficients ranging from .78 to .93. Median test-retest reliability figures are reported as .73.

*Measure of attributional style.* The Children’s Attributional Style Questionnaire is a 48 item instrument comprised of brief scenarios, half viewed as positive, and half viewed as negative. Each scenario is followed by two explanations from which the child must choose one, based on personal preference. Three explanatory dimensions are represented
by the questionnaire (internal-external, stable-unstable, global-specific) for a total of six sub-scales. A composite explanatory style score for positive events (CP) is obtained by adding the child’s scores on each of the three subscales for positive events. A composite explanatory style for negative events (CN) can be calculated by summing the scores for the subscales of negative events. An overall explanatory style score (CPCN) is obtained by subtracting the composite negative from the composite positive score. The lower the overall score, the more maladaptive the child’s explanatory style is. The coefficient alpha’s for the CP, CN, and CPCN scales are .71, .66, and .73 respectfully (Nolen-Hoeksema et al., 1986).

Procedure

Both instruments were administered to the students in a group format with questions read orally to each student. Students were assigned a number corresponding to their instrument’s answer sheets. A master list provided the following information from each student; age, gender, grade, classroom placement, and classification (if any). No other identifying information was obtained. A total of thirty minutes was required for the administration of both instruments.

Results

A set of seven 2 x 2 one-way analyses of variance (ANOVA) were conducted to ascertain differences between the two groups of students (those with and without learning disabilities) on measures of self-concept and attributional style. Significant F-ratios were yielded for total self-concept score and two cluster scores; intellectual and school status and popularity (higher scores indicate positive adjustment) (see Table 1). Significant F-ratios were also yielded on measure of attributional style (higher scores indicate positive
Attributional style (see Table 1). The first hypothesis—predicting that students with learning disabilities would possess a lower self-concept in the area of scholastic competence was supported \( (F(103) = 14.98, p \text{ (1-tailed)} = .0002) \). The second hypothesis—predicting that students with learning disabilities would possess a more maladaptive attributional style compared to their peers without learning disabilities was also supported \( (F(103) = 7.71, p \text{ (1-tailed)} = .0065) \).

Attributional style and class placement as predictors of self-concept were examined using a multiple regression analysis. As anticipated, attributional style was found to be a predictor of self-concept \( (F(1) = 18.37, p > .0001) \). When attributional style is forced into the equation, class placement fails to be a significant contributor to self-concept \( (F(1) = 1.25, p > .2653) \).

Discussion

The present study was conducted to explore the self-concept and attributional style in both students with and without learning disabilities in different classroom settings. Although the relationship between attributional style and self-concept has been explored as well as the self-concept of students with and without learning disabilities in different classroom placements, an investigation considering all three factors has not yet been conducted. The purpose of the current study was to look at these variables to determine which variable; classroom placement or attributional style, could be used as a more valid predictor of a child's self-concept. Three hypotheses were made and explored in the current investigation. One purpose of the current study was to further evaluate past research indicating that students with learning disabilities possess a self-concept that is lower in comparison to their general education peers. Although research has produced
mixed results on the effects that learning disabilities have on a student's overall self-concept, there has been more agreement with the notion that those who struggle academically tend to have a more negative academic self-concept (Ayres, Cooley, & Dunn, 1990; Bear et al., 1993; Vaughn et al., 1996). Results from this investigation support the notion that students classified as learning disabled possess a self-concept that is significantly lower than their general education peers.

A second goal of the present investigation was to further evaluate the findings that attributional style is more maladaptive in students with learning disabilities compared to their typical achieving peers. It has been concluded that attributional style, which is considered a stable personality trait, will determine how an individual will interpret events in his or her life (Seligman, Abramson, Semmel, & von Baeyer, 1979), as well formulate expectancies regarding future outcomes (Abramson, Seligman, & Teasdale, 1978). Research has shown that students with learning disabilities tend to possess a maladaptive attributional style resulting from early and repeated academic failures (Dalley, Bolocofsky, Alcorn, & Baker, 1992). Results from the current investigation support these findings indicating that the attributional style of students with learning disabilities tends to be more maladaptive than their typical peers of the same age.

The final investigation was conducted to explore which factor; class placement or attributional style is a stronger predictor of a student's self-concept in the area of academic achievement. Significant research into the theory of social comparison has investigated how classroom placement impacts a child's self-concept. Those researchers favoring the social comparison theory maintain that a child will utilize a peer group when formulating his or her self-concept (Bear, Clever, & Proctor, 1991). Conclusive research,
however, has not determined which peer group; those students with learning disabilities or those without will be used in when a child is formulating his or her self-concept. Therefore, results have produced mixed conclusions.

Research exploring the relationship between attributional style and self-concept has produced more definitive results, indicating that students with maladaptive attributional styles possess a lower self-concept compared to peers possessing a positive attributional style (Abramson et al., 1978; Ayres et al., 1990; Cooley & Ayres, 1988.) It was therefore anticipated that a child’s attributional style would be a predictor of self-concept, while class placement would not. This hypothesis was also confirmed with results indicating that the more maladaptive a student’s attributional style, the lower their self-concept. As predicted, there was no indication of a significant relationship between class placement and self-concept when attributional style was controlled for.

The move towards inclusion is motivated, in large part, by the assumption that a social stigma comes from special education services outside the general education classroom, and that this stigma reduces a child’s self-perceptions (Coben & Zigmond, 1986). Based on the results of the current investigation, it may be determined that a more appropriate way to improve a child’s self-concept would be through attribution training. If professionals within the schools can assess attributions, they may be able to plan interventions based on changing the students’ self-concepts. Although attributional style is considered a stable attribute (Nolen-Hoeksema et al., 1986), several researchers are looking at programs to enhance this trait. Okolo (1992) designed an attributional retraining computer program to use with students classified as learning disabled. In an attempt to enhance attributional style, Okolo conducted eight, 30 minute sessions with the
students. Results, however, did not indicate improvement in the students’ attributional style. Seligman, (1995) designed school-based counseling programs to use with students possessing a maladaptive attributional style. Recognizing the importance of parental involvement, he modified the program so it could be used by parents at home with their children. Aydin (1988) utilized an attribution retraining program on thirty students who obtained a maladaptive attributional style on the Children’s Attributional Style Questionnaire. Results from this study indicated a significant positive change in attributional style after ten training sessions.

Although the results obtained by the current investigation are promising, several factors must be taken into consideration when interpreting these findings. While the current study suggests that students classified with learning disabilities possess lowered self-concepts than their general education peers, there is evidence that these students are not a homogeneous group (Lyons, 1985). Durrant, 1993 found that behavioral subgroups of students with learning disabilities possessed differing self-concepts, depending on the severity of their behavioral problem. Although students reported by their teachers as having behavioral problems were not included in the present study, no objective measure of behavior was used. An unanswered question remains as to the effects this type of investigation may have on the results.

The present investigation looked at students in full inclusion programs as well as the general education classroom. The inclusion of students mainstreamed for part of the day, as well as those in self-contained classrooms were not included in this study. It is possible that students with learning disabilities in these programs may not fit the profile of
the students in the current study. Further research looking at the effects of such alternative placements is warranted to determine the appropriateness of such programs.

Another important issue of future research concerns the self-concept and attributional style of adolescents with and without learning disabilities in integrated settings. The present study included only those students in third through fifth grade. There is question as to the stability of such findings as these children reach adolescence. Most research to date has investigated this relationship with elementary level students only. The stability of such findings over long periods of time has yet to be investigated.

It is also possible that factors other than the presence of a learning disability may result in a variable self-concept and attributional style in students with learning disabilities. Rodriguez & Routh, 1989 found that students with learning disabilities possessed greater levels of anxiety and depression compared to their general education peers. Forman, 1988, found that higher levels of social support resulted in increased self-concept in students with learning disabilities. Allen & Drabman found that students with learning disabilities who were treated with psychostimulants possessed a less maladaptive attributional style compared to their peers who were not receiving medications. These factors were not considered in the present study, however further investigation into such factors is warranted.

One final question regarding the results of the current study is the utilization of two school districts in the sample. Although the districts were matched on geographic setting, population, socio-economic status, and cultural diversity, it is possible that uncontrollable differences in the districts may have had an effect on the results.
The nature of self-concept in students with learning disabilities deserves further investigation. The attempts to provide instructional services to these students which foster self-satisfaction and academic competence is vital in the role of education in our country today.
References


Table 1

Mean Self-concept Scores for the Two Student Groups

<table>
<thead>
<tr>
<th>Measure</th>
<th>LD</th>
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</tr>
<tr>
<td>Total score</td>
<td>53.26</td>
<td>58.34</td>
<td>5.71</td>
<td>.0187</td>
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<td>57.24</td>
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<td>.0002**</td>
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<td>Physical App.</td>
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<td>Anxiety</td>
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<td>55.97</td>
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<td>Popularity</td>
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<td>6.43</td>
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<td>Happiness</td>
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<td>CASQ</td>
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<td>6.62</td>
<td>9.20</td>
<td>7.71</td>
<td>.0065**</td>
</tr>
</tbody>
</table>

LD = students with learning disabilities, NLD = students without learning disabilities.
* p < .05. ** p < .01.