

**POSSIBLE SELVES, SELF-PERCEPTION, AND CURRENT SELF-CONCEPT IN
ADOLESCENTS WITH LEARNING DISABILITIES.**

by

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Abstract

This study investigated current self-concepts, future self-concepts (i.e., possible selves), and self-perceptions of learning disabilities (LDs) in three groups of adolescents: students with LDs in a specialised residential setting, students with LDs in a public school setting, and students without LDs in a public school setting. Despite academic difficulties, students with LDs were generally comparable to adolescents without LDs (displaying, for example, comparable global self-esteem and similar types of possible selves). Students with LDs in the public school setting, however, did exhibit a more negative academic self-concept than the other two groups, as well as a more global and pervasive view of their LD than students in the residential school group. Relationships between current and future self-concepts in four domains (familial acceptance, academic competence, peer popularity, and personal security) were also examined. While average-achieving students' future self-concepts are closely tied to their current self-concepts, this is not always the case in youths with LDs; explanations and implications of this finding were further discussed. Balance between expected and feared possible selves was also investigated, but did not have a significant effect on outcome variables in this sample. Overall, the presence of an LD, regardless of the educational setting, did not appear to influence global self-esteem or the self-concept in domains other than academics.

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**Possible Selves, Self-Perception, and Current Self-Concept in
Adolescents with Learning Disabilities**

As a child, how many times were you asked "What would you like to be when you grow up?" Still today, how many times do you ask yourself "Where will I be in ten years time?" For many, the future holds a vast array of possibilities. Picture yourself for just a moment, though, as a child in a classroom where everyone else is succeeding with their reading material, while you struggle with a single passage. Moreover, your difficulties are quite evident by your grades. How do you think this might affect the list of possibilities you generate for yourself?

The presence of a learning disability (LD) obviously affects how well one does in school. If an individual is having difficulty with reading, spelling, and/or mathematics, this will be reflected in his/her grades. At another level, such difficulty can also affect the self-concept of the child. It makes intuitive sense that struggling with concepts that come naturally to peers would be a blow to self-esteem. Not only would you have to deal with your sense of failure, but you might also have to deal with the negative attitudes such difficulties could elicit from your classmates. While, it has been found that individuals with LDs and their average-achieving peers are comparable in terms of global self-esteem, children with LDs tend to have a more negative academic self-concept and perhaps more negative social self-concept (e.g., Durrant, Cunningham & Voelker, 1990; Sabornie, 1994). Little research has been done on how children with LDs envision themselves in the future, although some researchers have asked individuals with LDs

about their expectations and aspirations (e.g., Chapman, 1988; Dowdy, Carter & Smith, 1990; Szivos-Bach, 1993).

The concept of possible selves was first introduced by Markus and Nurius (1986). According to them, "Possible selves represent individuals' ideas of what they might become (expected possible selves), what they would like to become (positive possible selves), and what they are afraid of becoming (negative possible selves), and thus provide a conceptual link between cognition and motivation" (Markus & Nurius, 1986, p.954, parentheses added). Thus, possible selves may be seen as the cognitive manifestations of one's goals, aspirations, motives, fears, and threats. Markus and Nurius (1986) see possible selves as important both because they function as incentives for future behavior and because they provide an evaluative and interpretative context for the current view of the self.

One of the goals of the current study is to compare the possible selves of youths with LDs to those of average-achieving youths. It is suspected that academic difficulties will influence the types of possible selves generated. Because little research has been done in this area, however, the nature of this effect is yet unclear. It may be that adolescents with LDs envision fewer positive possible selves than their average-achieving peers, especially if they believe their LD is pervasive and negatively affects many areas of their lives. On the other hand, it may be that students with LDs are not able to process exactly how their LD affects them, or prefer to avoid dwelling on the potentially negative effects of their LD, and therefore, may have an overly positive view of the self in the

future. If either of these theories is correct, youths with LDs may have less of a balance between expected and negative possible selves than their average-achieving peers

In the present study, the current self-concept and possible selves of a group of adolescents who attend a private residential school for students with LDs are compared with those of both a group of teenagers with LDs and a group without LDs in the public school setting. To further explore these areas, first relevant literature on the self-concept of youths with LDs will be reviewed. Following this, the limited research that has been conducted on the sense of self in the future of children with LDs will be examined. Subsequently, the phenomenon of possible selves will be expanded upon more fully. The design and purpose of the present study will then be elaborated, and the hypotheses discussed.

Self-Concept

In the past, researchers have found that the global self-concepts of children with and without LDs have not shown any significant differences (Coleman, McHam, & Minnet, 1992; Grolnick & Ryan, 1990; Renick & Harter, 1989; Sabornie, 1994; Winne, Woodlands, & Wong, 1982). Students with LDs generally express feelings of overall self-worth that are comparable with average-achieving peers. In contrast to the comparability of global self-concept, however, academic self-concept has shown significant differences. Often youths with LDs have been found to have more negative academic self-concept than their average-achieving peers (e.g., Durrant et al., 1990). This lowered academic self-concept may be related to several phenomena. First, the obvious deserves mention. That is, if a person is having difficulty in a certain area (i.e.,

academics) he/she will likely not feel especially good about him/herself in that particular domain. Second, the more negative academic self-concept may be related to social interactional or behavioral problems (Durrant et al., 1990; Jarvis & Justice, 1992; Kavale & Forness, 1996; Sabornie, 1994). Individuals may have trouble interacting with classmates, and this in turn may affect the academic self-concept. Furthermore, other factors such as special class placement, social support from family and teachers, the child's perception of the LD, and the child's perception of his/her competence in domains other than academics may influence the academic self-concept of children (e.g., Beltempo & Achille, 1990; Heyman, 1990; Kloomok & Cosden, 1994).

Social Interaction & Behavioral Difficulties

Sabornie (1994) found that children with LDs had more trouble with integration with peers than did average-achieving children. They were more likely to be victimized by peers (threatened, physically assaulted, etc.). Why does this victimization occur? Is it because average-achieving children perceive students with LDs as academically incompetent? Or is it because students with LDs do not have the skills required to interact appropriately with peers? Perhaps a combination of both difficulties may lead average-achieving students to view children with LDs more negatively. Regardless of why this victimization occurs, however, it will likely be damaging to the self-esteem of students with LDs. In fact, Szivos-Bach (1993) found that adolescents who perceived more stigma from peers had lower self-esteem.

If students with LDs are victimized because they are less skilled socially, the consequences associated with their limited social skills may lead to lower self-esteem.

Sabornie (1994) found that students with LDs were rated as having lower social competence than their average-achieving peers by their teachers. Kavale and Forness (1996) conducted a meta-analysis on research depicting social skills and their relationship to learning disabilities and found that about 75% of students with LDs manifest social skill deficits that distinguish them from comparison samples. The observed differences were consistent across different evaluators (teachers, peers, and the students themselves) and also across most major dimensions of social skill.

Jarvis and Justice (1992) found that the academic self-concepts of children with LDs were more negative than their average-achieving peers, and that such differences were related to the fact that students with LDs were less accurate in interpreting social situations than were their average-achieving (AA) peers. Students watched tape-recorded stories depicting two adults in angry, anxious, and sad interactions. The interactions consisted of both dialogue and overt actions. The children were to determine how the actors felt and why they felt that way. Students with LDs were less accurate at interpreting social situations than were AA students, and had significantly more negative conceptions of self in learning situations. Further, social sensitivity scores were significantly correlated with self-concept scores. The authors argued that such differences illustrate the need for remediation efforts aimed at improving the social skills of children with LDs.

Together, these studies suggest that children with LDs may sometimes be teased or victimized by their peers because of their academic difficulties. This may lead to a negative academic self-concept, a feeling of alienation from peers, and consequently,

difficulty in interacting appropriately with peers. In addition, it may be that individuals with LDs have difficulty interacting with others because of deficits in cognitive processing in social situations. Thus, it seems that not only are LDs and self-concept related, but social interaction patterns are also intertwined. Furthermore, it is obvious that a child's behavior has a strong influence on how he/she will interact socially. Thus, it may be that self-concept is not molded so much by achievement or social skills, but is related to overall behavioral variables.

Behavioral Problems

Durrant et al. (1990) looked at the academic, social, and general self-concepts of several behavioral sub-groups of children with learning disabilities. They found that global self-esteem was related only to IQ, while social and academic self-concepts were related more to behavioral variables. Sixty children between the ages of eight and 13 participated in the Durrant et al. (1990) study. The children were classified into one of four groups: (a) no LD, non-behavior-disordered; (b) LD, non-behavior-disordered; (c) LD with externalizing symptoms; and (d) LD with externalizing and internalizing symptoms.

The scores of the non-behavior-disordered groups were higher than those of the behavior-disordered groups in cognitive, social, and general self-concept. Furthermore, the scores of the group without LDs did not differ from those of the non-behavior-disordered LD group. Correlation and regression analyses indicated that social and cognitive self-concept are at least as strongly related to behavioral factors as they are to

achievement level (WRAT Arithmetic sub-test scores). Global self-concept was related to IQ (ability level) only.

Once again, it can be seen that it may not be the LD per se that leads to more negative academic self-concept, but that behavioral problems and social interaction difficulties associated with the LD seem to play a role as well. Still, lower achievement levels in individuals with LDs were associated with a more negative academic self-concept. Also important is the fact that global self-esteem is unaffected by factors such as behavior and social skills. Perhaps if children with LDs were not subjected to the higher academic success of, and sometimes stigmatization by, average-achieving students, they would be more successful (e.g., Coleman et al., 1992; Sabornie, 1994).

Mainstreaming Vs. Special Class Placement

If the more negative academic self-concept of children with LDs is a result of their being teased by their average-achieving peers, than perhaps special class placement may offer an advantage over the regular classroom environment. There has been a great deal of controversy over the past few decades concerning whether children with LDs should be placed in special resource classrooms or mainstreamed into the regular class setting. As outlined below, some argue that special class placement has a labeling effect, which leads to further stigmatization of children with LDs, and therefore a lowering of self-esteem. Others contend that special class placement provides children with LDs with an appropriate reference group, thereby leading to improved self-esteem. Still others hold that a combination of both, known as partial class placement, is best for children with LDs.

Beltempo and Achille (1990) maintained that partial remedial class placement and integration into the regular classroom was more conducive to enhanced self-esteem than total immersion in either environment alone. They looked at the effects of special class placement in 131 primary school children in Montreal. The comprehensive study consisted of four conditions compared in a Time 1 - Time 2 experimental design covering a period of one academic year. Groups included a group with LDs in maximum class placement (LDMP), a group with LDs in partial class placement (LDPP), a group with LDs with no special class placement (LDNP), and a group with no LDs in regular class (NLD). Children in the LDMP and LDPP groups were assigned to either special class placement for more than 70% of their school time (LDMP), or less than 30% of their school time (LDPP), based on the recommendations of a school psychologist. There were no significant differences in achievement scores for the LDMP, LDPP, or LDNP groups, but the scores of these three groups differed significantly from those of the NLD group. No significant differences were found among the four groups when IQ scores were compared.

The investigation uncovered the following trends: (1) children with LDs in maximum placement showed low global self-esteem both at the beginning and end of the school year; (2) children with LDs who remained in a regular classroom setting also had more negative self-concepts that persisted over time; and (3) a combination of partial placement and integration into the regular classroom setting resulted in more positive self-concept at the beginning and end of the academic year. To summarize, the Beltempo and Achille (1990) study suggested that children with LDs benefit most when they are

identified, receive partial placement, and are maximally integrated within the regular classroom. They suggest, therefore, that exposure to a reference group with a comparable achievement level is important, but that exposure to the "typical" classroom environment is also important.

The possibility of differences in global self-esteem among the three groups leads to possible implications for the present study. If the Beltempo and Achille (1990) position is taken, one might be led to speculate that the children attending Landmark East, which is a residential school for adolescents with LDs, will have more negative self-concept than both the group without LDs and the group with LDs in the regular school setting, because they are in a special resource setting full-time. Nevertheless, one must take into consideration the fact that programming at Landmark East is intensive and designed to cater to the needs of students with LDs. One of its goals is to improve or enhance the self-concept of its students. Programming even includes a "Self-Esteem Team" which is aimed at improving self-esteem.

Contrary to the results of the Beltempo and Achille (1990) study, Coleman et al. (1992) found that special class placement for youths with LDs had several benefits. They compared children with LDs with low achieving (LA) children who did not have specific learning disabilities. The fact that the LA children had achievement levels comparable to the LD group but had no specific LD, seems to indicate that they had lower IQs than the LD group. The two groups were matched on sex, grade, race/ethnicity, and composite percentile scores on the Iowa Test of Basic Skills. The children with LDs in this study attended a special resource classroom for 1 to 2 hours per day. Coleman et al. (1992)

found that although children with LDs and LA children were comparable on most measures (i.e., social and general self-concept and social relations outside school), children with LDs reported themselves as being less lonely than LA children. In addition, regular-class children rated children with LDs as more likable than LA children.

Coleman et al. (1992) concluded that the results highlight the similarities in the social competencies of children with LDs and those with LA, and suggest that special education classes may offer some social advantages to children with mild handicaps. Children in the resource classroom may experience failure less often than their LA peers because their academic program is tailored to fit their abilities, and thus, they may be seen in a more positive light by their peers. Furthermore, the label of learning disability may offer regular-class peers an explanation for the social and academic difficulties of these children that buffers their negative feelings towards them. On the other hand, it may simply be that the difficulties of the children with LDs were less obvious because they spent less time than low achieving children in the regular classroom.

In contrast to these studies, which highlight the benefits of some type of special class placement, Grolnick and Ryan (1990) argued that special class placement is not necessary and does not provide any added benefits. They explored the self-perceptions, and motivation and adjustment levels in children with LDs. In particular, they were interested in discovering whether labeling had an effect on the self-concepts of children with LDs.

Their study consisted of four groups of children: (1) children with LDs (children in this group spent 1.5 - 3 hours in a resource room per day); (2) matched IQ group

without LDs; (3) randomly selected group without LDs; and (4) low achieving group (LA) with no disability. The results indicated that children with LDs were lower in perceived cognitive competence and academic self-regulation relative to the normally-achieving control groups, but were comparable to the low achieving children. Children with LDs were most likely to perceive academic outcomes as controlled by powerful others. No group differences were found for general self-perceptions of control or competence. Thus, in this case it seems that academic self-concept reflects achievement levels only. Special class placement, or a comparable reference group does not seem to have any effects.

Similarly, Vaughn et al. (1992) did not find that partial special class placement significantly affected the self-concept of children with LDs. They carried out a four-to-five-year prospective study which examined academic self-concept and peer acceptance in students with learning disabilities. They obtained self-concept ratings in kindergarten through grade four and peer acceptance ratings in kindergarten through grade three. They also looked at academic achievement scores. Each of these measures was compared across three groups: (a) students with LDs who were placed in resource special education programs during second grade for approximately 2 hour per day; (b) low-achieving students (LA); and (c) average-achieving/high-achieving students(AA/HA). The students with LDs were assessed and labeled as having a learning disability during second grade. The LA students were students who were not referred for special education services but who had low second-grade reading and mathematical achievement. The AA/HA students were those students above the 60th percentile on such achievement scores.

Vaughn et al. (1992) found no between-group differences during any school year on any self-concept measure. Such findings suggest that the self-perceptions of students with LDs are not negatively affected by academic and social difficulties in the early grades or by the identification and labeling process. Interestingly, no differences were found between the peer acceptance ratings for the LD and the AA/HA groups, but the ratings for the LA group were significantly lower than these two groups. Such findings may lead to the speculation that a comparable reference group is important for learning social skills and for forming quality relationships with peers in lower-achieving children.

Vaughn et al. (1992) cautioned, however, that it has been found that self-concept in children with LDs becomes more negative and better differentiated with age, as a result of continued exposure to the skills and abilities of peers over time (Grolnick & Ryan, 1990; Renick & Harter, 1989; Winne et al., 1982). Thus, a more negative academic self-concept might develop later in life for the students with LDs in this study. Such reasoning highlights the need for further longitudinal research in the area.

Smith and Nagle (1995) found no advantages to special class placement either. They found that children with LDs perceived themselves to be less competent than children without LDs in the areas of intelligence, academics, behavior and social skills. These differences were not related to the amount of time the children with LDs had spent in special educational settings, and self-perceptions were not affected by whether they chose LD or general education peers as their reference group.

Thus, it can be seen that there is no simple answer to the question of whether special class placement or mainstreaming is best for students with LDs, in terms of self-

esteem. The studies reviewed in this paper are somewhat contradictory. This may be due in part to methodological issues. Some of these investigations compared students with LDs to LA children, while others compared children with LDs to average-achieving children. Most looked at partial class placement, but did not indicate exactly what sort of programming took place in such settings. Finally, some looked at global self-esteem, while others looked at academic self-concept, and different instruments were used to measure self-concept.

In spite of these inconsistent findings, it is hypothesized that differences in self-concept will emerge among the three groups in the present study. This premise rests on the assumption that as children get older, self-concept becomes more fully developed and the peer group becomes more important (Vaughn et al., 1992). It is likely that young children depend more on their families for support and compare themselves more to family members than school-mates. Also, it has been found that self-concept is fairly positive in the younger years (Sabornie, 1994). If this is the case, self-concept might become more negative in students with LDs as they get older, especially if they are comparing themselves to average-achieving peers. It is conjectured that placement in a classroom environment tailored to meet the needs of adolescents with LDs (i.e., Landmark East School; LME) will lead to infrequent failure, increased understanding and acceptance by classmates, and a more favorable comparison group. It is postulated that the group with no LDs will have the most positive academic self-concept, followed by the group with LDs at LME, followed by the group with LDs in the public schools. Although the adolescents in the LDPS group may be getting extra help academically, it is not likely

that they are receiving the amount of support and encouragement that the LDLM members receive.

Not only does LME school provide support and encouragement for students with LDs, but staff there also emphasize the importance of how students view their LDs. They stress that although an LD is a part of life for these students, it need not “color their whole lives.” Heyman (1990) has found that the self-concept of students with LDs is related to their perception of their LD. That is, those who view their LD as delimited rather than as a more global entity tend to have more positive self-concepts.

The Self-Perception of a Learning Disability

Heyman (1990) emphasized the importance of conceptualizing one's LD as modifiable and separate from the other areas of one's life. She proposed that the self-perception of one's learning disability would be related positively to both academic self-concept and overall self-esteem, and that each of these relationships would remain significant when controlling for sex, ethnicity, age, reading and math achievement, self-contained versus mainstreamed classroom settings, and age at diagnosis. In other words, she felt that the more global and pervasive an individual views his/her LD, the more negative the self-concept will be. Conversely, children who view their disability as delimited, will have relatively more positive self-concepts. Thus, if a student feels that having an LD restricts the activities he/she is capable of in many different areas, he/she will likely have a more negative self-concept than a student who believes that there are several areas in his/her life that are relatively unaffected by the LD.

Heyman attempted to further examine these assumptions. The Student's Perception of Ability Scale (SPAS; Boersma & Chapman, 1979, cited in Heyman, 1990) was used to assess participants' views of their disabilities as delimited rather than global, modifiable rather than permanently limiting, and not stigmatizing. The participants were 87 children with LDs in Grades three through six.

The results confirmed the hypotheses. The more delimited and modifiable participants viewed their LD, the more positive their self-concept. Based on such results, the author stressed the importance of interventions with children with LDs that focus on the specificity of the LD, and that emphasize the conviction that an LD is not something that is overly pervasive or unmanageable. Similarly, researchers have found that individuals with LDs have more positive self-concepts if they have a positive perception of domains other than academics in their lives (e.g., Kloomok & Cosden, 1994). That is, it seems that strengths in other areas (i.e., musical abilities, physical attractiveness) may help compensate for academic deficiencies.

Compensatory Strategies

Kloomok and Cosden (1994) attempted to uncover specific variables that might contribute to high global self-esteem. They examined the self-concept of children with LDs in third through sixth grade and found that children with positive global self-concept perceived themselves as more intelligent and more competent in other, non-academic domains than children with lower self-esteem. They did not, however, discredit or discount the importance of academics.

The investigation furnished further support for the assumption that children with LDs tend to feel good about themselves in general, but to feel less adequate about their scholastic competence. They appeared, however, to value the importance of academics regardless of their perceived lack of academic competence. Furthermore, social support and higher perceived competence in areas other than academics (i.e., athletics and physical appearance) were found to be related to global self-concept. The authors stated that such results stress the importance of enhancing the self-concept of children with LDs by helping to develop perceptions of competence in other areas, such as appearance and social acceptability. In addition, they argued that perception of social support, particularly from parents, is an important factor in the development of enhanced self-esteem.

This study appears to support Heyman's (1990) findings, in that it seems that most children in this study were able to separate their learning disability from the rest of their lives and to view it as a specific obstacle, rather than as a more global or pervasive problem. These studies underscore the importance of having youths with LDs not only learn to cope with their LDs, but to be cognizant of positive aspects of their lives. Thus, in the present study it is hypothesized that youths who view their LD as delimited and maintain a positive view of their lives in domains other than academics (i.e., familial and peer acceptance; personal security) will have more positive global self-esteem than those who see their LD as a pervasive entity and do not have positive self-concepts in other areas of their lives.

The Self In The Future

Possible Selves

Past research illustrates how youths with LDs feel about themselves currently, but how do they see themselves in the future? Can this provide any important information? The phenomenon of possible selves as a whole is a relatively new area. The research that has been done seems to suggest that although current self-concept and possible selves are related, an individual's possible selves are not determined solely by his/her current self-concept. In fact, possible selves may be more malleable (Markus & Nurius, 1986). Furthermore, possible selves can serve as motivators or incentives for behavior. If one sees one's future self as successful, one may be more likely to work hard to obtain this goal and avoid a more negative possible self.

Possible selves also provide additional meaning for the individual's current behavior in that attributes, abilities, and actions of the self are evaluated depending on the surrounding context of possibility. For example, a high school student who wishes to become a surgeon will interpret a failure on a biology exam differently than a student who wishes to become a carpenter. Thus, possible selves provide the criteria against which outcomes are evaluated.

Possible selves are incentives for future behavior in that they serve to frame behavior and guide its course. Motivational constructs such as efficacy, perceived competence, optimism, and willpower are all alike in that they implicate the self, or more specifically what is possible for the self in the future (Ruvolo & Markus, 1992).

Oyserman and Markus (1990) believe that possible selves embody and give rise to generalized feelings of self-efficacy, effectance, and competence. Possible selves accomplish this task by personalizing or giving self-relevant form or meaning to expectancies or possibilities. Ruvolo and Markus (1992) argued that possible selves allow people to see themselves in the future, not just abstract possibilities. Such projections can lead to the anticipation and even some of the affect associated with the end state. Depending on whether the affect is positive or negative, subsequent behavior may be energized or depressed (Ruvolo & Markus, 1992).

Porter, Markus, and Nurius (1984, cited in Markus & Nurius, 1986) examined the possible selves of individuals who had recently experienced a life crisis. They found that individuals who were not recovering well endorsed significantly more negative selves as possible in the future, while individuals who were recovering more favorably saw significantly more positive selves as likely in time. Although the direction of the relationship between possible selves and affect cannot be determined in this case, the results seem to suggest the positive possible selves were present in the good recovery individuals' working self-concepts and were functioning as incentives.

Ruvolo and Markus (1992) examined the effects of possible selves on performance. Participants were randomly assigned to one of four groups. The first group of participants were to imagine themselves as successful in the future; the second to imagine themselves as unsuccessful in the future; the third to imagine an acquaintance as successful in the future (control group 1), and the fourth group was a positive affect control group (control group 2). Following this imagery exercise, participants were asked

to examine a list of possible selves and to indicate any that they thought might apply to them in the future. They were then to complete either a persistence task or an effort task. To measure persistence, participants were asked to copy numbers with their non-dominant hand. They were told that this had been shown to increase brain capacity. To measure effort, subjects were given two pages of randomly type-written letters and given four minutes to circle each "e" in the material.

Those who imagined themselves as successful quickly endorsed a variety of positive success-relevant possible selves and rejected negative failure-relevant possible selves. Conversely, for those who imagined failure, positive success-relevant possible selves were less accessible, and negative failure-relevant selves were relatively more accessible. Further, the results indicated that although with general success imagery (the success of an acquaintance), success-relevant possible selves become relatively more accessible, personalized success-relevant possible selves make negative possible selves even less accessible than does general success imagery. Thus, it can be seen that although general positive affect and/or general success imagery have positive effects on an individual's endorsement of possible selves, it is the image of oneself as successful in the future that leads to the strongest endorsement of positive possible selves and the weakest endorsement of negative possible selves. Further, it was found that individuals who imagined themselves as successful in the future outperformed the control groups (i.e., greater persistence and effort), whereas those who imagined themselves as unsuccessful performed worse than the control groups. Thus, current performance was affected by visions of self in the future.

Although the exact role of possible selves cannot be determined from the Ruvolo and Markus (1990) study alone, it is clear that performance was best when positive possible selves were available to the individual and negative possible selves were significantly less accessible. This finding is not surprising if one thinks of self-efficacy research. It has been found in the past that if one believes that one is capable of accomplishing a task, one is more likely to be successful when attempting the task (Bandura, 1985).

It is speculated that the possible selves of adolescents should be significant contributing factors to their current level of motivation, and their current feelings about themselves in general. If youths see many positive possibilities in their futures, it may be hypothesized that they will be more willing to work hard now to reach goals later in life, and that they will view their present selves in a more positive light. Adolescents who have LDs, however, may feel that their academic difficulties limit the number of things they can become, and therefore feel as if working toward something that will perhaps never be is pointless. In other words, children with LDs may have a restricted range of positive possible selves. Although little research has been done in this specific area, some researchers have attempted to examine the expectations and aspirations of children with LDs.

Expectations and Aspirations

Chapman (1988) examined the academic self-concepts, locus of control, and achievement expectations over a two-year period of 78 children with LDs and 71 children without LDs in junior high. The children with LDs received no remedial education

interventions. In order to measure achievement expectations in this study, the Projected Academic Performance Scale (PPS; Chapman & Boersma, 1978, cited in Chapman, 1988) was used. This scale taps into the child's predicted performance in the near future regarding abilities in typical school subjects. The results revealed that the children with LDs had lower self-perceptions of ability, showed signs of learned helplessness, and reported lower achievement expectations. Similarly, Dowdy, Carter, and Smith (1990) attempted to examine the perceptions of students with LDs in terms of what they thought they might become in the more distant future. They found that twice as many average-achieving students as students with LDs wanted to go to college, while twice as many individuals with LDs wanted to enter the job market upon finishing high school.

These findings have implications for the present study. It may be postulated that the adolescents with LDs in the current investigation will envision less positive and fewer possible selves in the academic domain than the normally-achieving adolescents. Furthermore, it may be assumed that the students at Landmark East (LDLM) will see more positive possible selves in their future than the students with LDs in the public school (LDPS), because the potential for academic success is stressed at Landmark.

As with current academic self-concept, it has been found that future self-concept is related not only to the LD itself, but is also associated with stigma. Szivos-Bach (1993) found that stigma played a significant role in the self-esteem and aspirations of students with LDs. Items used to measure the adolescents' perception of stigma included, "My family is disappointed in me," "I get teased or made fun of," and "I worry about what other people think of me." Items used in the Aspirations-Expectations test included,

"Have a boyfriend/ girlfriend," "Get a job," and "Earn a lot of money." She discovered that students who perceived the most stigma had the lowest self-esteem, the lowest ideals, and felt the least likely to fulfill their aspirations. Thus, it appears that such adolescents had few expected positive possible selves.

The fact that the students in the Szivos-Bach (1993) study seemed to have few possible selves may lead to the assumption that youths with LDs will have fewer positive possible selves than youths without LDs, especially in the academic domain. The special circumstances at LME school must be highlighted once again because programming at LME focuses on self-esteem, and students are often reminded that college is a possibility. Thus, the possible selves of the average-achieving students and the students at LME may not be as different as we would expect if they did not receive such programming.

So far, the emphasis has been on positive possible selves. Ruvolo and Markus (1990) posited that the accessibility of positive possible selves is important for providing incentive. They argued that envisioning success not only activates images of desired possible selves, but also leads to the development of plans, scripts, or strategies for the accomplishment of such goals. Not only are positive possible selves important, but negative possible selves may also be useful in deterring one from certain actions, and thereby leading to the attainment of desired possible selves. Ogilvie (1987), for example, argued that an undesired self is more important in motivating individuals than a desired self. He held that a fear of living on the streets would motivate a person to get an education more than would the dream of becoming a doctor. Thus, both positive and negative possible selves may be essential to provide the motivation to work hard. A

combination of positive possible selves to strive for and negative selves to avoid would seem to provide the essential motivational force. Oyserman and Markus (1990) proposed that although the presence of positive possible selves is necessary in the first stages of the motivational process, the balance between expected and feared selves comprises the additional and critical motivational force. Think, for example, of a smoking cessation scenario. An individual might tell himself that he will quit smoking so that he can become more physically active. He will most likely be more motivated to quit, however, if he also conjures up an image in which he is dying from lung cancer. One would thus like to see youths with LDs holding both positive and negative possible selves in important domains.

There are two plausible explanations for why such a balance might not be attained by students with LDs. First, balance may not be achieved because of a lack of positive possible selves; alternatively, it may be the case that students with LDs are able to provide several positive possible selves, but are unable to come up with an extensive list of negative possible selves. In an investigation of metacognitive skills in children with LDs, Wong (1985) found that children with LDs do not generate self-questions (i.e., "How might this occur?" or "What would happen if...?") when presented with a problem. Thus, perhaps children with LDs do not envision many possible selves at all. They may not be capable of generating images of themselves in the future. This may be particularly evident with respect to negative possible selves. Wong (1985) also found that students with LDs often think they understand concepts or text material when they really do not. Such unrealistic optimism may generalize beyond the learning context. Adolescents with

LDs may think things are progressing quite well in their lives, and therefore may not be capable of foreseeing negative possible selves. Or, it may be that although they have no trouble understanding how their LD affects them right now, they may not be capable of extending this knowledge to the future. That is, individuals with LDs may not be able to perform the somewhat complex metacognitive task of asking themselves, "What might happen in the future if I do not do *X* now? What must I do now to ensure that *Y* will not occur later?"

Balancing Positive and Negative Possible Selves

Positive possible selves are just one type of possible selves that may be endorsed. In studies of possible selves, participants are often asked to indicate any feared or negative possible selves they envision in the future, as well as the possible selves they expect to become in the future. A look at some of the possible selves literature should help clarify the importance of these three types of possible selves in the current LD study.

Oyserman and Markus (1990) conducted a study comparing possible selves in delinquent and non-delinquent youths. The Oyserman and Markus (1990) study may be particularly relevant to the current investigation for several reasons. One is that the participants in their study were adolescents between the ages of 13 and 16. A second is that no differences were found in the current self-concept of the two groups (delinquent and non-delinquent youths) investigated. A third reason is that the experimental group in their study consisted of delinquent youths. Delinquent youths may be similar to adolescents with LDs in that they typically have problems in school and are often stigmatized by others.

Oyserman and Markus (1990) asked 238 youths who varied in the degree of their delinquency to describe their possible selves. They were asked to list three hoped-for, three expected, and three feared selves in response to an open-ended questionnaire. Following this task, the participants were given 16 self-descriptors, eight positive and eight negative, and asked to indicate on a three-point Likert scale the degree to which these selves were (a) current descriptors; (b) possible selves in the future; and (c) desired or hoped for in the future. Positive items included things such as interesting, loved, happy, and have friends. Negative items included depressed, lonely, stupid, and afraid. The scale was based on a format previously used by Markus and Nurius (1986).

According to Oyserman and Markus (1990), although many similarities were found among the hoped-for selves, the groups of youth differed significantly in their perceptions of expected and feared selves. The authors focused on the balance between expected and feared selves. They believed that one's feared self is most effective as a motivating source when it is balanced by an expected possible self that outlines what one must do to avoid that particular feared self. Balance was hypothesized to occur when expected possible selves were offset by countervailing feared selves in the same domain on the open-ended questionnaire (e.g., expecting a college degree but fearing failing).

It was found that the officially non-delinquent youths were more likely to identify with such a balance, but that the most delinquent youths were not. That is, the delinquent youths were less likely to have an expected self to balance a feared self. Additionally, in their investigation of possible selves in African-American youths, Oyserman, Gant, and Ager (1995) found that males who had balanced possible selves tended to perform better

in school than those with less of a balance between expected and feared possible selves. Thus, in two studies having a balance between expected and feared possible selves was associated with a positive behavioral outcome.

Following this logic, it may be hypothesized that youths with LDs will have less of a balance between expected and feared possible selves than average-achieving youths. This should be particularly evident in the public school setting, where specific programming aimed at encouraging these youths to focus on the future has not been implemented. Perhaps adolescents with LDs are similar to the delinquent youths in the Oyserman and Markus (1990) study, in that they can imagine what they would like to become in the future, but they cannot envision the negative consequences likely to occur if they do not work to overcome their difficulties. This 'bias' towards positive possible selves may occur for three reasons. First, students with LDs may be well aware of how their disability affects them right now, but they may not foresee how it will affect them in the future. Markus and Nurius (1986) found that the possible selves of college students did not appear to be particularly constrained by their current or "now" selves. They seemed to think that they could change quite dramatically with time, even in domains such as personality and physical characteristics. Second, youths with LDs have been shown to have poor metacognitive skills (Wong, 1985). It may be that adolescents with LDs cannot see into the future as well as average-achieving students. They may not be able to perform the somewhat complex task of formulating a feared possible self to counter a desired possible self. Such a conceptualization would provide the added incentive needed to motivate them to work hard now to achieve long-term goals. Third, it

may be that youths with LDs simply tend to avoid thinking of negative possible selves as a means of 'self-preservation'. They may be similar to ADHD children who tend to take responsibility for successes, but not for failures (Hoza, Pelham, Milich, Pillow, & McBride, 1993).

Perhaps the most significant finding of the Oyserman and Markus (1990) study, in terms of the present investigation, is the fact that although the delinquent and non-delinquent youths did not differ on current self-concept measures, the possible selves generated by the two groups showed some interesting differences. Similar results are expected to be uncovered when adolescents with and without LDs are compared. That is, the two groups (LD and NLD) should be similar in terms of current self-concept (except for the academic domain), but show differences in the possible selves that they generate. It is postulated that average-achieving students will have a better balance between expected and feared possible selves than students with LDs. Also, it is surmised that because of intensive programming at Landmark East, the LDLM group will have a better balance than the LDPS group. It is postulated that encouraging individuals with LDs to believe that they can be successful in the future, yet still emphasizing that negative outcomes are likely without hard work, may lead to the accomplishment of goals in students with LDs.

The Present Study

The present study will attempt to determine whether an LD is related to how adolescents see themselves, both currently and in the future. Will the presence of an LD relate differently to different aspects of the self-concept? Will the presence of an LD be

related to academic self-concept, but not be related to global self-concept, as has been shown in the past? Will it be associated with self-concept in the social, familial, or personal security domains? Will differences in feared possible selves be more evident among the three groups than differences in positive possible selves?

Furthermore, if an LD is indeed related to the self-concept of adolescents in this study, are there factors within the populations with LDs themselves that influence self-concept? Will segregation and intensive programming be related to self-concept? Will the way in which youths view their LDs be associated with how they view themselves in general? That is, if adolescents view their LDs as delimited rather than global will they have more positive current self-concepts? Will they have a better balance between expected and feared selves?

As stated previously, three groups will be examined in the present study: 1) a group of adolescents with LDs in a residential setting designed especially for youths with LDs (Landmark East School; LDLM); 2) a group with LDs in the public school setting (LDPS); and 3) a group of teenagers without LDs in a public school setting (NLD).

The IQs of the individuals in each of these three groups will either be obtained from past records or estimated from the Peabody Picture Vocabulary Test (PPVT-R). This will be done to ensure that the three groups are comparable on this variable. The Self-Perception of a Learning Disability (SPLD) questionnaire will be administered to individuals in the two LD groups. Individuals in all three groups will complete questionnaires about current self-concept and about future possible selves. Both types of

questionnaires will attempt to tap the following four domains: 1) academic competence; 2) familial acceptance; 3) peer popularity; and 4) personal security.

Comparisons among the three groups will be made both in terms of present self-concept and in terms of future possible selves. Also, within the two LD groups, relationships among self-concept, possible selves, academic setting, and self-perception of an LD will be examined.

The Hypotheses

The following is a list of the specific hypotheses for this study:

Comparisons Between Groups

The following similarities and differences are predicted among the three groups:

1) The global self-concepts of the three groups will be similar (e.g., see Durrant et al., 1990).

2 a) The LD groups will have more negative academic self-concepts than the average-achieving group (e.g., Durrant et al., 1990).

b) Because of the intensive programming at LME, it is hypothesized that the students at Landmark will have more positive academic self-concepts and more neutral or delimited self-perceptions of their LD than the students with LDs in the public school system.

3) The positive academic possible selves endorsed by the youths with LDs will be fewer in number than those endorsed by the average-achieving group. This hypothesis is based on past research which shows that youths with LDs have lower achievement expectations and aspirations than normally achieving students (Chapman, 1988 and

Szivos-Bach, 1993, respectively). Nevertheless, it is postulated that students with LDs in a specialized setting will endorse more positive academic possible selves than students with LDs in the public school, because the residential students are likely getting more help academically and more support.

4) Average-achieving students are expected to have a better balance between expected and feared selves than either of the LD groups. This finding is predicted because it is hypothesized that youths with LDs do not have the metacognitive skills necessary to invoke feared possible selves to counter each of their expected possible selves. That is, they are not able to generate self-questions such as, "What will happen if I don't...?"

The social, familial, and personal security self-concepts (current and future) of the students will also be examined in this study. Little research has been done in these areas, however, so these particular analyses will be of a more exploratory nature.

Within All Three Groups

Correlations among several variables are expected within groups. For example:

- 1) Global self-esteem is expected to correlate with IQ scores (Durrant et al. 1990).
- 2) Current self-concept, in each domain, is expected to be related to the possible selves elected from the corresponding domain. For example, adolescents with more positive academic self-concepts will have more positive possible selves, and/or a better balance between positive and negative selves, in this domain.
- 3) It is hypothesized that the higher an individual's achievement score, the more likely he/she is to have a balance between positive and negative possible selves. This

assumption rests on the finding by Oyserman et al. (1995) that males who had balanced possible selves tended to perform better in school.

Within the LD Groups

Several trends are expected within the LD groups themselves. It is conjectured that, in comparison with adolescents who view their disabilities as global and pervasive, youths who view their LD as more delimited will have:

- 1) More positive academic self-concepts;
- 2) A wider array of possible selves;
- 3) A better balance between their expected and feared selves.

Method

Participants

LDLM Group

This group consisted of 27 students (21 male, 6 female) from Landmark East School, a residential school for students with LDs in Wolfville, Nova Scotia. The students in this group ranged from age 12 to 17, with a mean age of 14.10. The IQ levels of the students in this group were obtained from the Weschler Intelligence Scale for Children -- Revised (WISC-R) and all were within the average range ($M = 96.27$, $SD = 8.25$). Their achievement scores consisted of a composite of scores from the Gray Oral Reading Test -- Third Edition (GORT-3), the Test of Written Spelling (TWS), and the mathematics sub-test of the Wide Range Achievement Test -- Third Edition (WRAT-3). The GORT-3 measures reading comprehension (i.e., the individual reads a passage and then answers questions on the material). The TWS requires students to spell dictated words. Finally, the WRAT-3 mathematics sub-test consists of written arithmetic

computation problems. All of these tests give grade equivalent scores. The composite score was the mean grade equivalent obtained from these three tests.

The tests were administered in June or September of 1996. These students had previously been identified as having an LD based on a discrepancy of two or more years between their expected achievement level for their age (given their normal IQ), and their actual achievement level ($M = 3.22$, $SD = 1.68$). All students had also experienced difficulties in academic performance in the regular school system.

LDPS Group

This group consisted of 11 students (7 males and 4 females) from three public schools in the Annapolis Valley Region of Nova Scotia -- Annapolis Royal Regional Academy, Bridgetown Regional High, and Middleton Regional High. These participants ranged in age from 14 to 19. An arithmetic average of the Verbal, Quantitative, and Non-verbal scores on the Canadian Cognitive Abilities Test (CCAT) was employed to estimate the IQ or ability level of students in this group. If the CCAT scores were not available, the Peabody Picture Vocabulary Test - Revised (PPVT-R) was administered to estimate IQ. The CCAT had been administered in January or February of either 1994 or 1996 and the PPVT-R was administered on the same day as the self-concept measures -- April, 1997. The mean IQ score in this group was 88.33, with a standard deviation of 8.67.

The achievement scores in the LDPS group consisted of a composite of Reading, Total Mathematics and Spelling scores from the Canadian Tests of Basic Skills (CTBS). The CTBS was administered on the same day as the CCAT. Although the CTBS contains several sub-tests, these three sub-tests were employed because they were most similar to the measures available at Landmark East school. The reading sub-test is similar to the GORT-3 in that it measures reading comprehension. The mathematics sub-test of the CTBS measures a variety of math-related skills (i.e., concepts, operations, computations,

problem-solving, algebra, geometry, and statistics). The Spelling sub-test of the CTBS is different from the TWS, because it consists of a multiple-choice format in which the examinee is to identify the correctly-spelled word. All three achievement tests give grade-equivalent scores, and again, a composite measure was formed by averaging the three scores. Students were designated as possibly learning disabled, and included in this group, only if their IQ level was within the average range (i.e., 75 - 130), and their composite achievement score was two or more grade levels lower than their expected achievement score, given their age ($M = 2.80$, $SD = .55$). To obtain this information, the researcher first examined anonymous records containing the scores of all students in all three schools from the Annapolis Valley Regional School Board. Students were identified only by number. She then highlighted any cases that reached the above-mentioned criteria and returned them to the school board. Members of the school board then recorded the names of the requested students and sent consent forms to guidance counselors/principals of the schools which the identified students attended. These were to be returned to the researcher at Acadia University. Of the 49 students identified, 11 consent forms were returned.

NLD Group

This group consisted of 27 students (9 males and 18 females) from the same three schools as the LDPS group -- Annapolis Royal Regional Academy, Bridgetown Regional High, and Middleton Regional High. These students ranged in age from 12 to 16. Ability or IQ levels and achievement levels were obtained from this group in the same way in which they were procured in the LDPS group (the CCAT, the PPVT-R, and the CTBS) and were administered at the same time as in the LDPS group. The average IQ score in this group was 103.77, with a standard deviation of 6.23. Students were included in this group if an examination of the CCAT/PPVT-R and CTBS scores revealed that their IQ was within the average range (i.e., 75 - 130), and that there was less than a two year

discrepancy between their expected achievement, based on age, and their actual achievement levels ($M = .08$, $SD = .69$). Similar to the LDPS group, these students were identified, ID numbers were sent to the school board, and then the students' names were sent to guidance counselors/principals of the schools which they attended. At first, only those average-achieving students whose names followed students identified as having LDs on the CCAT/CTBS forms were contacted. Later, because of low response rates, a sub-set of students who reached the average-achieving criteria were randomly selected from all available students.

Instruments

Background Measures

Peabody Picture Vocabulary Test -- Revised (PPVT-R). As noted above, this test was administered to estimate the IQ of those students for whom ability scores were not available. This test was designed to measure receptive vocabulary in persons 2.5 to 40 years of age. It contains 5 training items and 175 test items arranged in order of increasing difficulty. Each item has four simple, black and white illustrations arranged in a multiple-choice format. The participant's task is to select the picture considered to illustrate best the meaning of a stimulus word presented orally by the examiner. Split-half reliabilities for the two forms of this test (Form L & Form M) range from .61 to .88 (Dunn & Dunn, 1981).

The scores are standardized, and have been found to correlate highly with various intelligence scales. Correlation coefficients have been calculated as follows: .62 with the Stanford-Binet Intelligence Scale, .64 with the WISC Full Scale Score, .72 with the WAIS Full Scale Score, and .58 with the WPPSI Full Scale Score (Dunn & Dunn, 1981).

Socio-Economic Status (SES). Parents of students in the public school groups were asked to indicate their occupation on the consent forms. In the Landmark East group, this information was obtained, with consent, from the school files. Occupations

were coded by two researchers into one of three categories; (1) professional, (2) skilled worker or (3) unskilled worker. When the occupation of both parents were listed, the profession of the parent with the more prestigious occupation was used in the analysis. (Inter-rater reliability = 80.6%).

Self-Concept Measures

Self-Esteem Index (SEI). This questionnaire was designed for use with children 8 to 18 years of age (Brown & Alexander, 1991). It contains 80 items. The scale provides a measure of global self-esteem (the Self-Esteem Quotient -- SEQ), as well as four sub-scale measures: familial acceptance, academic competence, peer popularity, and personal security. The Perception of Familial Acceptance Scale measures self-esteem at home and within the family. Items include "My parents and I have fun together," "My parents are proud of me," and "My parents don't listen to me." The Perception of Academic Competence Scale measures self-esteem in academic and intellectual pursuits. It consists of statements such as the following, "I am good at school work" and "It's fun to learn new things." The Perception of Peer Popularity Scale measures self-esteem in social situations and interpersonal relationships with peers. Items include "I'm not shy" and "I have friends I can confide in." The Perception of Personal Security Scale provides a measure of self-esteem as it is reflected in a person's feelings about his/her physical and psychological well-being. Items include "I get a lot of headaches and stomach-aches," "I am a klutz," and "I often feel ashamed of myself".

According to Brown and Alexander (1991), the test has shown good internal consistency and correlates well with other self-esteem measures. The average Coefficient Alphas for ages 8 to 18 were .90 for the Familial Acceptance Scale, .85 for Academic Competence, .82 for Peer Popularity, .80 for Personal Security, and .93 for SEQ. Correlations with other self-esteem scales, such as Piers-Harris Children's Self-Concept Scale (Revised) and the Self-Esteem Inventories (School Form) were .77 and .83,

respectively (Brown & Alexander, 1991). An Alpha of .93 was obtained in the present study for the overall scale. Alpha coefficients for each of the sub-scales in the present study were as follows; .90 for the Familial Acceptance scale, .89 for the Academic Competence scale, .84 for the Peer Popularity scale and .76 for the Personal Security scale.

Rosenberg's Self-Esteem Scale. This measure was used to assess overall or global self-esteem in all groups. It includes items such as "I feel I have a number of good qualities", "I take a positive attitude toward myself", "I certainly feel useless at times", and "At times I think I am no good at all". Although the SEI supposedly provides a global measure of self-esteem (the SEQ), this measure is in fact simply a combination of scores from each of the four domains. A particularly low score in one domain (i.e., academic competence) might strongly affect the student's overall SEQ. Thus, a global self-esteem measure that is independent of each of these domains was warranted. The experimenter explained the meaning of many of these items during administration to ensure that the students understood what was being asked of them and could respond appropriately (see Appendix A). Rosenberg's scale has been used extensively and its reliability and validity have been reviewed and shown to be acceptable. Rosenberg (1965) found that Cronbach's alpha coefficient was .80 for students with LDs. In the present study, the standardized alpha coefficient was .85.

Open-Ended Possible Selves Questionnaire (PSQ). This questionnaire was designed for the current study, and was based on the format used by Oyserman and Markus (1990). Possible selves were simply described as anything that students thought might be possible for themselves in the future, regardless of whether or not they wanted to become that particular person. The *open-ended measure* was completed first. Here, students were asked to, "List three possible selves that you would like to become, or hope to become in the future" (positive possible selves), and then to "List three possible selves

that you do not want to become or hope to avoid becoming in the future" (negative possible selves). Following this, the students were asked to look at each possible self that they had listed and decide "How much would you like this possible self to describe you in the future? Circle the answer that best fits, either 'not at all', 'sort of' or 'very much.'" They were then asked to decide "How likely is it that this possible self will describe you in the future, or what are the chances that this will describe you in the future? Circle the answer that best fits, 'not at all', 'sort of' or 'very much.'"

If an individual circled "sort of" or "very much" in response to "How likely is it that this possible self will describe you in the future?" for a positive possible self, this item was coded as an *expected possible self* and was used in the analysis of balance. Expected selves, rather than all positive possible selves, were used in the analysis of balance because while some possible selves can be quite far-fetched (e.g., a millionaire), expected possible selves are more realistic.

A preliminary examination of the open-ended negative possible selves revealed that many of the negative possible selves listed by the participants were not what one would typically perceive as a truly negative or feared possible self. For example, some individuals listed generally respected professions, such as doctor or teacher, as selves they hoped to avoid becoming. Although these selves may not be desired by the individual, they may not carry the emotional weight of truly feared possible selves. Accordingly, two coders rated negative possible selves as *feared possible selves* if they appeared to be possible selves that most people would hope to avoid becoming (inter-rater reliability = 80.5%).¹

The two coders also coded all open-ended possible selves into one of ten categories: Academic Competence, Familial Acceptance, Peer Popularity, Personal

¹ Note, that no differences were found in the total number of negative possible selves listed by each group ($F(2, 59) = .06, p = .945$).

Security, Professional Worker, Skilled Worker, Unskilled Worker, Sports-related Occupation, Arts, or Other (inter-rater reliability = 90.1%). The first four categories were included because they are parallel with those on the SEI. The remaining six categories were included because an examination of the data revealed that the majority of the responses represented some type of occupation, and a more fine-grained investigation of the nature of the occupations was desired.

Balance was said to occur among open-ended possible selves if an individual listed a feared possible self and an expected possible self in the same domain. For example, "a good mother" listed as an expected self and "an abusive parent" listed as a feared self would constitute balance within the familial acceptance domain. Balance was viewed in a domain specific nature because Oyserman and Markus (1990) posited that a given possible self would have maximum motivational effectiveness when offset or balanced by a countervailing self in the same domain. For example, a feared self (i.e., a high school drop-out) should be balanced by an expected self that outlines what one must do to avoid the feared state (i.e., passing ninth grade). An individual could obtain a maximum of three instances of balance. Although expected and feared selves were generally required to be from the same domain for balance to occur, there were exceptions. Within the occupational domains (i.e., Professional, Skilled, & Unskilled Workers), balance was thought to occur if an expected possible self was accompanied by a feared possible self from an occupational domain that received a lower salary or was seen as less prestigious. For example, if an expected possible self from the professional domain (e.g., doctor) and a feared possible self from the skilled worker domain (e.g., secretary) were listed by the same individual, balance was said to occur.

Closed-Ended Possible Self Questionnaire. The closed-ended measure was developed for this study, based on measures by Oyserman and Markus (1990). The possible selves used in this part of the questionnaire were designed to represent each of

the domains of the SEI (i.e., familial acceptance, peer popularity, academic competence, and personal security). Five pairs of possible selves (one positive and one negative) were developed for each domain (see Appendix B). The examiner first read through a list of possible selves with the students, and asked the students to place a check mark by any of those possible selves that they thought might be descriptive of them in the future, regardless of whether these possible selves were desirable. They were then to go back through their responses, and for any possible selves they marked, they were first to decide "How much would you like this possible self to describe you in the future?" -- "not at all", "sort of" or "very much", and then, "How likely is it that this possible self will describe you in the future?" -- "not at all", "sort of" or "very much".

Perceptions of Learning Disabilities

The Self-Perception of Learning Disability Scale (SPLD). This 25-item scale is designed to assess the participants' views of their disability as delimited rather than global, modifiable rather than permanently limiting, and not stigmatizing (Heyman, 1990). Students are asked to circle "true" or "false" in response to items such as: "I can think of many things I'm very good at", "I'll always need extra help in school work", and "I don't have many friends because I need extra help in school". The internal consistency of the scale was estimated by calculating the value of Cronbach's alpha. The coefficient alpha was .70 (Heyman, 1990). In the present study, a standardized alpha of .70 was found for the two LD groups. However, a number of items on the scale were found to have poor item-total correlations (negative values) or to show no variability at all within the sample. Five of these poor items were deleted from the overall scale, resulting in a final scale with a standardized alpha of .72.

Our Self-Perception of Learning Disability Scale. This scale was designed because it was felt that some of the items on the SPLD were not appropriate for the LDLM environment (i.e., "Teachers think poorly of students who need a lot of extra

help." and "Teachers get mad at kids who take longer to learn."). A scale that queried the same issues as the SPLD without making assumptions about the environment was desired. Accordingly, students in the LDLM group were asked eight additional questions about how global or pervasive they believed their LD was (see Appendix C). Items included "People notice my LD right away", "Often people do not even know I have an LD when they first meet me", "My LD will matter less and less as I get older" and "My LD will always be there". Reliability analysis within the LDLM revealed a low standardized alpha for this scale (.35). Because this coefficient alpha level was not considered adequate, the scale was not used in any further analyses.

Procedure

Letters and consent forms were sent to parents at the Landmark East School and the three public schools (See Appendix D). Low response rates necessitated a second letter and accompanying consent form be sent out to parents of students in the public school setting. Following this second attempt, response rates were 67.5% at Landmark East, and 27.6%, 36.8%, and 71.8% for the three public schools.

Individuals in both LD groups attended a 40-45 minute session, during which they first completed the PSQ, then the SEI, then Rosenberg's Self-Esteem scale, and finally, the SPLD scale. The SPLD was given last to avoid having academic difficulties salient in the students' minds when they were completing the other questionnaires. The students in the public school groups returned for a second 10-15 minute session to complete the PPVT-R if their CCAT score was missing. All scales were administered orally to ensure that the results were not contaminated by reading difficulties. That is, the examiner read each of the items aloud and the students were to respond privately on the forms provided.

Students in the NLD group received the questionnaires in the same order as the two LD groups, except that they did not receive the SPLD. Furthermore, the tests were given orally to ensure that the method of administration did not influence the results.

On the advice of staff at Landmark East, the questionnaires were administered individually to the LDLM group to ensure that the students did not distract each other and could feel free to ask the examiner questions. The other two groups completed the questionnaires in small groups of 1-3 students. No problems occurred with the group testing procedures.

Results and Discussion

Background Variables

Although the mean full-scale IQs of all three groups were in the average range (see Table 1 for data on the IQ, age, gender (% male), and SES for each group), an ANOVA revealed significant differences among groups ($F(2, 62) = 10.93, p < .0005$)². Tukey's HSD comparison revealed that the difference was between the two LD groups and the NLD group, with the NLD group having a significantly higher mean IQ³.

A Chi-square analysis revealed a significant difference in gender among the three groups ($\chi^2 = 11.12, p = .004$), with the NLD group having a higher proportion of female respondents than the two LD groups. The fact that significant differences were found among the groups for gender is not surprising. LDs are more common in males than in females, so we would expect to have higher ratios of males to females in the LD groups in comparison to the NLD group. Low participation rates prevented the researcher from procuring larger numbers of males in the NLD group.

² An alpha level of .05 was used for all statistical tests unless otherwise indicated

³ The reader should note that because of the small sample size of the LDPS group, comparisons with this group have limited statistical power.

Table 1
Background Information Across Groups

Variable	LDLM		LDPS		NLD	
	M	SD	M	SD	M	SD
	n = 27		n = 11		n = 27	
IQ						
verbal	93.85	2.63	84.25	10.96	103.30	8.77
non-verbal	99.22	8.38	95.63	12.19	106.09	10.06
full scale	96.27	8.25	88.33	8.67	103.77	6.23
AGE	14.10	1.52	14.45	1.13	12.93	1.04
GENDER						
(% Male)	52.5		63.6		33.3	
SES						
% Professional	22.2		20.0		57.7	
% Skilled Worker	55.6		80.0		26.9	
% Unskilled Worker	22.2		0.0		15.4	

A one-way ANOVA also revealed significant differences in age among the three groups ($F(2, 62) = 8.25, p = .001$). Tukey's HSD test indicated that the NLD group was significantly younger than the LD groups. Because students were chosen based on similar grade level, it is reasonable that students in the NLD group would be younger than the students in the LD groups, since it is likely that many of the students in the LD groups had been kept back a year or two. No significant difference was found in SES among the groups ($F(2,60) = 2.55, p = .087$).

The three variables which showed differences among the groups (i.e., IQ, gender, & age) were entered as covariates for all other analyses. All comparisons between groups were done with contrasts, comparing the means of the groups while adjusting for the covariates. Contrasts always compared the two public school groups with the residential school group.

Comparisons Between Groups

Global Self-Esteem

It was hypothesized that global self-esteem would be similar among the three groups (see Table 2). Analysis of variance revealed support for the hypothesis that global self-esteem would be similar among the three groups ($F(2, 60) = 1.41, p = .253$ for Rosenberg's Self-Esteem Scale; $F(2, 59) = 1.21, p = .304$ for the overall score on the Self-Esteem Index). (An alpha level of .10 was used in this case because the assumption was that the null hypothesis would not be rejected.) Thus, global self-esteem did not differ among the three groups.

Table 2
Adjusted Means and Standard Deviations of Global Self-Concept Scores for Each Group

	LDLM		LDPS		NLD	
SELF-CONCEPT	n = 27		n = 11		n = 27	
MEASURE	M	SD	M	SD	M	SD
Rosenberg's Self-						
Esteem Scale*	41.53	6.08	39.32	6.45	38.84	5.08
Self-Esteem Index**	113.00	15.36	104.73	13.24	107.22	15.39

* Possible range = 10 - 50

** Standardized scale with **M** = 100, **SD** = 15

Current Academic Self-Concept

It was also hypothesized that the two groups with LDs would have more negative academic self-concepts than the average-achieving group. This hypothesis was not supported. However, an ANCOVA showed that the students in the specialized setting had significantly more positive academic self-concept scores than the students with LDs in the regular classroom ($F(2, 58) = 3.91, p = .026; t = -2.73, p = .008$). Mean scores show similar academic self-concept scores for the students in the LDLM group and the NLD group. Programming and/or selection factors at Landmark East seem to have a positive influence on students' academic self-concepts. Only the LDPS group shows lowered academic self-concepts; the LDLM group's academic self-concepts are equal to those of the NLD peers, despite their LD (see Table 3).

The Self-Perception of a Learning Disability

The Self-Perception of a Learning Disability (SPLD) score was significantly higher in the LDLM group than in the LDPS group ($F(1,33) = 5.82, p = .022$, see Table 3). Thus, students at Landmark seem to view their LD as more delimited and specific than the students in the LDPS group. These findings might lead one to speculate about the benefits of attending a school that specializes in the treatment of LDs, such as Landmark East School. It seems that programming at Landmark provides children with not only a more positive view of themselves in terms of academics, but also encourages the belief that their LD is only one aspect of their lives, not some global entity beyond their control. Furthermore, according to staff and students, the students at Landmark tend to come from very supportive families who have worked hard to ensure their child's enrollment at Landmark East. It is suspected that positive self-perceptions are closely tied to academic success, and that students at Landmark probably experience more of both than students with LDs in the public schools, because programming at Landmark East School is tailored to meet the needs of these students.

Table 3

Adjusted Means and Standard Deviation Scores for Academic Self-Concept (Closed-Ended Form) and Self-Perceptions of LDs in Each Group

	<u>LDLM</u>		<u>LDPS</u>		<u>NLD</u>	
	<u>n = 27</u>		<u>n = 11</u>		<u>n = 27</u>	
<u>Measure</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
Academic						
Competence						
(SEI)*	62.79	7.62	54.54	8.34	60.41	9.17
Academic						
Competence						
(PSQ)**	12.96	2.16	8.55	1.63	9.22	1.99
Self-Perception						
of an LD***	16.93	3.82	13.45	4.13	****	****

* Highest Score = 80

** Highest Score = 10 (higher scores occur because adjusted means are reported)

*** Highest Score = 25

**** This test was not administered to this group

Future Academic Self-Concept (Academic Possible Selves)

It was hypothesized that the youths with LDs in both groups would endorse fewer positive academic possible selves than the average-achieving group, and that the LDLM group would endorse more positive academic possible selves than the LDPS group. An ANCOVA showed no significant differences in the number of academic possible selves endorsed by each group, however ($F(2, 60) = .98, p = .381$, see Table 3). Thus, it seems that although differences between groups may appear in terms of their current self-perceptions, they do not envision differences in the future.

Self-Concept in Other Domains

Closed-Ended Measures. Exploratory ANCOVAS revealed no significant differences among the groups in the three other self-concept domains (Familial Acceptance, Peer Popularity and Personal Security), either presently or in the future (see Table 4). Thus, it seems that although an LD may be related to how one currently feels about oneself academically, it is not associated with current self-concept in other domains. The individuals in this study seem to be able to separate their academic life from other areas of their lives. These findings provide support for Kloomok and Cosden's (1994) belief that children with high global self-concept perceive themselves as competent in other non-academic domains.

ANCOVAS with the closed-ended possible selves data revealed no significant differences in terms of the total positive and total negative possible selves endorsed by each of the three groups (see Table 4). All three groups were especially positive about their future, endorsing very few negative possible selves. This 'extreme optimism' about the future leads to questions about the usefulness of examining distal future possible selves with individuals within this age range. Based on the findings in this study, it

appears that adolescents have difficulty envisioning detailed or complex images of themselves 5-10 years from now.

Open-Ended Measures.

Responses on the open-ended PSQ across all three groups were quite similar (see Table 5). An ANCOVA uncovered no significant differences among groups in the number of feared selves (as coded by the two researchers) identified on the open-ended PSQ ($F(2, 59) = .06, p = .945$). Thus, it seems that the presence of an LD does not influence, or in any way limit, what these adolescents see as possible for themselves in the future. They did not identify more negative outcomes as likely in comparison to the average-achieving students.

Table 4.

Current and Future (Closed-Ended Measure) Self-Concept Across All Groups (adjusted means reported).

Measure	LDLM		LDPS		NLD	
	n = 27		n = 11		n = 27	
	M	SD	M	SD	M	SD
Total Positive Possible Selves*						
(PSQ)	18.23	1.88	17.75	1.55	18.66	2.24
Total Negative Possible Selves*						
(PSQ)	1.33	1.84	2.33	2.49	.826	2.81
<u>Current Measures (SED)**</u>						
Familial Acceptance	66.77	10.23	66.61	5.89	67.01	9.52
Peer Popularity	62.30	8.73	62.32	7.28	60.95	5.27
Personal Security	67.02	9.68	60.62	9.17	65.41	6.68
<u>Future Measures (PSQ)***</u>						
Familial Acceptance	9.37	2.27	9.19	.81	9.71	1.16
Peer Popularity	9.26	2.60	9.22	1.21	9.78	.64
Personal Security	8.96	3.20	8.46	1.19	9.19	2.01

* Range = 0-20

** Highest Possible Score = 80

*** Highest Possible Score = 10

Table 5.

Percentage of Possible Selves Generated by Each Group (Open-Ended Data).

Category	<u>LDLM</u>		<u>LDPS</u>		<u>NLD</u>	
	<u>n = 27</u>		<u>n = 11</u>		<u>n = 27</u>	
	Positive	Negative	Positive	Negative	Positive	Negative
<u>Academic</u>						
Competence	1.2	0.0	0.0	3.1	2.5	2.5
Familial Acceptance	0.0	0.0	0.0	0.0	2.5	6.3
Peer Popularity	1.2	3.7	0.0	6.2	7.4	8.9
Personal Security	0.0	9.9	6.2	2.5	3.7	22.8
Professional	26.2	32.1	25.0	0.0	37.0	20.2
Skilled Worker	37.5	6.2	43.7	6.2	18.5	10.1
Unskilled Worker	12.5	39.5	3.1	34.4	7.4	24.1
Sports-Related	10.0	2.5	15.6	3.1	3.7	0.0
Arts	3.7	0.0	0.0	0.0	13.6	1.3
Other	7.5	6.2	6.2	9.4	3.7	3.8

The top three categories for negative possible selves across all three groups were Unskilled Worker (i.e., farmer, janitor), Professional, and Personal Security (i.e., mean and nasty, depressed). Although it makes intuitive sense that Unskilled Worker and negative Personal Security comments would surface as negative possible selves, the fact that Professional titles were listed is somewhat odd, especially with the average-achieving students. Within the LD groups, individuals may potentially see Professional roles as beyond their capabilities, and therefore fear them. This fear may arise because (a) they believe these roles would be too difficult for them, and they focus on the stress and hardships that would be associated with maintaining such a role; or (b) because they know that these occupations would be extremely challenging for them and, therefore, as a means of maintaining a positive self-image, convince themselves that such jobs are unappealing. Such explanations are less satisfying for the average-achieving students, however, who should theoretically see some of these jobs as within their grasp. Perhaps since their visions of future seem to be focused in the career domain, average-achieving individuals were simply listing Professional jobs that they had decided they would not like to hold, in comparison to the professional titles they desired or expected to attain.

An examination of the positive possible selves revealed that the top two categories of positive possible selves for all three groups were Skilled Worker (i.e., secretary, forestry officer) and Professional (i.e., teacher, doctor). In general, then, students in all three groups seem to have similar expectations and aspirations. Responses on the open-ended measure were also used in the analysis of balance. Balance was said to occur when an individual generated both an expected and feared self in the same domain. Thus, the balance score for each individual ranged between zero and three. It was postulated, based on research done by Oyserman and Markus (1990), that average-achieving students would have a better balance between expected and feared possible selves than students in either of the two LD groups on the open-ended possible selves

questionnaire. Again, ANCOVA revealed no differences among the three groups in terms of the number of instances of balance. Once again, these findings provide evidence for the theory that adolescents have difficulty envisioning themselves in the more distal future. Most of the responses on the open-ended questionnaire were career-oriented, both for positive and negative possible selves. It seems that "What do you see as possible for yourself in the future?" translated into "What do you want to be when you grow up?" for these adolescents. Furthermore, these individuals seemed to find it especially difficult to imagine negative possibilities for themselves. They endorsed very few negative possible selves on the closed-ended questionnaire. Perhaps a questionnaire tapping into possible selves in the more immediate future (i.e., 2 years) would have been easier for the youths to envisage and therefore, have yielded more differences. Thus, all three groups tended to be very similar in their open-ended possible selves. However, one interesting difference did emerge. For the open-ended questionnaire, Skilled Worker was most common for the LD students, while Professional was the most commonly used category with the average-achieving students.

Within All Three Groups

IQ and Global Self-Esteem

Support for the hypothesis that global self-esteem would correlate positively with IQ score was not found in the present study. For the two public school groups, there was essentially no correlation with IQ for either the total SEI score ($r = .0560$, $p = .800$; $r = .1474$, $p = .364$, respectively) or Rosenberg's self-esteem scale ($r = .1669$, $p = .447$; $r = -.0458$, $p = .457$). Within the specialized school setting, however, there appears to be a trend, although only marginally significant, of a negative relationship between IQ and global self-esteem for both the total SEI ($r = -.3239$, $p = .057$) and for Rosenberg's scale ($r = -.3759$, $p = .058$). It may be speculated that within the environment especially structured for students with LDs, a higher IQ is associated with a more negative global

self-concept because individuals with high intelligence are even more aware of the effects of their LD, and thus are more frustrated. In support of this line of reasoning, within this group, there were significant negative relationships between IQ and the student's average ratings of how much they would "like to be" each positive possible self and between IQ and how likely they thought it was that they "would be" each positive possible self on the closed-ended possible selves questionnaire ($r = -.5975, p = .001$ and $r = -.5690, p = .002$, "would be" and "like to be", respectively). That is, the higher the IQ, the less inclined students were to see positive possible selves as desirable. Furthermore, students with higher IQ scores were not as apt to believe that positive possible selves were "very likely" for them in the future, in comparison to students with lower IQs. These relationships were not uncovered in the other two groups, however. Perhaps a higher IQ is related not only to more negative self-esteem, but also to more realistic expectations, which are emphasized at Landmark. Thus, within the residential setting, it seems that students with higher IQ scores are more realistic in that their global self-esteem is not unduly inflated and they do not believe that every positive possible self is likely for themselves.

Relationships Between Current and Future Domains

It was hypothesized that current self-concept in each domain would be related to the possible selves elected from the corresponding domain. Correlation analyses between domain specific SEI scores and the total number of domain specific possible selves showed interesting differences among the three groups. The hypothesis was fully supported for the average-achieving students; current self-concept in all four domains -- Academic Competence, Familial Acceptance, Peer Popularity, and Personal Security -- correlated with the possible selves endorsed in each of these four domains (see Table 6). The hypothesis was only partially supported within each of the two LD groups, however. Within the LDLM group, significant relationships were found between current and future self-concepts within the Familial Acceptance and Peer Popularity domains, yet no

significant relationships were found within the Academic Competence and Personal Security domains (see Table 6). It may be speculated that because programming at Landmark East School focuses on both academics and the self-esteem (personal security) of the students, the adolescents in this group are probably making changes in these areas presently and, therefore, believe that their competence in these areas will continue to change in the next ten years or so. Thus, in this case, current performance is not viewed as an especially good predictor of future performance. In contrast, the students at Landmark seem to think that their interpersonal relationships (i.e., Familial Acceptance and Peer Popularity domains) will remain relatively stable over time. This is not surprising in light of the fact that these students are at a very specialized, intensive school. This fact alone would lead one to believe that there is a high amount of parental involvement and concern, and that the parents are probably quite pleased with their child's progress at Landmark, especially in comparison to their performance in the public school. The students likely believe that these positive feelings and interactions with family members will remain constant in the future. Further, that fact that students at Landmark have so much in common have probably led to the formation of very close and lasting friendships.

For students with LDs in the public school, significant relationships were found within the Academic Competence and Personal Security domains; the relationship within the Peer Popularity domain was marginally significant; and there was no correlation within the Familial Acceptance domain (see Table 6). Students in the LDPS group seem to think that although academic performance and their personality characteristics will not change much over time, their relationships with their parents may. Although these students do not differ significantly from the other two groups in the familial acceptance or peer popularity domains, they scored significantly lower in the academic competence domain and had somewhat lower means in the personal security domain ($M = 59.8$ vs. M

= 66.7 and $M = 66.6$ in the LDLM and NLD groups, respectively). Thus, the relationships uncovered between current and future self-concepts in this group may stem from feelings of ineffectiveness in the academic setting. That is, because of their academic difficulties, these students may have given up on the idea of improving academically. Further, this perception of helplessness or ineffectiveness may have spilled over into intrapersonal domains other than academics. Thus, they may feel that they cannot evoke change in personal characteristics (i.e., personal security).

On the other hand, they may believe that once they leave the academic setting and their academic success is not such a central theme in their lives, changes may occur in other life domains. For example, although the relationship between these students and their parents appears to be fairly positive overall, students who are doing poorly in school are likely to experience conflict with parents over school work. This individual may be able to envision, however, that when he/she gets older and enters the work force, the importance of academic success will be less salient for family members.

Table 6.

Correlations Between Current (SED) and Future (Closed-Ended PSO) Domains

Measure	LDLM		LDPS		NLD	
	n = 27		n = 11		n = 27	
	r	p	r	p	r	p
Academic						
Competence	.22	.27	.56	.038	.69	<.0005
Familial Acceptance	.77	<.0005	.14	.34	.59	.001
Peer Popularity	.66	<.0005	.43	.092	.46	.008
Personal Security	.17	.39	.77	.003	.36	.031

Within the LD Groups

The Self-Perception of an LD

It was hypothesized that within both groups of students with LDs, the Self-Perception of a Learning Disability (SPLD) would be positively correlated with: (a) current Academic self-concept, (b) the total number of possible selves endorsed and (c) the balance between expected and feared possible selves. Within the specialized setting, none of these three relationships was found to be significant. That is, for the students at Landmark East school, their perception of their LD was unrelated to their current academic self-concept, the total number of possible selves generated, or whether or not they had a balance between expected and feared possible selves ($r = .1814$, $p = .375$; $r = -.2465$, $p = .215$ and $r = -.2236$, $p = .283$, respectively). These findings are likely a result of the fact that almost all of the students at Landmark view their LD as quite specific and delimited⁴, and of the fact that the academic self-concepts of these students are relatively positive. Correlation analyses cannot provide much information because the data for these two variables show little variability. Also, these students seem to have difficulty generating distal possible selves for themselves, especially within the negative domain. That is, most of the negative/feared possible selves generated included professional and skilled worker titles. These were not coded by the researcher as "negative possible selves" and, therefore, could not be used as a balancing possible self in the analysis. It should be noted, however, that SPLD was positively related to global self-esteem ($r = .5642$, $p = .002$) according to Rosenberg's scale, and the relationship between total SEI and SPLD was marginally significant ($r = .3386$, $p = .091$). Those who viewed their LD

⁴ The reduced variability in the Landmark data, as compared to the public school data, is not as apparent in Table 3 because one extreme score has elevated the standard deviation. When this score is removed, however, the SD is 2.84 and the mean is 16.4.

in a more delimited fashion had higher self-esteem than those who viewed it as more global.

For the students in the public school, significant positive relationships were found between SPLD and perceived Academic Competence ($r = .6396$, $p = .034$) and SPLD and global self-esteem ($r = .8405$, $p = .001$ for Rosenberg's scale; $r = .7028$, $p = .016$ for SEI); however, no significant relationships were uncovered between SPLD and the total number of possible selves endorsed ($r = -.1771$, $p = .602$) or the balance between expected and feared possible selves ($r = .1925$, $p = .620$). Thus, for students with LDs in the public school setting, the perception of an LD is positively related to how they feel about academics in general. That is, a more delimited view of the LD is associated with a higher academic self-concept. This relationship was visible in this group, while it was not in the Landmark group, because the SPLD data within the public school group contained greater variability. Once again, however, the difficulty adolescents have in envisioning negative possible selves in the distal future is illustrated. These students also frequently identified skilled worker and professional titles as negative/feared possible selves and these titles could not be used in an analysis of balance.

Achievement Scores and Balance of Possible Selves

No significant relationship was found between achievement and balance in any of the three groups ($r = -.1463$, $p = .485$; $r = .5160$, $p = .155$; $r = .4515$, $p = .31$, for the LDLM, LDPS, and NLD groups). Again, this is likely a result of the difficulty students had in generating possible selves in the distant future (i.e., the low number of identified feared selves that could be employed in an analysis of balance). Note, however, that the

correlations between achievement and balance in the two public school groups are relatively strong, although not significant. Thus, there is a trend in the public school setting in which higher achievement level is associated with a better balance between expected and feared possible selves.

General Discussion

While this study attempted to uncover differences among three groups of adolescents (average-achieving students, students with LDs in a specialized school, and students with LDs in the public school system)⁵, perhaps most interesting were the similarities found among groups. It seems that adolescents with LDs are similar to their NLD peers in many respects. All three groups in the present study were similar in terms of global self-esteem. This resonates with findings of various researchers in the past (i.e., Coleman et al., 1992; Grolnick & Ryan, 1990; Renick & Harter, 1989; Sabornie, 1994; Winne et al., 1982). In fact, no differences were found among the three groups in any current self-concept domain, other than academic competence. That is, all students generally had quite positive self-perceptions in the familial acceptance, peer popularity,

⁵In focusing on the design of this study, some may question the criteria used for the students in the LDPS group and wonder whether the students in this group actually had an LD. The present author would argue that the criteria were as adequate as possible based on the information available. Furthermore, regardless of whether these students meet the clinical criteria for LD, they were having difficulty in school (backed up by self-reports) and their IQs were in the average range. The fact that they were having difficulty in school makes them an appropriate comparison group in this study. The focus of this study was on how academic difficulties affect adolescents and whether special class placement in any way mediates these effects. As stated beforehand, the small sample size of the LDPS group limits statistical power and deems this research somewhat exploratory. It would be interesting to see whether similar results would be uncovered with a larger sample size.

and personal security domains, as well as in global self-concept. Thus, it seems that, for the most part, academic difficulties are not detrimental to self-concept. Even when faced with failure, adolescents appear able to maintain positive self-perceptions overall. Why is this so? Is it because students with LDs compensate for their academic difficulties by perceiving themselves as more competent in other non-academic domains? Or, is it simply because the children in this group are able to mentally separate their LD from other areas of their lives? The fact that analyses showed no difference among the three groups in the non-academic domains provides little support for the assumption that students with LDs tend to see themselves as more competent in other domains. They appear to view themselves simply as equally competent, in comparison to average-achieving students. Thus, it is perhaps more likely that students with LDs tend to separate their LD from the other areas of their lives. Indeed, Heyman (1990) found that the self-perception of one's LD was related positively to global self-esteem, and these findings were replicated in both LD groups in the current study.

Not only were these students similar in terms of current self-concept, but they were also similar in how they envisioned themselves in the future. Students in all three groups tended to be very positive about their future. That is, they generally endorsed almost all positive possible selves listed, but few, if any, negative possible selves. Furthermore, on the open-ended possible selves questionnaire, students in all three groups most frequently reported occupational-type possible selves as both positive and negative possible selves. Again, this leads to questions about the format of the questionnaire. Perhaps adolescents have difficulty generating specific images of themselves in the distal

future (Oyserman & Markus, 1990). Thus, perhaps possible selves can be divided into two types -- long-term and short-term possible selves. Long-term possible selves are those which we see as possible for ourselves 5-10 years down the road, whereas, short-term possible selves are those we envisage 1-2 years from now. Future research with adolescents should concentrate on their short-term possible selves. Furthermore, the lack of specificity of the descriptors may have been problematic. For example, it may have been easier to endorse specific behavioral exemplars of a self-view (e.g., "having a boyfriend/girlfriend" or "having lots of arguments with my parents") rather than our more global self-descriptors (e.g., "unloved" or "someone who has problems at home").

Although the focus thus far has been on the similarities among groups, differences did surface on the open-ended PSQ, and these should not be minimized. It was found that average-achieving students were most likely to list a professional occupation as a positive possible self, while students in the LD groups most often listed skilled worker possible selves. Similarly, Dowdy et al. (1990) found that, in comparison to their LD group, twice as many average-achieving students wanted to go to college upon finishing high school, while twice as many students with LDs as average-achieving students wanted to enter the job market upon finishing high school. It should be noted, however, that there was a marginally significant effect for SES in this study. Parents of the average-achieving students were more likely to hold professional careers, while parents of the students with LDs were more likely to fall in the skilled worker category. It is assumed that the occupation of one's parents will have a strong influence on the possible selves generated in this area.

Differences also emerged among the academic self-concepts of the groups. Even when controlling for the effects of age, IQ, and gender, the academic self-concept of the students with LDs in the specialized setting was significantly more positive than that of the students with LDs in the regular classroom. This finding should not be taken lightly because Bear and Minke (1996) also found a positive relationship between academic self-concept and engagement in school. Thus, if the academic self-concepts of the students with LDs in the public school remain negative, dropping out is a likely possibility. Also, students in the specialized setting tended to have a more neutral perception of their LD than did the students with LDs in the public school (i.e., they viewed their LD as more delimited and specific). Thus, although the presence of an LD does not appear to have adverse affects on individuals overall, it can be related to how they feel about academics. Students in the residential setting not only receive an education tailored to meet their special needs, but they also have peers with similar difficulties to compare themselves with. It appears that these factors are correlated with more positive feelings about academics and the positive perception of LDs. Bear and Minke (1996) found that both average-achieving and LD children perceive themselves as doing well academically based largely on feedback on their performance in the classroom. Therefore, according to Bear and Minke, children with LDs should hold more favorable self-perceptions if they are in settings where instruction is individualized and more positive feedback is forthcoming. Interestingly, while completing the SPLD, several of the students at the specialized school commented that they would have answered quite differently had the questionnaire been administered when they were in the public school setting. Students

with LDs in the public school, on the other hand, commented throughout the testing procedure that they received little extra help in school and expressed a great deal of frustration.

Although all three groups were similar in terms of what they saw as possible for themselves in the future, an examination of the perceived relationship between current and future selves within each domain showed some interesting differences among the three groups. That is, while students in the average-achieving group viewed their current self in each domain (i.e., academic competence, familial acceptance, peer popularity, and personal security) as related to their future selves in that domain, this was not always the case in the LD groups. Students in the specialized school setting tended to believe that their current and future selves in the familial acceptance and peer popularity domains would remain similar. These strong relationships are likely a result of the fact that students at Landmark are receiving more support from their parents and their peers than the students with LDs in the public schools. In contrast, the students with LDs in the regular classroom are likely criticized by their parents because of their academic difficulties and, therefore, hope that when they are finished school these interpersonal relationships will change. Klooomok and Cosden (1994) found that social support from parents and friends was related to academic self-concept (the present study has shown that the academic self-concept of students in a setting tailored to meet their needs is more positive than that of students with LDs in the regular classroom).

A look at self-concept in the two other domains (i.e., academic competence and personal security) showed the opposite trend. While students with LDs in the public

school tended to see the current and future manifestations of these two domains as related, students in the specialized school did not. It is assumed that the perception of academic competence is related to the self-perception of the LD. That is, students in the public school are likely frustrated and discouraged because of the effect their LD has on their academic performance and have likely given up on the idea of getting help or doing better. Individuals at the residential school, on the other hand, are currently in the process of making change in their academic performance and likely believe that such changes will continue to occur in the future. Similarly, feelings of helplessness in the academic domain may lead students with LDs in the public school to feel that they cannot make changes within themselves either (i.e., personal security domain). Students in the specialized setting seem more likely to think that change is possible.

It should be noted that the differences that did emerge between LD and average-achieving groups in this study were related to academics, and that these differences were less obvious when the individuals with LDs were in specialized teaching environments. The fact that an LD does not appear to be related to global self-worth or self-worth in domains other than academics is encouraging. These students do not seem to have low self-esteem overall, and will likely become psychologically sound adults. This does not imply that these students will "turn out OK", and that we can therefore forget about them, however. The fact is that students with LDs in the public school have low academic self-concept and a more global or pervasive view of their LD. These findings are not to be taken lightly. A negative view of academics, accompanied by a belief that one's LD is beyond one's control, will likely result in feelings of frustration and helplessness. These

feelings will likely lead to a disinterest in school, and drop-out becomes a real possibility.

In today's society, economic distress is the likely outcome for a high school drop-out. We live in a society in which education is not a luxury; it is a necessity. Thus, it is imperative that students with LDs get help early on, to engage them in the academic world and to increase the chances that they will succeed.

Although placement in a specialized learning environment appears to be beneficial in this particular study, one may wonder how such students will fare if and when they return to the public school setting. Will they have the skills necessary to achieve academic success in this setting? Will they encounter difficulties once again? Will they be teased by peers who do not understand their struggles? Will they get "lost in the system"? It is assumed that these possibilities are discussed at such institutions, and that students there are taught to cope with life outside their specialized environment . Because of this, students who receive an education tailored to meet their needs will likely fare much better in the public school system than students with LDs who have received no remedial assistance.

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Appendix A

Rosenberg's Self-Esteem Scale

1. I feel I am a person of worth, at least on an equal plane with others. *Or, I feel that I am just as good as the next person.*
2. I feel that I have a number of good qualities. *Or, that there are a number of good things about me.*
3. All in all, I am inclined to feel I am a failure. *or, overall, I feel I am a failure.*
4. I am able to do things as well as most other people.
5. I feel I do not have much to be proud of, compared to most other people.
6. I take a positive attitude toward myself. *Or, feel good about myself, in general.*
7. On the whole, *or overall*, I am satisfied with myself.
8. I wish I could have more respect for myself.
9. I certainly feel useless at times.
10. At times I think I am no good at all.

Appendix B

Possible selves

<u>Domain</u>	<u>Positive</u>	<u>Negative</u>
<u>Familial Acceptance</u>		
<u>Domain</u>		
	a good parent	a bad parent
	happily married	divorced
	loved	unloved/lonely
	someone who spends quality time with his/her parents	someone who drifts away from his/her parents
	someone who has a happy home life	someone who has problems at home
<u>Academic Competence</u>		
	a hard worker	a lazy person
	a college student	a high school drop-out
	smart	stupid
	someone with a good job	someone without a job
	someone who does things well	someone who has trouble doing things

Appendix B (cont'd)

Domain	Positive	Negative
<u>Peer Popularity</u>	<p>popular</p> <p>someone who has lots of friends</p> <p>friendly</p> <p>liked</p> <p>someone who works well with others</p>	<p>unpopular</p> <p>someone who does not have many friends</p> <p>unfriendly</p> <p>hated/rejected</p> <p>someone who does not get along well with others</p>
<u>Personal Security</u>	<p>secure</p> <p>happy</p> <p>someone who can deal well with problems/difficulties</p> <p>carefree/relaxed</p> <p>someone who sticks up for his/her rights</p>	<p>insecure</p> <p>depressed</p> <p>someone who can not handle his/her troubles</p> <p>nervous and worried</p> <p>someone who is pushed around by others</p>

Appendix C

Our Self-Perception of an LD Scale

1. My learning difficulties will always be there.
2. My learning difficulties will matter less and less as I get older.
3. My learning difficulties affect most areas of my life.
4. There are lots of things I can do really well, even if I do have learning difficulties.
5. If you took away my learning difficulties, I'd be a totally different person.
6. I just happen to have learning difficulties, having them doesn't change me as a person.
7. People notice my learning difficulties right away.
8. Often, people don't even know I have learning difficulties when they first meet me.

Appendix D

Consent Form for Parents at Landmark East School

Dear Parent or Guardian:

My name is Carla Seymour, and I am working on my master's thesis in psychology with Dr. Diane Holmberg at Acadia University. As part of my thesis work we will be doing some research together with Landmark East. In the past, both students and staff at Landmark have found working with individuals from Acadia to be quite rewarding. In our study, we are trying to find out if the way students see themselves today is related to how they think about themselves in the future. We also want to see if the way in which students think about their learning disability (LD) might affect what they see for themselves in the future. This information may help teachers and parents learn how to encourage kids to set high, yet realistic goals for their futures.

If your son/daughter agrees to take part, he/she will be asked to complete some questionnaires. There are no right or wrong answers to these questions. We just want to know how the students think about themselves. Also, by signing this consent form, you're allowing us to look at some data that has been collected about your child in the past (their achievement and ability levels, for example). The study will include two 20-25 minute sessions with your son/daughter. These sessions will not interfere with regular programming at Landmark, but will be done during the students' free time. All information about your son/daughter will remain strictly confidential. Only group results will be reported and identification of individual students will not be possible.

Although it's important to our research that all tests are completed, students are free to stop the session if anything makes them uncomfortable. Also, if your son/daughter has any questions before, during, or after the sessions, they can feel free to ask the researcher.

Please fill out the form on the following page and return it to Landmark East. If you have any further questions concerning this research project, please call (902) 542-0720 or (902) 542-2200, extension 1226. You may also contact Fred Atkinson or Melissa McGonnell at Landmark East ((902)542-2237) for further information.

Thanks for your cooperation.

Carla Seymour

Appendix D (cont'd)

Guardian Signature

I have read and understood the information on the previous page and I DO/ DO NOT
(PLEASE CIRCLE) give my permission for

_____ (PRINT SON/DAUGHTER'S NAME),
who is under my guardian ship, to take part in this research project.

_____ (PRINT NAME)

_____ (SIGNATURE)

For Study Results

If you are interested in the results of this study, simply place your address in the space below, and we will be happy to send you a summary of the results when the study is completed. No individual scores will be reported, but you will get a general idea of how one's current self-perception is related to how one views oneself in the future.

Appendix D (cont'd)**Consent Form for Students at Landmark East.**

My name is Carla Seymour, and I'm working on my master's in psychology with Dr. Diane Holmberg at Acadia University. We want to know if how people see themselves today is related to how they think about themselves in the future. We also want to see if how you think about your learning disability might affect what you see for yourself in the future.

If you do our study, you will be asked to fill out some questionnaires. There are no right or wrong answers on these; we just want to know how you think about yourself. Also, by signing this form, you're allowing us to look at some information that has been collected about you in the past. The study will include a 40-45 minute session. Your answers on the questionnaires are private and we won't be sharing what you yourself said with anyone. We'll only say what we've found across the whole group.

Although it's important for our research that the tests are finished, we don't want to pressure you in any way. If you decide you don't want to finish the session, say stop and we'll stop. Also, if you have any questions before, during, or after the session, just ask.

If you agree to do the study, please sign your name in the space below. If you have any questions before we begin just let me know and I'll try to answer them for you. Also, the staff at Landmark can tell you a little more about the study, if you want to ask them later on.

Thanks for your cooperation.

Date

Signature

Witness

Appendix D (cont'd)**Consent Form for Parents of the Public School Students**

Dear Parent or Guardian:

My name is Carla Seymour and I am presently working on my master's thesis in psychology with Dr. Diane Holmberg at Acadia University. We want to look at how well kids do in school and see how this relates to how they think and feel about themselves, both today and in the future. This information may help teachers and parents learn how to encourage kids to set high, yet realistic goals for their futures.

Participating students will be asked to complete a few short questionnaires concerning how they think and feel about themselves now and what they think they might become in the future. There are no right or wrong answers on these questions, we just want to know how students think about themselves. As well, we will be looking at some background information in the school files (i.e., standardized test scores that have been collected on all students). Also, we ask that you include your occupation on the following page for background information. The session we'll do will take about 30-40 minutes. All information about your son/daughter will remain strictly confidential. Only group results will be reported and identification of students will not be possible. If you agree to participate and your child is selected, we will be happy to send you a summary of the results.

Although it's important for our research that the tests are completed, students are always free to stop if they want to. Also, if your son/daughter has any questions before, during, or after the session, he/she can feel free to ask me.

Please fill out the form on the following page and return it to your child's homeroom teacher. If you have any further questions concerning this research project, please call (902)542-0720 or (902)585-1226. You may also contact the school for further information.

Thank you for your cooperation,

Carla Seymour

Appendix D (cont'd)

Guardian Signature

I have read and understood the information on the previous page and I DO/ DO NOT (PLEASE CIRCLE) give my permission for

_____ (PRINT SON/DAUGHTER'S NAME),
who is under my guardian ship, to take part in this research project.

_____ (PRINT NAME)

_____ (SIGNATURE)

_____ (FATHER'S OCCUPATION)

_____ (MOTHER'S OCCUPATION)

For Study Results

If you are interested in the results of this study, simply place your address in the space below, and we will be happy to send you a summary of the results when the study is completed. No individual scores will be reported, but you will get a general idea of how one's current self-perception is related to how one views oneself in the future.

Appendix D (cont'd)**Consent Form for Students in the Public Schools**

Hi. My name is Carla Seymour and I'm working on my master's thesis in psychology with Dr. Diane Holmberg at Acadia University. We want to know if how people see themselves today is related to how they think about themselves in the future.

If you do our study, you will be asked to fill out some questionnaires. There are no right or wrong answers on these; we just want to know how you think about yourself. Also, by signing this form, you're allowing us to look at some information that has been collected about you in the past. The session will take about 40-45 minutes. Your answers on the questionnaires are private. Your name won't be on them and we won't be sharing what you yourself said with anyone. We'll only say what we've found across the whole group.

Although it's important for our research that the tests are finished, we don't want to pressure you in any way. If you decide you don't want to finish the session, say stop and we'll stop. Also, if you have any questions before, during, or after the session, just ask.

If you do agree to do the study, please sign your name in the space below. If you have any questions before we begin, just let me know and I'll try to answer them. If you have any questions later on, your principal or guidance counselor can tell you how to get in touch with me.

Thanks for your participation

Date

Signature

Witness

Appendix E

Debriefing (Landmark East)

You've just finished some questions for a study I'm doing. Thanks for your time and participation. As I said earlier, I'm trying to find out if how people see themselves today affects what they think they might become in the future. I would also like to know if problems in school can affect how we see ourselves right now and in the future. (That's not to say that all of you who participated are having difficulty in school).

I am also wondering if teenagers with learning disabilities are different from other kids, in terms of how they see themselves now and what they think they might become in the future. I suspect that kids who aren't doing well in school may not see quite so many possibilities in their futures, but that this will be related to how serious they think their learning problems are and to how much help and support they are getting from teachers and parents. If students believe that trouble in school is just a small part of their lives, and are learning to cope with their disability they should see many things as possible in the future. If, however, kids think that it really limits what they can do, they will probably believe that fewer things are possible in the future.

I believe that it is important for us to see a number of things as possible in our futures. I think that if we can think of things we would like to become, and also of things we are afraid of becoming, this will encourage us to work hard now to become, or to avoid becoming these things. For example, if someone would like to become a teacher and is afraid of becoming a high school drop-out, then he/she is more likely to work hard in school now to reach this goal later on. So, I guess I see this research as important because maybe getting kids who are having trouble in school to think about what they would like to become in the future, will inspire or encourage them to work harder in school now.

The answers you gave in this study will be kept completely confidential and the results will be looked at in terms of the whole group, not individually. Background information will only be used to make sure that this group of students is similar to the other groups we'll be looking at. If you want more information, or are interested in learning about the results of this study, and did not include your address on the consent form, please let me know. If you would like to know more about the study, give us a call at 585-1226.

Appendix E (cont'd)

Debriefing (Public School)

You've just finished some questions for a study I'm doing. Thanks for your time and participation. As I said earlier, I'm trying to find out if how people see themselves today affects what they think they might become in the future. I would also like to know if problems in school can affect how we see ourselves right now and in the future. (That's not to say that all of you who participated are having difficulty in school).

I am also wondering if teenagers who have trouble in school are different from other kids, in terms of how they see themselves now and what they think they might become in the future. I suspect that kids who aren't doing well in school may not see quite so many possibilities in their futures, but that this will be related to how serious they think their learning problems are. If children believe that trouble in school is just a small part of their lives, they should see many things as possible in the future. If, however, kids think that it really limits what they can do, they will probably believe that fewer things are possible in the future.

I believe that it is important for us to see a number of things as possible in our futures. I think that if we can think of things we would like to become, and also of things we are afraid of becoming, this will encourage us to work hard now to become, or to avoid becoming these things. For example, if someone would like to become a teacher and is afraid of becoming a high school drop-out, then he/she is more likely to work hard in school now to reach this goal later on. So, I guess I see this research as important because maybe getting kids who are having trouble in school to think about what they would like to become in the future, will inspire or encourage them to work harder in school now.

The answers you gave in this study will be kept completely confidential and the results will be looked at in terms of the whole group, not individually. Background information will only be used to make sure that this group of students is similar to the other groups we'll be looking at. If you want more information, or are interested in learning about the results of this study, and did not include your address on the consent form, please let me know. If you would like to know more about the study, give us a call at 585-1226.