Comparisons of Self-Efficacy, Mood, Effort, and Hope Between Students with Learning Disabilities and Their Non-LD-Matched Peers

Timothy Lackaye
Hunter College, City University of New York
Malka Margalit, Orit Ziv, and Tahel Ziman
Constantiner School of Education, Tel-Aviv University, Tel Aviv, Israel

The goals of this study were to compare self-perceptions of self-efficacy, mood, effort, and hope between 123 adolescents with learning disabilities (LD) and a group of 123 Non-LD peers, who were matched for their level of academic performance and gender, and to explore the relationships between measures of self-perception and achievement. The results showed that students with LD reported lower academic self-efficacy and lower social self-efficacy. They also rated their mood as more negative and reported lower levels of hope and less investment of effort in their academic work. At the same time, no significant differences were found for emotional self-efficacy in comparison to the Non-LD peer group. In addition, among students with LD who were successful in their studies, a subgroup continued to report low levels of hope. The results demonstrated that even when the academic performance of students with LD is similar to their Non-LD peers, their specific and global self-perceptions continue to reflect their distress. It is not clear if these results represent past difficulties, day-to-day struggles, and/or future worries. Resilience models are proposed and research limitations are specified.

The goals of this study were to compare measures of self-efficacy, mood, effort, and hope between adolescents with learning disabilities (LD) and peers without LD who were matched by academic performance and gender, and to explore relationships between self-efficacy beliefs and mood, effort, and hope. In addition, we were particularly interested in the relationship between effort investment and academic performance, and the relationship between hope, as a global cross-domain measure of future expectation, and academic performance.

Many studies have examined differences between students with and without LD across multiple domains of functioning and adjustment (Elbaum & Vaughn, 2003; Heath & Wiener, 1996; Pearl, 1992; Vaughn, Haager, Hogan, & Kouzakanani, 1992; Wiener, 2004). Results of these studies have often shown that, when compared to peers without LD, students with LD have lower levels of academic achievement, as well as social-emotional difficulties. Academic learning and performance difficulties clearly present persistent, often painful, experiences for many students with LD (Dombrowski, Kamphaus, & Reynolds, 2004). However, some comparison studies of self-concept and self-efficacy, as well as of adjustment, have reported inconsistent results (Bear & Minke, 1996; Meltzer, Roditi, Houser, & Perlman, 1998; Stone & May, 2002), perhaps because most comparisons were based on mean scores for heterogeneous groups of students with and without LD with different levels of academic performance.

A number of studies have raised the question of whether the emotional and social difficulties of students with LD are largely a reflection of their school failure or are a unique characteristic of their LD (Cosden, Brown, & Elliott, 2002; Vaughn et al., 1992). In this study, in order to control for the possible impact of academic difficulties and gender, we compared students with LD with a group of Non-LD peers matched for gender, grade level, and level of academic performance (as measured by report card grades in four major subjects).

In the following section, we first provide a short survey of the research on self-efficacy, comparing it to self-concept in order to provide the rationale for the choice of the paradigm for the current study, and to point out the similarities and differences among these measures. In addition, brief surveys of relevant research on effort, hope theory, and mood are provided.

Self-Efficacy and Self-Concept

Self-efficacy beliefs are defined as individuals’ judgments of their capabilities to organize and execute courses of action required to attain designated types of performances (Bandura, 1986). Through exploratory experiences, modeling, and direct tutelage, children improve their self-appraisal skills. This self-knowledge enables children to judge their own efficacy and to use their perceptions as guides for actions in various situations (Bandura & Bussey, 2004). Bandura (1997) focused attention on four processes—cognitive, affective, decisional, and motivational—through which belief in one’s efficacy affects self-development, adaptation, and change. In
the cognitive domain, self-efficacy beliefs affect attention, comprehension, and memory processes. In the affective area, self-efficacy beliefs affect the quality of emotional life and vulnerability to stress and despondency. With regard to the decisional effect, belief in one's efficacy shapes the course of development during formative periods by influencing the types of activities and social environments individuals select. Such choices determine which of their potentialities individuals develop, the types of options that are foreclosed, and those that remain realizable (Bandura, 1997).

Self-efficacy and self-concept represent different ways of looking at oneself (Pajares & Schunk, 2001). Self-efficacy represents the judgment of confidence that individuals have in their abilities, while self-concept provides a description of the individual's own perceived self, accompanied by an evaluative judgment of self-worth. When individuals tap into their self-efficacy or their self-concept beliefs, they ask themselves different sets of questions. Self-efficacy beliefs revolve around questions of "can" (Can I write well? Can I solve this problem?), whereas self-concept beliefs reflect questions of "being" and "feeling" (Am I lonely? Do I succeed in school?). The answers to self-efficacy questions that individuals pose to themselves reveal their confidence in their ability to accomplish the task; the answers to self-concept questions reveal how positively or negatively they view themselves. Research has revealed that self-efficacy beliefs are more closely related to academic achievement than self-concept beliefs and less bound by cultural considerations (Marsh & Hau, 2004; Pajares & Schunk, 2001; Pietsch, Walker, & Chapman, 2003). As one goal of the current study was to compare students' confidence in their ability to learn and to achieve age-appropriate tasks, while controlling for academic performance levels, we preferred to use self-efficacy measures for this study, while acknowledging the rich self-concept research base for examining the beliefs of students with LD.

The self-concept of students with LD has been widely documented using both global measures (e.g., Piers & Harris, 1969) and highly differentiated measures (e.g., Harter, 1998). Multiple studies have shown that children with LD often report lower global self-concept and poorer specific academic self-concept than their typically achieving peers. However, several studies did not find significant differences from the comparison groups on measures of global self-concept (Chapman, 1988; Chapman, Tunmer, & Prochnow, 2004; Cosden & McNamara, 1997; Durrant, Cunningham, & Voelker, 1990; Frederickson & Jacobs, 2001; Gadwey, Ghesquiere, & Onghena, 2004; Gans, Kenny, & Ghany, 2003; Harter, Whitesell, & Junkin, 1998; Heath, 1996; Klooeknok & Cosden, 1994; Margalit & Zak, 1984; Renick & Harter, 1989; Stone, 2004). Studies have also emphasized the dynamic interactions of LD as a risk factor with age, comorbidity with Attention Deficit Hyperactivity Disorder (ADHD) and behavior difficulties, and ecological conditions within educational systems (Morrison & Cosden, 1997). Concomitant with threats to self-concept is a need to study in depth the role of support systems in protecting self-concept (Stone, 2004).

Self-efficacy studies indicate that, when compared to peers without LD, adolescents with LD have lower academic self-efficacy, as well as decreased academic competence (Clever, Bear, & Juvomen, 1992; Frederickson & Jacobs, 2001). Surveys (Klassen, 2002a, 2002b) examining self-efficacy beliefs of students with LD have revealed that self-efficacy was found to play a primary role in predicting academic achievement, although several studies found that students with LD tend to overestimate their efficacy. In addition, individuals with strong efficacy beliefs are more likely to exert effort in the face of difficulty and to persist in working at tasks when they believe that they have the requisite skills (Linnenbrink & Pintrich, 2003; Pietsch, Walker, & Chapman, 2003). Students feel differently about themselves and cope differently with challenges depending on what they believe they are capable of, and what they hope they will be able to achieve (Folkman & Moskowitz, 2004). Researchers have identified the central role of experiences of competence versus incompetence in the development of self-efficacy beliefs (Bong & Skaalvik, 2003), as beliefs and perceptions about self are rooted in one's past achievement, difficulties and academic history, emotional experiences and social self-efficacy, a finding with special relevance to the functioning of students with LD.

In an attempt to provide an explanatory model to account for the findings on self-efficacy, Hampton and Mason (2003) posited the notion that limited exposure to sources of self-efficacy information is responsible for the beliefs of students with LD. The model proposed by this study supports the hypothesis that the influence of LD status is mediated by the availability of sources of efficacy information. In other words, the reported low self-efficacy scores among students with LD may not be directly related to LD status, but rather to a lack of available sources for developing positive self-efficacy beliefs.

Sources of efficacy expectations are hypothesized to be acquired and modified via four major routes: (1) past performance accomplishment, (2) exposure to and identification with efficacious models (vicarious learning), (3) access to verbal persuasion and support from others, and (4) experience of emotional or physiological arousal in the context of task performance (Bandura, 1997). These four sources of efficacy information continually and reciprocally interact to affect performance judgments that in turn influence students' performance and effort (Linnenbrink & Pintrich, 2003).

Researchers have differentiated three types of self-efficacy beliefs (Bandura, Barbaranelli, Capara, & Pastorelli, 2001; Bandura, Caparra, Barbaranelli, Pastorelli, & Regalia, 2001; Bandura, Pastorelli, Barbaranelli, & Capara, 1999; Muris, 2001): (1) academic self-efficacy, which refers to children's perceived capability to manage learning behavior, master academic subjects, and fulfill academic expectations; (2) social self-efficacy, which pertains to children's capability to deal with social challenges, perceived capability for peer relationships, and assertiveness; and (3) emotional self-efficacy, which is the perceived capability for emotional regulation and coping with negative affect. Studies have demonstrated the critical role of social and emotional self-efficacy in the process of developing academic competence and adjustment, especially during adolescence (Bandura, Barbaranelli, et al., 2001). Social and emotional self-efficacy seem to play a crucial role and have an impact on academic performance through the promotion of satisfying relationships and social support. Negative associations have been found between emotional and academic self-efficacy beliefs and depression, whereas social self-efficacy was not significantly related to...
depression (Muris, 2001). The influence of efficacy beliefs within academic contexts is pervasive as a significant predictor of academic performance (Zimmerman, Bandura, & Martinez-pons, 1992) and as a mediating variable influencing students’ levels of effort, persistence, and perseverance (Zeldin & Pajares, 2000). Thus it is not surprising that students’ self-efficacy is often related to effort.

**Effort**

The importance of students’ effort in confronting academic challenges is commonly accepted; teachers as well as parents, often rather naively, attribute students’ success and failure to effort. Teachers consider lack of effort to be a major source of low achievement. Teachers attribute lower motivation and decreased effort to the desire to gain attention or to avoid incompetence manifestations, to the perceived low importance or usefulness of the task, or to lack of enjoyment (Uhlenberg & Brown, 2002). Given these common beliefs, it is surprising that there is comparatively little research on students’ effort and how it relates to performance (Meltzer et al., 2004; Yeo & Neal, 2004). Attempts to measure effort have ranged from multiple-item questionnaires (Meltzer et al., 2004; Wolters, 2000) to a single query of participants about how hard they were trying/working (Yeo & Neal, 2004). No clear validity advantage has been demonstrated for any particular measure. In the current study, we developed a brief scale that explores the students’ investment of effort on easy and challenging academic tasks.

Only a few studies have examined effort investment among students with LD. A pioneer study (Meltzer et al., 2004) compared the experience of effort investment between two age groups of students with LD. During elementary grades (grades 3–5), regardless of whether students with LD judged themselves as good or poor students, they viewed themselves as hard workers who invested effort in their schoolwork. These elementary-level students rated themselves as working exceptionally hard in all academic areas. In contrast, at the middle school level, differences in academic self-concept predicted students’ perceptions of themselves as hard workers who were willing to make the effort to learn. Those middle school students with LD who had positive academic self-perceptions viewed themselves as good students and as hard workers; those with negative academic self-perceptions viewed themselves as poor students who were unwilling to work hard. Thus, differences in academic self-concept significantly predicted their self-perceptions about working extremely hard in challenging academic areas, which often demand sustained and intensive effort. Positive academic self-efficacy may be related to belief in the ability to perform the task and to hope for success in learning. Thus, the study of hope may further our understanding of the roots of students’ engagement and investment of effort in easy, as well as in difficult and challenging tasks.

**Hope Theory**

Throughout their school years, students with LD are faced with an array of increasingly important and difficult challenges and roles (Shorey, Snyder, Rand, Hockemeyer, & Feldman, 2002). Hope enables these students to set valued goals, identify the means to achieve these goals, and summon the drive to achieve them (Snyder, 2002). Snyder defines hope as a set of beliefs that involves two relatively distinct ways of thinking about a goal: agentic thinking and pathways thinking. Agentic thinking involves thought related to one’s success in reaching goals (e.g., “I meet the goals that I set for myself”), whereas pathways thinking involves thoughts about one’s effectiveness when pursuing different means to obtain goals (“When I have a problem I can think of many ways to solve it” “I think I am doing pretty well”). Hope, then, involves belief in the personal ability to pursue desired goals, and the motivation to use various pathways (Shorey et al., 2002). Research has shown that high hope is related to better outcomes in academics, athletics, physical health, psychological adjustment, and psychotherapy (Snyder, 2002), in addition to positive mood/affect and perceived control (Curry, Snyder, Cook, Ruby, & Rehm, 1997). Thus, we expect students with and without LD who report higher levels of hope to invest effort in their academic challenges and to have higher grades. Research has demonstrated that academic achievements, feelings of competence, and good grades support students’ engagement and effort investment (Merva, 2003).

Hope, being a cross-situational, goal-directed belief set, shares similarities with Bandura’s (1997) theory of self-efficacy, yet research (Irving et al., 2004; Magaletta & Oliver, 1999) has indicated that hope has a distinct factor structure when compared with self-efficacy, and it has accounted for unique variance in well-being after controlling for self-efficacy. Both theories emphasize the importance of goal-related outcomes. However, Bandura characterizes the cognitive processing associated with self-efficacy as situation-specific, as differentiated from hope theory, which emphasizes a persistent, cross-situational, dispositional, goal-directed cognitive set. Furthermore, Bandura’s theory gives more weight to efficacy expectancies (akin to agency in hope theory), whereas hope gives equal weight to both pathways and agency thinking. For instance, a typical hope question would be, “I can think of many ways to get the things in life that are most important to me,” whereas a self-efficacy item would be, “I can remember what has been studied in class and the textbook.”

**Mood**

Many times when people evaluate their goals, examine their beliefs about self-efficacy, and assess their hopes for success, they ask themselves “How do I feel about it?” An individual’s current mood provides a global self-evaluation within a specific context. Mood may serve as an important immediate direct source of information, preparing the individual to react—approaching or withdrawing from goals (Tillema, Cervone, & Scott, 2001). It is commonly assumed that the primary functions of affective states are to influence attention (e.g., focus or redirect), to bias perception, to alter the probability of specific reactions, and to promote adaptive reactions within the individual (Cacioppo & Gardner, 1999). In addition, the expression of affective states may function as a form
of social communication. Positive and negative moods provide information about our internal state of affairs and the resources we have available to meet environmental threats and challenges (Larsen, 2000). Moods signal what is going wrong or right in terms of our internal systems for dealing with the environment. As noted by Thayer (1996), these internal resources have much to do with our energy, with whether we are prepared for and able to expend energy when needed, or whether we are tired and fatigued.

Bryan (1999) demonstrated the importance of mood and affect for the performance of students with LD. In a series of studies, the impact of self-induced positive affect was demonstrated on different tasks that simulated learning to read, memory tasks, number and accuracy of math problems completed, and social problem solving. These studies were conducted in different educational settings (general and special education classrooms) and with different age groups (Bryan & Bryan, 1991; Bryan, Mathur, Sullivan, & Pukys, 1995; Bryan, Sullivan-Burstein, & Mathur, 1998). These results focus attention on the importance of affective factors for predicting learning performance of students with LD.

Researchers have documented a two-factor theory of mood (Watson & Clark, 1997) and examined positive and negative mood separately. Comparisons of the differential impact of positive and negative moods have shown that the impact of negative emotions is stronger and longer lasting (Baumeister, 1999), a finding that justifies investment in preventive planning to minimize such an impact. Positive and negative moods may also be processed differently. Unlike negative emotions, which narrow people’s thought-action repertoire (e.g., fight or flight), positive emotions broaden people’s thought-action repertoire for using their attentional resources and for processing information. This expansion encourages the discovery of novel lines of thought or action, enables more flexible and creative thinking, predicts the use of broadly conceived coping strategies, creates a spiral toward improved well-being and resiliency, and builds psychological resources and a coping arsenal for handling future adversities (Fredrickson & Joiner, 2002). From a deficit perspective, students with LD have been reported to have higher levels of negative affect and depression related to contextual conditions (Heath & Wiener, 1996). However, their positive mood has rarely been studied.

**Purpose of the Study**

The purpose of the current study was to compare the self-perceptions, mood, and effort investment of students with LD to those of a group of students without LD with comparable academic performance, as measured by report card grades in four major academic subjects. Using this research paradigm, we rationalized that by controlling the grades of the students, we could separate self-perceptions that were related to academic performance from those that reflected the painful experiences of having LD. We expected that students’ confidence about future performance and functioning would be evident in their self-efficacy beliefs, because these beliefs reflect children’s confidence in their abilities to confront and perform various tasks (academic, social, emotional regulation). Because self-efficacy beliefs are situational measures of confidence, we wanted to add a global cross-domain measure of confidence and hope to the investigation. Assuming the global measure of hope (in the ability to reach desired goals) and differential beliefs interact with the students’ personal readiness to invest effort to reach age-appropriate goals, it was added to the study. Mood, as a source for personal energy, was also added to the analysis. In addition, for both groups of students, we expected self-efficacy to be related to achievement, as well as to hope and effort. We also expected that students with LD who reached high achievement levels would have high levels of hope.

From earlier research, it was not clear whether the differences between groups with and without LD would disappear if the groups were matched on academic performance. Thus a major research question for this study was: Do students with LD hold different self-perceptions from students without LD when gender and academic performance levels are matched? In addition, we asked how self-efficacy is related to the remaining measures, and how hope and effort interact with academic performance.

**METHOD**

**Participants**

Participants in the current study were 246 seventh-grade students (150 boys and 96 girls) from seven schools in central Israel. These students included 123 students (75 boys and 48 girls) with LD and 123 Non-LD students (75 boys and 48 girls) matched by school grades, grade level, and gender. All students attended the same general education classes. The mean grade average for the students with LD was 65.36 ($SD = 10.53$), with a range from 28.82 to 94.25, and the mean average for the Non-LD group was 64.77 ($SD = 9.83$), with a range from 30.82 to 94.50.

The matching group of Non-LD peers was selected from a group of 447 Non-LD children (217 boys and 230 girls) based on gender and overall average for each student. They were selected by pairing the overall average of each boy and girl with LD to the nearest average score of the gender-matched boy or girl among the Non-LD students. In the original sample, the overall average for the Non-LD students was 73.42 ($SD = 13.32$), with a range from 14.50 to 98.75. No significant differences were found between the group of students with LD and the matched Non-LD students for either the overall average score (using analysis of variance [ANOVA]) or for any of the four academic subjects (mathematics, Bible studies, English, history) included in the average (using multivariate analysis of variance [MANOVA]).

All of the students with LD were diagnosed as students with LD as their primary handicapping condition, using Israeli Ministry of Education criteria. These criteria included the presence of a Verbal and/or Performance IQ score in the low average range (from 85) or above, achievement test scores at least one standard deviation below their IQ score in one or more areas of functioning, and evidence of a processing deficit in one or more cognitive and/or linguistic domains.
The students with LD had been previously identified, via psycho-educational evaluation, as demonstrating LD in reading, writing, and/or mathematics. In line with educational policy, these students were recognized as entitled to learning and testing accommodations, including accommodations on national examinations at the end of high school. Diagnostic evaluations were conducted by the municipality psycho-educational agency and by the psycho-educational team of each school. These students received special assistance from resource teachers with special education accreditation during school hours, as well as classroom accommodations, including changes in testing conditions such as time extensions, use of a dictionary in English as a second language, no penalty for spelling errors, and oral examinations. The diagnostic assessments included instruments such as the Wechsler Intelligence Scale for Children (3rd edition) (Wechsler, 1991), the Kaufman Assessment Battery for Children (Kaufman & Kaufman, 1983), the Bender-Gestalt Test (Koppitz, 1975), and the Hebrew adaptation of the Rey Auditory Verbal Learning Test (Vakil & Blachstein, 1993), as well as achievement tests in reading, writing, and arithmetic.

Sixty-three of the students with LD (39 boys and 24 girls) were identified and diagnosed as students with LD when they were in elementary school; the remaining students were identified and assessed at the transition to middle schools. Due to confidentiality directives, group data, rather than specific information regarding individual children's disabilities, were available. Approximately 15 percent of the children in each classroom had been identified as students with LD (a range of 2 to 5 children for each class).

The middle schools were large regional schools (about 400 students in each age group) in Israel that emphasize a scientific and technological orientation in their studies. Only the schools known in Israel for their high learning standards, as well as their supportive policy toward students with disabilities, were included in this study. The sample was taken from classes with 3–4 students with LD. Families represented heterogeneous socio-economic levels (from very high to very low) and parental education levels. The schools had learning centers with teachers specializing in tutoring students with LD. They also provided support to students with low grades. Some families, those that could afford to do so, employed private tutors during the afternoon to assist students having academic difficulties. In this study, among the sample of 123 students with LD, 18 students with LD (14.6 percent of the group) received special assistance 1–2 hours a week in small groups in a school-based learning center during school hours from teachers specializing in LD. At the initiative of their families, 21 students with LD (17.1 percent of the group) received private tutoring during the afternoon at their homes. In comparison, 12 students from the Non-LD group received tutoring help for 1–2 hours per week in the school-based learning centers because of low academic performance not related to LD (9.8 percent). This tutoring was provided by teachers who specialized in the subject with which the student was having difficulty (e.g., mathematics). Nineteen students from the Non-LD group (15.4 percent of the group) received private tutoring during the afternoon at their homes. In terms of classroom and testing accommodations, 50 students with LD (40.3 percent of the group) received time extensions, 9 were allowed to use a dictionary in English as a second language, 26 received no penalty for spelling errors, and 17 were entitled to oral examinations.

Based on teacher reports, students considered to have social, behavioral, or emotional problems as their major area of difficulty, as well as new immigrants, were excluded from the sample. Thus, students with special needs other than LD were not included in the sample.

**Instruments**

**Grade Reports**

Grades for four major subjects of the Israeli middle school curriculum (mathematics, English, Bible Studies, history) were copied from the schools' records at the end of the first semester. These four subjects were chosen because curricula and course grading methods varied minimally from school to school. Grades in other subjects, such as Hebrew language and literature and science, were not included because schools differed in their curricula and methods of assessment.

The grade for each subject reflects the average scores for all tests and submitted projects during that semester. The numerical grades from each of the four subjects were used to calculate an overall average and for academic performance matching of students with and without LD.

**Academic Self-Efficacy**

The Hebrew adaptation of the Academic Self-efficacy Scale (Zimmerman et al., 1992) consists of 11 statements describing the student's beliefs about how he/she can cope with different academic tasks in order to succeed in his/her studies (e.g., “I can concentrate in my studies,” “I can do my homework”). The measure uses a 7-point Likert scale with endpoints of 1 (not sure at all) and 7 (completely confident). A Cronbach alpha of .85 was obtained in this study.

**Emotional Self-Efficacy**

The Emotional Self-Efficacy scale was adapted from the Self-Efficacy Questionnaire for Children (SEQ-C; Muris, 2001), and consists of 8 items on a 5-point scale from 1 (not at all) to 5 (very well). Items pertain to the perceived capability of coping with negative emotions, with questions such as “How well do you succeed in cheering yourself up when an unpleasant event has happened?” and “How well can you control your feelings?” Higher scores indicate higher levels of emotional self-efficacy. A Cronbach alpha of .76 was obtained in this study.

**Social Self-Efficacy**

The Social Self-Efficacy measure was adapted from SEQ-C (Muris, 2001), and consisted of 5 items on a 5-point scale from 1 (not at all) to 5 (very well). Items pertain to the perceived capability for developing peer relationships and
assertiveness, with questions such as “How well can you become friends with other children?” and “How well do you succeed in preventing quarrels with other children?” A Cronbach alpha of .72 was obtained in this study.

**Effort**

The goal of this scale is to tap the students’ self-ratings of investment and effort (Margalit, 2004), and the global score on the measure reflects self-perception of effort. The scale was adapted from the Meltzer scale for effort (Meltzer et al., 2004) for use in Israeli schools. The current scale consists of 4 items on a 6-point frequency dimension scale, with responses ranging for 1 (never) to 6 (always), and with items such as, “I don’t give up even when it is difficult to me.” A Cronbach alpha of .77 was obtained in this study.

**Hope**

This scale taps belief in one’s personal ability to pursue desired goals, to use strategies, and if needed, alternative strategies, to achieve them. The Hebrew adaptation of The Children’s Hope Scale (Snyder, 2002) consists of 6 statements to which children respond on a 6-point Likert scale ranging from 1 (none of the time) to 6 (all of the time). There are three agency items (e.g., “I am doing just as well as other kids my age”) and three pathways items (e.g., “When I have a problem, I can come up with lots of ways to solve it” and “Even when others want to quit, I know that I can find ways to solve the problem”). A Cronbach alpha of .89 was obtained in this study. The adaptation was performed by a translation of the scale to Hebrew by a doctoral student whose first language was Hebrew, and afterwards back translation of the Hebrew language to English by a doctoral student whose first language is English.

**Mood**

The Hebrew adaptation (Margalit, Leyser, Ankonina, & Avraham, 1991) of the Moos Scale (Moos, Cronkite, Billings, & Finney, 1987) is a measure of students’ views of their own affect and mood. The instrument consists of 20 items on a 5-point Likert-type scale, ranging from 1 (not at all appropriate) to 5 (very appropriate). The scale has two major subscales: 10 Positive affect items (e.g., “friendly,” “in control,” and “happy”) and 10 Negative affect items (e.g., “sad,” “tired,” or “worried”). A Cronbach alpha of .74 was obtained in this study for the positive affect factor, and .80 for the negative affect factor.

**Procedure**

Students completed the set of questionnaires as a group in their classrooms at the middle of the second semester of seventh grade. Teachers identified the students with LD. The grades for the different subjects were taken from school records at the end of the first semester. Parental consent was requested and received as well as approval from the Ministry of Education. Students who did not agree to participate or whose parents did not provide consent were not included in the study.

**RESULTS**

**Comparisons of Self-Perceptions**

In order to compare students’ ratings of academic self-efficacy, emotional self-efficacy, social self-efficacy, effort, hope, and positive and negative mood between students with and without LD, a MANOVA was performed with group membership and gender as the independent variables. The results revealed a main effect for groups, $F(7, 236) = 4.28, p < .01$, partial eta squared = .11, and a main effect for gender, $F(7, 236) = 2.05, p < .05$, partial eta squared = .06. The interaction between groups and gender was not significant. Means, standard deviations, and $F$ scores for univariate ANOVA for the groups’ comparisons are presented on Table 1.

As can be seen in Table 1, the results of the analyses revealed significant differences between the LD group and the Non-LD group on all measures, with the exception of emotional self-efficacy. Students with LD revealed lower levels of academic self-efficacy, social self-efficacy, effort, hope, and positive mood. They also reported higher levels of negative mood.

The gender comparisons revealed that girls reported higher academic self-efficacy than boys (Boys: $M = 57.22, SD = 15.10$; Girls: $M = 60.96, SD = 13.36, F(1, 242) = 4.12, p < .05$, partial eta squared = .02) and higher social self-efficacy (Boys: $M = 21.07, SD = 3.13$; Girls: $M = 21.40, SD = 3.09, F(1, 242) = 4.60, p < .05$, partial eta squared = .019). The remaining gender comparisons and interactions were not significant.

![Table 1](image)

**Note.** Numbers in parentheses are standard deviations.

*p < .05; **p < .01.

---

**TABLE 1**

<table>
<thead>
<tr>
<th>Variable</th>
<th>LD Mean (SD)</th>
<th>Non-LD Mean (SD)</th>
<th>F(1, 242)</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic self-efficacy</td>
<td>55.37 (13.84)</td>
<td>61.98 (14.50)</td>
<td>13.71**</td>
<td>.054</td>
</tr>
<tr>
<td>Emotional self-efficacy</td>
<td>27.25 (5.81)</td>
<td>28.30 (5.23)</td>
<td>1.49</td>
<td>.006</td>
</tr>
<tr>
<td>Social self-efficacy</td>
<td>20.93 (3.49)</td>
<td>21.87 (2.54)</td>
<td>5.30*</td>
<td>.021</td>
</tr>
<tr>
<td>Effort</td>
<td>17.76 (3.91)</td>
<td>18.76 (3.53)</td>
<td>4.03*</td>
<td>.016</td>
</tr>
<tr>
<td>Hope</td>
<td>25.68 (5.53)</td>
<td>27.24 (4.89)</td>
<td>5.81*</td>
<td>.023</td>
</tr>
<tr>
<td>Positive mood</td>
<td>38.74 (6.68)</td>
<td>41.14 (5.69)</td>
<td>8.65**</td>
<td>.035</td>
</tr>
<tr>
<td>Negative mood</td>
<td>23.99 (6.28)</td>
<td>20.78 (5.32)</td>
<td>17.00**</td>
<td>.066</td>
</tr>
</tbody>
</table>
Relations Among Measures

In order to examine the relations between self-efficacy and the remaining variables, Pearson correlations were performed. As presented in Table 2, the correlations for both groups of students demonstrated a similar set of relations, and Fisher r to z transformations did not reveal significant differences between comparable correlations in the two groups.

Additional analyses showed significant correlations between effort investment and academic performance for the group of students with LD (r (N = 123) = .27, p < .01) but not for the comparison group (r (N = 123) = .15, p > .05). However the comparisons using z scores did not reveal significant differences. In addition, no significant correlations were found between hope and average academic performance for the LD group (r = .13, p > .05) or for the Non-LD group (r = .17, p > .05).

Subgrouping of Hope and Academic Performance

In line with hope theory, we expected students with LD and high grades to have high hope. However, the low and insignificant correlations between hope and grades called for in-depth examination to explore distinct profiles within each group. In order to identify and to characterize subgroupings of students within each group, the average grades and the hope ratings were divided into three levels. For grades, students were divided into three groups: those in the lowest quartile, with grade averages up to 61.49 (low academic performance), those in the highest quartile, with grades from 70.0 to 94.50 (high academic performance), and the remaining 50 percent of the students (medium academic performance). Table 3 presents the number of students in each group. Similarly, three hope groups were identified: those with low hope (the bottom quartile), high hope (the top quartile), and medium hope (the middle 50 percent). Table 3 presents the number of students in each hope group. The comparisons of the proportions of students revealed significant differences between students with LD and Non-LD groups only for the group of students with high academic performance, $X^2(n = 62) = 7.69, p < .05; \eta^2 = .35$. The remaining groups’ comparisons were not significant. The results demonstrated heterogeneous profiles of self-perceptions. While high hope was often related to high academic performance, we identified students with high academic performance and low levels of hope among students with LD. Among both the LD and Non-LD groups, several students received low grades yet reported high hopes. These students often reported participating in enjoyable leisure activities, expressing high social-efficacy and good mood.

**DISCUSSION**

The goals of this study were to compare specific and global self-perceptions between students with LD and a group of Non-LD students matched by academic performance, and to examine the relations between measures. The results showed that students with LD reported lower self-perceptions than the Non-LD group, even when they were matched by school grades. The lower academic self-efficacy reported by students with LD likely reflected decreased belief in their academic abilities and in their ability to succeed in school. In addition, their lower social self-efficacy reflected less confidence in their ability to develop satisfying social relations. These decreased academic and social efficacy beliefs may limit the level of future performance that these students are willing to attempt and their persistence under stressful conditions. Hampton and Mason (2003) found that students with LD as a group had lower self-efficacy than a Non-LD group, and posited that this lower self-efficacy was due to less access to sources of efficacy information, including fewer successful experiences, less access to successful peer models with LD.

**TABLE 2** Pearson Correlations Between Self-Efficacy and the Remaining Measures

<table>
<thead>
<tr>
<th>Academic Self-Efficacy</th>
<th>Social Self-Efficacy</th>
<th>Emotional Self-Efficacy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LD</strong></td>
<td><strong>Non-LD</strong></td>
<td><strong>LD</strong></td>
</tr>
<tr>
<td>Effort</td>
<td>.58**</td>
<td>.19*</td>
</tr>
<tr>
<td>Hope</td>
<td>.45**</td>
<td>.45**</td>
</tr>
<tr>
<td>Positive mood</td>
<td>.42**</td>
<td>.45**</td>
</tr>
<tr>
<td>Negative mood</td>
<td>−.26**</td>
<td>−.35**</td>
</tr>
<tr>
<td>Grades</td>
<td>.21*</td>
<td>−.06</td>
</tr>
</tbody>
</table>

*p < .05; **p < .01.

**TABLE 3** Proportions of Students in Each Academic Performance and Hope Subgroup within the LD and Non-LD Student Groups

<table>
<thead>
<tr>
<th>Groups</th>
<th>Low Hope (N = 62)</th>
<th>Medium Hope (N = 122)</th>
<th>High Hope (N = 62)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD</td>
<td>11 (31.4%)</td>
<td>18 (51.4%)</td>
<td>6 (17.1%)</td>
</tr>
<tr>
<td>Non-LD</td>
<td>6 (22.2%)</td>
<td>11 (40.7%)</td>
<td>10 (37.0%)</td>
</tr>
<tr>
<td>Medium Performance – (N = 122; 50% of the sample)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>13 (23.6%)</td>
<td>27 (49.1%)</td>
<td>15 (27.3%)</td>
</tr>
<tr>
<td>Non-LD</td>
<td>17 (25.4%)</td>
<td>32 (47.8%)</td>
<td>18 (26.9%)</td>
</tr>
<tr>
<td>High Performance – (N = 62; 25% of the sample)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD</td>
<td>12 (36.4%)</td>
<td>9 (27.31%)</td>
<td>12 (36.4%)</td>
</tr>
<tr>
<td>Non-LD</td>
<td>2 (6.9%)</td>
<td>11 (37.9%)</td>
<td>16 (55.2%)</td>
</tr>
</tbody>
</table>
and less support from teachers. Further research related to the causes of lower self-efficacy among students with LD is warranted.

The results of this study may reflect the painful history of the students with LD, as well as their continuous experience of frustration and disappointment, and may point to a high risk of future academic difficulties. The lower levels of hope and of decreased effort, taken together with the high correlations between self-perceptions, offers important insights into the dynamic aspects of development and current functioning. For some students with LD, academic schoolwork remains a continuing day-to-day struggle, with extreme amounts of work and energy invested in maintaining passing grades. Follow-up conversations with children revealed worries about whether they would be able to keep up with challenging academic tasks in the future. These students were aware of their difficulties and felt much stress due to their need to study “so hard” to achieve at a level that other students achieved seemingly without much work. One of the girls expressed it by saying “I studied all the time” and another poignantly commented, “I don’t have a life.” Furthermore, although some students with LD were achieving good grades, it is not clear how they will manage to continue achieving such grades in the future when confronted with the increased academic demands of high school. Special awareness should be focused on students with LD who had lower levels of hope despite being successful in their learning. Lower levels of hope for these students may be an expression of their effort investment. They may be aware that their hard work, while currently paying off, seems both increasingly arduous and endless.

Further in-depth studies are needed to examine the constancy of these self-perceptions. With support and intervention, some students with LD become high achievers, yet they may retain low self-perceptions of efficacy. For these students, it is not clear if their current self-perceptions reflect their past difficulties or the challenges of their present functioning. These students have to work longer hours in order to achieve the same grades as their Non-LD peers. These results point toward needed interventions. A simplistic solution might call for a consistent and longer experience of success in order to gradually build positive self-perceptions, high expectations, and hopes. On the other hand, these low self-beliefs may indicate a level of personal distress that will continue to make this group of youngsters more vulnerable to risks during stressful periods, if empowering strategies are not employed in addition to support and help in academic domains. Only through longitudinal studies will we come to understand these complexities; only through intervention focused on enhancing self-awareness of positive experiences of success and on empowering strategies that promote hopeful thinking and self-acceptance will these self-beliefs be challenged and changed.

This study’s results regarding positive and negative mood support earlier research about depressive tendencies reported by students with LD (Heath & Wiener, 1996; Howard & Tryon, 2002). Increased negative mood is clearly a cause for concern. However, decreased positive mood should also be of equal concern as it relates to lower levels of personal energy (Watson, Wiese, Vaidya, & Tellegen, 1999). Developing ways of helping students increase positive mood seems an important part of intervention approaches that seek to empower students. Bryan’s pioneering studies (Bryan, 1999; Bryan, Sullivan-Burstein, & Mathur, 1998) clearly demonstrated the importance of inducing positive affect to enhance learning effectiveness.

Studies exploring predictive factors for resilient functioning of students with LD have revealed a variety of individual and contextual characteristics (Morrison & Cosden, 1997; Raskind, Goldberg, Higgins, & Herman, 2002). In line with Pintrich’s (1999, 2003) conceptualization, three major factors seem to be involved in students’ functioning and adjustment. First, in regard to self-efficacy, students who believe they can learn and are confident in their skills are more likely to report the use of self-regulatory strategies. Second, task value beliefs are positively related to self-regulated learning. Students who believe that their course work is interesting, important, and useful are more likely to report the use of self-regulatory strategies. Third, having mastery over goal orientation and hopeful thinking promotes adaptive self-regulated learning and effort. We found that students with LD reported lower levels of self-efficacy both in academic and social domains. Their lower positive mood and depressive tendencies may be related to their lower personal interest in the areas of study, resulting in decreased effort. Their decreased hopeful thinking and lower levels of positive mood may limit their motivation and readiness to invest effort. Even when they experienced success, several students continued to express lower hopes.

A fundamental challenge in the study of LD is to identify the mechanisms of needed change and empowerment. Psychological experience is marked by two features that appear to be contradictory—change and consistency (Cervone, 2004). The contents of our beliefs change rapidly, as do actions and emotions, particularly as we respond to changing circumstances of personal significance. However, individuals may remain significantly the same, exhibiting unique patterns of beliefs, emotions, and behaviors that are relatively consistent. Given these dynamic interrelationships, we need to attempt to explore students with LD as whole individuals and to explore the contexts in which they live. This encompassing ecological approach is required in order to understand the shifting dynamics versus stable belief consistencies reported by students with LD. Success stories of individuals with LD may promote insight into empowering processes (Raskind et al., 2002). Equally important is research (Masten, 2001) that has shown that resilience can emerge from the “everyday magic” of ordinary normative human resources and the importance of support to reach positive ends (Stone, 2004).

In line with the conceptualization of resilience as the dynamic process of adaptation through the interaction between risk and protective factors, resilience research may hold the key to our understanding of the psychosocial processes in students with LD (Margalit, 2004). The study of hopeful thinking provides a significant perspective as we search to clarify the dynamic interaction between academic and nonacademic factors, personal consistencies, the enhancement of desired changes, and students’ readiness to treat their difficulties as challenges worthy of effort investment and engagement.

This study has several limitations. First, it is based on correlational research. Longitudinal and controlled experimental...
studies are needed to clarify these dynamic processes. In addition, due to Israeli educational policy, neither the results from individual assessments for students with LD nor the intellectual levels or diagnoses of the comparison students were available to the research team. The limitations of this study also include contextual differences—differences in school cultures, including the specific Israeli schools selected for the study, and the uniqueness of the Israeli achievement instruments used for the identification of students with LD. Studies are needed in different countries and cultures to compare self-perceptions between children with LD and their matched academic performance peers in different educational systems. In addition, in line with recent work by Stone and May (2002), different sources of information are needed to validate the students’ self-perceptions, including in-depth examination of peer relations to add the peer point of view (Wiener, 2004). Finally, training workshops specifically designed to improve self-perceptions and skills may provide insight into these processes. Our research team is currently developing an intervention program to develop students’ hopeful thinking and effortful behavior. Future research, controlled experimental studies, and longitudinal follow-up will help to develop in full the promising insights of resiliency approaches.

ACKNOWLEDGMENTS

We would like to thank the children who participated in the study, their teachers and the schools’ coordinators of learning disabilities. Without their cooperation and effort, this study would not have been possible.

REFERENCES


About the Authors

Timothy D. Lackaye, Ed.D., is assistant professor of special education and coordinator of the Learning Disabilities Childhood Special Education Program at Hunter College, City University of New York. His current interests include teaching writing to students with learning disabilities, socio-emotional variables in the context of the lives of students with learning disabilities, and teacher variables for effective instruction.

Malka Margalit, Ph.D., is professor of special education at the Constantiner School of Education, Tel-Aviv University, Israel. Her current research interests include the study of resilience among children with learning disabilities and their families, with special focus on social-emotional factors such as coping with loneliness, hope, emotions and motivation, and the study of the behavior of children with LD and their families on the Internet.

Orit Ziv, Ph.D., is the National coordinator for the LD domain in the Israeli Ministry of Labor and a consultant to the Ort schools’ system in developing strategic workshops. She is also an adjunct assistant professor at the Constantiner School of Education, Tel-Aviv University, Israel. Her current interests include resilience, empowerment and hope for adolescents with LD.

Tahel Ziman, MA., is a high school teacher counselor. She received her MA in counseling at the Constantiner School of Education, Tel-Aviv University. Her current interests include empowering approaches for adolescents and teachers.