

# Females with Learning Disabilities Taking On-Line Courses: Perceptions of the Learning Environment, Coping and Well-Being

Tali Heiman  
The Open University

## Abstract

*The study examined perceptions of the learning environment, coping strategies, and the subjective well-being of undergraduate female students taking on-line courses at the Open University of Israel. Fifty females with learning disabilities (LD) and 73 females without disabilities, 25-39 years old, completed three different questionnaires sent to them by email. Findings indicate that the females with LD perceived the learning environment as less supportive and less satisfactory than the control group; they felt that the academic services were not sufficiently considerate of their special needs; and they were less content with the academic courses. Women with LD reported using more task-oriented and avoidance-oriented coping strategies and perceived their overall well-being as less satisfactory than female students without LD.*

Most studies of populations with learning disabilities (LD) have examined high school students or adults with LD in general. Given the ever-increasing numbers of students with LD who are turning to higher education (Hadley, 2006, 2007), it is important to examine the perceptions and the adjustment to the demands of higher education of these students. Female students with LD are of particular interest because, according to Kohen (2004), they must deal not only with difficulties resulting from their disabilities, compared to non-LD students, but also with the cultural and societal disadvantages of being female. Studies reveal that, females with LD face greater difficulties in the social and psychological domains, leading to an increase in the risk factors for vulnerability, depression, and isolation, to low self-esteem, and to difficulty in responding to daily demands (Roer-Strier, 2002). They frequently experience loneliness, emotional, and social difficulties (Wiener, 2004). Others (Brown, 1997) have shown that females with LD tend to experience more restrictions in and tighter controls over their personal and social life than males with LD.

A comparison of students with and without LD (Heiman & Kariv, 2004) revealed that females without LD reported higher support from family, friends, and significant others, and were more task-oriented than

female students with LD. Female students with LD were found to be more emotion-oriented. No significant results were obtained for these measurements for male students, both with and without LD. In addition, female students expressed a higher level of academic stress, utilized more emotion-oriented and avoidance-oriented strategies, and needed more support than male students.

## *Adjustment and Coping of Students with LD*

A review of the literature on studies of the adjustment of students with LD, particularly freshmen students, to the situation and demands of higher education indicates that many of them are daunted by a new and often challenging environment (Damsteegt, 1992). Students with LD must not only adjust to the demands of higher education, but also deal with deficiencies in their academic achievements and social skills (Braxton, Milem, & Sullivan, 2000; Heiman & Precel, 2003; Parker, 2000; Winter & Yaffe, 2000). These findings are consistent with other research on college and university students with LD, suggesting that students with LD also experience more difficulty with stress management (Heiman & Kariv, 2005; Reiff, Hatzes, Bramel, & Gibbon, 2001). A significant difference in adaptability has been noted between college students

with and without LD. That is, students with LD display a lesser degree of adaptability and thus a lower ability to cope with environmental demands and size up and deal with problematic situations (BarOn, 1997).

According to Barton and Fuhrman (1994) contend that adults with LD often exhibit a number of psychological difficulties, including stress and anxiety, low self-esteem, and feelings of incompetence, unresolved grief, and helplessness. Although a higher degree of stress is probably widespread among college students in general, those with LD apparently experience increased levels of stress due to the amount of time, effort, and self-regulation they must invest to fulfill the academic demands (Hatzes, 1996). For example, to succeed in their studies, students with LD often have to devise special study methods, which usually require extra time and energy and increase fatigue. They also need to develop efficient competences for time management and for coping with academic tasks (Heiman & Precel, 2003).

A literature review found only a few studies dealing with the coping strategies of students with learning disabilities. Lazarus and Folkman (1984) offer a widely used definition of coping, namely: constantly changing cognitive and behavioural efforts to manage specific external or internal demands. Based on this work, Higgins and Endler (1995) grouped coping strategies into three main categories: task-oriented, emotion-oriented, and avoidance-oriented.

Task-oriented strategies are problem-focused; that is, direct action is taken to alter the problem situation to reduce the amount of stress it evokes. An emotion-oriented strategy is directed at changing or modifying one's emotional responses to stressors. This may include attempts to reframe the problem in such a way that it no longer evokes a negative emotional response and, therefore, elicits less stress (Mattlin et al., 1990). Finally, avoidance-oriented coping strategies include behavior such as evading or ignoring the situation, or losing hope (Lazarus & Folkman, 1984). The first two strategies, task- and emotion-oriented, are characterized by proactive efforts to alter the stressfulness of the situation, whereas avoidance-oriented strategies are characterised by the absence of attempts to alter the situation. Endler and Parker (1999) have suggested that, in the long run, a task-oriented strategy is the most efficacious.

Proactive coping strategies are associated with better adjustment, as reflected in higher self-rated coping effectiveness and less depression (Causey & Dubow, 1993; Moos, 1990; Reid, Dubow, & Carey, 1995; Strutton & Lumpkin, 1993), whereas avoidance-oriented

strategies are associated with poorer adjustment (Billings & Moos, 1981). In an examination of the *coping* styles of students with LD attending a university, Heiman and Kariv (2004b) found positive behavioral and emotional modes of coping. Most of study's subjects also believed they would continue studying for graduate degrees, expected to succeed in work, and hoped to further develop their abilities in the future.

### *Well-being*

Subjective well-being consists of people's own evaluations of their lives. Such evaluations include cognitive or affective perception of their social and economic environment, health, standard of living, and happiness (Diener & Lucas, 2000). Evaluation of well-being was examined as a global construct of evaluations of personal life experiences in relation to various ranges of emotions and pleasant or unpleasant moods, such as happiness, joy, satisfaction, and pain, anger or stress. Others examined key factors that are integral to well-being, including, for example, individual behavior and coping skills, socio-economic status (education, income, social status), social support networks, employment/working conditions, access to health care, gender and culture (Fletcher, Bryden, Schneider, Dawson, & Vandermeer, 2007) and how individuals evaluate or perceive their lives (Diener & Lucas, 2000).

Several studies have demonstrated significant differences between the perceptions of social and emotional well-being in male and female students. For example, adolescent girls have been found to be consistently more depressed than their male peers (Hankin & Abramson, 1999) and to report more emotional symptoms than boys (Bear, Juvonen, & McInerney, 1993; Martinez & Seemrud-Clikeman, 2004). Further, comparison of levels of hope in adolescent students with LD revealed that even when successful in their studies, students with LD reported lower levels of hope than their peers without LD (Lackaye, Margalit, Ziv, & Ziman, 2006). Given these findings, we may assume that similar differences will appear and influence the perceptions of students with LD in higher education.

A review of the literature revealed few studies concerning gender differences among students with disabilities in higher education. As reported by Downey (2003), when students were asked to rate their personal satisfaction with their studies and to assess other impressions of their college life, their judgments were mediated by their emotional state at the time the question was asked. These findings and those of several other studies suggest that men and women differ in

their ratings of college satisfaction due to dissimilar, gender-related, levels of awareness of their feelings (Clare et al., 2001; Gasper & Clare, 2000; Gohm & Clare, 2002).

Few studies on gender differences and coping strategies of students with and without LD have addressed women's perceptions of the educational environment and their gender-specific coping strategies in their higher education studies. The present study was designed to explore these two issues and how women with LD perceive their well-being during their educational experience in general.

In addition to coping strategies, which have been examined in previous studies, we examined two components of higher education that have not been addressed: Female students' perceptions of the learning environment and subjective feelings of well-being. We hypothesized that female students with LD would report different coping strategies than non-LD female students. Specifically, they would (a) have a less positive perception of their learning environment; (b) have a greater need for academic support; and (c) report on lower levels of well-being, or satisfaction with their lives in general.

## Method

### *Participants*

The Open University of Israel (OUI) is a distance-learning institution with an open admissions policy, high academic standards, and a unique and extremely flexible self-study method (e.g., on-line interactive discussion forums, assistive technology, written materials mailed to the student), that allows students to advance at an individual pace. Unlike in traditional universities, OUI students may choose between face-to-face tutorial sessions in study centers close to their area of residence, on-line interactive courses with instructors and peers via the Internet, or individual at-home study from specially prepared written materials mailed to the student.

In the OUI, 56% of the undergraduate students are women (mean age: 28.2), of which 68% study one of the social sciences. According to the Office of Disabled Student Services, 1,415 undergraduate students with LD studied at the Open University in the academic year 2005-2006. Of these, 754 (53.36%) were women.

Most of the female students with LD (N = 538, 71%) took courses in the Social Science Department, studying sociology, psychology, education, management, or economics. The mean age of the undergraduate women with LD was 28.0 (The Open University, 2006).

The present study sample consisted of 123 Israeli female students studying at the OUI. Students were divided into two groups: (a) 50 students with LD, between 25 and 39 years of age, and (b) 73 students without LD, between 25 and 35 years of age, as the control group. Students in the LD group had been identified as having dyslexia or dysgraphia prior to the study. Most of them had completed the complete Wechsler Intelligence Scale (Wechsler, 1991), scoring between 95 and 120; others provided partial test scores on verbal IQ, performance IQ, Raven tests, various neuropsychological tests, memory tests, and other specific reading and writing tests. As the privacy of diagnostic documents is protected by Israeli law, specific test scores were unavailable.

All the females with LD were identified as having problems such as difficulties with reading, writing and/or spelling in their first language (Hebrew), and most of them also had difficulties in the required second language (English). All the participants with LD were registered at the Disability Support Services, and most of them received accommodations such as additional time during examinations, no penalty for spelling mistakes and permission to take a break during examinations. The control group consisted of female students without LD from the same fields of social science study as those with LD. As presented in Table 1, no significant differences were found regarding age or GPA in the study areas.

### *Measures*

*Learning Environment* (Shin & Chan, 2004). This questionnaire examined the students' perception of aspects of learning within a higher education context. The scale is comprised of 29 items, which are categorized into four factors: (a) student perception of support services and feelings of connectedness to the university (e.g., "I believe that the student support staff is willing to help me"); (b) learning outcomes (e.g., "the course provided me with knowledge"); (c) satisfaction with the courses (e.g., "taking a course at the university is a valuable experience for me"); and (d) intention to continue studies at the university. The items were measured according to a 4-point Likert scale ranging from *strongly disagree* (1) to *strongly agree* (4). For this study, we used only the first three factors. The

**Table 1***Demographic Characteristics of the Students*

Variables	Students with LD (N=50)		NLD Students (N=73)		<i>F</i> (1,21)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Age	29.5	6.26	27.3	4.67	2.23
GPA <sup>1</sup>	82.5	9.81	83.71	4.72	1.30
Academic Credit <sup>2</sup>	32	29	46	26	3.35

Note All comparisons are not significant at .05. NLD: students without LD.

GPA<sup>1</sup> range: 0 – 100.

Academic Credits<sup>2</sup>: The minimum number of credits required for graduation at the Open University is 108 (between 18 and 25 courses)

reliability for the entire instrument was .85; the alpha for the scales ranged between .80 and .81.

*Coping strategies* (Endler & Parker, 1999). The Coping Inventory for Stressful Situations (CISS) is comprised of 41 items evaluated by a 5-point rating scale ranging from *not appropriate* (1) to *very appropriate* (5), with higher scores indicating a greater emphasis on each coping strategy. For this study, the scale reflects generalized modes of coping strategies within different situations. Three measures were used to reflect the students' coping strategies: (a) task-oriented coping subscales that tap active coping styles; (b) emotion-oriented coping subscales that represent strategies directed at altering such negative emotional responses; and (c) avoidance-oriented subscales that represent withdrawal behaviors. The reliability (Cronbach alpha) coefficients obtained for this study for the entire scale of coping strategies was .88, ranging between .83 and .89 for the subscales.

*Satisfaction with Life Scale* (Pavot & Diener, 1993). This scale consists of five items on a 7-point Likert Scale from *never agree* (1) to *always agree* (7). The authors note that the scale was developed to assess satisfaction with the respondent's life as a whole, and

does not assess satisfaction with specific life domains such as health or finances. Higher scores mean higher perceived well being. The Alpha Cronbach score of the overall scale of the present study was .91.

#### *Procedure*

A file consisting of three questionnaires was sent by email to female students diagnosed with LD registered at OUI's Office of Disabled Student Services. Since most of the female students with LD were studying social sciences ( $N = 538$ ), the questionnaires were sent to every third female student with LD who were at least in their second year of study taking on-line courses in the social sciences department. Thus, 80 questionnaires were emailed as one file, and the students were asked to complete the questionnaires and email them back to the author. In order to ensure a control group with similar characteristics of age and major subjects, the students with LD were asked to nominate a female colleague who matched them in age, grades, and field of study, and who did not have any known learning or behavioral difficulty. Since the returned questionnaires were anonymous, we sent a reminder follow-up email to all the students one week later.

Over a period of two weeks, we obtained 50 completed questionnaires (62.5%) from students with LD. Ten emails were returned as wrongly addressed, 12 students refused to participate in the study, and 8 claimed they did not have a disability. Further, some of the students with LD nominated two colleagues, so we obtained 98 email addresses of students with LD. An identical email procedure was conducted for students without disabilities. After a month, we obtained 73 completed questionnaires (74.49%) from female students without LD. Seven emails were returned as wrongly addressed, four women refused to participate, and three returned the questionnaires incomplete.

## Results

In order to examine the differences between the two groups of female students (LD and NLD), univariate analyses of variance (ANOVAs) were performed with the measures of the learning environment, coping strategies, and satisfaction with life scale scores. The analysis revealed significant differences between student groups for Learning Environment,  $F(1,122) = 68.08, p < 0.01, \text{Eta} = .38$ ; coping strategies,  $F(1,122) = 4.22, p < 0.05, \text{Eta} = .4$ ; and Satisfaction with Life Scale,  $F(1,122) = 24.54, p < 0.01, \text{Eta} = .32$ . According to Cohen (1992), 0.2 is indicative of a small effect, 0.5 a medium and 0.8 a large effect.

ANOVA analyses were conducted between the LD and NLD groups for each of the sub-categories of the measures. Means, standard deviations, and  $F$  values are presented in Table 2. Results indicated that the students with LD perceived lower levels of academic support and assistance from the academic staff and felt a lower sense of belonging and less attached to the university than students in the control group. Further, they were more satisfied with their academic success than students in the NLD group. They also felt that they gained more practical knowledge that could be applied to their work or to their lives in general and that the course enhanced their thinking skills and allowed them to look at things in different ways, compared to female students from the control group. Regarding their perceived satisfaction with the academic courses, students with LD were less satisfied with the course than were students in the control group.

Results related to the three subcategories of coping strategies revealed that students with LD reported using more task-oriented coping strategies than did the NLD students. No differences between groups were found for emotion-oriented coping strategies. Significant differences emerged for four of the items

on the Satisfaction with Life Scale, and students with LD reported lower levels of subjective well-being than the NLD control group. The only item that was not significant between groups was, "important things I want in my life."

## Discussion

The purpose of the current study was to examine the perceptions of undergraduate female students taking on-line courses as a part of the Open University of Israel's academic program. We compared the perceptions of females with and without LD regarding the learning environment, coping strategies, and perceived well-being. Findings revealed that the females with LD (a) perceived the learning environment as less supportive and less fitting to their needs; (b) felt that the academic services were not sufficiently thoughtful of their requests; and (c) were less content with the academic courses, compared to females without disabilities. In addition, females with LD reported using more task-oriented and avoidance-oriented coping strategies, and perceived their overall well-being as less satisfactory than did female students from the control group.

Given the substantial increase in the proportion of female students with LD in higher education, it is of great value to examine their perceptions and experiences at a university and to identify the factors that have a positive impact on their well-being. The results discussed relate to on-line interactive courses with instructors and peers communicating via computers, as an alternative to a setting where students take face to face classes. Distance educations through on-line courses and e-learning have become a common study method in many institutes of higher education in Europe, America and in Canada. We, therefore considered, it important to examine women's adjustment and practices in order to guide the further development of support services on university campuses and to plan professional development activities based on the women's needs.

### *Hypothesis 1*

The first hypothesis was that significant differences would emerge regarding the two groups of participants' perceptions of the learning environment. The results supported this hypothesis. That is, female students with LD perceived the learning environment as less supportive and less satisfactory than females without LD. More specifically,

**Table 2**

*Means, Standard Deviation and F Scores of Dependent Measures Scales and Subscales Among Students With and Without LD*

<i>Variables</i>	Students with LD	NLD Students	<i>F</i> (1, 119)	<i>ES</i>
	( <i>N</i> = 50)	( <i>N</i> = 73)		
	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )		
Learning Environment <sup>1</sup>	3.14 (.24)	3.31 (.32)	68.08**	.38
Support services	2.63 (.40)	3.26 (.38)	78.16**	.40
Academic outcomes	3.74 (.12)	3.36 (.37)	46.33**	.28
Course satisfaction	3.03 (.43)	3.44 (.55)	17.88**	.14
Overall coping <sup>2</sup> scale	3.16 (.34)	2.96 (.64)	4.22*	.04
Task-oriented	4.56 (.04)	2.02 (.27)	90.64**	.63
Emotion-oriented	2.37 (.94)	2.18 (.54)	1.89	.02
Avoidance-oriented	2.57 (.133)	2.22 (.52)	21.01**	.16
Overall Satisfaction with life <sup>3</sup>	22.76 (5.66)	26.45 (3.51)	24.54**	.32
Way of my life	4.68 (1.16)	5.67 (.88)	27.31**	.19
Condition of my life	4.76 (1.15)	5.25 (1.03)	6.28*	.05
Satisfied with life	4.52 (1.18)	5.89 (.81)	50.94**	.31
Important things I want	5.36 (1.53)	5.42 (1.01)	.05	.00
Change my life	3.44 (1.11)	4.22 (1.14)	13.76**	.11

*Note.* <sup>1</sup> Learning Environment Scale, range 1-4; <sup>2</sup>Coping Scale, range 1-5. <sup>3</sup>Satisfaction with life scale range 1-7. Higher scores mean higher perceived well-being.

\*  $p < .05$ . \*\*  $p < .01$ .

they felt that the academic support services were insufficiently accommodating to their special needs, and they were less content with the academic courses themselves. Nevertheless, they felt they had made more gains in knowledge, general intellectual development or growth than did the females in the control group. Since perceptions of the learning environment and support services have rarely been examined within the population of students with LD, these findings present new views.

A discrepancy was observed between a previous examination of faculty attitudes towards and support of both male and female students with LD (Vogel, Leyser, Wyland, & Brulle, 1999). The findings of Vogel and her colleagues indicate that the faculty and the academic staff were the most willing to provide the types of assistance that were the least time consuming. For example, they allowed students to tape-record lectures and allowed examinations taken by students with

disabilities to be administered in the office of the support services. However, almost two-thirds of the faculty was willing to change the format of assignments and examinations. Since no similar faculty study was done within the OUI, it is not possible to compare the different perceptions of this particular issue. Based on Vogel's results, it can be assumed that, because a learning disability is not visible, as is a physical disability or a visual impairment, the academic staff are not aware of the difficulties of students with LD unless the students disclose their LD and request an accommodation or provide certification of their specific disability and the allowances needed. The findings of the present study indicate that the students with LD were satisfied with the academic outcomes but felt that much more could be done to help them with academic services such as registration, library use, accessing information, assistance in accomplishing academic tasks, and in overcoming academic or organizational difficulties

#### *Hypothesis 2*

The second hypothesis concerned coping strategies. A growing body of research has examined the contribution of effective coping strategies for students with disabilities. Previous studies revealed that academic adjustment is negatively associated with psychological symptoms of distress during the early stages of college studies (Sanders & DuBois, 1996; Winter & Yaffe, 2000). However, other research (Huebner, Thomas, & Berven, 1999) has found no significant differences in adjustment between college students with and without LD. A previous study examining gender differences revealed that emotion-oriented coping was a significantly positive predictor of distress in both males and females. A comparison analysis among undergraduate students with and without LD revealed that female students without LD were more task-oriented than those with LD, and that females with LD were more emotion-oriented (Kariv & Heiman, 2005). However, contrary to that study, the current study demonstrated that females with LD taking on-line courses reported using more task-oriented coping strategies and less avoidance-oriented coping strategies than females in the NLD control group. The task-oriented coping strategies included being more organized, having and keeping to a strict timetable, frequent use of previously successful strategies for solving present problems, concentrated efforts to focus on the problem, organiz-

ing lists of priorities, and making efforts to complete tasks. They also used more avoidance-oriented coping strategies. It appears that the use of task-oriented coping strategies is related to the fact that the students are involved on on-line classes, and must be actively involved with the instruction and discussions.

This can be viewed as positive, and indicative of progress regarding self-perception of coping skills. In spite of the difficulties with which females with LD must contend, they made an effort to be task-oriented, to focus on their academic mission, and, as described by one student, "to try harder." On the other hand, female students with LD tried to avoid dealing with complicated or unfamiliar tasks. This finding is consistent with the findings of a previous study on students with LD in higher education institutes (Heiman & Precel, 2003). It appears that when students with LD perceive a task as too difficult for them to carry out successfully (such as a too-long text to read or to write), they may avoid undertaking the assignment.

#### *Hypothesis 3*

The third hypothesis examined the subjective well-being of females in both groups. Subjective well-being is defined as an individual's evaluation of his or her life (Diener & Lucas, 2000). One's subjective well-being is an important component in promoting positive adjustment and appears to play an essential role in emotional and social stability. Diener and Lucas (2000) found that well-being was strongly correlated with higher self-esteem, freedom from worries, and positive and pleasant experiences. In the current study, perceptions of the overall well-being of students with LD were significantly lower than those of students without LD.

We can assume that students with LD have lower self-esteem, prolonged feelings of distress, and lower levels of hope with students without LD, as has been shown in the literature (Lackaye et al., 2006). In addition, female students reported higher degrees of feelings of alienation (Brown, Higgins, Pierce, Hong, & Thoma, 2003). In the framework of this study, we assume that the continuous difficulties and the daily life struggles of LD female students led to a reduction in overall satisfaction. An interesting result was reflected through a seemingly nonsignificant item concerning the "important things I want in life": Both groups of women had goals and aims, and for both groups the scores for this item were relatively high (more than 5 out of 7 points). The lower satisfaction perceived by the LD group may be viewed as an expression of frustration that students with LD carry from childhood, which

corresponds to the findings of earlier studies that show prolonged feelings of distress (Lackaye et al., 2006), or as expressions of an external need of support and hopes for a meaningful change in one's life. In addition, the perceptions of lower satisfaction with their university courses and with life reported by females with LD in the OUI may be also understood as a result of the non-traditional campus environment, where some of the courses are face-to-face while others are via the Internet, and the students study on their own rather than with a group of peers. It is, therefore, important to provide opportunities for ongoing support-groups, to improve the academic workshops, and to deepen and broaden the academic staff's awareness of the needs of students with LD.

#### *Study Limitations*

The findings of this study suggest several concerns that need to be addressed. First, the relatively small number of women students with LD in the study may bias the findings; second, the sample encompassed only students in the social science department; third, the study examined female students studying in one university; and fourth, the Open University courses are mostly based on a blended learning model that combines face-to-face and on-line studies, which could be confusing for students with LD or complicated for students who are not familiar with the technology.

#### *Future Research*

The present study contributes to our understanding of the learning environment and coping strategies of women in institutions of higher education. Further research is needed to re-examine these topics with a larger number of subjects; additional research should include students in other colleges and universities, and from different departments. The present findings encourage further investigation in the areas of coping in the different learning environment and examining the learning strategies of students with LD. There is apparently still much to do to improve assistance within the OUI as well as in other institutions of higher education, to augment awareness, and to more effectively accommodate the special needs of students with learning disabilities.



## References

- BarOn, R. (1997). *Emotional quotient inventory: A measure of emotional intelligence*. Toronto, ONT, Canada: Multi-Health Systems.
- Barton, R. S., & Fuhrman, B. S. (1994). Counseling and psychotherapy for adults with learning disabilities. In P. J. Gerber & H. B. Reiff (Eds.), *Learning disabilities in adulthood: Persisting problems and evolving issues* (pp. 82-92). Austin, TX: PRO-ED.
- Bear, G. G., Juvonen, J., & McInerney, F. (1993). Self-perceptions and peer relations of boys with and boys without learning disabilities in an integrated setting: A longitudinal study. *Learning Disability Quarterly, 16*, 127-136.
- Billings, A. G., & Moos, R. H. (1981). The role of coping responses in attenuating the impact of stressful life events. *Journal of Behavioral Medicine, 4*, 139-157.
- Brown, M., Higgins, K., Pierce, T., Hong, E., & Thoma, C. (2003). Secondary students' perceptions of school life with regard to alienation: The effects of disability, gender and race. *Learning Disability Quarterly, 26*, 227-238.
- Brown, P. M. (1997). Developmental handicap and gender differences in quality of life. *International Journal of Approaches to Disability, 21*(1), 31-34.
- Causey, D., & Dubow, E. F. (1993). Development of a self-report coping measure for elementary school children. *Journal of Clinical Child Psychology, 21*, 47-59.
- Clore, G. L., Wyer, R. S., Dienes, B., Gasper, K., Gohm, C., & Isabell, L. (2001). Affective feelings as feedback: Some cognitive consequences. In L. Martin (Ed.), *Theories of mood and cognition: A users handbook* (pp. 27 - 62). Mahwah, NJ: Lawrence Erlbaum.
- Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*(1), 155-159.
- Damsteegt, D. (1992). Loneliness, social provisions and attitudes. *College Student Journal, 26*, 135-139.
- Diener, E., & Lucas, R. E. (2000). Subjective emotional well being. In M. Lewis & J. M. Haviland (Eds.), *Handbook of emotions* (2<sup>nd</sup> ed., pp. 325-337). New York: Guilford.
- Downey, J. A. (2003). Emotional awareness as a mediator of community college student satisfaction ratings. *Community College Journal of Research & Practice, 27*(8), 711-720.
- Endler, N. S., & Parker, J. D. A. (1999). *Coping Inventory for Stressful Situations (CISS): Manual* (rev. ed.). Toronto, ONT, Canada: Multi-Health Systems.
- Fletcher, P. C., Bryden, P. J., Schneider, M. A., Dawson, K. A., & Vandermeer, A. (2007). Health issues and service utilization of university students: Experiences, practices and perceptions of students, staff and faculty. *College Student Journal, 41*(2), 482-493.
- Gasper, K., & Clore, G. L. (2000). Do you have to pay attention to your feelings to be influenced by them? *Personality and Social Psychology Bulletin, 26*(6), 698-711.
- Gohm, C. L., & Clore, G. L. (2002). Affect as information: An individual differences approach. In L. F. Barrett, P. Salovey, & J. D. Mayer (Eds.), *The wisdom in feeling: Psychological processes in emotional intelligence* (pp. 89-113). New York: Guilford.
- Hadley, W. M. (2006). L.D. Students' access to higher education: Self-advocacy and support. *Journal of Developmental Education, 30*(2), 10-16.
- Hadley, W. M. (2007). The necessity of academic accommodations for first-year college students with learning disabilities. *Journal of College Admission, 195*, 9-13.
- Hankin, B. L., & Abramson, L. Y. (1999). Development of gender differences in depression: Description and possible explanations. *Annals of Medicine, 31*, 372-379.
- Heiman, T., & Kariv, D. (2004a). Coping experience among students in higher education. *Educational Studies, 30*(4), 441-455.
- Heiman, T., & Kariv, D. (2004b). *Manifestations of learning disabilities in university students: Implications for coping and adjustment. Education, 125*(2), 313-324.
- Heiman, T., & Kariv, D. (2005). Manifestations of learning disabilities in university students: Implications for coping and adjustment. *Education, 125*(2), 313-324.
- Heiman, T., & Precel, K. (2003). Students with learning disabilities in higher education: Academic strategies profile. *Journal of Learning Disabilities, 36*(3), 248-258.

- Higgins, J. E., & Endler, N. (1995). Coping, life stress, and psychological and somatic distress. *European Journal of Personality, 9*, 253-270.
- Huebner, R. A., Thomas, K. R., & Berven, N. L. (1999). Attachment and interpersonal characteristics of college students with and without disabilities. *Rehabilitation Psychology, 44*, 85-103.
- Kariv, D., & Heiman, T. (2005). Stressors, stress and coping in dual-demand environments of workers: The case of workers who go 'Back to School.' *Journal of Adult and Continuing Education, 11*(1), 91-110.
- Kohen, D. (2004). Mental health needs of women with learning disabilities: Services can be organized to meet the challenge. *Tizard Learning Disability Review*, October. [http://findarticles.com/p/articles/mi\\_qa4141/is\\_200410/ai\\_n9465311](http://findarticles.com/p/articles/mi_qa4141/is_200410/ai_n9465311)
- Lackaye, T., Margalit, M., Ziv, O., & Ziman, T. (2006). Comparisons of self-efficacy, mood, effort, and hope between students with learning disabilities and their non-LD matched peers. *Learning Disabilities Research and Practice, 21*(2), 111-121.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal and coping*. New York: Springer.
- Martinez, R., & Seemrud-Clikeman, M. (2004). Emotional adjustment and school functioning of young adolescents with multiple versus single learning disabilities. *Journal of Learning Disabilities, 37* (5), 411-420.
- Mattlin, J. A. (1990). Situational determinants of coping and coping effectiveness. *Journal of Health and Social Behavior, 31*(1), 103-122.
- McWhirter, B. T. (1990). Loneliness: A review of current literature, with implications for counseling and research. *Journal of Counseling & Development, 68*, 417-422.
- Moos, R. H. (1990). *Coping Response Inventory-Youth Form, Preliminary Manual*. Palo Alto, Stanford University Medical Center. CA.
- The Open University. (2006). *Students with learning disabilities*. Unpublished report, the Open University of Israel.
- Parker, V. (1999). Personal assistance for students with disabilities in HE: The experience of the University of East London. *Disability & Society, 14*, 483-504.
- Pavot, W., & Diener, E. (1993). Review of the Satisfaction with Life Scale. *Psychological Assessment, 5*(2), 164-172.
- Reid, G. J., Dubow, E. F., & Carey, T. C. (1995). Developmental and situational differences in coping among children and adolescents with diabetes. *Journal of Applied Developmental Psychology, 16*, 529-544.
- Reiff, H. B., Hatzes, N. M., Bramel, M. H., & Gibbon, T. (2001). The relation of LD and gender with emotional intelligence in college students. *Journal of Learning Disabilities, 34*, 66-78.
- Roer-Strier, D. (2002). University students with learning disabilities advocating for change. *Disability and Rehabilitation, 24*(17), 914-924.
- Sanders, K. S., & DuBois, D. L. (1996). Individual and socio-environmental predictors of adjustment to college among students with disabilities. *Journal of Postsecondary Education and Disability, 12*, 28-43.
- Shin, N., & Chan, J. K. (2004). Direct and indirect effects of online learning on distance education. *British Journal of Education Technology, 35* (3), 275-288.
- Vogel, S. A., Leyser, Y., Wyland, S., & Brulle, A. (1999). *Students with learning disabilities in higher education: Faculty attitude and practices*. *Learning Disabilities Research & Practice, 14*(3), 173-186.
- Wechsler, D. (1991). *Wechsler Adult Intelligence Scale-Revised*. San Antonio, TX: Psychological Corporation.
- Wehmeyer, M. L. (1993). Gender differences in locus of control scores for students with learning disabilities. *Perceptual and Motor Skills, 77*(2), 359-366.
- Wehmeyer, M. L., & Schwartz, M. (2001). Research on gender bias in special education services. In H. Rousso & M. Wehmeyer (Eds.), *Double jeopardy: Addressing gender equity in special education*. Albany, NY: Suny Press.
- Wiener, J. (2004). Do peer relationships foster behavioral adjustment in children with learning disabilities? *Learning Disabilities Quarterly, 27*(1), 21-30.
- Winter, M. G., & Yaffe, M. (2000). First-year students' adjustment to university life as a function of relationships with parents. *Journal of Adolescent Research, 15*, 9-37.

## About the Author

Dr. Tali Heiman is a senior lecturer at the Department of Education and Psychology at The Open University of Israel. Dr. Heiman is the Head of The Open University Diagnostic Center for students with LD. Her fields of research include Learning Disabilities and ADHD: Learning Style, assistive technology, adjustment and coping in higher education; emotional and social coping of students with learning disabilities; families with a child with special needs: coping, adjustment and expectations. She can be reached by email at: tali.heiman@gmail.com.

## Acknowledgment

This research was supported by *Chais Research Center for the Integration of Technology in Education*, The Open University of Israel.