RONIT MANDELBLIT Higher Studies Peres Academic Center. Rehovot

STUDENTS WITH SPECIFIC LEARNING DISABILITIES IN THE HIGHER EDUCATION SYSTEM IN ISRAEL: SUCCESSES AND CHALLENGES

INTRODUCTION

In recent years, there has been an increase in the number of students with learning disabilities studying in higher education institutions. The Council for Higher Education (1998) reported that the percentage of students with learning disabilities in Israel ranged from 1.5% to 3%. According to the American Board of Education (1995), the percentage of students with difficulties attending college increased four-fold between 1991–1978, and from 2.2 to 8.8% of all students. In addition, in 1998, two out of five students with any disability who were enrolled in the university reported a learning disabilities accounting for 3.8% of all first-year students. In recent years the number of students with learning disabilities has increased and now is estimated at up to 15% of the students.

The increase in the number of students with learning disabilities is partly due to legislation in some countries that anchors the rights of students with learning disabilities studying in higher education institutions and requires accommodations for them. In Israel, too, the Student Rights Act with Learning Disabilities in Secondary Institutions (2008) was enacted. Among other things, the law refers to adjustments in the conditions of admission, during school and in tests, the determination of the diagnostic bodies, the admission and ways of considering the needs of the students in relation to the academic requirements.

The elementary and high school education system has in recent years developed the following educational programs and processes for the needs of students with learning disabilities. The scope of the programs is still limited, and within the framework ordinary education is in these learning, development and consolidation phases. However, it is possible today to point to considerable achievements in this area. The

accumulated knowledge is of paramount importance, both as regards formulation principles of working with students with learning disabilities and for future expansion of experiences. Attention to a student with a learning disability is based on principles of responsibility and commitment for the advancement of every student in the educational, emotional, behavioral and cognitive fields. Serves like this systematic coordination is required. Building an educational intervention process requires consolidation of a work culture that operates according to defined standards, and examines itself professionally and sensitively. To this end, it is of utmost importance to establish a skilled multi-professional team that will work in coordination with the team school policy and establish procedures for identifying, diagnosing, and providing educational and therapeutic intervention, while monitoring the care of students with learning disabilities and fulfilling their diverse needs.

Based on this approach, the working model was built to care for students with learning disabilities. The model gives expression of two channels of the interconnected sequence, referring to two central sequences:

- A. Developmental sequence during school education from kindergarten to high school graduation.
- B. A therapeutic continuum of assistance to students who experience learning difficulties as a result of the disability, within a rule the student population and its diverse needs. The therapeutic sequence is designed to ensure that students having learning disabilities will receive support and assistance, which will enable them to exhaust their abilities during the course of their education in the education system.

PATH OF STUDENTS WITH LD TO HIGHER EDUCATION

"Learning Disabilities" is defined by the United National Committee for Learning Disabilities as "a general term that refers to a group of heterogeneous disorders that manifest significant difficulties in acquiring listening, speaking, reading, writing, conceptualizing and or using mathematical abilities" (1994). These disorders are internal disorders of the individual, and are assumed to be due to functional problems in the central nervous system. The definition emphasizes that learning disabilities is a condition that lasts throughout one's life, and has varied manifestations in adulthood.

The Special Education Law (1988) enacted in Israel refers to the right of all children with disabilities to study in educational institutions. At the beginning this law stipulated that children with severe learning disabilities will attend a class of children with other significant disabilities. In the stay of 2002, an amendment was made to the law, which requires children with learning disabilities to be integrated

into regular classrooms and assigned them additional hours of assistance according to their needs.

In 1988 the first law in Israel that dealt with the age after high school was enacted, the 1988 Equal Rights for Persons with Disabilities Act, which states that a person with disabilities has the right to participate in community life like any other citizen

This law paved the way for people with learning disabilities for higher education. Later, an amendment was introduced to this law at the applicable level, the "Equal Rights for Persons with Disabilities" Act (2005), emphasizing the need to make accessible to people with learning disabilities aids and facilitate their admission to study in higher education institutions.

Today, in contrast to the past, more students with learning disabilities are being identified, diagnosed, and referred for accommodations. It may be assumed that in the past they were unaware of the broad implications of the disability, were not identified at all or did not meet their needs. The change is due to raising awareness among parents, teachers and people with learning disabilities of the subject and its implications, and is reflected in a variety of actions ranging from advanced legislation on the subject to the construction of a tailored curriculum in secondary schools and matriculation exams. Today many help centers are operating in the school, the private sector and higher education institutions.

From 2002–2005, the number of students with learning disabilities increased in some Western countries. This increase can be attributed to four factors: laws and regulations, the large number of students identified as learning disabilities, the support they already have in high school, and the support services they provide in higher education institutions1. However, there is still a gap between the prevalence of the general population deficit and the prevalence of those diagnosed, especially in higher education. Many people with learning disabilities do not turn to diagnosis, some due to past seduction and frustration at school.

Dyslexia. According to the World Neurology Organization (1968) definition, dyslexia is an impairment in children who, despite conventional classroom experience, fail to acquire the language-reading, writing, and spelling skills according to their intellectual ability .The level of functioning and without reference to the disparity, as a unique birth defect originating in the language domain, characterized by difficulties in single-word coding and usually reflects an inadequate ability of phonological processing². Phonological processing is found to be a necessary but not sufficient condition for reading and identifying words.

A. Beale, Preparing Student with Learning Disabilities for Postsecondary Education: Their Rights and Responsibilities, "Techniques" 2005, 80, 24-27.

² R.I. Nicolson, Developmental Dyslexia: Past, Present and Future, "Dyslexia" 1996, 2, 190–207.

In studies dealing with adults with dyslexia, the problem is explained by the ability to integrate information from various sources – phonologists, orthographic, semantic, morphological syntax, or some of them³. Most children with dyslexia also suffer from phonological deprivation as adults. This disadvantage is hardly manifested in identifying or writing a new word in a template. Reading comprehension among high school students and students diagnosed with childhood less dyslexic than other adults. Only 25% of adults with dyslexia have no reading comprehension difficulties, which of course also affects their functioning in academia⁴.

Dysgraphia. According to the simplistic definition, writing is a process that gives knowledge of a particular subject in a clear language⁵. Researchers have found significant differences between children with writing disabilities and children without this impairment, especially when they have accelerated their writing pace. The differences were in variables such as body position, pencil position, and paper position⁶. Others note that the rate of letter design in children with a writing impairment is slower than that of children without the impairment, and the number of letters they write in a smaller unit of time⁷.

The writing process requires the coordination of various non-linear mental processes and is carried out simultaneously in forward and backward steps. Writing requires attentive self-control, control, active working memory, ability to organize and motivation⁸. At the time of writing, a skilled writer moves from a state of uploading knowledge from memory to a state of information processing and translation into writing processes. It is developed in general planning and continues with the planning of each stage. To do this, he needs in-depth knowledge of the subject, self-criticism and ability to solve problems that arise during the process. The more complex and comprehensive the assignment is required for the writer, for example in the academic field, the higher the order of thought processes must be used⁹. However, the beginning or hard-line writer writes in a linear fashion that

³ A. Castles, *The Dual Route Model and Developmental Dyslexias*, "London Review of Education" 2006, 4 (1), 49–61.

J. Hatcher, G. Snowling, G.M. Yvonne, Cognitive Assessment of Dyslexic Student in Higher Education, "British Jornal of Educational Psychology" 2002, 72, 119–133.

⁵ S.R. Hooper, *The Language of Written Language*, "Journal of Learning Disabilities" 2002, 35 (1), 2–6.

S. Perush, N. Lebanon-Erez, N. Weintraub, Ergonomic Factors Affecting the Quality of the Manuscript, "Israeli Journal of Occupational Therapy" 1999, 8 (2), 7–57.

S. Rosenblum, K. Frisch, Dysgraphia – Characteristics and Assessment Methods: Contribution of the Study to Clinical Thinking, "Israeli Journal of Occupational Therapy" 2008, 17 (3), 155– 175.

⁸ S.R. Hooper, op. cit., 2-6.

⁹ I. Meltzer, A. Tzadok, A. Dohen, "Open a gate for us" – Preparation of Students with Learning Disabilities in Their Final Year of Academic Study for the Workplace, "Machon Mofet Journal" 2010, 42, 38–43.

mimics the way of speaking without processing them. Furthermore, researchers have found that students and adults with learning disabilities do not spend time correcting and improving their work, but rely only on technical aspects¹⁰.

Students with learning disabilities may have difficulty summarizing texts, linking them, and incorporating them into the work they must submit. Sometimes they repeat things quoted in another text¹¹. In a study in which students with learning disabilities were asked about the kind of support they needed, they explained that they needed assistance mainly in writing or organizing and arranging written work¹².

Dyscalculia. Computational deficiencies are defined as a defect in numerical and arithmetic information processing, which is hardly manifested by numbers, taking account of operations and solving invoicing problems, even though the level of intelligence is good¹³.

Students with learning disabilities were found to have a lower computational ability than the other metrics that were tested — fluency reading, phonological awareness, spelling, graphomotor functions, working memory, and visual memory. It is one of the characteristics of a non-verbal learning disability, a learning disability of the right half of the brain. This defect is due to difficulties in processing and visual and spatial perception, expressed in difficulties in visual representation of quantities. Even before entering the school, children with difficulties in quantity perception find it difficult to do tasks such as counting objects and comparing numbers or quantities. Quite often difficulties in computational ability are expressed alongside graphomotor difficulties and short-term memory weakness¹⁴.

THE SITUATION OF SLD STUDENTS AT HIGHER EDUCATION INSTITUTION – SOLUTIONS/ CHALLENGES

Henderson points to a growth in the number of students with various disabilities in the academic system, and in particular a growth in the number of students with learning disabilities¹⁵. In the United States, the right of access of those with

¹⁰ S. Graham, S.S. Scheartz, & C.A. MacArthur, Knowledge of Writing and Composing Process. Attitude toward Writing, and Self-Efficacy for Student with and Without Learning Disabilities, "Journal of Learning Disabilities" 1993, 26 (4), 237–249.

¹¹ L.S. Flower, J.R. Hayes, [in:] L.W. Gregg, E.R. Steinberg (eds), Cognitive Processing in Writing, Lawrence Erlbaum Associates publishers, New Jersey 1980.

¹² J. Hatcher, G. Snowling, G.M. Yvonne, op. cit., 119–133.

¹³ A. Henick, Brain Research and Education. From Research into Preschool Education, Israeli National Academy of Science, Jerusalem 2008, 31-37.

¹⁴ B. Schreiber, Our Working Memory-Bodyguard, "Faces" 2013, 62, 71–77.

¹⁵ C. Henderson, College Freshmen with Disabilities: A Biennial Statistical Profile, American Council on Education, Washington, DC 2001.

learning disabilities is enshrined in the Federal Rehabilitation Act¹⁶, where it is written, "any person with limitations who has abilities in other areas shall not be restricted from participation in a program or activity that is supported by state funds; he shall not be deprived of the right to enjoy the improvements that come with such programs and activities, and he will not be discriminated against in this context solely based on his limitations"¹⁷.

In Israel too, the committee to examine the abilities of pupils with learning disabilities indicates that the rapid growth in the number of students with learning disabilities in higher-education institutions is impressive. The council for higher education reports that between 5%-10% of students have learning disabilities that are defined as diagnosed and that there are probably also undiagnosed students¹⁸. The reasons for the growth in the number of students with learning disabilities are various and include changes in the expectations and preparation of high school pupils with learning disabilities for their studies beyond high school, a growth in the number and quality of professional carers, an increase in the awareness of the possibilities for higher education for pupils with disabilities among parents, teachers, and counselors, the willingness of many institutions to accept students with learning disabilities who do not meet the normal admissions standards, and a growth in counseling services and dissemination of information regarding academic studies for these students. In addition to this, the enactment of laws that protect those with disabilities and promote access and accommodation for these students has led to a growth in the number of students with learning disabilities¹⁹.

LEGAL BACKGROUND

In Israel, the central body promoting positive discrimination for the learning disabled is the association "Leshem," for the care of students with specific learning disabilities in the context of higher education. The association's operations have led to an increase in the number of students with learning disabilities in higher-education institutions, a fact that has raised questions that have not up to now

¹⁶ Federal Rehabilitation Act, 1973.

¹⁷ S.A. Fogel, Students with Learning Disabilities in Higher-Education Institutions: Instructional Booklet, Leshem Foundation, Jerusalem 1998.

M. Margalit, T. Breznitz, M. Aharoni, Examination of the Care of Students with Learning Disabilities in Institutes for Higher Education, The Council for Higher Education, Planning and Budgeting Committee, 1998.

¹⁹ S.A. Vogel, F. Leonard, W. Scales, P. Hayeslip, J. Hermansen, L. Donnells, *The National Learning Disabilities Postsecondary Data Bank: An Overview*, "Journal of Learning Disabilities" 1998, 31 (3), 234–247.

been answered, namely the need for self-examination regarding barriers to entry to academia for students who are not up to the required level on the psychometric exams and/or do not achieve the average grade for the "Bagrut" (graduation exam), but who, based on other measures of learning ability, appear suitable for academic studies²⁰.

Inat claims that the approach of "positive discrimination" in higher education institutions in Israel is mostly based on clause 504 of the American Rehabilitation Act (1973); a number of principles are taken from it for everything mentioned above regarding the acceptance of students with learning disabilities in academia²¹. The first principle explains that an educational establishment is not allowed to limit the number of students with disabilities to be accepted to courses of study when otherwise they have suitable abilities. Additionally, since entrance exam regulations (graduations exams ("Bagrut"), psychometric tests, and selection tests for candidates for schools of education) are likely to reflect incorrectly on the abilities of students with learning disabilities and to err in predicting their success in higher education, the law requires that these grades are collected on condition that the exams are administered with accommodations. The American law also adds that since the value of the predictions of the results of these exams is not known at present, students with learning disabilities are sometimes requested to provide additional information that attests to their areas of strength and their chances of success. This usually refers to results of previous psycho-educational exams and letters of recommendation.

The rights of students with learning disabilities are protected by a specific law which was passed in 2008 - the student Rights Act with Learning Disabilities in Secondary Institutions. This law protects the basic right of adults with learning disabilities to express their abilities and talents by means of accommodations in the methods of acceptance to institutions and by means of accommodations in the context of academic studies. The law gives detailed instructions for the inclusion of those with learning disabilities to courses of study in institutions of higher education and establishes a number of precedents: enshrinement in law of the right to accommodations in the process of acceptance to an institution, whether provided by the institution or by an outside body, giving the candidate the possibility to request extra time, which will be attached to his request for admission by the body at the institution responsible for the issue of learning disabilities, as well as estab-

²⁰ A. Him-Jones, I. Friedman, The Care of Learning-Disabled Students in Higher-Education Institutions. Report Submitted to the Center for Research and Information at the Knesset, Henrietta Szold Center, Israel, Jerusalem 2002.

²¹ A. Inat, Integration of Students with Learning Disabilities in Academia, [in:] A. Maor (ed.), Positive Discrimination and Ensuring of Representation in Israel, Ramot Publications, University of Tel Aviv, Tel Aviv 2005, 427-438.

lishment of terms of the law for all the institutions of higher education, to increase the number of institutions for professional training; there is a general definition for the support that is given to students with learning disabilities, and organization of the whole issue of diagnosis. The law also provides for a committee for planning and budgeting within the council for higher education and a sub-committee that promotes support for students with learning disabilities and budgets for assistive services provided these students²².

SUPPORT CENTERS

The shared premise for models of care used in support centers in the academy all over the world is the belief that it is the responsibility of society to develop a learning environment suitable to enable students with learning disabilities to successfully integrate into academia. In the light of all this, the teams in the support centers see the essence of their role to be locating the students who need help within academia and following them throughout their years of study, with the ambition of extracting the full academic potential hidden within them.

In the last decade, support centers for students with learning disabilities have been established at academic institutions in Israel with the aim of enabling them to be accepted into the academy and to complete their studies successfully while at the same time increasing awareness among academic and managerial personnel, providing guidance to improve performance in the field²³.

The services provided in the support centers include accommodations in instruction and examination methods, consultation, and academic support one to one or in groups on topics including study, socializing, emotions, technology, and business.

The research shows that work in these areas brings big improvements in the learning of the students being assisted²⁴.

Support and inclusion centers operate in 27 higher-education institutions in Israel; while the centers differ from one another in size, they supply the same range of activities and services.²⁵ The goal of the support and inclusion centers is

²² L. Kozminski, Professional Announcements of the Leshem Foundation, Leshem Foundation, Jerusalem 1996.

²³ I. Meltzer, A. Tzadok, A. Dohen, op. cit., 38–43.

A. Dohen, I. Meltzer, Dilemmas Arising in Academia and in Support Centers in General and Relating to Instruction of Students with Learning Disabilities in Particular, "Machon Mofet Journal" 2010, 42, 44–48.

²⁵ I. Vargan, Access to Higher Education – High School for People with Non-Physical Limitations. Report Presented to the Committee for Education, Culture, and Sport by the Knesset's Center for Research and Information 2006.

to uphold the required academic standard but at the same time to provide access to learning for the students and to find ways to compensate for the learning disability. Despite the difference existing between the various centers, one can identify a number of services the majority of them provide:

- Personal individual support private meetings with professionals, with the purpose of providing effective tools and learning strategies designed to facilitate their coping with the demands of academia.
- Tutoring personal tutoring of students with learning disabilities by student mentors with high academic achievement who are awarded scholarships to provide tutoring. The tutoring requires reciprocity, participation, and involvement from both sides. The tutoring produces a two-sided benefit: the tutoring has brought about increased awareness in the area of learning disabilities, an increased streamlining of instruction, improved efficiency in choice of strategy, and empowerment.
- Workshops group workshops that take place in support centers include subjects like time management, ways to summarize articles, writing academic papers, and more. The purpose of group-based support is to provide the student with a learning disability with a "peer group", support for their professional enrichment, and tools to successfully cope with their learning disability.

In addition to these goals, the support and inclusion centers also deal with the dissemination of knowledge and awareness in the area of inclusion of students with learning disabilities, and creation of partnerships and knowledge centers that promote engagement with this subject within higher education²⁶.

The activity of the support and inclusion centers helps to promote a sense of capability among students with learning disabilities in various ways. Barga found that students who consolidated learning techniques demonstrated the ability to learn independently, activated techniques of self-improvement, and were aided by support for their learning and emotional support from the environment, achieved academically, and made improvements in their general sense of wellbeing²⁷.

Most adults with learning disabilities understand that the existence of support centers makes it possible for them to undertake academic studies. Most of them choose their academic institution based on the quality and scope of assistance and support provided to the students in the support centers at the institution²⁸.

²⁶ G. Finkelstein, *The Leshem Foundation: Goals, Guiding Principles, Projects*, Leshem Foundation, Jerusalem 2002.

²⁷ N.K. Barga, Students with Learning Disabilities in Education: Managing a Disability, "Journal of Learning Disabilities" 1996, 29 (4), 413-421.

²⁸ I. Meltzer, A. Tzadok, A. Dohen, op. cit., 38–43.

It should be noted that the services provided by the centers are based on the construction of one or more customized learning environments, which vary in scope according to the nature of the institution, its concept and policy and its economic capacity²⁹. Like support centers around the world, in Israel support centers also provide students with a variety of support services, primarily in the educational, but also in the emotional and social sphere³⁰.

The support is provided by the professional staff of the centers or external therapists. Some of the support hours are provided by professionals or mentors in an individual setting; other hours are given in group and other settings as workshops. The support program is usually built in collaboration with the student, within identifying his needs with his full consent.

The individual support framework is designed to promote learning goals in which the student acquires effective tools and tailored strategies, especially in the academic field: listening to the lesson and summarizing the teaching material, exam preparation, organization of time and resources, finding learning styles, concentrating on study material, preparing memory, self-advocacy, and presentation ability³¹.

The main purpose of the support is to develop a self-directed learner for learning³², who has cognitive, behavioral, motivational characteristics and aims to develop a learner who is active and engaging in learning.

Zimmerman and Schunk³³ describe an interactive and cyclical process, in which there are three stages: the early thinking phase, which requires goal setting; the implementation phase, which includes the implementation of learning strategies to achieve the goals; and the self-reflection phase, which includes self-feedback and is produced during learning. Since the process is spiral, the reflection results affect the thinking phase below. As for cognitive staffing aspects, this part includes learners' ability to think about their thinking and learning processes³⁴. Cognitive metadata ability allows the student to learn to navigate and manage himself in learning, to think about his tasks, and to monitor them. For this, declarative knowledge and process knowledge is required. Declarative knowledge in-

²⁹ H. Ibn Tzur, Student Support Center with Unique Needs, Ort Braude-Carmiel College of Engineering. "Issues in Special Education and Rehabilitation" 2006, 78–79.

³⁰ A. Dahan, S. Rusk, *Student Support Center with Learning-Community-Learning Disabilities*, "Issues in Special Education and Rehabilitation" 2005, 85–92.

³¹ I. Meltzer, A. Tzadok, A. Dohen, op. cit., 38–43.

³² B.J. Zimerman, *Dimensions of Academic Self-Regulation: A Conceptual Framework for Education*, 1994, 3–21.

³³ B.J. Zimerman, D.H. Schunk, 2001.

³⁴ D. Parker, K. Boutelle, Executive Function Coaching for College Student with Learning Disabilities and ADHD, 2009, 204–215.

forms information about several aspects: about myself as a learner, about the task, about the skills and strategies required. Knowledge of process is aimed at when strategy should be used and in what way. These decisions are accompanied by the cognitive metadata of planning, supervision and control. Brown's study (1987) found that learners with high cognitive awareness were successful in learning, and in particular with reading comprehension and expression tasks, more learners with low cognitive staff awareness. Lenz, Ellis, and Scanlon (1996)³⁵ discuss strategies from several points in time: planning, execution, and control, including product evaluation and its implications.

Hyman³⁶ (2004) compared 191 students with learning disabilities to 190 students without learning disabilities and found that students with learning disabilities developed unique learning strategies. One of the characteristics of the strategies developed was that they did not rest on writing, and that despite the difficulties experienced by students with learning disabilities, the average of their grades was no different from that of their peers. On average, similarities can be explained by grades, despite the difficulties experienced in investing students with learning disabilities with greater effort and using others.

In a training program aimed at developing managerial functions, Parker and Boutelle³⁷ trained and brought together trainers with 54 students with learning disabilities and attention deficit disorder each week. The intervention is designed to test the effectiveness of students in the field of management functions following a series of training sessions. For this purpose, seven of the students were interviewed in depth. The results of the study show that the training program has contributed to students by forcing them to take responsibility for their decisions and actions, set goals and focus and develop self-awareness while having a positive attitude and finding centers of strength, all of which have also reduced the degree of anxiety among them.

In addition to academic support, many students are also given emotional support. This support was found to be essential for improving student academic achievement38.

By recognizing the existence of the learning disability, dealing with the feelings of frustration and loss associated with this recognition and understanding how the impairment affects the totality of life circumstances. This support is es-

³⁵ B. Lenz, E.S. Ellis, D. Scanlon, Teaching Learning Strategies to Adolescents and Adult with Learning Disabilities, TX: Pro-Ed 1996.

³⁶ T. Hyman, Social Adaptation of Pupils with Learning Disabilities, "Perspective" 2000, 16, 47–56.

³⁷ D. Parker, K. Boutelle, Executive Function Coaching for College Student with Learning Disabilities and ADHD, "Learning Disabilities: Research & Practice" 2009, 24 (4), 204–215.

³⁸ A. Inat, op. cit., 427–438.

sential because students provide emotional tools and mental resilience that enable them to cope day-to-day with their difficulties and bring their abilities to fruition in learning³⁹.

TECHNOLOGICAL AID/ADJUSTMENT

As part of the support arrangements that include a variety of services, more and more academic institutions are providing various technological aids aimed at helping the students to overcome their difficulties, especially by exploiting their areas of strength⁴⁰ as opposed to their learning disabilities. Assistive technology is defined as all technology that enables the student with learning disabilities to compensate for their specific impairments. Assistive technology is not intended to "cure" or "fix" the learning disabilities, and it aspires to emphasize the abilities of the student above their weaknesses⁴¹.

The most common assistive technologies in academic institutions are text-recording software, which removes the necessity for reading, samplers of recorded books, spellchecking software, and electronic methods of improving organizational problems such as electronic journals and organizers. Every academic institution provides assistive technology services according to its ability⁴².

SELF ADVOCACY

Additionally, it is the student's responsibility to learn to defend their rights and to demand the help that they need in every aspect, using the technique of "self-advocacy" that is focused on raising awareness of the students regarding their learning disabilities and associated limitations and on developing the students' ability to transmit this information to their lecturers so that they can receive the help that they need⁴³. In other words, the student needs to know the meaning of the term "learning disability," what exactly is their own learning disability, what

³⁹ I. Meltzer, A. Tzadok, A. Dohen, op. cit., 38–43.

⁴⁰ K.A. Rath, J.M. Royer, *The Nature and Effectiveness of learning Disability Services for College Students*, "Educational Psychology Review" 2002, 14 (4), 353–381.

⁴¹ M. Raskind, Assistive Technology for Adults with Learning Disabilities: A Rationale for Use, [in:] P.J. Gerber, H.B. Reiff (eds.), Adults with Learning Disabilities, TX: PRO-ED, Austin 1994, 152–162

⁴² K.A. Rath, J.M. Royer, op. cit., 353–381.

⁴³ A.J. Roffman, J.E. Herzog, P.M. Wershba-Gershon, Helping Young Adults Understand their Learning Disabilities, "Journal of Learning Disabilities" 1994, 27 (7), 413–419.

accommodations they require in their studies in order to achieve their goals, and why they consider such accommodations reasonable. Researchers working in the area show that identifying strengths and awareness of weaknesses are likely to lead to success among adults with learning disabilities⁴⁴.

Continuous and effective exercise of self-advocacy includes activities intended to increase the awareness of members of academia and of students in general of the needs of students with learning disabilities and broadening knowledge of the phenomenon; creation of collaboration with other students and with managers and academics to promote access and inclusion of students with learning disabilities, and involving students with learning disabilities in every program and activity that deals with their inclusion at the educational institution⁴⁵.

CHALLENGES

At the same time, a number of challenges arise which make things difficult both for the student with a specific learning disability and for the academic institution in the phases of absorption and accompaniment. Dohen and Meltzer point to a number of dilemmas that affect the institutes of higher education that have to do with the question of accepting students with learning disabilities to courses of study who do not meet the regular standards of acceptance⁴⁶. They claim that the academic institutions want, on the one hand, to show openness to receive students with the potential to succeed in their studies even if they do not meet the formal admission requirements, and on the other hand, there are those who see this as damaging fairness in the conditions for acceptance. In addition, there is concern that a large amount of students with learning disabilities would impact the quality of teaching, that they would need additional explanations during the lecture, accommodations in instruction and in examination conditions, and more.

Vargan claims that adults with learning disabilities do not fully utilize the ability hidden within them, even when they achieve various accomplishments, since even these accomplishments are less than their true ability⁴⁷. According to him, this phenomenon is a result of the fact that adults with learning disabilities

⁴⁴ L. Kozminski, Speaking for Themselves: Self-Advocacy of Students with Learning Disabilities, Publications of the Mofet Foundation and Institute 2005.

⁴⁵ D. Roer-Strier, Empowerment of Students with Learning Disabilities, "Society and Wellbeing" 2003, 4, 455–474.

⁴⁶ A. Dohen, I. Meltzer, op. cit., 44–48.

⁴⁷ I. Vargan, Access to Post-High-School Education for Persons with Nonphysical Limitations. Report Presented to the Committee for Education, Culture, and Sport by the Knesset Center for Research and Information 2006.

struggle to adapt to their disabilities, experience difficulties with their social integration, and face unresolved mental and emotional conflicts.

The source of difficulties in the social and emotional areas is that the social disabilities are fundamental and originate in damaged processes of social cognition and difficulties in grasping and interpreting social situations. The second explanation relates to social, emotional, and behavioral functioning as the expression of a secondary problem that develops as a consequence of the principal problem – the learning disability itself⁴⁸.

In the area of emotions, one of the common complaints of adults with learning disabilities relates to the amount of emotional effort they are required to invest in concealing their disability and avoiding their difficulties⁴⁹, and they report high levels of depression and anxiety. It is also the case that adults diagnosed as dyslexic report high levels of emotional stress in general⁵⁰. The self-image of adults with learning disabilities is also lower than that of adults without disabilities. They tend not to believe in their abilities and to blame themselves for their failures⁵¹. In response to this, most support centers in higher-education institutions in Israel provide emotional support through a psychologist or psychotherapist who care primarily for everything to do with examination anxiety, pressure, and stress about studies.

SUMMARY

The purpose of this article was to describe the areas of difficulty for students with learning disabilities in the Israeli higher education system, to examine the factors that may help or hinder their success in their studies and to look forwards to the coming challenges in this field.

Over the past decade, the student population with learning disabilities facing higher education has grown. The change in the learner trend reflects the renowned importance of our generation for learning and its central role in social, economic and personal development. It is indicative of the awareness of Israeli society and of people with learning disabilities and their families for their special needs and

⁴⁸ D. Shani, Topics in Research into Learning Disabilities Among Adults – Diagnosis and Oversight. Doctoral thesis, University of Haifa 1999.

⁴⁹ W.J. White, *The Post-School Adjustment of Persons with Learning Disabilities: Current Status and Future Projections*, "Journal of Learning Disabilities" 1992, 25 (7), 448–456.

⁵⁰ A. Gajar, Adults with Learning Disabilities: Current and Future Research Priorities, [in:] J.R. Patton, E.A. Polloway (eds.), Learning Disabilities: The Challenges of Adulthood, PRO-ED, Austin, Texas 1996, 185–203.

⁵¹ D. Shani, op. cit.

rights and a reduction in prejudice about disability. This change has led to the opening of the discourse and the accumulation of information in Israel and the world regarding ways of handling and integrating students with learning disabilities in the academy⁵².

Treatment of students with learning disabilities in Israel began with the establishment of academic support centers. In 1995, the first Academic Learning Disabilities Support Center was established. Today there are support centers in about 27 higher education institutions and they cater to 17,500 students – up to 15% of all students in these educational institutions.

Following this, laws and regulations were enacted. Two important laws accompany the extensive activity in the academy: the Equal Rights for Persons with Disabilities Act (1988) and the Student Rights Act with Learning Disabilities in Secondary Institutions (2008). The law enacted in 2008 is intended for the student population with learning disabilities and is one of the main achievements of the "Leshem" Association, whose work has helped to anchor the law in the process of supporting adults with learning disabilities in higher education institutions and the models for supporting these people⁵³.

Another measure used to assist in overcoming learning disabilities includes a variety of tools from the category of technological aid or adjustment, especially by exploiting and emphasizing a student's areas of strength.

Finally among the most important paths to overcome learning disability, the promotion of "self-advocacy" is of great importance. Using such tools to increase awareness of both the student and his environment can assist in finding solutions and means to face the challenges which stand in his way to a better education.

Notwithstanding the aforementioned progress made thus far, it must be recognized that there are still many challenges that lie ahead both for students with disabilities and for the educational institutions which accommodate them, even when many of the problems are addressed. Such challenges may be external to the students in nature and include the treatment of their peers, or the needs of the educational systems themselves. Even greater challenges may be internal and include the emotional and mental distress that a student of disabilities may encounter, weather it is due to his own disability, or due to the differential treatment given to him.

In conclusion, while tremendous work is being done these days in reference to the promotion of students with disabilities, with a notable measure of success, many are the challenges that lie ahead to better the inclusion of all students in their pursuit of knowledge and education.

⁵² A. Dohen, I. Meltzer, op. cit., 44–48.

⁵³ A. Dohen, I. Meltzer, op. cit., 44–48.

BIBLIOGRAPHY

- Barga N.K., Students with Learning Disabilities in Education: Managing a Disability, "Journal of Learning Disabilities" 1996, 29 (4), 413–421.
- Beale A., Preparing Student with Learning Disabilities for Postsecondary Education: Their Rights and Responsibilities, "Techniques" 2005, 80, 24–27.
- Castles A., *The Dual Route Model and Developmental Dyslexias*, "London Review of Education" 2006, 4 (1), 49–61.
- Dahan A., Rusk S., Student Support Center with Learning-Community-Learning Disabilities, "Issues in Special Education and Rehabilitation" 2005, 85–92.
- Dohen A., Meltzer I., Dilemmas Arising in Academia and in Support Centers in General and Relating to Instruction of Students with Learning Disabilities in Particular, "Machon Mofet Journal" 2010, 42, 44–48.
- Finkelstein G., *The Leshem Foundation: Goals, Guiding Principles, Projects*, Leshem Foundation, Jerusalem 2002.
- Flower L.S., Hayes J.R., [in:] L.W. Gregg, E.R. Steinberg (eds), *Cognitive Processing in Writing*, Lawrence Erlbaum Associates publishers, New Jersey 1980.
- Fogel S.A., Students with Learning Disabilities in Higher-Education Institutions: Instructional Booklet, Leshem Foundation, Jerusalem 1998.
- Gajar A., Adults with Learning Disabilities: Current and Future Research Priorities, [in:] J.R. Patton, E.A. Polloway (eds.), Learning Disabilities: The Challenges of Adulthood, PRO-ED, Austin, Texas 1996, 185–203.
- Gerber P.J., Reiff H.B., Learning Disabilities in Adulthood: Persisting Problems and Evolving Issues, PRO-ED, Austin, TX 1994.
- Graham S., Scheartz S.S., & MacArthur C.A., *Knowledge of Writing and Composing Process. Attitude toward Writing, and Self-Efficacy for Student with and Without Learning Disabilities*, "Journal of Learning Disabilities" 1993, 26 (4), 237–249.
- Gregg N., Hoy C., Gay A.F. (eds.), *Adults with Learning Disabilities Theoretical and Practical Perspective*, The Guilford Press, 1996, 8–14.
- Hatcher J., Snowling G., Yvonne G.M., Cognitive Assessment of Dyslexic Student in Higher Education, "British Jornal of Educational Psychology" 2002, 72, 119–133.
- Henderson C., College Freshmen with Disabilities: A Biennial Statistical Profile, American Council on Education, Washington, DC 2001.
- Henick A., *Brain Research and Education. From Research into Preschool Education*, Israeli National Academy of Science, Jerusalem 2008, 31–37.
- Him-Jones A., Friedman I., *The Care of Learning-Disabled Students in Higher-Education Institu*tions. Report Submitted to the Center for Research and Information at the Knesset, Henrietta Szold Center, Israel, Jerusalem 2002.
- Hooper S.R., *The Language of Written Language*, "Journal of Learning Disabilities" 2002, 35 (1), 2–6.
- Hyman T., Social Adaptation of Pupils with Learning Disabilities, "Perspective" 2000, 16, 47–56.
 Hyman T., Fritzl K., Students with Learning Disabilities in Higher Education: Learning Strategies and Coping Mechanisms, "Topics in Special Education and Rehabilitation" 2003, 18 (1), 45–60.
- Ibn Tzur H., Student Support Center with Unique Needs, Ort Braude-Carmiel College of Engineering, "Issues in Special Education and Rehabilitation" 2006, 78–79.

- Inat A., Integration of Students with Learning Disabilities in Academia, [in:] A. Maor (ed.), Positive Discrimination and Ensuring of Representation in Israel, Ramot Publications, University of Tel Aviv, Tel Aviv 2005, 427-438.
- Kozminski L., Professional Announcements of the Leshem Foundation, Leshem Foundation, Jerusalem 1996.
- Kozminski L., Speaking for Themselves: Self-Advocacy of Students with Learning Disabilities, Publications of the Mofet Foundation and Institute 2005.
- Law for the Rights of Pupils with Learning Disabilities in Post-High-School Institutions, 2008.
- Lenz B., Ellis E.S., Scanlon D., Teaching Learning Strategies to Adolescents and Adult with Learning Disabilities, TX: Pro-Ed 1996.
- Maor A., Goals and Methods of the Policy of Positive Discrimination, [in:] A. Maor (ed.), Positive Discrimination and Ensuring of Representation in Israel, Ramot Publications, University of Tel Aviv, Tel Aviv 2004, 15–32.
- Margalit M., Tor Cespa C., Learning Disabilities: a Multidimensional Neurodevelopmental Model, [in:] T. Hyman (ed.), Learning Disabilities, Publication of the Open University, Anthology A,
- Margalit M., Breznitz T., Aharoni M., Examination of the Care of Students with Learning Disabilities in Institutes for Higher Education, The Council for Higher Education, Planning and Budgeting Committee, 1998.
- Meltzer I., Tzadok A., Dohen A., "Open a gate for us" Preparation of Students with Learning Disabilities in Their Final Year of Academic Study for the Workplace, "Machon Mofet Journal" 2010, 42, 38-43.
- Nicolson R.I., Developmental Dyslexia: Past, Present and Future, "Dyslexia" 1996, 2, 190–207.
- Parker D., Boutelle K., Executive Function Coaching for College Student with Learning Disabilities and ADHD, "Learning Disabilities: Research & Practice" 2009, 24 (4), 204–215.
- Perush S., Lebanon-Erez N., Weintraub N.S., Ergonomic Factors Affecting the Quality of the Manuscript, "Israeli Journal of Occupational Therapy" 1999, 8 (2), 7–57.
- Raskind M., Assistive Technology for Adults with Learning Disabilities: A Rationale for Use, [in:] P.J. Gerber, H.B. Reiff (eds.), Adults with Learning Disabilities, TX: PRO-ED, Austin 1994, 152–162.
- Raskind M.H., Higgins E.L., Assistive Technology for Postsecondary Students with Learning Disabilities: An Overview, "Journal of Learning Disabilities" 1998, 31, 27-40.
- Rath K.A., Royer J.M., The Nature and Effectiveness of learning Disability Services for College Students, "Educational Psychology Review" 2002, 14 (4), 353-381.
- Roer-Strier D., Empowerment of Students with Learning Disabilities, "Society and Wellbeing" 2003, 4, 455-474.
- Roffman A.J., Herzog J.E., Wershba-Gershon P.M., Helping Young Adults Understand their Learning Disabilities, "Journal of Learning Disabilities" 1994, 27 (7), 413–419.
- Rosenblum S., Frisch K., Dysgraphia Characteristics and Assessment Methods: Contribution of the Study to Clinical Thinking, "Israeli Journal of Occupational Therapy" 2008, 17 (3), 155–
- Schreiber B., Our Working Memory-Bodyguard, "Faces" 2013, 62, 71–77.
- Shani D., Topics in Research into Learning Disabilities Among Adults Diagnosis and Oversight. Doctoral thesis, University of Haifa 1999.
- Sharoni V., Vogel G., Attitudes of College Teaching Staff Regarding Disabled Students in General and Students with Learning Disabilities in Particular, Publications of Bet Berl College 1997.

- Tzadok-Levitan A., Bronzer R., *Adults with Learning Disabilities: Characteristics of Success in the Business World*, "Person and Work" 2004, vol. 13, 1–2, 44–60.
- Vargan I., Access to Higher Education High School for People with Non-Physical Limitations. Report Presented to the Committee for Education, Culture, and Sport by the Knesset's Center for Research and Information 2006.
- Vargan I., Access to Post-High-School Education for Persons with Nonphysical Limitations. Report Presented to the Committee for Education, Culture, and Sport by the Knesset Center for Research and Information 2006.
- Vargan I., Awareness in Diagnoses of Learning Disabilities in Post-High-School Institutions in Israel. Report presented to the Committee for Education, Culture, and Sport by the Knesset Center for Research and Information 2008.
- Vogel S.A., Vogel G., Sharoni V., Dahan O. (eds.), *Learning Disabilities in Higher Education and Beyond: International Perspectives*, York Press, Inc., Timonium, MD 2003.
- Vogel S.A., Leonard F., Scales W., Hayeslip P., Hermansen J., Donnells L., *The National Learning Disabilities Postsecondary Data Bank: An Overview*, "Journal of Learning Disabilities" 1998, 31 (3), 234–247.
- White W.J., *The Post-School Adjustment of Persons with Learning Disabilities: Current Status and Future Projections*, "Journal of Learning Disabilities" 1992, 25 (7), 448–456.
- Zimerman B.J., Dimensions of Academic Self-Regulation: A Conceptual Framework for Education, 1994, 3–21.

Author: Ronit Mandelblit

Title: Students with Specific Learning Disabilities in the Higher Education System in Israel: Suc-

cesses and Challenges

Keywords: specific learning disabilities, higher education system, support centers, university stu-

dents

Discipline: Pedagogy Language: English Document type: Article

Summary

Studies show the very high probability that a child with learning disabilities will grow up to be an adult with learning disabilities and will experience difficulties in his academic or professional studies and in the world of employment. Today, there is an increase in the number of students with learning disabilities in academic institutions in Israel and around the world, with the extent of students with learning disabilities in Israel being estimated at up to 15% of diagnosed students. The article discusses the problem that most studies address children and teens with learning disabilities, while knowledge about coping with students with learning disabilities in the higher education system is limited. Moreover, there seems to be no uniform policy on supporting these students. The article is addressed to policymakers and lawmakers in Israel's higher education system, with the aim of presenting current support and proposing changes and improvements intended for these students.