

Pre-Service Teachers with Learning Disabilities: Perceptions of Professional Training^{*}

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The study presented herewith examines the perceptions of pre-service teachers with learning disabilities (LD) of their professional identity. The sample included 31 pre-service teachers with LD in their first years of training for a Bachelor of Education (BEd) degree over one semester. Four main aspects of the teaching profession and teacher-education training were examined both at the beginning of the semester and again at the end of the semester: roles of teachers, various components of teacher-education, training agents, and the connectedness between classroom training and teaching practice. The results reveal unique perceptions and needs of pre-service teachers with LD as well as common perceptions of pre-service teachers during their training. The study calls attention to the needs of pre-service teachers with LD in terms of training and support during their post-secondary education.

Keywords: pre-service teachers, at risk students, perception of profession, teacher belief, identity, diversity

The number of students with Learning Disability (LD) in post-secondary educational settings has been steadily increasing. In fact, students with LD comprise the largest group of students with disabilities entering college. The percentage of freshmen with disabilities who self-identified as having a learning disability rose from 16% in 1988 to 40% in 2000 (Henderson, 2001). This increase is accordingly reflected in the rising number of pre-service teachers with LD, as approximately one-fourth of college students with LD are enrolled in teacher-education programs (Wyland, 1996). In Israel, in the first decade of the 21st century more students with learning disability are attending teachers' colleges than ever before (Him-Yunis & Friedman, 2002; Leyser, Vogel, Sharoni, & Vogel, 2003; Sharoni & Vogel, 2007).

As the number of post-secondary students with LD and Attention-Deficit Hyperactivity Disorder (ADHD) rises, it becomes increasingly important to thoughtfully consider the unique challenges this population faces during the course of their studies in higher education. These challenges often make learning by the same routes as their non-LD peers extremely difficult (Reaser, Prevatt, Petscher, & Proctor, 2007). Numerous studies attest to these challenges, many of which point to difficulties LD students face in the academic and social-emotional domains, as well as an increased need for academic accommodations in order to succeed (Gregg, Hoy, & Gay, 1996). For most students with LD, the academic, social, and emotional adjustment to higher education is both harder and more complicated than that of their non-LD peers.

Post-secondary students with LD struggle with their studies on a number of different areas. Because they face more numerous academic problems, they are far more likely to be placed on academic probation than are

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their non-LD peers. Additionally, they are less organized and more frequently lack basic learning skills. Beyond the struggle with their cognitive and metacognitive difficulties, these students must also deal with the stigma associated with LD, which alone may account for the inability to reach their full academic and social potential. This deep concern for how they are perceived by society and their peers often has a devastating effect. Indeed, studies have shown that the most important factor in a student's academic success is self-perception (Costello & Stone, 2012).

Students with LD also experience greater institutional challenges. For example, the transition from a nurturing, guiding, and supportive environment to one in which they are expected to fend for themselves can be complicated. Despite the fact that they are entitled to academic support and accommodations, these students are expected to develop the autonomy and self-advocacy skills required to navigate within their academic institutions, including selecting courses that are appropriate and will lead to academic success (Harrison, Areepattamannil, & Freeman, 2012).

In addition to these challenges, students with LD also experience higher levels of stress and anxiety compared to their peers without LD. In particular, they report high levels of anxiety, low self-esteem, and a large discrepancy between academic ability and achievement (Hoy et al., 1997). They also report greater difficulties in completing tasks, adapting to change and handling criticism (Mellard & Hazel, 1992).

The literature points to a connection between LD and emotional difficulties. For many, the LD is accompanied by feelings of anxiety and depression stemming from lack of success and a sense of incapability. Repeated failures lead to feelings of inferiority and frustration, which in turn lead to more failures (Waters, Cross, & Shaw, 2010). A recent meta-analysis finds higher levels of emotional disturbances among adults with LD. The emotional problems experienced by children and adolescents with LD continue into adulthood and often become more significant for a number of reasons. First, there are more stressors characterizing the more complicated lives of adults. Second, adults with LD are no longer surrounded by the supportive environments they experienced within the school framework. And finally, the cognitive and executive function difficulties related to LD are commonly associated with emotional disturbances. The combination of lagging academic skills, poor executive functioning, and a shortage of successful learning strategies has a serious impact on students with LD, both emotionally and academically (Klassen, Tze, & Hannok, 2013).

The personal identity described above entwines with the professional identity of pre-service teachers. The professional identity can be understood in a number of ways, but either ways, it plays a vital role in the lifespan of a teacher. Some have described it as "the perception that teachers have of themselves as teachers" (Cattley, 2007). Others see it as a dynamic process. Kerby (1991) defines professional identity as an ongoing process of interpretation and re-interpretation of experiences. Among the factors influencing the professional identity formation of pre-service teachers, one can distinguish biographical factors, the knowledge and learning environment provided in teacher education, and experiences in teaching practice.

The formation of professional identity among teachers is an ongoing process. There are even those who argue that its roots begin in childhood and continue through the teacher's own experiences as a student in school, later in teacher-education, and finally as a practicing teacher. Numerous elements coalesce in this process: basic knowledge and beliefs about teachers, about teaching, about educational programs, and about learning itself. Additionally, among teachers there is a close relationship between the professional and the personal (Nias, 1989), such that the self-image of a teacher plays a much more central role in his or her work life than is the case in other professions.

The professional development of a teacher is a process that involves the interactions among three dimensions: the personal, the professional, and the ecological. The personal dimension is rooted in how a teacher views him- or herself as a teacher; the professional dimension involves the skills and knowledge that are brought to bear in the work of teaching, including pedagogical content, teaching skills, and classroom management; and the ecological dimension refers to the process of socialization that a teacher undergoes, including learning about and acclimating to the school environment and handling the expectations of others. Professional growth and development occur as a result of changes in a single dimension that destabilize a teacher's professional equilibrium and thus spur changes in the other dimensions.

Some limited number of studies have examined the attitudes of pre-service teachers and teachers with LD (e.g., Burns & Bell, 2010; Duquette, 2000; Ferri, 2001; Ferri, Connor, Solis, Valle, & Volpitta, 2005; Griffiths, 2012; Morgan & Rooney, 1997; Riddick, 2003; Vogel & Sharoni, 2011). Ferri (2001) interviewed three teachers and found that the primary motivation for entering the teaching profession was the desire to provide pupils with the positive experiences that they themselves had been denied as youngsters. The teachers perceived themselves as effective teachers who understood the difficulties faced by their pupils. They had an ethos of caring and were committed to making certain that their students did not suffer from shame or from lowered expectations. The teachers viewed their own disabilities as a tool for reaching their pupils.

The particular challenges faced by pre-service teachers with LD as they grapple both with their LD and with forging a new professional identity remain under-examined. Better understanding of the experiences that this growing group of individuals may face, and the particular challenges during teacher-training and in their first years in the profession, has the potential to lead to significant improvements in teacher-education programs. This may lead to ripple effects, reaching and influencing throughout the educational system. Therefore, it is imperative that we continue building on the small body of research into pre-service teachers with LD that exists today.

The main purpose of the current study is to examine how pre-service teachers with LD perceive the teacher-training period, what components of training are significant for their teaching practice, and what, if any, changes in their perceptions of these components occur when attending a one semester adapted supportive course. More specifically, the study focuses on four professional identities and poses the following research questions:

(1) How do pre-service teachers with LD perceive the roles of teachers at the beginning and at the end of the semester?

(2) How do pre-service teachers with LD perceive the various components of teacher education at the beginning and at the end of the semester?

(3) How do pre-service teachers with LD perceive different agents of training at the beginning and at the end of the semester?

(4) How do pre-service teachers with LD perceive the connection between their courses and their experiences in the field at the beginning and at the end of the semester?

Method

Participants

The participants of this study were 31 college pre-service teachers who had been formally diagnosed with LD and/or ADHD and had registered to the disability support center of a Hebrew-speaking college in central

Israel. As an aggregate, students were diagnosed with difficulties in the following areas: language, attention, memory, writing, and organization of writing. All the participants provided a formal updated psychological diagnosis from the previous 5 years. The criteria for the diagnosis of LD include detailed measures of cognitive abilities and achievement abilities, corresponding to the definition of the National Joint Committee on Learning Disabilities. Most (79%) students were in their first or second year of post-secondary education, and the remaining 21% were in their third or fourth year of education working toward a BEd degree. Their ages ranged from 21 to 43. Among participants, 24% were under the age of 25, 42% were 25-26 years old, and the remaining participants were aged 27 and above. Most participants (92%) were native Hebrew speakers; the remaining participants were divided among native Arabic speakers and native Amharic speakers. Participants were being trained in the following four specializations: 60% in early childhood education, 28% in elementary school education, 8% in special education, and 3% in music education. These 31 participants comprise the total number of students who completed both a pre- and post-semester questionnaire.

Measures

Data were collected using a structured questionnaire (Ezer, Gilat, & Sagee, 2010). The questionnaire measures attitudes and perceptions of pre-service teachers in the following four aspects of the teaching profession and the training process:

(1) The roles of teachers: participants were asked to rank eight roles that teachers may fulfill in class according to their importance, from the most important to the least important.

(2) The components of teacher-education: participants were asked to rank seven components of the teacher-education program according to their contributions to the quality of their training.

(3) The agents of training: seven agents of training were presented to all participants, who were asked to rank them from the most to the least meaningful for teacher training.

(4) The connections between their studies in the classroom and their experiences in the field: participants were asked to rate 6 elements of their teacher-training regarding their contributions to experience in the field.

Procedure

Questionnaires were distributed and collected at the beginning of the semester. With permission from the course instructor, a research assistant entered the classroom and explained the purpose of the study. Students who agreed to participate received the questionnaires to return complete by the end of the class session. The procedure was repeated at the end of the semester, and students who agreed to participate received the same questionnaire and completed it. Participants remained anonymous, assuring them that all data would be used for research purposes only. The data collected through the questionnaires were statistically analyzed using SPSS software.

Setting: The Adapted Courses

Students at the college who have been diagnosed with LD and/or ADHD are invited to register with the office of students with disabilities, where they are assisted in applying for and receiving academic accommodations, including having tests read aloud to them, leniency regarding spelling errors, and permission to use an electronic dictionary. In addition, the college has developed a number of courses specifically designed for students with LD and/or ADHD to help in areas that often pose increased challenges to these students, namely language structure and English. These special courses are characterized by fewer students per class, more gradual teaching of course content, opportunities for practice, and closer personal contact with the

lecturer, though the course material itself meets all the same requirements as that of the general courses from which they are adapted. The courses, all of which were offered during the second semester, included academic literacy, applied linguistics, Hebrew phonological awareness and English.

Results

In the following section, we present the results of our research according to the four aspects of the teaching profession and teacher-training discussed above: the roles of teachers, the various components of teacher education, the agents of training, and the connection between training and practice. Data for each question were analyzed separately, using paired *t*-tests to compare pre- and post-course means.

The first research question examined how pre-service teachers with LD perceived the roles of teachers at the beginning and again at the end of the semester. The students were asked to rank a list of eight teacher roles from 1 (the most important) to 8 (the least important). Table 1 presents the pre- and post-course means and standard deviations of the rankings provided by the participants. In this section, a lower score indicates higher importance.

Table 1

Pre- and Post Term Means and Standard Deviation of Pre-Service Teachers' Perceptions of the Importance of Various Teacher Roles, Ranked 1 (Most Important) to 8 (Least Important)

Teacher role	Pre \bar{x}	Post \overline{x}
Delivering universal values (e.g., tolerance, respect, responsibility, commitment, democracy, etc.)	3.13	2.68
Demonstrating sensitivity to special needs	3.13	2.77
Teaching appropriate behavior and violence prevention	3.71	3.06
Developing pupils' unique personal abilities	3.87	2.97^{*}
Imparting knowledge	4.68	4.94
Leading social and educational change	4.74	4.19
Helping pupils attain academic achievement	4.90	4.23
Imparting patriotic, national values	5.13	5.03

Note. ${}^*p \le 0.05$.

As illustrated in Table 1, pre-service teachers with LD ranked two teacher roles as the most important, both at the beginning and at the end of the term: "delivering universal values" and "demonstrating sensitivity to special needs". At the beginning of the semester, participants ranked "teaching appropriate behavior and violence prevention" and "developing pupils' unique personal abilities" as the third and fourth most important, respectively. At the end of the semester, these two rankings switched positions. At the beginning of the term, the participants ranked "imparting knowledge" as the fifth most important role, followed by "leading social and educational change" as the sixth most important. At the end of the term, these two also switched positions, though the change was not statistically significant. The two roles ranked as the least important (seventh and eighth, respectively) at the beginning and again at the end of the term were "helping pupils attain academic achievement" and "imparting patriotic, national values". The only significant change from the beginning of the term to the end of the term was in the pre-service teachers' perceived rankings of the role "developing pupils' unique personal abilities", which was ranked fourth, on average, at the beginning of the term, and third at the end.

The second research question examined how pre-service teachers with LD perceived the contributions of various components of their teacher-education program, both at the beginning and again at the end of the

semester. Seven components of teacher education were presented to the participants, who were asked to rank each of them on a scale of 1 (least significant contributor) to 7 (most significant contributor). Table 2 presents the means and standard deviations of the participants' rankings.

Table 2

Pre- and Post-Term Means and Standard Deviations of Pre-Service Teachers' Perceptions of the Respective Contributions of the Various Components of Teacher-Training, Ranked 1 (Not Important) to 7 (Very Important)

Components of training	$Pre\bar{x}(SD)$	Postx(SD)
Teaching experience (practicum)	5.32 (1.01)	5.52 (0.89)
Adapted courses	5.32 (1.05)	5.42 (0.85)
Disciplinary studies	4.77 (1.14)	4.83 (1.08)
Academic literacy	4.48 (1.44)	4.58 (1.15)
Curriculum planning, didactic classes	4.43 (1.28)	4.53 (1.17)
Education studies (e.g., philosophy, psychology).	4.03 (1.65)	4.23 (1.50)
Information technology	3.52 (1.53)	3.52 (1.63)

Overall, as can been seen in Table 2, the average rankings of the perceived significance of various components of teacher-training provided by the pre-service teachers with LD show no significant changes from the beginning to the end of the semester. On both the pre-course and the post-course measures, the participants ranked "teaching experience (practicum)" and "adapted courses" the two most significant contributors, on average, at the beginning of the course ($\bar{x} = 5.32$) and at the end of the course ($\bar{x} = 5.52$). The second contributor to the training were the adopted courses (at beginning of the term $\bar{x} = 5.32$, and at the end of the course $\bar{x} = 5.42$). "Education studies" and "computer studies" were given the lowest two rankings on both the pre- and post-course measures.

The third research question examined how pre-service teachers with LD perceived the various agents of the teacher-training program, first at the beginning of the term and again at the end of the term, according to the significance of their contributions to the program experience. Participants were presented with a list of nine agents and were asked to rank each of them from 1 (least significant) to 6 (most significant). Table 3 presents the means and standard deviations of the participants' rankings at the two time periods.

Table 3

Pre- and Post-Term Means and Standard Deviations of Pre-Service Teachers' Perceptions of the Respective Contributions of Various Agents of the Teacher-Training Program, Ranked from 1 (Least Significant) to 6 (Most Significant)

Agent of training	$Pre\bar{x}(SD)$	$Post\overline{x}(SD)$
Instructor in the adapted language course	5.12 (0.94)	5.04 (1.15)
Mentor teacher	4.85 (1.47)	4.77 (1.28)
Instructors of core subject courses (English, Literacy)	4.41 (1.05)	4.17 (1.20)
Supervisors of the core disciplinary subjects	4.38 (1.21)	4.48 (1.30)
Didactic supervisors	4.21 (1.70)	4.69 (1.39)
Instructors of education theory courses (sociology, psychology, etc)	4.21 (1.24)	4.45 (1.46)
Subject-matter instructors	3.97 (1.12)	3.83 (1.24)
Student peers	3.90 (1.72)	4.69*(1.67)
Instructor in the adapted English as a foreign language course	3.88 (1.14)	4.16 (1.08)

Note. ${}^*p \le 0.05$.

As shown in Table 3, there was little change overall in the perceived significance of the various training agents from the beginning to the end of the term. The pre-service teachers with LD ranked the "instructor in the adapted language course" as the training agent with the most significant contribution to the teacher-training program experience, both at the beginning of the term and again at the end. In order to examine the differences between pre- and post-term of students with learning disabilities, we conducted Paired *t*-test. At the beginning of the course, the pre service students with LD rated the instructor in the adapted language course as the most significant agent of training ($\bar{x} = 5.12$). Participants ranked "mentor teacher" the second most significant agent of training, on both the pre- and post-course measures. The average rank received by "didactic supervisors" increased from the beginning to the end of the term, though not significantly. The only significant change in rank from the pre-course to the post-course measures was that of "student peers", ranking their contribution as more significant in the questionnaires distributed at the end of the course.

The fourth research question explored how pre-service teachers with LD perceived the connections between their theoretical learning in the classroom and their practical experiences in the field, both at the beginning and again at the end of the term. Participants were presented with six statements (for example, "I am helped in my teaching practice by what I learned in the academic literacy and writing course") and asked to rate the extent to which they agree with each statement, on a scale of 1 (strongly disagree) to 6 (strongly agree). Table 4 presents the means and standard deviations of the participants' ratings on each question at the two time periods.

As seen in Table 4, participants' responses to two of the six statements reflect a significant increase in their perception of the connectedness between classroom learning and practical experience over the course of the semester. The post-course average ratings for statement 2 ("I am helped in my teaching practice by what I learned in the academic literacy and writing course" ($t_{(df30)}$ =-2.348)) and statement 6 ("I feel that the instructors and pedagogical counselors are aware of my difficulties" ($t_{(df30)}$ =-2.244)) show significant increases over the respective pre-course averages for those items. While neither statement received the strongest rating of the six statements at the beginning of the semester, the significant increases in their ratings reflect changes in the pre-service teachers' perceptions of both the contribution of the adapted courses to their experiences and the sensitivity of their instructors and pedagogical counselors, as perceived by them.

Table 4

Pre- and Post-Term Means and Standard Deviations of Participants' Levels of Agreement with Statements Regarding the Connections Between Their Classroom Learning and Teaching Experience

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Statement	$Pre\bar{x}$ (SD)	Postx(SD)
1. I am helped in my teaching practice and other courses by what I learned in the language arts and mechanics of language courses.	3.68(1.35)	4.23 (1.26)
2. I am helped in my teaching practice by what I learned in the academic literacy and writing course.	3.10 (1.40)	3.71 (1.35)*
3. I am helped in my teaching practice by what I learned in the experiential learning course.	4.13 (1.46)	4.61 (1.36)
4. The English course will assist me throughout my academic experiences.	3.00 (1.53)	2.90 (1.64)
5. There is a connection between what I have learned in the program and my teaching experience in the field.	4.13 (1.15)	4.45 (1.06)
6. I feel that the instructors and pedagogical counselors are aware of my difficulties.	3.03 (1.38)	3.65* (1.50)

Note. ${}^{*}p \leq 0.05$.

In summary, the results indicate that the pre-service teachers with LD perceived two teacher roles as the most important ones: "delivering universal values" and "demonstrating sensitivity to special needs". They perceived two components of teacher-training as the most important: the practicum and the adapted courses. Finally, they viewed two agents of training as the most important: the instructor of the adapted course and the mentor teacher. These perceptions showed no significant changes over the course of the semester, i.e., the pre-service teachers continued to perceive both as important by the end of the term.

Discussion

Students with LD in post-secondary education may experience many difficulties and challenges. Within this general growing group of students with LD, pre-service teachers with LD are a unique subgroup of students, from an academic point of view (see Wertheim, Vogel, & Brulle, 1998) as well as in terms of emotional traits (May & Stone, 2010). The goal of the present study was to examine how pre-service teachers with LD perceive their professional training during their first years of Teacher College and whether perception will change during the course of the first term of their undergraduate studies.

The first research question addressed the way in which participants perceived the roles of teachers. The pre-service teachers with LD who participated in the current study pointed to the roles of "delivering universal values" and "demonstrating sensitivity to special needs" as the two most important ones. This result is partly consistent with the results of a prior study on pre-service teachers in their 4th year of study that indicated that the component perceived as most important to the teacher's role is "delivering universal values", followed by "educating toward appropriate behavior and prevention of violence", and "developing the pupils' unique personal abilities" (Ezer et al., 2010). While the pre-service teachers in both studies ranked "delivering universal values" the most important teacher role, those with LD ranked "demonstrating sensitivity to special needs" the second most important, a finding that clearly differentiates this group of participants from the study mentioned above, in which pre-service teachers consisted of all students enrolled in that specific year. This result of the current study is consistent with a previous study demonstrating that teachers with LD perceive their mission to be supporting diversity in schools by providing pupils with the positive experiences that they themselves had been denied as youngsters; these teachers perceived themselves as effective teachers who understood the difficulties faced by their students (Ferri, 2001).

The second research question is related to how pre-service teachers with LD perceived the various components of the teacher-education program (e.g., adapted courses, practicum, subject-matter courses) and their respective contributions to their training. Given a list of seven components, participants ranked "adapted courses" and "practicum" as the two most important components of their training. Responses reflect no significant change in perception from the beginning to the end of the term. It bears noting that the component that received the lowest average ranking was "information technologies"; however, this was also one of the components with the largest standard deviation, and it is not beyond the realm of possibility that the average ranking doesn't necessarily reflect participants' valuations but rather some other factor, such as technological skill level.

According to the results of the Ezer et al. (2010) study, 4th-year pre-service teachers ranked the practicum as one of the most important components of the training. This group also ranked education studies courses relatively low. These two preferences are very similar to those of the pre-service teachers with LD who participated in the current study. Notably, the pre-service teachers with LD gave a very high ranking to the

adapted courses, a program component not available to the participants in the prior study of 4th-year pre-service teachers. While it is impossible to draw a comparison on this particular issue, this finding lends support to the conclusion that the adapted courses for students with LD have a significant impact on their teacher-training. This is also consistent with a comparative study reporting the design of pre-service inclusive education courses and their effects on self-efficacy, seeking for differential effects of two approaches: one focusing on a field-based placement (in our study parallel to the practicum) and the other utilizing an adaptive course for facilitating inclusion principles (in our study in alliance with learning in adapted courses) (Lancaster & Bain, 2010). Results indicated significant gains in self-efficacy for both approaches, thereby emphasizing the importance of both the practicum and the adapted courses designs—as reflected in our study.

The third research question relates to how pre-service teachers with LD perceive the various agents of training and their respective contributions to the training experience. Participants gave the highest average rankings to the adapted course instructor and the mentor teacher, both at the beginning and again at the end of the term. In the Ezer et al.'s study (2010) cited above, participants also ranked the mentor teacher very highly (second highest, under "teacher of didactic course"), over subject course instructors and educational studies course instructors. The high ranking by the pre-service teachers with LD in the current study of the instructor of the adapted course exhibits the vital role the adapted courses play for students with LD. The instructor of the adapted course is in a unique position in that he or she must teach challenging content while simultaneously fostering the supportive elements of the adapted course, such as the small-group setting, the close instructor-student interaction, the hands-on learning, and the teaching of effective learning strategies. For example, the adapted language course is one of the special adapted courses provided to students with LD. Its small class size and specialized instruction provide pre-service teachers with LD a more effective learning environment for this mandatory course that is heavily loaded with Hebrew language concepts that can be particularly challenging for students with LD The results may suggest the importance of the adaptive setting and presentation of rigorous content in a supportive manner. This is emphasized in a meta-analysis of factors affecting students' self-efficacy in higher education: one of the findings indicate significant relation between an intervention program and students' self-efficacy (van Dinther, Dochy, & Segers, 2011); in our case-the adapted courses.

The other noteworthy finding from the third research question involves the significant increase in average ranking that the pre-service teachers with LD gave to student peers from their pre- to their post-term responses. Taken together with the high rank given to the instructor of the adapted course, this is an interesting finding in that it suggests that the supportive setting of the adapted courses provided more than just academic support—it provided social-emotional support from peers facing similar challenges. That the pre-service teachers ranked student peers significantly higher at the end of the term suggests that in addition to academic support, this social-emotional support is a meaningful element in the overall training experience (for example, see Ripski, LoCasale-Crouch, & Decker, 2011); apparently, this is particularly valuable for students with LD.

Implications

Teacher-education is a complex matter. Pre-service teachers with LD are a unique and growing group that is entering these programs. This study aimed to examine the perceptions of this training by pre-service teachers with LD before and after enrolling in the first year of their graduate studies, in order to shed light on the specific needs and experiences of this population. More and more students with different needs are entering post-secondary education; consequently, there is a need to study the special needs of different learners in order to facilitate their learning and assist them to fulfill themselves as adults within the society. Hence, this study calls for further and deeper examinations of different at risk populations in post-secondary education and for examination of potential support; specifically, we encourage studies of pre-service.

Another issue that should be taken into consideration is the findings indicating that the adapted courses provide not only a rich and supportive academic environment that students with LD value very highly, but also a vital social-emotional support network provided by student peers with similar challenges. The close interactions with the course instructors as well as the safe environment provided by the small-group peer network combine to foster a highly valuable training tool for these students and future teacher educators, as this growing population will also have growing influence on the education system altogether. In order to learn more about the perception of pre service students with LD, we recommend that future research is conducted with a larger sample size. In addition, were commend that control group be included in further studies with students with no disability. All in all, studies of pre-service teacher training from students with LD, as well as in-service professional development of teachers with LD may shed light on improving teacher training with regards to addressing diversity of teachers as well as students.

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