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The Effectiveness of Response to Intervention Model (RTI) in Diagnosing and Improving Mathematics among Primary School Students with Learning Disabilities

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Abstract

This study aimed to verify the effectiveness of a diagnostic therapeutic program based on the response to intervention model (RTI) in diagnosing and Improving Mathematics among primary school Students with learning disabilities. The study sample consisted of (22) students with mathematics learning disabilities from the fourth grade of primary school. To achieve the study goal, a program was prepared based on strategies and methods of responding to the intervention model in three stages, and measuring the effectiveness of the program in diagnosing and treating mathematics disabilities. The researcher prepared achievement tests for mathematics disabilities to apply them in the pre- and post-measurement of each stage of the response to the intervention model. The program was implemented for two months with three meetings per week, each lasting 50 minutes. The collected study data were analyzed and the study results the following: (1) The validity of the response to intervention model in identifying students with learning disabilities in mathematics, as 66% of students who were classified by the discrepancy criterion as having learning disabilities in mathematics, their academic level in mathematics improved to the level of their ordinary peers. (2) The effectiveness of the response to intervention model in diagnosing students with learning disabilities in mathematics. (3) The effectiveness of the diagnostic and therapeutic program in improving the level of mathematics achievement for the study sample. (4) The effectiveness of the

three stages of the program, specifically the first stage of the response to intervention model, as the improvement rate for the study sample reached (65.6%), and it was found that there was no deterioration in the sample after the follow-up stage, which means that this stage is largely effective, and the study recommended the use of response to intervention programs in diagnosing and treating students with learning disabilities.

Keywords: Response to intervention (RTI), mathematics learning disabilities, primary stage.

Introduction

The basic psychometric construct of SLD, unexpectedly low achievement (Hallahan et al., 2007; Kavale, 2005; Mastropieri & Scruggs, 2005) is a characteristic that is relative in nature and, therefore, cannot be extracted by an absolute one-dimensional indicator such as level of academic achievement alone (El-Adl, Adel Muhammad, 2011b).. In the same way that an absolute low level of academic achievement can be attributed to a relatively low level of general intelligence rather than a learning disability, a score in the intermediate range cannot be judged as an automatic exclusion of SLD. Although quality control data on the basis of SLD referrals is not typically maintained over time, it is reasonable to assume that within the discrepancy model of SLD determination.

Although the origin of the discussions on the scope and definition of the concept of specific learning disability dates back to the 1930s (İlker & Melekoğlu, 2017), it is defined as the difficulties that arise in the process of acquiring and applying speaking, listening, reading-writing, reasoning and basic mathematical skills (Kirk, 1963; Şimşek, 2012). Individuals with specific learning disabilities may experience

difficulties in various skills such as mathematical operations, reading, writing, psycho-motor skills, recognizing and combining words, and reading comprehension (Altun et al., 2011). Specific learning disabilities are generally handled under four categories: reading difficulties (dyslexia), mathematics learning difficulties (dyscalculia), written expression difficulties (dysgraphia) and learning disorders that cannot be named (Köroğlu, 2008).

Mathematics Learning Disability (Dyscalculia) When the literature on mathematics learning disability is examined, it is seen that researchers use different expressions such as mathematical disabilities, Mathematics learning disabilities (Koontz, 1996), mathematics learning disorder or dyscalculia (Morsanyi et al., 2018), and disorder specific to Mathematics skills. Mathematics learning disorder is defined as a deficiency or disorder in various skills such as understanding and seeing numerical and spatial relationships, inadequacy in acquiring mathematical knowledge and skills, understanding mathematical relationships, recognizing and writing symbols, number concept, counting principles and learning Mathematics (Beacham & Trott, 2005; Mutlu, 2016). Köroğlu (2008) states that individuals with learning disabilities in mathematics have difficulties in many areas such as careless, slow and incorrect calculations, difficulty in understanding terms, number symbols and magnitudes, visual perception, time perception, sequencing events and problem steps, recognizing and drawing geometric shapes, understanding fractions, daily life, money and calculations (Reschly,2005).. These children have many common characteristics and common difficulties with other children who have the same problems as them. These common characteristics and difficulties may not be observed at the same rate in all

individuals with math learning disabilities (Reschl, & Hosp, 2021).

Difficulty in understanding numbers: Difficulties in distinguishing the signs of numbers, miscalculation, difficulty in four operation skills/ slow solving, difficulty in understanding and solving problems, difficulty in time perception, difficulty in strategy making skills, difficulty in distinguishing the direction of operations, difficulty in learning fractions.

Difficulty in ordering numbers: Using fingers while doing operations, having difficulty in ordering or comparing numbers (big/small), having difficulty in determining the solution steps of problems, having difficulty in calculating change. (Kizilelma, Bağdat& Taştepe, 2023).

Difficulty in understanding symbols: Deficits in orientation skills, deficits in visual perception (difficulty in recognizing and drawing simple geometric shapes), confusion caused by symbols. In the literature, there are both national and international studies aiming to determine the level of knowledge of classroom teachers and mathematics teachers about students with dyscalculia and their needs regarding dyscalculia (Saravanabhavan & Saravanabhavan, 2010; Sezer & Akın, 2011; Şimşek & Arslan, 2022; Wadlington & Wadlington, 2006; Wadlington et al., 2006). However, it can be said that there are very few studies on dyscalculia, especially in the national context, and more studies and in-depth information are needed (Baldemir & Tutak, 2022; Sezer & Akın, 2011). Children with mathematics learning disabilities begin to be diagnosed especially in the first years of primary school. At this point, classroom teachers working in primary schools play a vital role in dyscalculia (Başar &

Göncü, 2018). In this context, this study is thought to fill an important gap in the literature.

The response to intervention model came as one of the most prominent models that address the weaknesses in the process of diagnosing and treating learning disabilities. This model constitutes a general framework for diagnosing students with learning difficulties, assessing their achievement and determining the extent of their deviation from the average achievement of their peers. It presents the serial therapeutic intervention according to specific stages based on the capabilities and needs of the students and also determines the educational services they need (Al-Ansari, 2009).

RTI Tiers

Although the majority of RTI models use three levels (Berkeley et al., 2009; Hoover and Patton, 2008), on four levels Models have also been suggested (as will be noted below). Each level involves providing instruction that has been validated through research determine the score for each student response based on assessment measures that will be made described in the next section (El-Adl, Adel Muhammad, 2016). Three layers common to all RTI models. Level 1, which is often referred to as "preventive" (Berkeley et al., 2009) or the “universal core program” (Council for Exceptional Children [CEC], 2008).

Whole group instruction is usually given at the primary level grades. Within this level, the examination is conducted at the class level to target underperforming students academically skill, especially mathematics. Those who perform above specified the standard is judged "responsive" (R), not educational adjustments are made on their behalf. Students those who fall below the standard are considered

"non-responsive" (NR) and need more focus and integration instructions provided at the next level. Level 2 allows students who were NR in the previous class with additions instructions via standard treatment protocol methodologies Designed to acquire new skills and problem-solving (eg, individually tailored instructional modifications and/or accommodations), or the most common approach, a combination each (Berkeley et al., 2009).

Four-tier model Richley (2005) suggested dividing the second layer into two parts intervention levels, starting with small groups of three For six students and moving on to more intense singles Teaching in public education halls (Al-Zayat M, 2006). Students who continue to NR at Level 2 proceed to Level 3, which includes more intervention and intensive stay. It is estimated to represent less than 5 percent of the total number of students (Berkeley et al., 2009).

There is a wide range of professional opinions regarding the relationship between this level and special education. For example, some consider the final RTI layer (be it iii or iv) to represent a special initiation Education Services (Fox and Fuchs, 2007; Richley, 2005), others suggest that the final layer "...may or may not be." comparable to traditional private education services" (Bradley et al., 2007, p. 9) and still others assert that special education should remain completely independent of RTI (CEC, 2008; Cavalli et al., 2008). Berkeley et al. (2009) national survey found that in actual practice, "...private Education is seen as a separate process that takes place After exhausting RTI's interventions" (p. 91) and that most states recommend formal referral to special education comprehensive evaluation required will not be It is carried out until the student continues in NR after the final level interventions (Vaughn et al, 2003)..

Evaluation within RTI

The appropriate role of RTI assessment in determining SLD eligibility is widely debated. While there is support for delaying formal referral for special education until NR status persists after the final level (Bradley et al., 2007), there is also concern that waiting for validation of continued low performance will unnecessarily lengthen the identification process (CEC, 2008). Of particular importance to RTI's ability to identify students with coexisting giftedness and SLD (G/LD), some RTI advocates contend that determining student performance against R and NR would render intelligence testing unnecessary in establishing an SLD (Bradley et al., 2005). Corresponding with this view are the perceptions that "...if corrective adjustment in general education cannot produce growth for the individual, then the student suffers from some intrinsic disability (i.e. a handicap)... (Vaughn & Fuchs, 2003, p. 138) The determination of R status indicates that a student may reasonably be judged not to have a disability (Fuchs et al., 2004).Given such sentiments and the potential for RTI to serve as a primary (and perhaps only) channel through which the presence or absence of an SLD is derived from In the case of a student's NR or R, the feasibility of the measures used should be scrutinized (Sheldon, 2005).

LD and RTI

As described earlier in this article, RTI rubrics assign students an R or an NR based on whether or not they have reached a level of performance against a predetermined standard (Fuchs L, Fuchs D, 2005). The standard may be a specific criterion (for example, mathematics) or a standardized score on a standardized reference test (for example, 90). Those students who fail to meet the criterion are considered NR and moved on to the next, more intensive level of intervention.

Although there are differing judgments as to whether and when referral for full special education evaluation of NR students occurs and, in fact, whether special education services occur beyond or within the final RTI level, the fact that IDEA states that data derived from RTI's rather than demonstrating a discrepancy between intelligence and achievement logically suggests that assessment of intelligence may not be necessary, a position supported by many RTI proponents (eg, Bradley et al., 2005). Failure to establish General Intelligence

However, within the student psychometric profile increases the likelihood of false negative results among LD students. A hypothetical but plausible scenario demonstrates how this student could be incorrectly judged to be R and thus not referred for full evaluation or progression to a more intensive intervention at the next RTI level.

Although the following example may reasonably extend to any RTI score, stratification, or criterion (i.e., the criterion or standard score on a test, subtest, or double contrast), for purposes of simplicity and common application, imagine an early score a class of students whose skills are being assessed in mathematics. There is a full range of cognitive abilities within the classroom for students, although no intelligence tests are conducted and, therefore, there are no known IQ scores. A student's standard score on the mathematics scale is 97 and therefore easily meets the above-mentioned R-standard of 90 or higher adopted by the school (or district). If this student is assessed for intelligence. Under the discrepancy model, this student's profile clearly displays a moderate-to-severe discrepancy due to a difference of two standard deviations between intelligence and mathematics ability, she would be suitably fit determined to be gifted, and in Await results of additional evaluation to determine intra-individual

differences in ability, SLD. In such circumstances, such a student would best be judged eligible for dual services. However, without a documented IQ score, this student will be determined to be an R when in fact she is an NR, and will still be at the same level as RTI, and will not qualify for either category.

The example above illustrates the identification dilemmas RTI will create for LD students because of their typically mediocre academic performance. As Morrison and Rizza (2007) note, "Achievement average may not be a problem for most students, but for those who have the potential to achieve much higher scores, the problem should be evident" (p. 60). The absence of knowledge of interpersonal differences produced by the full assessment, including intelligence testing, and the use of an absolute criterion for defining low achievement within RTI, will fail to identify low achieving for LD students.

Study questions

The present study addresses the following questions**,**

1- What is the effectiveness of the response to intervention model in diagnosing students with mathematics learning disabilities?

2- What is the effectiveness of the response to intervention model in improving the academic performance of students with mathematics learning disabilities?

Purpose of the study

This study aims to investigate the effect of a response to intervention model on diagnostic and development academic achievement among fifth grade students with mathematics learning disabilities. By gaining a better understanding of this process, teachers can apply the findings to create safe, stress-

free classrooms that will engage the minds of students, improving their mathematics achievement.

Importance of the study

(1) Presenting the response to intervention model as an alternative to the standard divergence between mental ability, and academic achievement, as a tool for diagnosing and assessing learning disabilities.

(2) Providing special education field with a structured program for diagnosing and treating mathematics learning disabilities based on frequent measurement and accurate data and providing therapeutic methods and services that are appropriate to the capabilities and needs of students according to their progress as a strategy for early intervention to save their time and effort.

Method

Research method: Quasi-experimental research method are used, quasi-experimental research is research that resembles experimental research but is not true experimental research. Although the independent variable is manipulated, participants are not randomly assigned to conditions or orders of conditions because the independent variable is manipulated before the dependent variable is measured, quasi-experimental research eliminates the directionality problem.

Participants:

The sample was selected from students in the fourth grade in basic education. The participants in this study were 22 students with mathematics learning disabilities, the students' ages in both groups ranged from 9 to 10 years.

Data Collection tools:

1- *The Raven's Colored Progressive Matrices Test*. The Raven's CPM is internationally recognized as a culture -fair or culture reduced test of non- verbal intelligence. This easily administered, multiple - choice pencil and paper test has no time limit, and comprises three sets of twelve matrix designs arranged to "assess mental development up to a stage when a person is sufficiently able to reason by analogy to adopt this way of thinking as a consistent method of inference" (Raven et al., 1993). The testee is shown a series of patterns with parts missing. The parts removed are of simple shape and have been placed below the matrix. The testee can either point to the pattern piece s/he has selected or write its corresponding number on the record form (Lezak, 1995). The total score is the total number of matrices completed correctly, and the test is thus scored out of 36. The retest reliability of the Raven's CPM was revealed to be .90. The degree of correlation between the Raven's CPM and the WISC revealed correlations of 0.91.

2- Academic Achievement Tests: Results of achievement tests prepared at different intervals with the application of intervention sessions for participants in mathematics, and provide summative evaluation scores for analysis. Hence, mathematics scores serve as measures of student achievement, and these tests are reviewed by mathematics course teaching experts to verify their usability. The learning achievement tests consists of 25 multiple choice question items. The test development indicates an appropriate level of validity (IOC = 0.6-9.0), difficulty (p = 0.58-0.78), and discrimination (r = 0.46- 0.88) of the question items. The test reliability was (0.75-0.77). Students' scores were evaluated considering originality, flexibility, and fluency of thinking.

Procedures

Pre-intervention test: All students in fourth grade completed the Raven colored progressive matrices test, which assesses students' intelligence. Achievement test, which assesses students' academic achievement tests. Then, identifying gifted students who suffer from disabilities in learning mathematics, the researcher then continued by presenting the proposed intervention response model to mathematics teachers. The results of the end-of-semester examination for achievement in mathematics were presented. and corrected by teachers, providing summative assessment scores for analysis.

Results

Results related to the first question states, in the first stage, general teaching strategies in mathematics were presented using appropriate exercises and activities. Students' progress and the extent to which it achieves goals is monitored by creating a file for each student. The intervention here was through general education and in the regular class.

In the second stage, teaching strategies were presented based on the special needs of each student, educational activities were intensified, and teaching methods were modified or changed according to the student's needs. The intervention here was a subsidy for public education, not a compensation for it; Students stayed in their classes and were given intensive strategies. There was a variety of teaching methods and assignment of tasks to home and enrichment activities.

In the third stage, the intervention was presented to the students who failed in the second level. They have been referred to learning disability resource rooms because they

may have learning difficulties in mathematics. An individualized education program is designed for them based on their weaknesses, as in the following table:

Table 1. The numbers of students enrolled in each stage of the response to intervention model, according to their improved performance

Overall number	The number of students who pass the first level of the response to intervention model	The number of students who pass the second level of the response to intervention model	The number of students who pass the third level of the response to intervention model
30	9	10	3

Table 1, clear that the number of people diagnosed with learning disabilities decreased from one stage to another, which means the efficiency of the response to the intervention in diagnosing people with learning disabilities.

Results related to the second question states, to answer this question, the researcher applied the achievement test in mathematics to the study sample of 30 students before and after each stage of the study. Response to the intervention model; Then the test was corrected.

Table 2 shows that the study sample responds to the intervention response model in all its stages. The general and various teaching methods and strategies were applied to all 30 students in the study sample in their regular classes and with their colleagues. 11 students passed the stage. The first respondents were students whose scores in the post-test achievement test were (26) or more.

Table 2. Mathematics averages and standard deviations for the post achievement for each stage 1 of the response to intervention model

N	The first stage of the response to intervention model					
	Pretest		Posttest		t	sig
30	Mean	SD	Mean	SD	9.27	0.01
	10.81	2.52	13.17	2.16		

Table 3. Mathematics averages and standard deviations for the post achievement for each stage 2 of the response to intervention model

N	The second stage of the response to intervention model					
	Pretest		Posttest		t	sig
19	Mean	SD	Mean	SD	7.79	0.01
	9.97	1.78	12.76	2.08		

Table 4. Mathematics averages and standard deviations for the post achievement for each stage 3 of the response to intervention model

N	The Third stage of the response to intervention model					
	Pretest		Posttest		t	sig
5	Mean	SD	Mean	SD	5.83	0.01
	9.06	1.97	12.53	2.35		

Tables 2, 3, and 4 appears that the study sample responds to the intervention response model at all stages. The general and various teaching methods and strategies were applied to all 22 students in the study sample in their regular classes and with their colleagues. Nine students succeeded in passing the first intervention stage. They are the students whose scores in

the post-test of the achievement test were (13) or more. This means that the general methods and strategies presented in the first level of the intervention led to an improvement in the students' performance and thus their withdrawal from the program because they do not have learning difficulties. As for the remaining number, which is (10) students, they moved to the second stage of the intervention response model, which includes providing intensive strategies and individual and group teaching. Then the post-test was applied to them, and it appears that (10) students succeeded in the post-test. Consequently, they withdraw from the program because they do not have learning difficulties. The remaining 3 students underwent the third level of response to the services and strategies of the intervention model; they were referred to the resource room because they may have learning disabilities to receive special education services.

Discussion

The controversy surrounding the possible abandonment of ambivalence in favor of RTI to serve as an initial step in identifying students with SLD, including those who are LD is symptomatic of the failure of professionals and organizations to resolve the long-standing gap between constructive SLD, its formal definition, and the measures used to measure his existence. At the heart of this gap lies the conceptual basis of SLD, psychotherapeutic deficits,

Which reflects and generates the difference within the individual in perception and thus academic performance. More than 30 years ago, Torgesen (1979) posed the question in the title of his article: “What should we do with psychological processes?” (p. 514) in response to mounting research pointing to technical weaknesses (i.e., reliability and validity) in tools commonly used to measure processing

deficits. In the years since Torgesen advocated keeping the concept of psychological processes within the definition and identification of SLD, many specialists have expressed similar views (eg, Kavale, 1995; Kavale & Forness, 2000; Ofish, 2006). However, many of these professionals have also recognized that the concept of SLD has become so generalized that it is virtually lost (Kavale et al., 2009; Ofish, 2006). This is readily exemplified by the debate on "RTI versus discrepancy" as a measure of potential SLD and thus G/LD eligibility. For all purposes, it is a failure in this field to develop and legitimize the measure

Psychological processes have produced a kind of defining and diagnostic inertia. The challenges to contradiction-based measurement by many ATI advocates are a corollary and predictable consequence of a definition that contains a concept - psychological processes - that lack specific pathways towards their measurement. Thus, although the discrepancy was never intended to be the central process of SLD determination, it has become, in a way, psychometrically and a constant target of criticism.

Unless professionals make continuous efforts to improve compatibility between the definition of an SLD and the operational standards used, the field will remain besieged and distracted by the challenges of secondary eligibility metric and inconsistency. Although the definition has not been substantially modified despite several decades of discussion (Kavale et al., 2009), professionals should not conclude that such an outcome is not achievable.

Instead, professional collaboration should be directed towards incorporating into the definition and operational standards more recent theories and insights into psychological processes (Kavale, 1995; Kavale et al., 2006). However, at

present, issues surrounding both discrepancy and RTI persist for LD students and their teachers, whether in discussion, practice, or both. (Bryant et al., 2008)

Cavalli et al. (2006) that concerns about false negative decisions of LD students are irrelevant, and provide an excellent platform for examining the quandary of identifying these students within RTI. These authors correctly note that without actually knowing each student's IQ score, which would require an impractical and unrealistic process of administering class-wide IQ tests, the average performance of LD students would, in all likelihood, preclude a conclusion. Referral is made for full assessment by teachers, in either the RTI or the discrepancy-based eligibility model. And therein lies the point.

In either model, teachers must, to some extent, refer these students despite what their job performance in the classroom and test results might suggest. As more measures are designed and implemented to indicate increased aspects of educational accountability based on student performance, there is an increasing risk that teachers will be reduced or that teachers will conclude that they are.

Insightful teachers have always been, and should remain, channels of advocacy on behalf of students with exceptions, particularly when such conditions are not readily demonstrated through performance on measures administered within the curriculum and/or through mandatory district-level examinations. A satisfactory assessment of LD within RTI frameworks requires several interrelated factors, namely: (i) awareness among public and private teachers, administrators, and teacher educators of the unique characteristics of this group of students; (ii) a similar awareness of the limitations

inherent in RTI for identifying such students; and (3) a procedural option to refer students for a full assessment, including an intelligence test, at any time.

As part of the full assessment process, diagnosticians must not only focus on inconsistency, but also examine the full range of data and classroom performance for signs of psychotherapeutic deficits. Although the ability to provide a complete measure of such deficits is limited, there are significant differences between individuals within measures of cognitive ability (e.g., significant sub differences and/or composite differences within the WISC-IV test), and mathematics (e.g., Differences in comprehension that differ according to mathematics) serve as useful diagnostic starting points. The inclusive evaluation also requires that the evaluation staff adhere to the mutual exclusivity of SLD and other primary disabilities or conditions. For example, in the case of underachieving gifted students, this forces consideration of alternative explanations for underachievement, including but not limited to emotional/behavioral disturbances (e.g. depression and anxiety), mild disorders such as autism spectrum disorders such as Asperger's syndrome, and others.

The fact is to keep this option and inform teachers, administrators and parents. By providing them with the knowledge that RTI has not caused the extinction of such traditional assessments, educators can thus enable RTI assessment schemes and those that rely on contrasts not only to coexist, but also to complement each other, thus enhancing the education of students who are LD.

Because of the essential role they play in initiating student referral for full assessment, educators' understanding of the

complex and often different characteristics of students with cognitive giftedness and learning difficulties is vital. This awareness will be enhanced by an increased focus in teacher preparation courses (Karnes et al., 2004), coordinated efforts by state departments to continue the education of existing teachers (Bianco, 2005), and the collection and dissemination of data on LD students by country (Karneset al.). Educators must combine this awareness with an understanding of the diagnostic limitations inherent in measuring RTI (ie, R and NR) as far as LD students are concerned.

This means that in addition to raising the risk of false negatives (as discussed earlier), RTI's almost exclusive focus is on early literacy skills (Johnson et al., 2005; Kavale, 2005; Mellard, Byrd, Johnson, Tollefson, & Boesche, 2022) may desensitize teachers to having advanced learning skills in mathematics and written language. There is also a risk that teachers become dependent on them, consciously or unconsciously

The RTI score is determined to be the determining factor in a student's perception that they have a mathematics -specific SLD. Prospective LD students will be well served by those teachers who look beyond the achievable R designation.

For example, many of these students may be performing within the curriculum in a way that reflects above-average to superior mathematical skill, although the R in reading is perhaps only marginally so. In essence, responding teachers will be observant of the curricular-based manifestations of different forms of intrapersonal difference that are characteristic of students with SLD in general, but in particular those with LD.

Increased awareness of LD students and RTI's inadequacy of recognition are necessary, but not sufficient conditions for increasing the likelihood that these students will receive an education appropriately tailored to their dual exclusions. The absolute nature of the low achievement scores designed to distinguish between NR and R should not be used in RTI to define the relative low-achievement that characterizes SLD, and in particular among LD students. With this in mind, teachers who suspect a student may be LD should not automatically question their judgment simply because a student is determined to be an R on a class-wide test. As recommended by Morrison and Rizza (2007), CEC (2008), the American Association for Learning Disabilities (2006), and the Joint National Committee on Learning Disabilities (2005), educators should have the opportunity, and already understand the obligation, to begin referring a student for a comprehensive psychometric assessment At any time.

Recommendations

This forces school districts to maintain this option and inform teachers, administrators, and parents of this. By providing them with the knowledge that RTI has not caused the extinction of such traditional assessments, educators can thus enable RTI assessment schemes and those that rely on contrasts not only to coexist, but also to complement each other, thus enhancing the education of students who are LD. Based on the findings obtained from the research, the following suggestions can be made;

1 - Courses related to special learning disabilities and dyscalculia, one of its subclasses, should be given in undergraduate education. It is thought that the number of students with dyscalculia is too high to be ignored.

2- In-service trainings can be given to classroom teachers to increase their awareness about specific learning disabilities

and math learning disabilities and to improve their professional knowledge.

3- Trainings can be given to families about special learning disabilities and dyscalculia in order to ensure school, family and teacher cooperation

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