

## Review of Studies on Specific Learning Disabilities in Turkey

Bora GÖRGÜN\*

Macid Ayhan MELEKOĞLU\*\*

**Abstract.** The purpose of this study is to review scientific articles, master thesis, thesis of specialization in Medicine and dissertations on specific learning disabilities which were published between 1972 and 2017 in Turkey. For this study, ERIC, EBSCO, Council of Higher Education Thesis Center and Google Scholar databases were searched by using specific learning disabilities, learning disabilities, learning disorder, math difficulties, reading difficulties, writing difficulties, writing disorder, math disorder, reading disorder, dyslexia, dysgraphia and dyscalculia keywords and 189 studies met the inclusion criteria of this study were examined. The results show that the number of studies in this field has increased steadily especially in the last 10 years. It has been observed that studies have been carried out in a wide range of fields from mathematics to art and design science in 31 different subjects. Results of this study indicates that scientific research needs to be increased, especially in interdisciplinary studies, for the development of the literature on specific learning disabilities in Turkey. In this context, there is also a need for more scientific studies on specific learning disabilities in the field of special education.

**Keywords:** Specific learning disabilities, reading disability, math disability, writing disability, dyslexia.

---

\* Orcid ID: <https://orcid.org/0000-0002-9080-5667>, Assist. Prof. Dr., İzmir Demokrasi University, Department of Special Education, [bboorraagorgun@gmail.com](mailto:bboorraagorgun@gmail.com)

\*\* Orcid ID: <https://orcid.org/0000-0002-9933-5331>, Assoc. Prof. Dr., Eskişehir Osmangazi University, Department of Special Education, [macidayhan@gmail.com](mailto:macidayhan@gmail.com)

## 1. INTRODUCTION

Nowadays, specific learning disabilities (SLD) is used as a term that includes a group of heterogeneous disorders characterized by delay or distortion in listening, speaking, basic reading, comprehension, arithmetic calculation, understanding mathematical logic and the acquisition and use of written expression skills (Asfuroğlu and Fidan, 2016). Symptoms of SLD are listed; although necessary attempts, difficulty in comprehension, difficulty in spelling and writing, difficulty in written expression, difficulty in number perception and calculation in Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association in 2014. In the diagnosis of individuals with SLD, it is emphasized that (a) school skills are significantly and measurably below chronological age of individual, (b) influence of daily skills in school or work, (c) this situation should not be explained by intellectual disabilities, other psychological and neurological disorders, not knowing the language in school, intellectual and social difficulties, and insufficiency of educational guidelines. There are three types of SLD. These are listed as reading difficulties (dyslexia), difficulties in written expression skills and difficulties in mathematics (dyscalculia; sAmerican Psychiatric Association, 2014).

SLD considered in the group of commonly observed disabilities in the special education field are seen in 39.2% of all students with special needs in the 6-21 age groups and constitute the largest special education category in the United States (US; U.S. Department of Education, 2016). In Turkey, due to deficiencies in diagnostic processes and lack of appropriate educational opportunities, the number of students who have been officially diagnosed is around 3% of all special education students (Melekoğlu, 2017). However, in recent years in Turkey, non-governmental organizations (eg. Dyslexia Learning Difficulty Association Dyslexia Foundation of Turkey) and scientific studies (<http://akademik.yok.gov.tr>) have been increasing in the field of dyslexia and SLD. In Turkey, SLD is a category of inadequacies mentioned frequently in recent years, but the recognition of SLD by experts' dates back to a century ago.

The literature indicates that the roots of the research for SLD have been traced back to the 1800's. In 1802, Franz Joseph Gall first observed that soldiers who had a concussion also had a speech disorders and believed that there was a relationship between brain tremor and speech disorder. Although Gall's studies focused on mental health and brain, significant findings have also shown its impact on the field of SLD. The term of dyslexia was first used by German scientist Rudolf Berlin in 1887. The term dyslexia refer to extreme difficulty in explication of printed and written symbols. In the US in 1905, a report was written by a medical doctor named W. E. Bruner on SLD. In 1925, Samuel T. Orton stated that other causes except brain damage may cause difficulty in reading and writing. Orton claims that individuals with text blindness have difficulty putting written symbols into verbal language (Hallahan and Mercer, 2001).

The definition of SLD has undergone various changes over the years. The most important developments related to SLD have been in the 1960s. In the early 1960's, SLD

definition emerged as a result of pioneering studies by William Cruickshank in the Syracuse University. The education of people with disabilities office chaired by Samuel Kirk formally approved the SLD term in 1968 (Culatta, Tompkins and Werts, 2003). However, many important developments in the area of SLD have emerged in the early of 1990s. In this period, it was started to investigate the functioning of the brain by using the functional magnetic resonance imagining (fMRI) technique. With this technique, different parts of the brain of individuals with dyslexia have been studied by the scientists. As a result of screening, the causes of SLD are explained by the damage to brain functions (Melekoğlu, 2017).

### **Research on Specific Learning Disabilities in Turkey**

In Turkey, there are studies in different disciplines (eg. education, psychology, medicine) about SLD. In this context, participants identified as specific learning disabilities, specific learning difficulties, and/or learning disorders in research conducted since 1972. There is a study conducted in Turkey for the analysis of special education articles published in Turkish journals which indexed in Social Sciences Citation Index (SSCI; Güner-Yıldız, Melekoğlu & Paftalı, 2016). In this paper, 113 articles on special education were identified. When the keywords of these articles were investigated, it was found that there were no keywords in 30 articles in total between 1980 and 1999. There are a total 316 keywords in 83 articles. It is stated that 2.53% of the keywords used are learning difficulties. This ratio corresponds to approximately two articles. This case gives an idea about the state of research on learning disabilities in Turkey.

It can be assumed that there is a large number of researches on reading ability according to research for SLD. The reason for this situation is that in a significant part of the scientific studies carried out to evaluate and improve reading skills, participants are not diagnosed with SLD, but they were having difficulty in reading (Akyol & Kodan, 2016; Baydık, 2011; Dağ, 2010; Yüksel, 2010). In addition to these studies, researches have been carried out to evaluate and improve the reading skills of students with SLD (Ergül, 2012; Özmen, 2005). When the researches are investigated, it manifested that a reading method is evaluated in one or several areas such as reading speed, accuracy and prosody of reading instead of developing a comprehensive and multidimensional program for developing reading skills.

### **Problem**

There are two papers in which content analysis techniques are used in order to see trends of the studies carried out in Turkey. In the first paper, Özkardeş (2013) investigated 71 studies carried out between 1972 and 2011 in terms of research design, year, method, data collection tools, results. Notable findings of this study indicate that number of studies related to SLD has gradually increased, in most of the studies the participants were elementary school students, fewer studies involving parents and

teachers, and mostly neuropsychological scales are used in studies. In the second paper, İlker and Melekoğlu (2017) investigated 23 studies carried out between 2000-2014 which aimed at improving the writing skills of students who were diagnosed with SLD at the primary school period or at risk in the national and international literature. Notable findings of this study indicate that most study is done on writing strategies and self-regulated strategy development model is effective to support writing skills of students.

In this study differently from Özkardeş (2013), full text proceedings, abstracts, and graduation thesis are not included but scientific articles, master theses, thesis of specialization in Medicine and dissertations are included. In addition, the paper of Özkardeş (2013) includes studies until 2011. Therefore, a more current, comprehensive and qualified content analysis is needed. The accuracy of this requirement is also determined by the inclusion of 69 research in the analysis of Özkardeş (2013) and the inclusion of 189 research into this analysis. The paper of İlker and Melekoğlu (2017) doesn't involve the entire SLD area, it includes studies with SLD and at risk in writing. With this analysis, it is aimed to present more current, comprehensive and qualified information and in which fields more study is needed for researchers in SLD.

## **Purpose**

The purpose of this study is to review of the 189 studies which were published between 1972 and 2017 on SLD in Turkey. For this purpose, the following questions enquired:

1. What is the distribution of studies in SLD as scientific paper, master's thesis, thesis of specialization in Medicine and dissertations?
2. What is the distribution of the studies according to the subjects?
3. What is the distribution of the master's thesis and dissertations according to the departments?
4. What is the distribution of studies by years?

What are the characteristics of the studies in terms of research method, data collection tool, data analysis method, and sample size?

## **2. METHOD**

This section describes the research design, criteria used in the selection of studies, data collection process, data collection tool and analysis of data.

### **Research Design**

The study was designed based on document analysis method. The data of research was collected by document review and the collected data was analyzed by descriptive

methods. Document analysis method is expressed as data collection by investigating documents. There are two types of document analysis method: general analysis and content analysis (Karasar, 2000). In content analysis, similar expressions are grouped together on the basis of certain concepts and themes, and these concepts and themes are interpreted in a way that the reader can understand (Şimşek and Yıldırım, 2011). Çalık and Sözbilir (2014) also discussed content analysis under three headings. These are meta-analysis, meta-synthesis and descriptive content analysis. This study can be evaluated under the title of descriptive content analysis as it provides information about trends in the field of SLD. In descriptive content analysis, the qualitative and quantitative studies performed independently are investigated. Thus, general trends in the field are determined.

### **Criteria Used in Selection of Studies**

The study group was selected through purposive sampling procedures. The following criteria were taken into consideration in the selection process.

1. Execution in Turkey
2. Aims to inform about SLD or to share results for the implementation.
3. Sample of participants was stated as SLD, learning disability, learning disorder or who have difficulties in reading/math/writing
4. Published between 1972 and 2017 (First study was found in 1972 for this reason starting year was 1972).
5. Thesis published in referred journals or thesis of master, dissertations and thesis of specialization in Medicine
6. Keywords include specific learning disabilities, learning disabilities, math difficulties, reading difficulties, writing difficulties, reading disorder, math disorder, writing disorder, dyslexia, dysgraphia, and dyscalculia.

### **Data Collection Process**

In order to reach the articles and theses published in SLD field, following keywords used specific learning disabilities, learning disabilities, math difficulties, reading difficulties, writing difficulties, reading disorder, math disorder, writing disorder, dyslexia, dysgraphia, and dyscalculia in ERIC, EBSCO, YÖK Thesis Center, and Google Scholar databases.

### **Data Collection Tool**

In order to analyze the data, a data analysis form was created by the authors on Google Forms. In this form, the number of the research, title of paper, publication year, number of authors, database, language of paper, research method, subject of paper, participant group, diagnostic status of participants, size of participant group, used scales, used tests and lists, and used intelligence tests are included. Data entry was made by the first author of the study under 13 main headings. Then the data has been checked by the second author of the study. Disputes were discussed and a consensus was reached.

### **Data Analysis**

The articles or theses analyzed by the researchers are presented in graphs and tables. In these graphs and tables, information about the types of paper, distribution, number of authors, years of paper, database of papers, field of paper, research method, subject of paper, participant group, diagnostic status of participant group, scales and lists used in papers are presented. These graphs and tables are interpreted systematically in accordance with the general purpose of the study.

## **3. RESULTS**

The quantitative results related to analysis of 189 studies which published between 1972 and 2017 in Turkey were investigated under 13 topic titles. The findings of each title are presented below.

### **Types of Researches**

Of the 189 studies included in the study, 101 (53%) were peer-reviewed articles, 67 (%35) were master thesis, 11(6%) were dissertations and 10 (%6) were thesis of specialization in Medicine (see Figure 1).

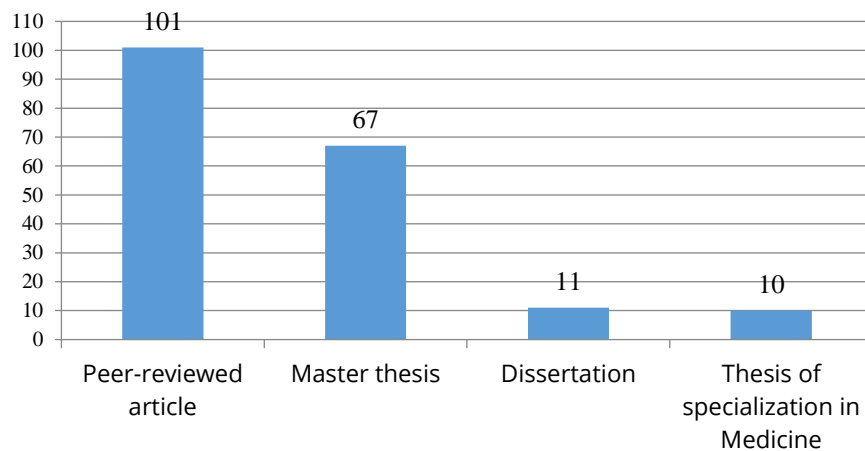


Figure 1. Types of research

In this study, thesis of specialization in Medicine were investigated according to the branches, master thesis and dissertations were investigated in terms of disciplines in which they were carried out. The disciplines of 67 master theses were shared in Figure 2.

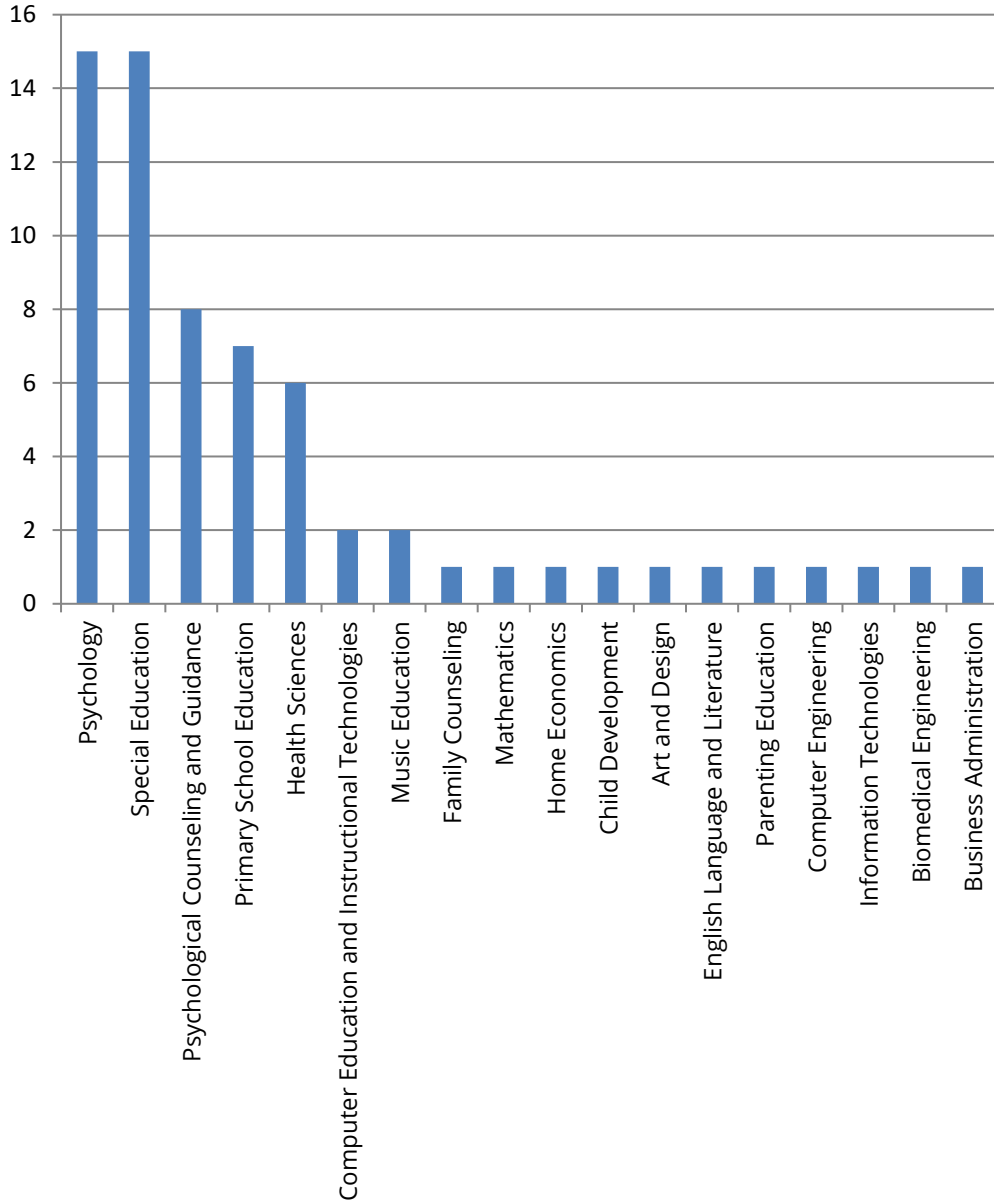


Figure 2. Classification of master thesis according to scientific disciplines

### Distribution of Researches by Author Number

When the distribution of the number of authors is examined, it is observed that 121 (64%) were single-author research, 42 (%23) were two authors, 13 (7%) were three authors, nine (5%) were four authors, two (0.5%) were five authors, one (0.5%) was seven authors and one (0.5%) was nine authors.



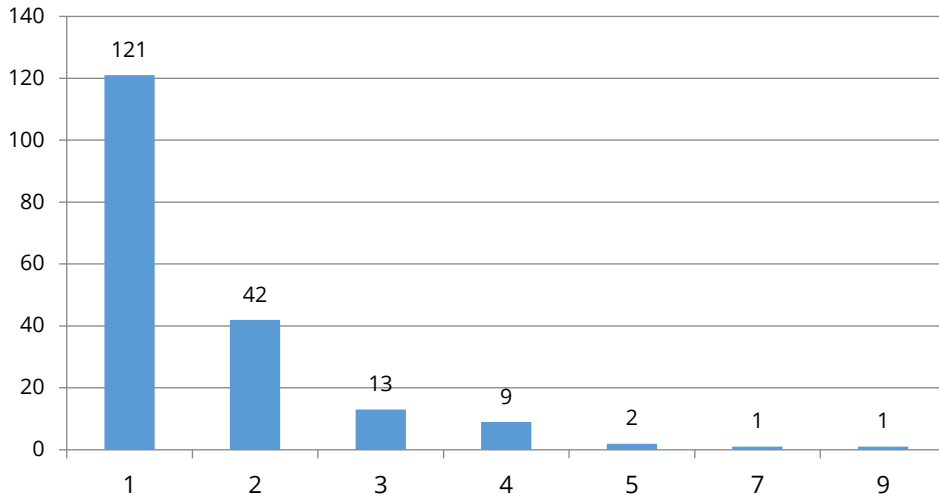


Figure 3. Distribution of research by authors

### Year of Publication

The first publication that can be reached through databases in the field of SLD was published in 1972 (Aydınalp, 1972) and the first dissertation was conducted in 1992 (Korkmazlar, 1992). When the researches were investigated between 1972 and 2017, it is observed that research has been published every year since 2000. Most research was conducted in 2016 with 30 studied.

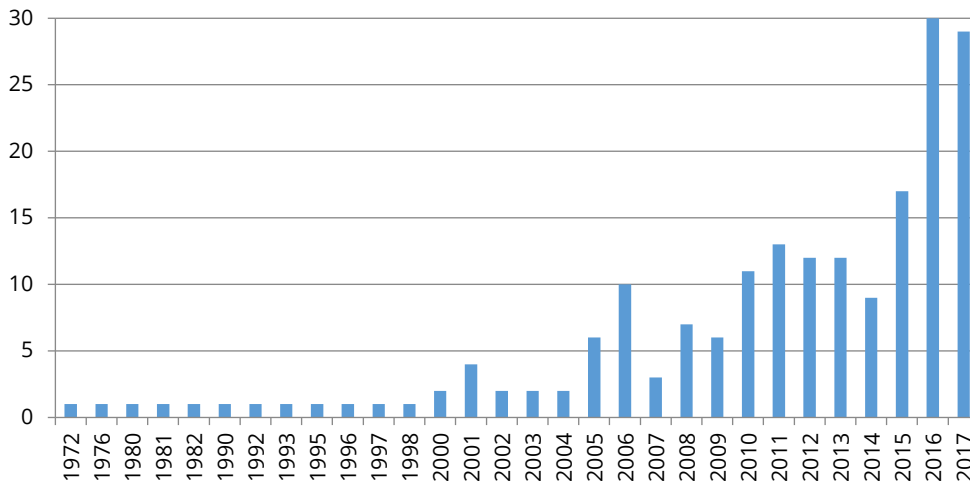


Figure 4. Years of publication

### Database of Articles

In this study, databases of 102 articles were reached. 82 (80%) articles were published in Turkish Academic Network and Information Center, 15 (15%) articles were published in Social Citation Index (SSCI- Social Science Citation Index), and the published databases were not indicated for 5 (5%) articles.

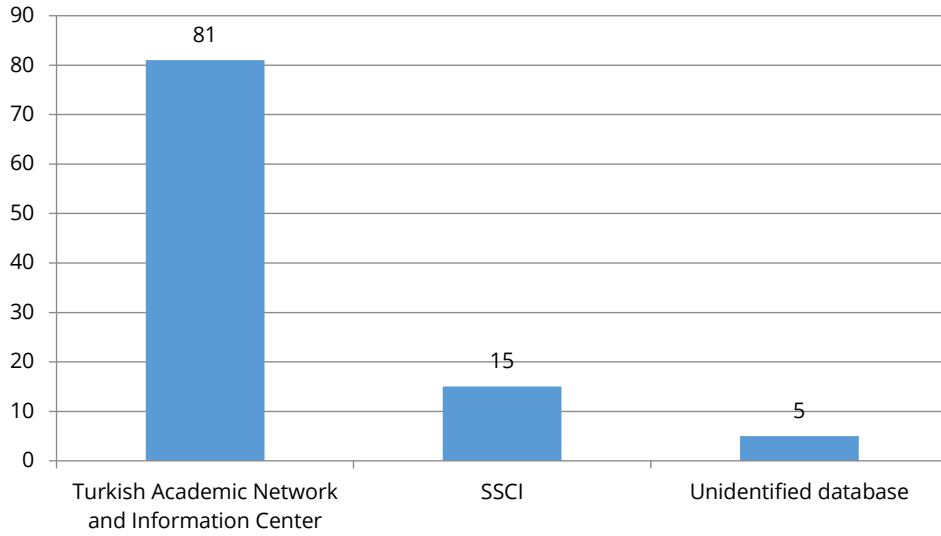


Figure 5. Database of articles

### Publication Languages of Research

It was observed that 169 (89%) of them were published in Turkish and 20 (11%) were published in English.

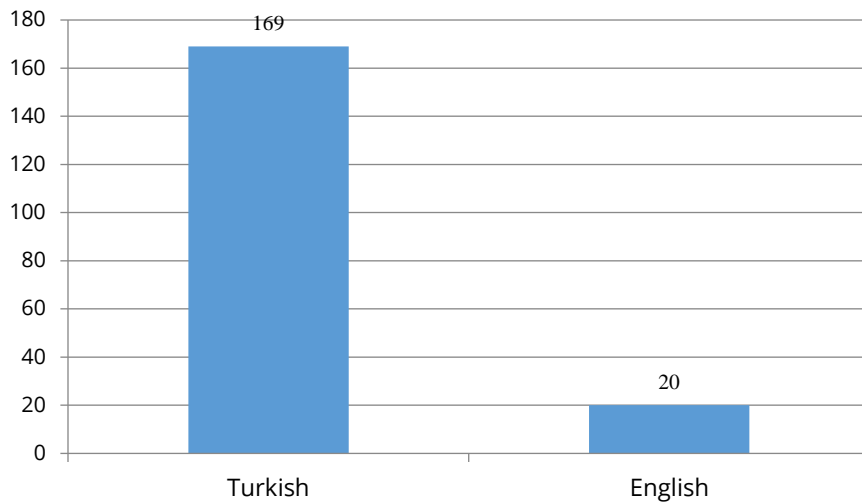


Figure 6. Publication Languages of Research

### 3.6 Fields of Research

In this study, 111 (58%) of the 189 researches approached SLD in a general framework without considering only one of the SLD types.

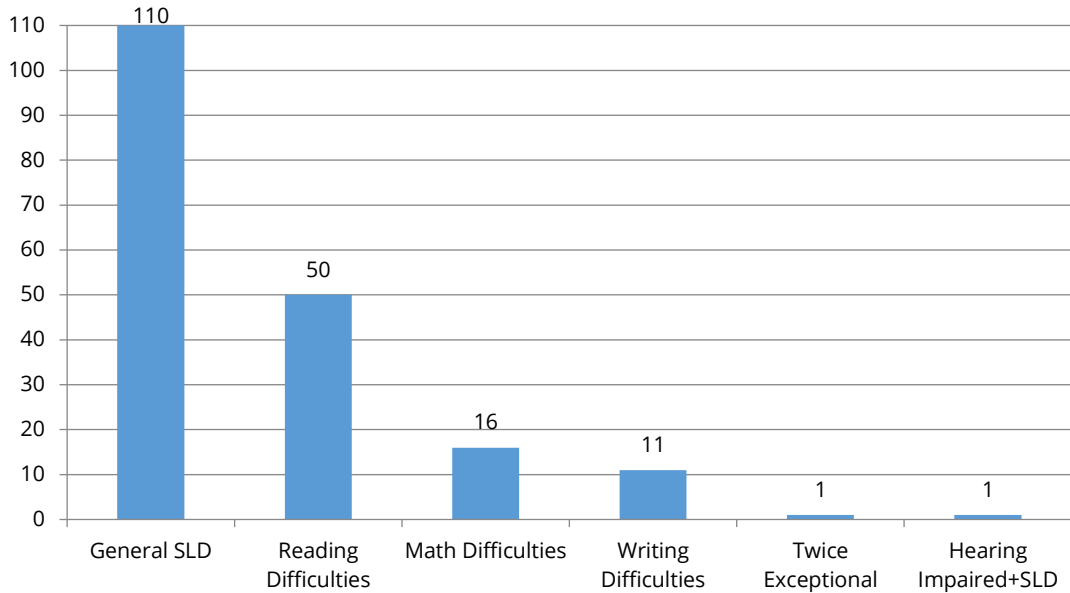


Figure 7. Fields of Research

### Research Methods

When the methods of studies investigated in this study were examined, it was seen that 47 studies (25%) performed survey research method, 40 studies (21%) descriptive method, 24 studies (13%) qualitative method, 22 studies (12%) quasi-experimental design, 21 studies (11%) casual comparison method, 8 studies (3.5%), action research, 7 studies (3.5%) correlational research, 7 studies (3.5%) single subject research model, 6 studies (2.5%) experimental research methods, 3 studies (1.5%) mixed method study, 2 studies (1.05%) descriptive analysis, 1 study (0.5%) scale development research, 1 study (0.5%) development research.

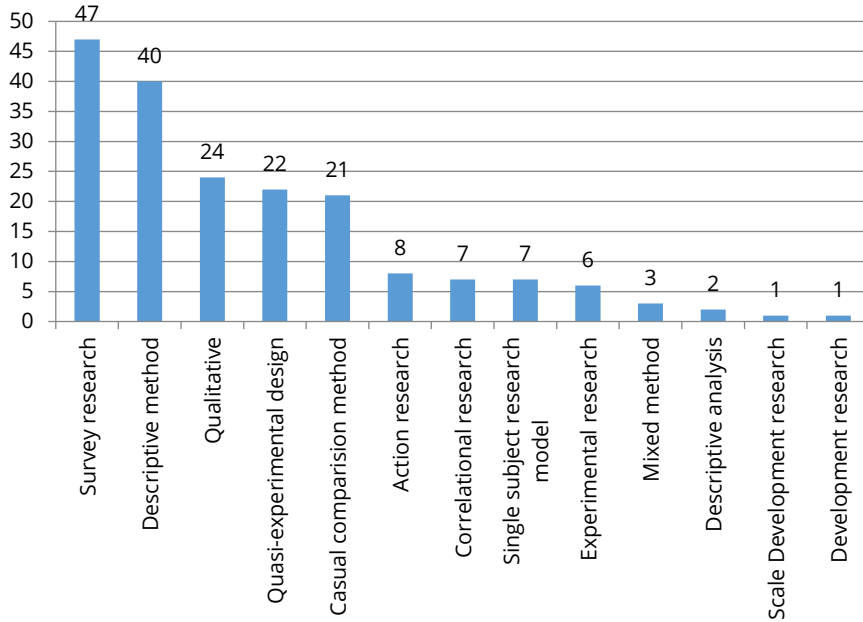


Figure 8. Research Methods

### Topics of Research

In this study, the first three most preferred research topics are: 30 studies (15.7%) to evaluate and support reading skills, 29 studies (15.2%) to provide information about SLD, 21 studies (11.05%) on intervention, methods and strategies about SLD.

Table 1.

#### Topics of Research

Subject	n	%
Evaluate and support reading skills	30	15,7
Providing information about SLD	29	15,2
Intervention, methods and strategies about SLD	21	11,6
Psychological and psychiatric characteristics	19	10
Evaluate and support mathematical skills	13	7
Evaluate and Support writing skills	8	4,3
Comparison of various features with different types of disability	6	3,15
Diagnostic methods and problems	5	2,6
Parent and peer attitudes	5	2,6
Problems accompanying with SLD	4	2,1

Depression, anxiety and self-esteem	4	2,1
Examination of SLD studies	4	2,1
Health status of individuals with SLD	4	2,1
Examination of SLD symptoms	4	2,1
Evaluate and support motor skills	4	2,1
Socialization	3	1,57
Evaluate and support word attack skills	3	1,57
Evaluate and support WISC-R profiles	3	1,57
Scale/test development	3	1,57
Analysis of the studies in the field of SLD	2	1,1
Effects of music education	2	1,1
Vocational training	2	1,1
Examination of auditory skills	2	1,1
Ability to recognize feelings	2	1,1
Ability of test developed for reading difficulties	1	0,52
Determination of dyslexia	1	0,52
Readability of text	1	0,52
Determining quality of life	1	0,52
Social support and coping with stress	1	0,52
Neglect and abuse levels	1	0,52
Technological device design for individual with SLD	1	0,52

### Target group of research

170 of 189 studies were conducted on specific target group. The rest of research gives general information about SLD. 99 studies (58%) of research targeted primary school students, 27 studies (16%) primary and secondary school students, 20 studies (12%) teachers.

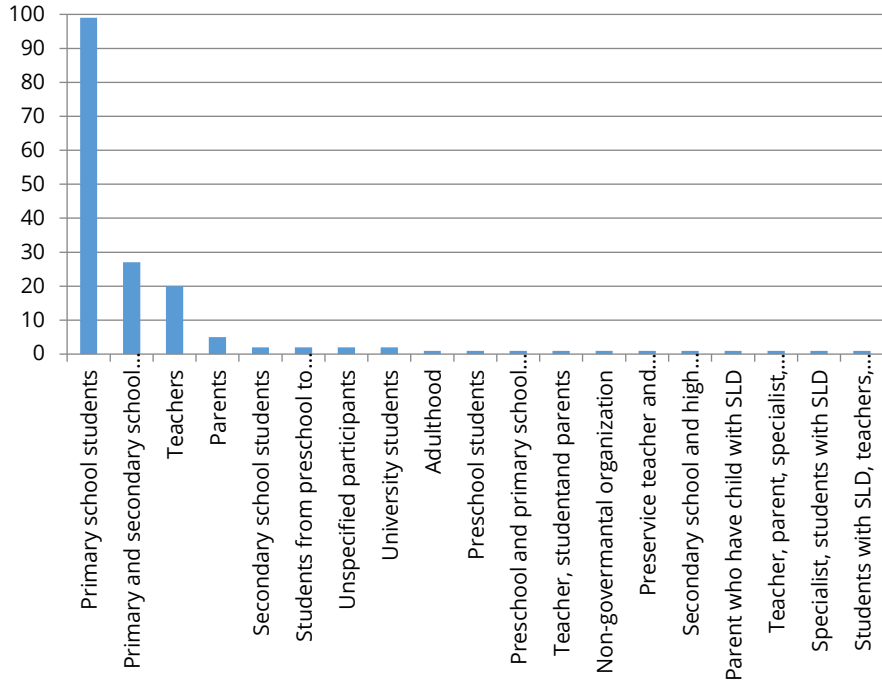


Figure 9. Participats of Studies

### Diagnosis Status of Participants

In 140 of 189 studies give information about diagnosis status of participants. In 63 studies (45%) participants were individuals with SLD, and in 34 studies (%24) participants were not diagnosed but have difficulties about various topics.

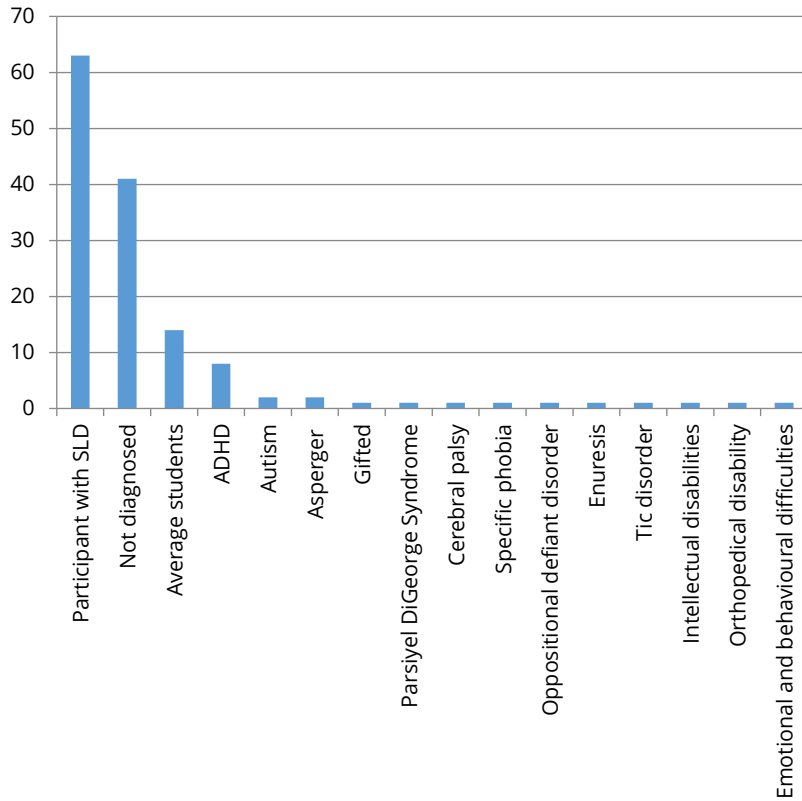


Figure 10. Diagnosis Status of Participants

### Size of Participant Groups

In 155 of 189 research, information about the size of the participant group was given. In these researches, 40 studies (26%) of 1-10 participants, 17 studies (11%) of 11-30 participants, 47 studies (30%) of 31-100 participants, 38 studies (25%) of 101-300 participants, 13 studies (8%) involving more than 300 participants were investigated.

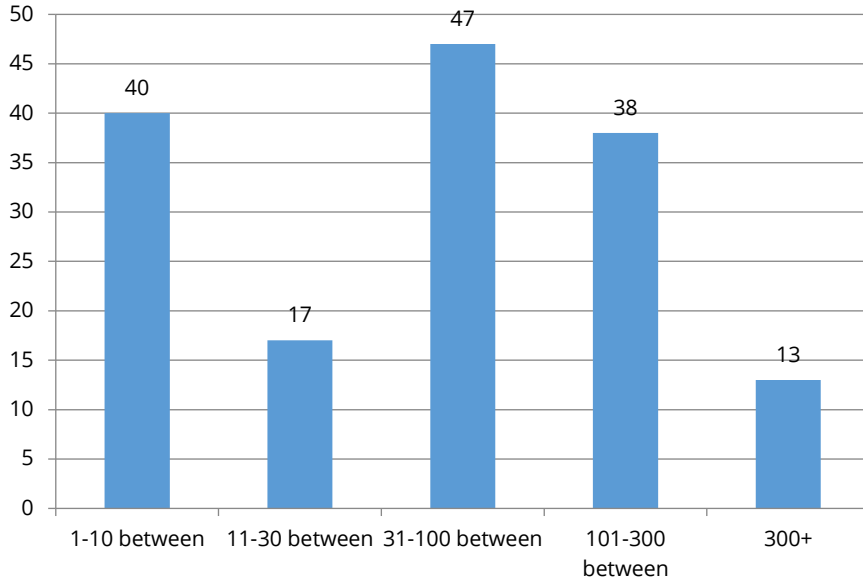


Figure 11. Size of participant group

### Scales used in Researches

In this study, 43 different scales were used in 69 studies.

Table 2.

#### *Scales used in Researches*

Scales	n	Percentages of scale
Piers-Harris Children's Self-Concept Scale	7	10,60
Turgay Assessment Scale based on DSM-IV for Behaviour Disorders in Children and Adolescents	6	7,57
Indication scale of SLD	5	7,57
Parental Acceptance and Rejection Control Scale	4	6,06
Depression Scale for Children	4	6,06
Scale of Writing Anxiety	3	3,03
Setting and Pronunciations Scale	2	3,03
Connors Parents and Teacher Rating Scale	2	3,03
School Social Behavior Scales	1	1,52
Reading, Writing and Mathematics Assessment Scales	1	1,52
Attitude Scale	1	1,52
Scale of Attitudes Towards Children with SLD	1	1,52



Multidimensional Readability Scale	1	1,52
Teachers Efficiency Scale	1	1,52
Awareness Scale of SLD	1	1,52
Silver's Learning Disorder Criteria	1	1,52
Hacettepe Mental Adaptation Scale	1	1,52
Clinical Global Impression Scale	1	1,52
Bracken Basic Concept Scale	1	1,52
Reading Motivation Scale	1	1,52
Achenbach Depression Scale for Children	1	1,52
Emotional Abuse Awareness Scale	1	1,52
Scales of opinions on inclusion	1	1,52
Cognitive Awareness Scale	1	1,52
Vocabulary Assessment Scale	1	1,52
Ladd and Profile Child Behavior Scale	1	1,52
Quality of Life Scale for Children	1	1,52
Turkish version of the World Health Organization Quality of Life Instrument	1	1,52
Social Support Assessment Scale for Children and Adolescents	1	1,52
Multidimensional Scale of Perceived Social Support	1	1,52
Coping Strategies with Stress (COPE),	1	1,52
Child Rearing Attitude Scale	1	1,52
Child Personality Assessment Scale	1	1,52
Matson Evaluation of Social Skills with Youngster	1	1,52
Beck Depression Inventory	1	1,52
Berkeley Expressivity Scale	1	1,52
Marmara Social-Emotional Adaptation Scale	1	1,52
The KA-SI Empathic Tendency Scale	1	1,52
Social Reciprocity Scale	1	1,52
Prosodic Reading Scale	1	1,52
Pediatric Balance Scale	1	1,52

### Test and lists used in researches

In this study, 71 different test and lists were used in 113 studies.

Table 3.

*Test and Lists*

Test and Lists Used	n	Percentage in all test and lists
List of interviews about SLD	15	11,45
Learning Disorder Symptom Checklist/Test Battery	11	8,39
Bender-Gestalt Görsel Motor Algılama Çizim Testi	8	6,10
Visual Aural Digit Span Test (VADST)	6	5,30
Informal Reading Inventory	4	3,05
Mathematic Achievement Test	3	2,29
State-Trait Anxiety Inventory	3	2,29
Frostig Developmental Test of Visual Perception	3	2,29
Peabody Picture-Vocabulary Test	3	2,29
Test of Perception of Affect Via Nonverbal Cues (TPANC)	3	2,29
Thurston's Primary Mental Abilities Test	2	1,52
Edinburg Handedness Inventory	2	1,52
The Benton Judgment of Line Orientation and Facial Recognition tests	2	1,52
Rorschach Test	2	1,52
Purdue Pegboard Hand Skill Test	2	1,52
Schedule for Affective Disorders and Schizophrenia for School Age Children-Present and Lifetime Version	2	1,52
Gesell Developmental Figures Test	2	1,52
CAT Test	2	1,52
TAT Test	2	1,52
Oral Reading Skill and Comprehension Test	2	1,52
Stroop Test-TBAG Form	2	1,52
SLD Battery+Visual-Aural Digit Span Test	1	0,75
Serial Digit Learning Test	1	0,75
Judgment of Line Orientation+Mangina Test	1	0,75
Clinical Observation of Neuromotor Performance Checklist	1	0,75
Oral Reading Test	1	0,75
Bangor Dyslexia Test	1	0,75
Parental Acceptance-Rejection Questionnaire	1	0,75
Children's Depression Inventory	1	0,75

Comprehension Inventory	1	0,75
Dyscalculia Screening Tool	1	0,75
Analytical Rubric	1	0,75
Motor-Free Visual Perception Test	1	0,75
California Verbal Learning Test	1	0,75
Schizophrenia Present and Life Time Version	1	0,75
Bilateral Motor Coordination Test	1	0,75
Florida Apraxia Test	1	0,75
Gubbay Test	1	0,75
Learning Disorder Symptom Checklist for Parents	1	0,75
Learning Disorder Symptom Checklist for Teachers	1	0,75
For Non-Verbal Learning Disabilities Scale	1	0,75
Kovacs Depression Inventory for Children	1	0,75
Coopersmith Self-Esteem Inventory	1	0,75
WISC-IV Arithmetic and Letter-Number Sequence Lists	1	0,75
Prosodic Reading Control Lists	1	0,75
RAVEN Test	1	0,75
Single Syllable Word Differentiation Test	1	0,75
Dichotic Speech Test	1	0,75
Vinograd Test	1	0,75
Reading the Mind in the Eyes Test	1	0,75
Autism Spectrum Quotient	1	0,75
Sibling Relationship Questionnaire	1	0,75
Matching Familiar Figures Test-	1	0,75
Basic Number Processing Tests	1	0,75
Motor Coordination Test	1	0,75
Knowledge of Dyslexia Teacher	1	0,75
Knowledge Test for Dyslexia Teachers	1	0,75
Wisconsin Card Sorting Test	1	0,75
California Verbal Learning Test	1	0,75
Rey-Usterrieth Complex Figure Test	1	0,75
Reading-Writing-Math Abilities Evaluation List	1	0,75
Word Association Test	1	0,75
Learning Disability Knowledge Test	1	0,75

Problem Solving Inventory for Children at the Level of Primary Education	1	0,75
Tandem Walk Test	1	0,75
Finger to Nose Test	1	0,75
Phonological Awareness Test,	1	0,75
Rapid Automized Naming	1	0,75
Word Reading Test	1	0,75
Trail Making Test	1	0,75
Cancellation Test	1	0,75
Line Orientation Test	1	0,75

### Intelligence Tests Used in Research

In this study, 33 of 189 studies, Wechsler Intelligence Scale for Children was tested. In other studies, a different intelligence test was not performed.

## 4. DISCUSSION, CONCLUSIONS AND SUGGESTIONS

Within the scope of this study, 189 studies in the field of SLD have been reached in the last 45 years. Although the number of studies is considered to be relatively small, it is observed that the number of studies has increased rapidly in the last decade. It can be considered that this increase will continue with the awareness endeavors for SLD and the increase of the number of diagnosed students.

When classified according to the research subjects in the field of SLD, it is seen that 31 different subjects have been investigated. Among these subjects, the highest rate of research is observed on evaluation and support of reading skills (15,7%). This is an expected situation because reading is the most observed problem of individuals with SLD. When the methods of studies investigated in this study were examined, it was seen that 47 studies (25%) performed survey research method. This finding is similar to a study in order to determine the trends of research conducted in the field of special education (Güner Yıldız, Melekoğlu ve Paftalı, 2016). Survey research aim to describe a situation that exists in the past or present (Karasar, 2005). In addition, survey researches are considered to be the starting point of scientific effort because they can't reveal the various aspects of the cases and relationship between them (Büyüköztürk et al., 2014). Given this situation, it is thought that the number of experimental studies should increase in order to change the level of knowledge from understanding to explaining.

In this study, it is observed that the majority of students were participants from primary schools when the target groups were examined. This is expected considering that SLD is usually diagnosed during primary school years (Balıkçı, 2017). However, early

intervention and examining the symptoms of SLD in early childhood period seems to be needed. Moreover, this difficulty does not cover a period of life. It is also important to realize that the effects of life in adolescence and adulthood are also important in scientific studies with adolescent and adult individuals with SLD (Öğülmüş, 2017).

As a result, we have limited scientific knowledge and innovation in the field of SLD although the first study on SLD in Turkey was published in 1972 and especially in the last 10 years the number of studies in this field has increased. It is thought that studies to be conducted in the coming years should increase in terms of quality and quantity, and cover different age groups. In these studies, assessment, diagnostic method, interventions, methods and strategies for the SLD need to be developed. It is thought that the people working in the field such as teachers, doctors, psychologists will reflect these developments to their professional lives and that the quality of life of the individuals with SLD will be noticeably improved.

## References

- Akyol, H., & Kodan, H. (2016). Okuma güçlüğü olan bir öğrencinin okuma güçlüğüne giderilmesine yönelik bir uygulama: Akıcı okuma stratejilerinin kullanımı [A practice for eliminating reading difficulty: The use of fluent reading strategies]. *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi*, 35(2), 7-21. doi: 10.7822/omuefd.35.2.1
- American Psychiatric Association. (2014). *Ruhsal bozuklukların tanıs ve sayımsal elkitabı, beşinci baskı (DSM-5), tanı ölçütleri başvuru elkitabı [Diagnostic and statistical manual of mental disorders]*. (Çev. E. Köroğlu). Hekimler Yayın Birliği: Ankara.
- Asfuroğlu, B. Ö., & Fidan, S. T. (2016). Özgül öğrenme güçlüğü [Specific learning disorders]. *Osmangazi Tıp Dergisi*, 38(1); 49-54. doi: <http://dx.doi.org/10.20515/otd.17402>
- Balıkçı, Ö. S. (2017). Erken çocukluk dönemi öğrenme güçlüğü belirtileri [Signs of learning disabilities in early childhood]. M. A. Melekoğlu ve O. Çakıroğlu (Editörler), *Özel öğrenme güçlüğü olan çocuklar, 3. baskı [Children with specific learning disabilities]* (s. 75-99). Ankara: Vize Yayıncılık.
- Baydık, B. (2011). Okuma güçlüğü olan öğrencilerin üstbilişsel okuma stratejilerini kullanımı ve öğretmenlerinin okuduğunu anlama öğretim uygulamalarının incelenmesi [Examining the use of metacognitive reading strategies of students with reading difficulties and their teachers' reading comprehension instruction practices]. *Eğitim ve Bilim*, 36(162), 301-320.
- Büyüköztürk, Ş., Kılıç-Çakmak, E., Akgün, Ö. E., Karadeniz, Ş., & Demirel, F. (2014). *Bilimsel araştırma yöntemleri [Scientific research methods]*. Ankara: Pegem Akademi.
- Culatta, R. A., Tompkins, J. R., & Werts, M. G. (2003). *Fundamentals of special education: What every teacher needs to know*. Upper Saddle River, NJ: Merrill/Prentice Hall.
- Çalık, M., & Sözbilir, M. (2014). İçerik analizinin parametreleri [Parameters of content analysis]. *Eğitim ve Bilim*, 39(174), 33-38. doi: <http://dx.doi.org/10.15390/EB.2014.3412>
- Çalık, M., Ünal, S., Coştu, B., & Karataş, F. Ö. (2008). Trends in Turkish science education. *Essays in Education*, Special Edition, 23-45.
- Dağ, N. (2010). Okuma güçlüğüne giderilmesinde 3P metodu ile boşluk tamamlama (cloze) tekniğinin kullanımı üzerine bir çalışma [A study on regarding the use of the 3P method and the cloze technique in order to correct the reading difficulty]. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*, 11(1), 63-74.
- Ergül, C. (2012). Evaluation of reading performances of students with reading problems for the risk of learning disabilities. *Educational Sciences: Theory and Practice*, 12(3), 2051-2057.
- Güner-Yıldız, N., Melekoğlu, M. A., & Paftalı, A. T. (2016). Türkiye'de özel eğitim araştırmalarında eğilimler [Special education research in Turkey]. *İlköğretim Online*, 15(4), 1076-1089. <http://dx.doi.org/10.17051/io.2016.06677>
- Hallahan, D. P., & Mercer, C. D. (2001). *Learning disabilities: Historical perspectives, executive summary*. Educational Resource Information Center (ERIC), ERIC Number: ED458756.
- İlker, Ö., & Melekoğlu, M. A. (2017). İlköğretim döneminde özel öğrenme güçlüğü olan öğrencilerin yazma becerilerine ilişkin çalışmaların incelenmesi [Review of the studies on writing skills of students with specific learning disabilities in elementary education]. *Ankara*

- Üniversitesi Eğitim Bilimleri Fakültesi Özel Eğitim Dergisi*, 18(3), 443-469. doi: 10.21565/ozelegitimdergisi.318602
- Karasar, N. (2005). *Bilimsel araştırma yöntemi* [Scientific research methods]. (15. Baskı). Ankara: Nobel Yayın.
- Melekoğlu, M. A. (2017). Özel öğrenme güçlüğüne giriş [Introduction to specific learning disabilities]. M. A. Melekoğlu ve O. Çakıroğlu (Editörler), *Özel öğrenme güçlüğü olan çocuklar*, 3. baskı [Children with specific learning disabilities] (s. 15-47). Ankara: Vize Yayıncılık.
- Milli Eğitim Bakanlığı. (1962). 222 sayılı ilköğretim ve eğitim kanunu hükümlerine göre hazırlanan özel eğitime muhtaç çocuklar yönetmeliği [Children with special educational needs regulations # 222 prepared according to the provisions of the elementary education and education law], 24.07.1962 tarih ve 11162 sayılı Resmi Gazete.
- Milli Eğitim Bakanlığı. (1968). *Özel eğitime muhtaç çocuklar yönetmeliği* [Children with special educational needs regulations], 18.01.1968 tarih ve 12803 sayılı Resmi Gazete.
- Milli Eğitim Bakanlığı. (1975). *Özel eğitime muhtaç çocuklar hakkında yönetmelik* [Regulations on Children with special educational needs], 16.02.1975 tarih ve 15151 sayılı Resmi Gazete.
- Milli Eğitim Bakanlığı. (1985). *Milli Eğitim Gençlik ve Spor Bakanlığına bağlı özel eğitim okulları yönetmeliği* [Regulations of special education schools affiliated to Ministry of National Education, Youth and Sports], 09.12.1985 tarih ve 18953 sayılı Resmi Gazete.
- Milli Eğitim Bakanlığı. (2000). *Milli Eğitim Bakanlığı özel eğitim hizmetleri yönetmeliği* [Ministry of National Education regulations on special education services], 18.01.2000 tarih ve 23937 sayılı Resmi Gazete.
- Milli Eğitim Bakanlığı. (2006). *Özel eğitim hizmetleri yönetmeliği* [Regulations on special education services], 31.05.2006 tarih ve 26184 sayılı Resmi Gazete.
- Öğülmüş, K. (2017). Özel öğrenme güçlüğü olan öğrenciler için geçiş hizmetleri [Transition services for students with specific learning disabilities]. M. A. Melekoğlu ve O. Çakıroğlu (Editörler), *Özel öğrenme güçlüğü olan çocuklar*, 3. Baskı [Children with specific learning disabilities] (s. 325-340). Ankara: Vize Yayıncılık.
- Özkardeş, O. G. (2013). Türkiye’de özel öğrenme güçlüğüne ilişkin yapılan araştırmaların betimsel analizi [Descriptive analysis of research on specific learning disabilities published in Turkey]. *Boğaziçi Üniversitesi Eğitim Dergisi*, 30(2), 123-153.
- Özmen, R. G. (2005). Öğrenme güçlüğü olan öğrencilerin okuma hızlarının metinlerde karşılaştırılması [Comprasion of reading speeds of students with learning disabilities in text]. *Eğitim ve Bilim*, 30(136), 25-30.
- Selçuk, Z., Palancı, M., Kandemir, M., & DüNDAR, H. (2014). Eğitim ve Bilim Dergisinde yayınlanan araştırmaların eğilimleri: İçerik analizi. [Trends of researches published in the Journal of Education and Science: Content analysis]. *Eğitim ve Bilim*, 39(173), 430-453.
- Sözbilir, M., Kutu, H., & Yaşar, M. D. (2012). *Science education research in Turkey: A content analysis of selected features of papers published*. In J. Dillon ve D. Jorde (Eds). The world of science education: Handbook of research in Europe (pp.341-374). Rotterdam: Sense Publishers.
- Şimşek, H., & Yıldırım, A. (2011). *Sosyal bilimlerde nitel araştırma yöntemleri* [Qualitative research methods in social sciences]. Ankara: Seçkin Yayıncılık.

- U.S. Department of Education. (2016). *38th annual report to congress on the implementation of the Individuals with Disabilities Education Act, 2016*. Washington, DC: Author.
- Yüksel, A. (2010). Okuma güçlüğü çeken bir öğrencinin okuma becerisinin geliştirilmesine yönelik bir çalışma [A study on the development of reading skills of a student with reading difficulties]. *Kuramsal Eğitimbilim Dergisi*, 3(1), 124- 134.