

# Detecting the Training Needs of Primary Education Teachers On Learning Disabilities

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Received : 14 November 2023  
Revised : 4 March 2024  
Accepted : 28 March 2024  
DOI : 10.26822/iejee.2024.336

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## Abstract

For students to learn adequately depends, among other things, on keeping teachers' knowledge up to date. Thus the continuous training of teachers is essential, both for new teachers and those with more experience. The aim of this study was to detect the training needs on Specific Learning Disabilities (SLDs) of active primary-education teachers. Through a descriptive design, this work analyses the responses of 75 teachers to the questionnaire designed for this study have revealed limited knowledge about SLDs, due to factors such as the lack of specific training during their degree or scant continuous training programmes. They therefore show the necessity for greater training in this area of special educational needs. We weigh up the educational implications of our results and propose procedures for action.

## Keywords:

Learning Disabilities; Training Needs; Teaching Profession; General and Specific Training; Primary Education

## Introduction

Continuous or ongoing training is considered to be a fundamental element for the successful functioning of any organization and for the achievement of its aims. In the specific case of continuous teacher training, the final purpose is to improve student learning through the acquisition of new professional skills by teachers.

However, the first step to updating knowledge appropriately lies in determining the teacher training needs. This would make it possible to define and adapt the specific contents of the training itself. Therefore, the process of detecting those needs is essential to being able to describe the differences between the actual situation and the ideal one, and so direct the process of change (Zaragoza, 2007).

As Pérez Serrano (1999) showed, teachers perceive that they need better training, both practical and scientific, in different areas. Specifically, most teachers agreed that they needed to learn strategies for collaborative work and research in the classroom, as well as improve their knowledge in ICT. They also stated that they needed to acquire techniques and skills for creating educational projects, carrying out tutorials, and giving guidance to students. Lastly, they asserted that they preferred continuous training courses to be held during work hours and that attendance be compulsory.



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ISSN: 1307-9298

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The continuous training and ongoing development of the teachers is determined, among other factors, by legislative changes. One of the most recent changes in Spain came with Organic Law 2/2006, of 3rd May, on Education (LOE), in which the term "Dificultades Específicas de Aprendizaje (DEA)" (Specific Learning Disabilities, SLD) was included for the first time. Specifically, Section II is devoted to "Equity in Education", and includes students with SLDs in "students with specific need of educational support". This law represents a significant milestone in the development of the SLD field, since it recognizes them for the first time at the legislative level as a specific category and opens up the possibility of setting up the support needed for these types of students. More recently, with Organic Law 8/2013, of 9th December, for the Improvement of Education Quality (LOMCE), a fourth sub-section has been added to Chapter I of Section II, and one article, 79 bis, with specific aspects referring to the enrolment and care of students with SLDs.

According to DSM-5's diagnostic criteria, the term SLD refers to a heterogeneous group of disabilities characterized by persistent difficulties in learning academic skills (reading, writing, written expression, and mathematics). The symptoms of learning disabilities should last at least six months, even when interventions aimed specifically at improving them have been put in place. Furthermore, the academic skills affected should be significantly below the expected level according to the person's age, and interfere in their performance both academically and in their daily life. Learning Disabilities are not due to intellectual, sensory or linguistic disabilities, nor due to inadequate teaching or an environment that is socioculturally disadvantaged (APA, 2014).

One of the consequences of recognizing SLDs at the legislative level in Spain has been the inclusion of the subject "Learning Difficulties" in the Primary Education and Early Childhood Education degrees (ANECA, 2010). This has meant that new graduates have had the opportunity to gain specific knowledge about SLDs. However, current teachers who took the Primary Education Diploma did not have this opportunity in their university course, and therefore there may be the need for training in this area.

The review carried out by Castejón (2004) highlights the importance of studying the attitudes of teachers concerning Special Educational Needs (SEN) in order to implement, where necessary, programmes adapted to the characteristics of this group. However, to our knowledge no studies have been made about the detection of the training needs of teachers about SLDs in Spanish-speaking population. This, therefore, is the general aim of the present study.

Up until now, most of studies on detecting the needs of teachers or on evaluating the attitudes and knowledge of primary-education teachers have looked at SEN in general (e.g. Alemany & Villuendas, 2004; Álvarez, Castro, Campo-Mon & Álvarez-Martino, 2005; Domenech, Esbrí, González & Miret, 2005). In these studies, the instruments used were questionnaires and semi-structured interviews designed specifically for the studies, with the aim of evaluating the attitudes of teachers from different specialities toward students with SEN.

The main conclusions these studies made were that there was a positive attitude toward integration but that most teachers agreed that the lack of training and integration for students with special educational needs was due to the poor management of education administrations and the lack of resources. They also found that the teachers specializing in Special Education, Hearing and Language, Therapeutic Pedagogy, and Music Education had a more positive attitude toward integration compared to early-childhood and foreign-language teachers, who held more negative attitudes (e.g. Domenech et al., 2005).

A large difference can also be observed regarding the personnel available for taking care of these students in a school: state-school teachers believe that they are better equipped than their charter-school counterparts, and that there is not a great deal of knowledge about the schooling modalities. However, a high percentage of teachers have completely acquired the concept of SEN (Domenech, Esbrí, González & Miret, 2005; Álvarez, Castro, Campo-Mon & Álvarez-Martino, 2005).

Lastly, teachers are aware of the lack of training and of the need for co-operation between the different specialists in a school, and that significant changes in methodology and in the curriculum may be needed. Nonetheless, they are also conscious of the fact that this is not always possible due to lack of time and resources (Alemany & Villuendas, 2004).

Other studies also exist that examine the training needs of teachers in Spain in Secondary Education and "Bachillerato" (A-Level/High-School Diploma) (López & Llorent, 2012; Valdés & Perezgazga, 2004). The methodology most used in these studies was also that of questionnaires and interviews as instruments for gathering information. One of the most relevant results was that 100% of the samples considered their initial training in a negative way, and thus the area where they had the most problems was that of attending to students with SEN. Specifically they highlight the difficulties of carrying out activities with ICT and of adapting exams to the characteristics of these pupils (López & Llorent, 2012). There was also evidence of a general need for training in carrying out collaborative

work and on updates in the fields of pedagogy and teaching (Valdés & Perezgazga, 2004).

Training needs have also been studied with the inclusion, as participants, of students taking different degree courses in the field of education, such as Pedagogy or Teacher Training (Sales, Moliner, Odet & Sanchís, 2001; Tenorio, 2011). Both these studies used questionnaires and/or semi-structured interviews on SEN, disability, inclusion, attending to diversity, and school integration. The results showed that most students did not feel that they were sufficiently prepared to teach students with SEN, and if they could choose they would prefer not to have these types of students enrolled in their classrooms. Both studies also agree on observing a negative attitude toward integration and the inclusion of students with SEN. Lastly, only a minority of the sample considered that it was better to educate these students in ordinary schools; most thought they should be in a specialist school. However, most teachers stated that the presence of students with SEN was favourable for the rest of their classmates, since it developed positive attitudes toward integration.

Furthermore, it has been confirmed that many teachers do not have a clear concepts regarding SEN, inclusion and disability (Tenorio, 2011). The large majority of the sample were in agreement in stating that their initial training focused more on curricular/subject knowledge than on pedagogy, thus explaining their lack of training on SEN. Likewise, it was shown that most education students did not remember having dealt with these concepts during their degree course, and that the information and tools they had on these topics had been acquired outside of university.

Based on the bibliographical review, the general aim of this study is to discover whether there is a need for training on SLDs for primary-education teachers. As specific objectives, we aim to examine the influence of two variables that could affect the knowledge and attitudes of teachers: years of teaching experience and the type of professional certification undertaken. In this regard, our hypothesis is that a higher number of years of teaching experience will be related to greater theoretical and practical knowledge of SLDs. Similarly, we expect to observe that teachers who specialized in SEN or Hearing and Language show a greater knowledge of SLDs. In order to examine the knowledge and attitudes held by primary-education teachers on the SLDs, we designed a questionnaire that includes questions with a Likert scale, open questions, and multiple-answer questions. This questionnaire is structured in four segments: academic training, specific knowledge of SLDs, professional experience, and training needs.

**Method**

*Research Design*

The present research follows a descriptive design with exploratory approach which studies the knowledge of primary school teachers about SLD through a questionnaire designed specifically for this research (see details in section "Instruments").

*Participants*

At the first stage of sampling, fifteen schools were taken randomly by lottery method from four geographical location in the South of Spain. In these 15 schools, 118 questionnaires were handed out and 75 collected from eleven schools. In other words, there was a response rate of 63.6%. The final sample of teachers came from both public schools (70.7%) and private subsidized schools (29.3%), and all had a medium socio-economic level. The number of students per classroom ranged from 18 to 27.

The description of the participants is presented in Table 1. Regarding their specialization, 32% are general teachers, 13.33% are foreign-language teachers, 9.33% music teachers, 5.3% Special Education, 13.33% Physical Education, and 1.33% Roman Catholic Religion while the remaining 25.35% did not specify a specialization.

**Table 1.**  
*Description of the sample of participating teachers*

% Wom- en	% Men	Mean age (minimum and maxi- mum)	Mean years of teaching experience (minimum and maxi- mum)	% of the sample with other univer- sity studies/ degrees
44	56	38.6 (23-62 years old)	12.1 (2 months - 39 years)	52%

**Instruments**

The instrument used in this study was a questionnaire designed specifically for this research (see Annex). The basis for its creation was the questionnaire used in the study by Álvarez et al. (2005). The questionnaire is structured in four sections with a total of 57 questions. Fifty questions are in the format of a Likert-type answer, where 1 indicates "completely disagree" and 5 corresponds to "completely agree". An option 6 is also included, for "n/a or don't know". Four questions are multiple-choice (items 10 to 13), and three questions (items 1, 2 and 9) are open-answer. A reliability analysis was conducted of the Likert-scale items, and the reliability obtained, calculated using Cronbach's alpha, is 0.72.

Following the opening part, in which the personal data on the school and teacher surveyed are collected, the first section focuses on aspects related to academic training. Specifically, information is gathered on the reason why they studied teacher training, if they received training on SLDs during their degree, and whether they have attended teacher-training courses on SLDs.

In the second section, information is collected on teachers' specific knowledge on SLDs. Specifically, the participants are asked about the definition and types of SLD, the professionals who are responsible for assessment and intervention, the legislation that deals with SLDs, and their characteristics.

The third section brings together aspects of professional experience with students with SLDs. The questions include information on actions for their integration, the use and provision of material for working, availability and collaboration of the educational community, among other related questions.

Lastly, the fourth segment addresses the perception of the training needs that each teacher has in aspects such as the school placement of children with SLDs, teaching materials, time and classroom organization, and making curricular adaptations and intervention.

### Procedure

First we contacted the headteachers of schools to request their participation in the study. In the cases where they agreed to collaborate, we delivered the questionnaires personally and set a date for their collection (between one and three weeks later). Before completing the questionnaires, it was explained that the process was anonymous and that there were no right or wrong answers, and an introduction was given explaining the purpose of the questionnaire.

The data collection was carried out with the written informed consent of the teachers. The purpose of the study were explained before the data collection. The anonymity and confidentiality regarding all information collected was maintained and the information provided by them was used only for the research purpose.

### Results

The results are presented using descriptive analysis of the response frequency of the answers in each of the categories evaluated. The SPSS (version 20.0) statistical program was used to do this.

#### Section A. Academic Training

Looking at academic training, Table 2 shows the distribution of response frequency to each option in

the whole sample (75 teachers). As we can see, most participants indicate that they studied teaching due to a sense of vocation and not because their grades were insufficient to enter a different degree (items 3 and 4). For item 5, on the training received during their university degree, the most frequent responses show that they did not study specific subjects on SLDs. Despite the fact that most teachers frequently attend teacher-training courses, they also indicate that those courses tend not to be specifically on SLDs. Lastly, the responses to item 8 show that they do not believe that they have a high level of general training on SLDs.

Regarding the specific objectives, we carried out a response frequency analysis as a function of training (specific and general), and years of experience (more than or less than 15 years). However, the sample distribution was not homogeneous, which means that the interpretation of the results is limited. Regarding the frequencies in Section A distributed according to specific and general training, we can observe that the result profile is similar in both groups and in the whole sample, except the response to item 7, in which the teachers with specific training state that they had taken courses on SLDs whereas the general teachers had not.

**Table 2.**  
Percentage of frequencies for each option in Section A for the total sample.

	Mode	Response Options (1 = Completely disagree; 5 = Completely agree; 6 = n/a or Don't know)					
		1	2	3	4	5	6
3- Vocation	5	2.7	1.3	9.3	12	73.3	1.3
4- No qualification	1	91.4	0	1.4	0	4.3	2.9
5- I have received training on SLDs	3	21.9	16.4	27.4	16.4	13.7	4.1
6- I attend courses	4	0	8.2	32.9	34.2	21.9	2.7
7- I have done SLD courses	1	27.4	23.3	12.3	20.5	12.3	4.1
8- My training on SLDs is high	3	9.6	30.7	32.9	20.5	2.7	2.7

The comparison of frequencies between the teachers with more than and less than 15 years teaching experience indicates that there is a difference, whereby the teachers with greater experience stated that during their university training they had not received any SLD training, whereas the teachers with less experience had received some type of training.

#### Section B. Specific Knowledge of SLDs

In order to analyse item 9, an open question on the definition of SLDs, all the responses were reviewed, and then three categories were established according to

the common ideas the teachers revealed. Most of the teachers' answers (72%) were included in category A, which comprised those with no answer or those that simply repeated the meaning of the initials SLD. In category B (14.7%), the answers referred to aspects included in the definition of SLD, such as that they are not due to a lower intellectual capacity, and give examples such as dyslexia, dysgraphia or dyscalculia. Lastly, category C comprises answers, representing 13.3% of the sample, that correspond to mistaken conceptions since they state that SLDs are caused by decreased cognitive abilities or attention problems. They also state that these students need to follow a parallel curriculum.

For the analysis of question 10, the teachers were deemed to have obtained the maximum score of 9 if they underlined the four SLDs and left the other five distractors unmarked. Thus 48% had between eight and nine correct answers, 28% obtained 6 to 7 correct answers, 18.6% had between 3 and 5, while 5.3% had no correct answer.

The general results of questions 11, 12 and 13 show that 70% of the teachers state that the identification and assessment of SLDs should lie with different professionals, that is, with tutors, guidance counsellors, Therapeutic Pedagogy (TP) teachers, psychologists, or teachers specializing in SEN or Hearing and Language. Furthermore, 30% indicate that this should be done with a combination of the aforementioned professionals, always including more than one. In addition, regarding intervention, 85% of the sample think that all the aforementioned professionals along with the family should be responsible for its undertaking.

Table 3 shows the frequency distribution for the Likert-scale items of Section B. As can be observed, the results obtained in questions 14 and 15 show that most of the participants do not know the latest version of the regulations regarding SLDs, and consider that they need more knowledge on the legal changes. Likewise, they state that they do not have a clear understanding of the different types of SLD, although most are able to identify some important characteristics, such as that they do not present low intelligence, they tend to be a heterogeneous group, and do not always need curricular adaptations (items 16, 17, 18, 20 and 24). Question 19 produces a surprising frequency pattern, in that the teachers' responses show that SLDs are not normally detected or evaluated in Primary Education. And in questions 21, 22 and 23, we observe how most of the sample do not know whether the current legislation makes it possible to give an adequate educational response to children with SLDs, nor whether the educational community provides specific economic resources for students with SLDs. Moreover, they tend not to know the number of children with SLDs in a classroom.

**Table 3.** Percentage of frequencies to each response option in Section B for the total sample.

	Mode	Response Options (1 = Completely disagree; 5 = Completely agree; 6 = n/a or Don't know)					
		1	2	3	4	5	6
14- I know the legislative changes	1	34.7	26.7	17.3	9.3	8%	4%
15- I need knowledge of changes	5	5.3	5.3	13.3	20	54.7	1.3
16- I know the LD characteristics	3	13.7	26	31.5	19.2	8.2	1.3
17- Low intelligence	1	53.3	17.3	18.7	1.3	4%	5.3
18- Homogeneous group	1	63.5	16.2	5.4	4.1	2.7	8.1
19- They detect and assess in P.E.	1	22.9	18.9	20.3	9.5	17.6	10.8
20- They do not achieve objectives	3	21.3	22.7	26.7	17.3	4	8
21- Legislation meets needs	6	21.7	14.9	17.6	6.8	4.1	35.1
22- Economic resources	6	16.7	29.2	13.9	5.6	1.4	33.3
23- I know the number	3	11	9.6	28.8	15.1	15.1	20.5
24- Curricular adaptations	1	51.4	14.9	10.8	8.1	8.1	6.8

As with the previous section of the questionnaire, the result pattern does not show notable differences, except in items 22 and 23, where the teachers with specific training indicate that they do not know the number of students with SLDs in their classes, and highlight the lack of sufficient economic resources.

Continuing with the comparison between teachers with more than and less than 15 years of experience, the teachers with more experience have less knowledge of the different types of SLD than those with less experience. Another observable discrepancy occurs in item 19, in which the teachers with less experience are more in agreement in affirming that SLDs are detected and assessed.

**Section C. Professional Experience**

The percentages of responses in Section C of the whole sample are shown in Table 4. Most of those surveyed currently have students with SLDs in their class, or have had them at some point in their career (items 25 and 26). Most also believe, as shown in item 27, that these students should be schooled in an ordinary classroom, since they state that they would give them the necessary attention, as we can observe in the responses to question 28. Furthermore, many of the participants indicate that they have detected children with SLDs in their class at some time (item 29). From the responses to item 30, we can discern that families tend to find it difficult to accept the fact when their child is identified or detected with an SLD.

However, the teachers indicate that there is limited knowledge in the education community regarding how to handle these types of student (item 31), and that they do not usually have sufficient human resources (item 33) or specific materials (item 41). They also show high agreement over their integration in school (item 32), and 50.7% do not think that they are detrimental to the rest of the class (item 35). However, they do indicate that their integration requires a lot of effort and attention from the teacher (item 38), and they can occasionally hamper the pace of the class (item 34).

The teachers perceive that the children with SLDs behave adequately (item 39), and they tend to have high expectations of them (item 37), although in general they reveal a diversity of opinions regarding their preference for working with them (items 36 and 43). Lastly, the answers to item 42, on curricular adaptation, are noteworthy, for although the mode is option 2, there is a fairly similar percentage for all of the options.

**Table 4.**

*Percentage of frequencies for each option in Section C for the total sample*

	Mode	Response options (1 = Completely disagree; 5 = Completely agree; 6 = n/a or Don't know)					
		1	2	3	4	5	6
25- I have SLD students	5	25.3	4	5.3	9.3	53.3	2.7
26- I have never had students with SLD	1	75.7	0	9.5	2.7	10.8	1.3
27- Children with SLDs are in my classrooms	5	1.3	5.3	21.3	22.7	46.7	2.7
28- I would give them the attention they need	5	4	2.7	14.7	22.7	53.3	2.7
29- I have detected SLDs	5	10.8	5.4	12.2	20.3	48.6	2.7
30- The family of children with SLDs	3	9.3	20	37.3	17.3	8	8
31- The education community has knowledge	3	10.8	22.7	25.3	21.6	10.8	8.1
32- Integration of students with SLDs	4	5.3	2.7	24	29.3	26.7	4
33- The education community has the necessary human resources	3	13.3	22.7	34.7	9.3	13.3	6.7
34- SLDs hamper the pace of the class	3	24	18.7	36	14.7	5.3	1.3
35- SLDs are detrimental to the rest	1	50.7	20	14.7	8	4	2.7
36- I would prefer not to have students with SLDs	1	43.1	8.33	19.4	12.5	12.5	4.2
37- I do not have high expectations	1	52	17.3	16	6.7	6.7	1.3
38- The problem of integrating	5	5.3	13.3	18.7	29.3	30.7	2.7
39- They behave adequately	3	4	13.3	33.3	29.3	17.3	2.7
40- Specialized materials	5	8	1.3	10.7	22.7	54.7	2.6
41- I have specific materials available	3	27	17.6	28.4	19	5.4	2.7
42- Tutors responsible for curricular adaptations	2	19.2	21.2	21.2	19.2	12.3	5.5
43- I like working with students with SLDs	3	4.1	10.8	33.8	27	17.6	6.7

The response frequencies of the teachers with specific and general training show that, although the general profile is similar to the whole sample, differences are observed regarding the complete agreement shown by the specialist teachers in affirming that the tutors are responsible for the devising and following of curricular adaptations, whereas the general teachers disagree with this statement. Another discrepancy observed here is that the specialist teachers show a higher liking for working with these students than the teachers without specialized training.

The responses of the teachers with more than and less than 15 years of experience show differences, specifically that the more practised teachers consider that they have few specific materials to assist with the problems of children with SLDs. We also observe a notable difference in item 42, where the teachers with more than 15 years' experience show complete disagreement with the idea that curricular adaptations should be the exclusive task of the tutor.

#### Section D. Training Needs

The results for the section on training needs are shown in Table 5. Regarding item 44, 26.67% indicate that they know the procedure to follow with already diagnosed children, yet 21.33% state that they have no knowledge in this regard. There is no complete agreement on the knowledge the teachers possess for designing curricular adaptations (item 50), as the response percentages are similar.

Similarly, 34.67% indicate that they know the procedures to follow for children that have not been diagnosed, but also 24% show little or no knowledge. However, 43.2% feel capable of identifying children with SLDs in the classroom, although the responses to item 53 show that most do not know how to assess these types of students.

There is a high level of agreement in stating that there are not enough continuous teacher development courses to enhance their knowledge of SLDs (item 51), as there is in recognizing that they need more complementary training to identify and intervene with these children (items 54 and 55). Lastly, a representative number of the sample consider that their colleagues need training on identification and intervention, and that currently Hearing and Language and SEN teachers are the only ones who possess specific training on SLDs (items 56 and 57).

Regarding the comparison between teachers with specific and general training, we observe that the teachers with specialized training show more knowledge on the assessment of children with SLDs and on how to organize the classroom when they are present. There is also a discrepancy concerning the availability of training courses, whereby the teachers

with general training indicate that there is more availability than the teachers with specific training.

The comparison between teachers with more than and less than fifteen years of teaching experience, meanwhile, reveals differences: the less experienced teachers consider that they have more training to assess a student with an SLD than their more experienced counterparts; they are more in agreement over their training for devising curricular adaptations for SLD students; and also agree more on their knowledge of teaching materials and resources for these students.

**Table 5.**  
*Percentage of frequencies for each option in Section D for the total sample.*

	Response options (1 = Completely disagree; 5 = Completely agree; 6 = n/a or Don't know)						
	Mode	1	2	3	4	5	6
44- Enrol diagnosed in school	4	21.3	8	17.3	26.7	17.3	9.3
45- Enrol non-diagnosed in school	4	12	12	14.7	34.7	17.3	9.3
46- I know how to assess	1	26.7	18.7	22.7	17.3	6.7	8
47- I have knowledge on teaching materials	3	18.7	22.7	29.3	20	4	5.3
48- Organize the classroom	5	6.7	14.7	24	20	33.3	1.3
49- Programme time	5	6.7	13.5	23	18.9	33.8	4.1
50- Make adaptations	3	16.4	21.9	24.6	19.2	9.6	8.2
51- Courses are made available	1	25.7	24.3	20.3	14.9	1.3	13.5
52- Identify a student	4	5.4	9.4	23	43.2	17.6	1.3
53- Assess a student with SLD	3	21.6	17.6	29.7	18.9	10.8	1.3
54- Training for intervention	5	4.1	12.2	17.6	22.9	41.9	1.3
55- Training for identifying	5	5.4	9.4	16.2	28.4	39.2	1.3
56- My colleagues	5	4.2	6.9	11.1	26.4	36.1	15.3
57- Hearing and Language and SEN teachers	5	6.7	12.2	23	21.6	28.4	8.1

**Discussion**

The general purpose of this study was to determine the possible existence of teachers’ training needs on SLDs. In order to do so, as per the methodology of the studies we reviewed, we drew up a questionnaire, which was applied to 75 teachers from 11 state and charter schools. The results of this ground-breaking study in Spain confirm that most teachers did not have specific training on SLDs during their university teaching degree. As stated above, only the teachers specializing in Special Educational Needs, and Hearing and Language, had been taught subjects relating to SLDs during their university degree. The results also show that teachers tend to do training courses but highlight that courses specifically on SLDs are not usually available.

Regarding knowledge on SLDs, it is noteworthy that only 14.7% can name some fundamental aspects of their definition, while the large majority do not know

the new laws concerning SLDs, nor their estimated prevalence. Nevertheless, they do recognize examples of SLDs and some of their characteristics (e.g. they are a heterogeneous group, or that they have average intellectual abilities). This result contrasts with Thomas & Uthaman (2019) which observed that 63% of the participants had an average level of knowledge about SLD. As Castejón (2004) and Zaragoza (2007) have shown, defining the baseline is essential for the adequate design of an adapted training action. In this case, as they are education professionals, we observe a notable level of prior knowledge regarding the topic, but they have also demonstrated lacunae that a training activity could fill.

Our results show that 75.67% of the teachers state having had students with SLDs in their classroom at some time in their teaching career, and 53.33% report that they have them in the current academic year. This is in line with studies that indicate the high prevalence of these types of difficulties (Jiménez, Guzmán, Rodríguez & Artiles, 2009), and makes clear the great importance of developing the necessary skills in teachers for helping these children overcome their challenges. It also needs to be highlighted that, as in the study by Álvarez et al. (2005) on special educational needs, the attitude of teachers toward students with SLDs is positive, and they report having good expectations of them. This fact will enable a possible training action to be developed more smoothly and with suitable motivation from the participants. Thomas & Uthaman (2019) found a significant correlation between teachers’ knowledge and their attitude towards inclusive education, therefore, it can be considered essential to increase the knowledge in this field to ensure an educational response for these students.

In terms of the teachers’ perception of a need for training, they report that their knowledge of SLDs is inadequate. Therefore, they require training courses that would enable them to acquire the tools for identifying, assessing and intervening with students with SLDs. They perceive this need both for themselves and for their colleagues, except SEN and Hearing and Language teachers. These results converge with those of Pérez Serrano (1999), in which the teachers were also aware of their lack of knowledge and requested continuous training. In keeping with the study by Alemany and Villuendas (2004), the teachers highlight the difficulty that attending to children with SLDs entails, since they have limited material and human resources to deal with the reality they face in the classroom. In this regard, one of the objectives that could be solved by continuous training of teachers would be to offset the limitations of specialized personnel in schools in order to facilitate the integration and care of these students. Beyond this, as pointed out Woodcock (2013), educators need

to understand the impact and relevance that their attitudes and knowledge in students with SLD, that is educators must understand the indirect messages that they may send to students with SLD and how these can have dangerous consequences more than academic context.

On the other hand, as specific objectives, this study aimed to verify whether years of teaching experience and the type of teaching degree studied affected the attitudes and knowledge of the teachers on this subject. The results are not conclusive, since the final sample distribution in the groups was very unequal. Nevertheless, despite the limitations, we observe a similar pattern of results except in the group of specialist teachers in the questions regarding greater continuous training and motivation for working with these types of students.

There are differences regarding the comparison of teachers with more and less experience, in line with the studies by Tenorio (2011) and Sales, Moliner, Odet and Sanchís (2001). Specifically, we can see that the teachers with less experience state that they have had training on SLDs during their university degree. This discrepancy could be due to the fact that the SLD category was not legally recognized in Spain until the Spanish Organic Law of 2006.

It should be stated that this study has certain limitations related to the sample and the instrument used. Teacher participation was voluntary and, as mentioned above, only 63.6% completed the questionnaire. This fact could indicate that the sample is biased, since it may be that only those teachers responded who had a particular motivation for participating in the university study and/or who had greater knowledge of SLDs. Regarding the questionnaire, it has been detected that certain items could present social desirability, such as: "If I had students with SLDs in my classroom I would give them the attention they need." For this reason, this study could be considered a pilot study for validating the questionnaire and for selecting more precise items to detect the needs of teachers.

As a continuation of the exploratory study carried out in this research, we should consider conducting further studies with the comprehensive participation of all teachers in order to avoid biases. Moreover, the number and type of participating schools could be increased (with different cities and socio-economic environments) to make the results more representative. In addition, we would pursue the aim of achieving an equal sample of teachers with different training and experience so that the results can be interpretable and would meet the specific aims established in this study.

Based on the results of this study, we conclude that the proposal for continuous teacher training courses

on SLDs is important for active teachers. We suggest, in response to the gaps in knowledge we have detected, that a training action be initiated that includes content related to definition, types, manifestation, legislative changes, identification, assessment, and intervention in the classroom (including materials that can be used). Since this content is now taught in Primary Education degrees, we propose the possibility of carrying out a joint training course between active teachers and recent graduates, where both groups can mutually benefit one another, the recent graduates sharing their up-to-date knowledge and the active teachers their experience of the reality found in schools.

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**ANNEX: QUESTIONNAIRE DESIGNED IN THE STUDY**

## QUESTIONNAIRE ON ATTITUDES OF TEACHERS REGARDING SLDs

The aim of this questionnaire is to carry out a research on the attitudes of primary-education teachers regarding Specific Learning Disabilities (SLDs). The data that are requested in this questionnaire are strictly confidential and will only be used on a mass level, not individually. Please read carefully and answer all the questions. Your collaboration and sincerity will help us to understand the reality of this subject matter and the possible teacher training needs related to it.

Bear in mind that there are no right or wrong answers. Your responses will only show your opinion and teaching experience, and therefore they are all valid.

We thank you in advance for your collaboration.

## PERSONAL AND SCHOOL INFORMATION:

Age:                      Sex:

Year of graduation from teaching degree:

Years of teaching experience:

Specialization:

Type of school: State\_\_\_ Charter\_\_\_\_\_ Private\_\_\_\_\_

Location: City centre\_\_\_ Metropolitan area\_\_\_\_\_

Primary Education Years/Grades currently teaching:

Primary Education Years/Grades you have taught for the majority of your professional career:

N° of students in your class:

Below you are presented with a series of statements and questions, organized into four sections, on academic training, specific knowledge of SLDs, professional experience, and training needs, which should be answered with the utmost sincerity possible. At the end of the questionnaire, there is a section for comments, if you consider it appropriate to make any observation that has not been dealt with in the questionnaire.

Most questions give you an answer scale, where 1 equals "Completely disagree" and 5 equals "Completely agree" with the statement in question. There is also an option 6, which equals n/a or "don't know", if you have no information or knowledge to be able to answer that question.

**A. ACADEMIC TRAINING**

1-Do you have other university qualifications besides the teaching degree? What are they?

2-Do you have a Master’s Degree related to Education?

		1	2	3	4	5	6
3	I studied teaching due to a sense of vocation						
4	I studied teaching because I did not get good enough grades to do another degree						
5	During my teaching degree, I received training on SLDs						
6	I have attended courses organized for the continuous training of teachers						
7	I have attended continuous teacher training courses on SLDs.						
8	I consider that I have had a high level of training for attending to students with SLDs						

**B. SPECIFIC KNOWLEDGE OF SLDs**

9- What do you understand by students with SLDs?

10- From the following options, underline those you consider to be part of the category of “Specific Learning Disabilities”: Dyslexia, Dyslalia, Dyscalculia, Down’s Syndrome, Dysgraphia, Reading Delay, Intellectual Disability, Physical Disability, Specific Language Impairment.

11- Students with SLDs should be schooled in:

- a) an ordinary classroom
- b) specific classrooms in ordinary schools
- c) specialist schools
- d) integration-support classrooms

12- Of the following professionals, indicate those responsible for SLDs in terms of early detection and assessment:

- a) Teachers
- b) Tutors
- c) Counsellor
- d) Therapeutic Pedagogy teacher
- e) Hearing and Language teacher
- f) Psychologist
- g) Doctor
- h) Speech therapist
- i) Others:.....

13- Of the following professionals, indicate those responsible for SLDs in terms of intervention:

- a) Teachers
- b) Tutors
- c) Counsellor
- d) Therapeutic Pedagogy teacher
- e) Hearing and Language teacher
- f) Psychologist
- g) Doctor
- h) Speech therapist
- i) Others...:.....

		1	2	3	4	5	6
14	I know the latest changes in the education regulations of the autonomous community where I work						
15	The current legislation makes it possible to meet the needs of children with SLDs						
16	In the autonomous community where I work, actions, plans, programmes, accords, etc., aimed at students with SLDs have been put into action						

17	Children with SLDs tend to have a below-average intelligence						
18	Children with SLDs tend to be a homogeneous group						
19	All SLDs tend to be evaluated in Primary Education						
20	Despite providing sufficient support, children with SLDs are not capable of achieving the same objectives as the rest of their classmates						
21	There are professionals who attend specifically to students with SLDs in my school						
22	The education community provides specific economic resources for attending to students with SLDs						
23	I know the number of children with SLDs there are in my school						

### C. PROFESSIONAL EXPERIENCE

		1	2	3	4	5	6
24	Before working, I had already had dealings with students with SLDs						
25	Currently there are students with SLDs in my class						
26	I have never had contact with students with SLDs						
27	I think it is appropriate that children with SLDs are in ordinary classrooms						
28	If I had students with SLDs in my classroom I would give them the attention they need						
29	I have at some point detected children with SLDs in my class						
30	The families of children with SLDs do not have a problem accepting it and usually collaborate						
31	The education community has adequate knowledge about how to deal with SLDs						
32	Students with SLDs are fully integrated in the school						
33	The education community has the necessary human and material resources to meet the needs of students with SLDs						
34	I think that students with SLDs hamper the pace of the class						
35	Having students with SLDs in the classroom is detrimental to the rest of the students						
36	If I could choose, I would prefer not to have students with SLDs in my classroom						
37	I recognize that I do not have high expectations for the improvement of students with SLDs						
38	The problem of integrating a child with an SLD in the ordinary classroom is that it requires a lot of time and attention from the teacher						
39	The students with SLDs tend to behave appropriately in class						
40	I believe that the use of specialized materials facilitates the learning of students with SLDs						
41	I have specific materials available to address the problems of children with SLDs						
42	Tutors should be the ones responsible for the design and monitoring of curricular adaptations						
43	In general, I like working with students with SLDs						

**D. TRAINING NEEDS**

		1	2	3	4	5	6
44	I know the procedure to be followed when a student already diagnosed with an SLD is enrolled in my class						
45	I know the procedure to be followed when a student with an undiagnosed SLD is enrolled in my class						
46	I know how to assess a child to detect whether they have an SLD						
47	I have knowledge on teaching materials and resources for students with SLDs						
48	I know how to organize the classroom when there are students with SLDs						
49	I have knowledge about how to programme time with students with SLDs						
50	I know how to design curricular adaptations for students with SLDs						
51	Sufficient continuous teacher training courses are currently being offered to expand my knowledge about SLDs						
52	I believe that I am capable of identifying a student with an undiagnosed SLD in my classroom						
53	I believe that I would be capable of assessing a student with an SLD						
54	I believe that I need more training on intervening with children with SLDs in the classroom						
55	I believe that I need complementary training to identify and intervene with children with SLDs						
56	I believe that most of my colleagues need training on identification and intervention of SLDs in the classroom						
57	I believe that currently only Hearing and Language teachers and SEN teachers have specific training on SLDs in schools						