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# Questionnaire on the Training Profile of a Learning Therapy Specialist: Creation and Validation of the Instrument

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**Abstract:** This article provides a description of the creation and validation process for a questionnaire designed to analyze the initial training received by students of degree programs in pre-primary and primary education, specializing in learning therapy. The instrument consists of 175 items in three sections: the first collects sociodemographic data; the second analyzes the initial training received; and the third and final section analyzes the perception of this initial training. The questionnaire was subjected to a double validation process: an evaluation by a panel of experts and a pilot group, these permitted the validation of the content and construct, as well as the corresponding reliability assessment. The results confirm the validity of the questionnaire with an excellent reliability index, allowing the effective evaluation of the training profile of learning therapy specialists.

**Keywords:** initial training; teachers; learning therapy; validation; questionnaire

## 1. Introduction

Special education is a discipline that deals with the education of children with disabilities, addressing their specific needs as have been identified over time [1].

The General Education Act of 1970 saw the first mention of special education and with it a new teacher profile—the learning therapist—responsible for providing the specific educational support necessary in the classroom.

According to article 19 of the Order of 20 August 2010, this professional has multiple responsibilities such as adapting the curriculum to address student needs, developing and adapting materials, providing assistance to teachers, tutoring students with special educational needs and coordinating with mainstream teachers, orientation teams and other professionals who may be involved with these students [2]. They will also work and coordinate with families to ensure effective communication and avoid contradictions that may hinder student learning [3].

All of these functions are designed to improve teaching-learning outcomes, to build student autonomy and active participation in society [4], with the cooperation of all teachers, at all educational levels, in order to develop student potential and meet established objectives [5].

We therefore understand that this is a professional who will engage with a very heterogeneous group with a broad spectrum of needs, both in mainstream and specialized schools. This will require the appropriate training as set forth in the World Report on Disability (2011) [6], which states: “The appropriate training of mainstream teachers is crucial if they are to be confident and competent in teaching children with diverse educational needs. The principles of inclusion should be built into teacher training programs, which should be about attitudes and values not just knowledge and skills” (p. 222).

This training begins with the initial skills acquired by future teachers during their university studies, with a methodology combining both theory and practice [7]. This combination is important as the goal for university students is to acquire not only theoretical knowledge but also have the appropriate practical skills, attitudes and behaviors to effectively manage the educational challenges they will face professionally [8,9].

As shown by Moriña and Carballo (2018) [10] in their study on the importance of inclusive education, interviewees highlighted the need for useful and practical training that gives teachers the skills to work effectively, to develop curricula, to create materials, etc., that is, specialist teachers able to fulfil their professional responsibilities with confidence, practical knowledge and experience, and devoting the specific attention required by each student with special educational needs to each student.

This conforms to article 4, section I of the Convention on the Rights of Persons with Disabilities (UN, 2006) [11], which highlights the need “to promote the training of professionals and staff working with persons with disabilities in the rights recognised in the present Convention so as to better provide the assistance and services guaranteed by those rights”. Furthermore, there are a number of works, including that of González-Gil and Martín (2014) [12], that affirm that the training of professionals is the key to ensuring a quality, inclusive education that attends to the individual needs and characteristics of these students and prepares them for a productive future.

However, we have found that, currently, this professional training is neither unified nor shared across university programs, this is, in part, due to the extinction of the former programs of psycho-pedagogy and special needs education and their substitution with a specialization within the degrees in pre-primary and primary education under the Bologna Process [5]. As shown in a recent article about the analysis of autism spectrum disorder (ASD) classrooms, half of teachers do not feel that they have received the correct initial training for starting their professional activity [13].

Specialization in learning therapy is the training pathway for future teachers of a diverse range of students in the classroom, responsible for the detection and prevention of learning difficulties, employing the necessary strategies for the effective education of students with special needs [14].

There are a number of instruments that evaluate teacher training in educational diversity and inclusion [15], aiming to determine the training received by mainstream teachers in degree programs in pre-primary and primary education in dealing with special needs students. The instruments have resulted in a multitude of studies into the level of teacher training in the area of diversity and inclusion, and the deficiencies encountered in professional practice [16–20]. This is not the case with specialists in learning therapy, as there are no instruments to analyze the support provided to students, teachers and families in order to determine if the training is adequate and suitable to their needs.

Considering that the principal barrier for students with disabilities is the lack of adequate training on the part of teachers, often resulting in negative attitudes towards students with special needs [21–24], it is important to ensure that learning therapy specialists have the appropriate training to work with students and their families, and to provide orientation to mainstream teachers in addressing the needs of students with disabilities. This will help ensure that, based on their initial training, an inclusive education is available to all students [25].

The evaluation of the training of learning therapy specialists, by means of our questionnaire, will help achieve the goal of a quality education for all (goal four) and the reduction of inequalities (goal 10) set out in the United National Agenda 2030 for sustainable development.

Thus, the aim of this research is to create and validate a questionnaire that will allow the effective assessment of the training received by future teachers in degree programs in pre-primary and primary education specializing in learning therapy. Two aspects have been addressed to achieve this objective:

1. Analysis of the content validity and construct of the questionnaire “Profile of the specialist in Learning Therapy”
2. Analysis of the reliability of the questionnaire “Profile of the specialist in Learning Therapy”

## 2. Materials and Methods

### 2.1. Design

This research applied a descriptive methodology for an objective and verifiable analysis of a specific population. A questionnaire was used to collect information as the easiest and most commonly used tool in the field of education [26].

### 2.2. Instrument

An initial review of existing questions revealed that there are no questionnaires that evaluate the training received by teachers of pre-primary and primary education specializing in learning therapy. Given the diversity of the students with whom they will be working, and the wide range of needs to be addressed, we proceeded to create a questionnaire that asks a series of questions encompassing their knowledge of these needs and how to address them.

The questions were created taking into account the persons to whom they were addressed, aiming to be clear and concise. The questionnaire is of considerable length. This aspect was carefully considered, and it was difficult to reduce the number of items addressing all the aspects deemed necessary for training and intervention.

The questionnaire is structured in three sections. The first deals with sociodemographic data, the second consists of 10 subscales that measure the training profile of the students' information, using a Likert scale from 1 to 5, where 1 is "I don't know" and 5 is "I know a lot", finally, the third section analyzes their opinions of their initial training, using both open questions and questions using the same Likert scale.

This structure allowed us to make a comprehensive analysis of the specialist teacher by completing the questionnaire in full, or a partial analysis merely using the training subscale.

The initial questionnaire consisted of 186 items. The sections on sociodemographic data and initial training consisted of 15 questions while that on academic training consisted of 171 questions divided into 10 subscales, this structure is illustrated in Table 1 below:

**Table 1.** Structure of the questionnaire by dimensions, specifications, and number of items.

Dimension	Information	N° Items	
Sociodemographic Data	This section collects the information of the respondent regarding their qualifications, age, year of graduation, etc.	8	
Training section	Motor impairment (MI)	19	
	Autism Spectrum Disorder (ASD)	17	
	Visual impairment (VI)	For each of the different disabilities or dysfunctions the theoretical and practical knowledge needed by teachers is evaluated, as well as their feelings of competence in dealing with families and their evaluation of the training they have received in each of the blocks.	15
	Hearing impairment (HI)		15
	Intellectual disability (ID)	15	
	Personality disorders (PD)	18	
	Gifted Students (GS)	18	
	Attention deficit syndrome (ADHD)	20	
	Specific Learning Disabilities (SLD)	13	
	Intervention Planning (IPLAN)	Includes different aspects related to processes and forms of intervention (Curricular adaptations, student-centred planning, cooperative learning, etc.)	21
University training (UTrain)	This block evaluates university training in diversity and inclusion and the specialisation in Learning Therapy. It includes three open questions to evaluate the training received at the end of the questionnaire.	7	
TOTAL		186	

### 2.3. Participants

Once the questionnaire was created, it was put before a panel of experts. These experts were selected based on the following criteria [27]:

1. Experience in making evaluations.
2. Professional reputation.
3. Availability and willingness to participate.
4. Impartiality and inherent qualities such as confidence and adaptability.

For the expert evaluation, two specialists were selected for each of the disabilities or dysfunctions included in the questionnaire for a total of 18 people. Each of these experts made an evaluation of the block dealing with their area of expertise, providing qualitative analysis of each item, taking into consideration:

1. If the text of each item is clear and correct.
2. If the questions have the appropriate length.
3. If the content of the questions is coherent with each of the blocks.
4. If the response options (1 to 5 scale) are appropriate to the questions.
5. Other aspects.

More generally, the experts were also asked to consider if any information or items should be added or eliminated, and any other aspects they wished to comment on.

Furthermore, the questionnaire was posed to a pilot group consisting of 32 recent graduates in pre-primary and primary education specializing in learning therapy, a sample similar to the group we aimed to study. The role of this group was to answer the questionnaire and offer a qualitative analysis, indicating at the end of each block their observations and considerations, the same as the group of experts. They were also asked to evaluate the suitability and length of the questionnaire and the time given for completion.

### 2.4. Procedure

An initial review was conducted of the existing questionnaires used to determine the profile of the learning therapy specialist. It was found that there were no questionnaires that collect the information necessary to effectively evaluate this professional profile.

The next step was the creation of a questionnaire covering the theoretical and practical aspects considered necessary for an effective evaluation of the training received by these specialists.

A group of experts was then consulted to validate the questionnaire, which was subsequently posed to a pilot group to verify that the included items were appropriate. A qualitative evaluation was used in both cases.

Once this information was collected, an analysis was made of the corresponding data.

### 2.5. Data Analysis

The validity of the content and construct was analyzed by means of a panel of experts and a pilot group. A reliability test (Cronbach's alpha) of the complete scale and the various subscales was also conducted.

In all cases, data were analyzed using the SPSS statistical software, version 24.

## 3. Results

The results are presented in two parts. The first part analyzed the validity of the content and construct by means of a panel of experts and a pilot group, the second calculated the homogeneity index of the items and the final reliability test of the complete scale and each of the subscales.

### 3.1. Panel of Experts and Pilot Group

Based on the evaluation by the panel of experts, the following modifications, additions, or eliminations were made:

- a. ASD block—the following items were added:
  - i. I can create an agenda according to the needs of the ASD students, considering different levels of abstraction.
  - ii. I can create materials to develop the social skills of ASD students.
- b. Visual impairment block—the following item was eliminated as being repetitive:
  - i. I am familiar with Braille print.
- c. Hearing impairment block—dactylology and fingerspelling were specified in the item referring to deaf-blindness.
- d. Personality disorders block—three items referring to the classification of dysfunctions in the DSM-V in A, B and C were eliminated as irrelevant from an educational point of view, but the specific needs produced by these dysfunctions are relevant.

Based on the opinions of the panel of experts, the indicated items were added or removed (Table 2). The initial questionnaire consisted of 186 items, later reduced to 184 items: eight in the sociodemographic section and 176 in the training section after the modification of items related to “Autism Spectrum Disorder”, “Visual impairment”, “Hearing impairment” and “Personality disorders”.

**Table 2.** Final distribution of items by the dimensions of the questionnaire.

Dimension	N° Items Initially	N° Items Eliminated	N° Items Added	N° Items Modified	N° Items Final
Sociodemographic data	8	0	0	0	8
Motor impairment (MI)	19	0	0	0	19
Autism Spectrum Disorder (ASD)	17	0	2	0	19
Visual impairment (VI)	15	1	0	0	14
Hearing impairment (HI)	15	0	0	1	15
Intellectual disability (ID)	15	0	0	0	15
Personality disorders (PD)	18	3	0	0	15
Gifted Students (GS)	18	0	0	0	18
Attention Deficit Hyperactivity Syndrome (ADHD)	20	0	0	0	20
Specific Learning Disabilities (SLD)	13	0	0	0	13
Intervention Planning (IPLAN)	21	0	0	0	21
University training	7	0	0	0	7
<b>TOTAL</b>	<b>186</b>	<b>4</b>	<b>2</b>	<b>1</b>	<b>184</b>

The pilot group did not suggest any changes, considering the items to be appropriate, except with regard to the length of the questionnaire. It was decided not to make changes in the length given the importance of the information evaluated.

### 3.2. Reliability Assessment

The questionnaire was administered to a pilot group of 32 students in order to determine their comprehension of the items and analyze the construct validity.

To analyze the construct validity, a homogeneity test was conducted of the items of each subscale to eliminate those with low discrimination (<20) or those with a low correlation but above 20, and thus increase the reliability of the instrument if eliminated. A reliability test was also conducted using Cronbach’s alpha, before and after eliminating the items with low correlation to verify the difference.

Table 3 shows the results of these tests, showing how the elimination of a number of items enhanced the reliability of the scale, not the instrument as a whole in the training section. The reliability index of the instrument is good or excellent in all scales according to the criteria of George and Mallery (2003, p. 231) [28].

**Table 3.** Analysis of the homogeneity and reliability of the items.

Subscale	Items	Eliminated Items (Discrimination Index)	N° Items Final	Initial Cronbach's Alpha	Final Cronbach's Alpha
MI	1–19	Item 16 (0.288) Item 19 (0.232)	17	0.898	0.911
ASD	20–38	Item 35 (0.234) Item 38 (0.329)	17	0.945	0.962
VI	39–52	Item 43 (0.293)	13	0.863	0.866
HI	53–67	Item 61 (0.300) Item 64 (0.377)	13	0.906	0.915
ID	68–82	-	15	0.924	0.924
PD	83–97	-	15	0.974	0.974
GS	98–115	Item 101 (0.442)	17	0.950	0.953
ADHD	116–135	-	20	0.948	0.948
SLD	136–148	-	13	0.870	0.870
IPLAN	149–169	Item 150 (0.111)	20	0.918	0.925
Total	169		160	0.986	0.986

Note: MI: motor impairment; ASD: autism spectrum disorder; VI: visual impairment; HI: hearing impairment; ID: intellectual disability; PD: personality disorders; GS: gifted students; ADHD: attention deficit hyperactivity disorder; SLD: specific learning disabilities; IPLAN: intervention planning.

After the validation of the content and the construct, the final questionnaire had a total of 175 items, of which, 160 corresponded to the training section, configured into different subscales. The final questionnaire is provided in Appendix A.

#### 4. Discussion and Conclusions

This work describes the process of validation of a questionnaire created to analyze the training profile of learning therapy specialists. A number of studies provide a general assessment of the university training of mainstream teachers [29–32] and for more specific teacher profiles such as specialists in physical education [33], music [34] or foreign languages [35]. However, when we looked at specialists in learning therapy, we found that many studies analyze more general aspects of pre-primary and primary teacher training in the area of educational diversity and inclusion, making use of instruments designed for this type of analysis [14], but not for the profile of the learning therapy specialist. Thus, the present work aims to validate an instrument that will allow the analysis of the training in this professional field.

This section offers some of the principal conclusions drawn from the results of the analysis of the design and psychometric properties of the questionnaire.

Firstly, we assessed the content and construct validity using a panel of experts of an appropriate number according to previous studies [36–38]. These experts performed a qualitative analysis to determine the suitability of both the questionnaire as a whole and each of the items. Certain minor changes were made to improve the questionnaire.

The questionnaire was subsequently analyzed for homogeneity, eliminating those items with low correlations and therefore enhancing the reliability of the subscales. We determined that the reliability was excellent in general terms and good to excellent in the different subscales.

The work has allowed us to develop an important instrument for evaluating the training profile of the learning therapy specialist, a professional who must address the highly diverse needs of a highly

diverse set of students. To do this effectively, it is essential that these professionals have the appropriate training. The assessment of learning therapists will reveal the current reality in order to identify areas for improvement, starting with initial professional training, with clear and objective criteria.

However, there are certain limitations to the present study that should be noted. Firstly, the questionnaire may be too long, a possible impediment to those who need to complete it. Secondly, the size of the pilot group was limited and should be expanded in order to have a more substantial and generalizable data set.

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## Appendix A

Questionnaire on the training profile—learning therapy specialists  
Sociodemographic data:

### Qualification:

- Degree in pre-primary education.
- Degree in primary education

### Specialization:

- Learning therapy
- Other . . . . .

University where you studied . . . . .

. . . . .

Year of graduation . . . . .

. . . . .

### Years of teaching experience

- I have no teaching experience
- Less than 5 years
- Between 5 and 10 years
- More than 10 years

### Are you currently working?

- Yes
- No

### If the answer is Yes:

- You are a mainstream classroom teacher
  - Pre-primary
  - Primary
  - Secondary
- You are a learning therapy teacher
  - Pre-primary
  - Primary
  - Secondary
- Other

Age . . . . .

### Gender

- Male
- Female

## Training analysis:

**Table A1.** Motor impairment (MI).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
1	I am familiar with the needs of students with MI.	1	2	3	4	5	6
2	I am able to address the needs of students with MI in the LT classroom.	1	2	3	4	5	6
3	I am able to address the needs of students with MI in the mainstream classroom.	1	2	3	4	5	6
4	I am able to create education materials adapted to the needs of students with MI.	1	2	3	4	5	6
5	I am familiar with alternative and augmentative communication systems.	1	2	3	4	5	6
6	I am familiar with pictograms are.	1	2	3	4	5	6
7	I am familiar with a communication board is.	1	2	3	4	5	6
8	I am able to create a communication board (using BLISS, SPC, ARASAAC).	1	2	3	4	5	6
9	I am familiar with an E-TRAN board is.	1	2	3	4	5	6
10	I know of ICT programs and tools that facilitate access to communication.	1	2	3	4	5	6
11	I am familiar with support technologies.	1	2	3	4	5	6
12	I am able to introduce support technologies to facilitate learning for students with MI in the classroom.	1	2	3	4	5	6
13	I am familiar with basal stimulation is.	1	2	3	4	5	6
14	I am familiar with multisensorial stimulation is.	1	2	3	4	5	6
15	I am able to create sensorial materials for the classroom.	1	2	3	4	5	6
16	I believe my current level of training in motor impairment allows me to provide basic orientation to families.	1	2	3	4	5	6
17	I believe my current level of training is adequate to address the needs of students with MI.	1	2	3	4	5	6



**Table A2.** Autism spectrum disorder (ASD).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
18	I am familiar with the needs of students with ASD.	1	2	3	4	5	6
19	I am able to address the needs of students with ASD in the classroom PT.	1	2	3	4	5	6
20	I am able to address the needs of students with ASD in the mainstream classroom.	1	2	3	4	5	6
21	I am familiar with Social Stories are.	1	2	3	4	5	6
22	I am able to create a Social Story.	1	2	3	4	5	6
23	I am aware of when it is appropriate to use Social Story.	1	2	3	4	5	6
24	I am familiar with the Theory of Mind.	1	2	3	4	5	6
25	I am able to create materials to work with the Theory of Mind for students with ASD.	1	2	3	4	5	6
26	I am able to create materials to work on the emotion regulation of students with ASD.	1	2	3	4	5	6
27	I am able to create materials to work on the social skills of students with ASD.	1	2	3	4	5	6
28	I am able to structure an LT classroom based on the ASDCCH system.	1	2	3	4	5	6
29	I am able to create materials for the TEACCH system.	1	2	3	4	5	6
30	I am aware of the Positive Behaviour Support program.	1	2	3	4	5	6
31	I know about hyper-sensitivity and hyper-sensitivity among people with ASD.	1	2	3	4	5	6
32	I am able to use visual supports with pictograms to adapt materials such as stories, sequences, routines, visual timetables, etc.	1	2	3	4	5	6
33	I believe my current level of training in ASD allows me to provide basic orientation to families.	1	2	3	4	5	6
34	I believe my current level of training is adequate to address the needs of students with ASD.	1	2	3	4	5	6

Sensory disabilities:

**Table A3.** Visual impairment (VI).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
35	I am familiar with the needs of students with visual impairment.	1	2	3	4	5	6
36	I know how to address the needs of students with visual impairment in the LT classroom.	1	2	3	4	5	6
37	I know how to address the needs of students with visual impairment in the mainstream classroom.	1	2	3	4	5	6
38	I am familiar with Tiflotechnology.	1	2	3	4	5	6
39	I am able to create a text in Braille.	1	2	3	4	5	6
40	I am familiar with the Braille Terminal.	1	2	3	4	5	6
41	I am familiar with the Perkins Brailier.	1	2	3	4	5	6
42	I am able to address the spatial-temporal needs of students with visual impairment.	1	2	3	4	5	6
43	I am able to create supports as a guide for the spatial-temporal needs of students with deaf-blindness.	1	2	3	4	5	6
44	I am able to adapt materials for students with visual impairment (i.e., text in high relief).	1	2	3	4	5	6
45	I believe my current level of training in visual impairment allows me to provide basic orientation to families.	1	2	3	4	5	6
46	I believe my current level of training is adequate to address the needs of students with visual impairment.	1	2	3	4	5	6
47	I believe the training received in university is adequate to address the needs of students with visual impairment.	1	2	3	4	5	6

**Table A4.** Hearing impairment (HI).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
48	I am familiar with the needs of students with hearing impairment.	1	2	3	4	5	6
49	I know how to address the needs of students with hearing impairment in the LT classroom.	1	2	3	4	5	6
50	I know how to address the needs of students with hearing impairment in the mainstream classroom.	1	2	3	4	5	6
51	I am familiar with the FM System is for hearing impairment.	1	2	3	4	5	6
52	I am familiar with cued speech is.	1	2	3	4	5	6
53	I am familiar with the bimodal communication system.	1	2	3	4	5	6
54	I am able to communicate in signs using the bimodal structure.	1	2	3	4	5	6
55	I am familiar with Sign Language.	1	2	3	4	5	6
56	I am familiar with dactylology or fingerspelling.	1	2	3	4	5	6
57	I am able to communicate using dactylology.	1	2	3	4	5	6
58	I believe my current level of training in hearing impairment allows me to provide basic orientation to families.	1	2	3	4	5	6
59	I believe my current level of training is adequate to address the needs of students with hearing impairment.	1	2	3	4	5	6
60	I believe the training received in university is adequate to address the needs of students with hearing impairment.	1	2	3	4	5	6

**Table A5.** Intellectual disability (ID).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
61	I am familiar with the needs of students with ID.	1	2	3	4	5	6
62	I know how to address the needs of students with ID in the LT classroom.	1	2	3	4	5	6
63	I know how to address the needs of students with ID in the mainstream classroom.	1	2	3	4	5	6
64	I am aware of the priority areas in addressing the needs of students with ID.	1	2	3	4	5	6
65	I am familiar with individual support plans.	1	2	3	4	5	6
66	I am able to create an individual support plan.	1	2	3	4	5	6
67	I am aware of the different intensities of support for students with ID.	1	2	3	4	5	6
68	I am familiar with the five basic dimensions in the assessment of intellectual disability.	1	2	3	4	5	6
69	I am familiar with the four steps in the planning and evaluation of the support required by students with ID.	1	2	3	4	5	6
70	I am familiar with co-active, cooperative and reactive learning.	1	2	3	4	5	6
71	I am familiar with the principal behavioural problems associated with ID.	1	2	3	4	5	6
72	I am able to create a behaviour modification program.	1	2	3	4	5	6
73	I believe my current level of training in intellectual disability allows me to provide basic orientation to families.	1	2	3	4	5	6
74	I believe my current level of training is adequate to address the needs of students with ID.	1	2	3	4	5	6
75	I believe the training received in university is adequate to address the needs of students with ID.	1	2	3	4	5	6

**Table A6.** Personality disorder (PD).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
76	I am familiar with the needs of students with PD.	1	2	3	4	5	6
77	I know how to address the needs of students with PD in the classroom.	1	2	3	4	5	6
78	I am able to identify distinct types of attachment and their influence in the personality development of children.	1	2	3	4	5	6
79	I am familiar with schizophrenia and its manifestations in childhood.	1	2	3	4	5	6
80	I am familiar with borderline personality disorder and its manifestations in childhood.	1	2	3	4	5	6
81	I am familiar with narcissistic personality disorder and its manifestations in childhood.	1	2	3	4	5	6
82	I am familiar with antisocial personality disorder and its manifestations in childhood.	1	2	3	4	5	6
83	I am familiar with avoidant personality disorder and its manifestations in childhood.	1	2	3	4	5	6
84	I am familiar with dependent personality disorder and its manifestations in childhood.	1	2	3	4	5	6
85	I am familiar with obsessive-compulsive personality disorder and its manifestations in childhood.	1	2	3	4	5	6
86	I am familiar with childhood depression and its manifestations in childhood.	1	2	3	4	5	6
87	I am familiar with histrionic personality disorder and its manifestations in childhood.	1	2	3	4	5	6
88	I believe my current level of training in PD allows me to provide basic orientation to families.	1	2	3	4	5	6
89	I believe my current level of training is adequate to address the needs of students with PD.	1	2	3	4	5	6
90	I believe the training received in university is adequate to address the needs of students with PD.	1	2	3	4	5	6

Table A7. Gifted students (GS).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
91	I am familiar with the needs of gifted students.	1	2	3	4	5	6
92	I know how to address the needs of gifted students in the mainstream classroom.	1	2	3	4	5	6
93	I am aware of the difference between precocious, talented, gifted, genius and prodigy.	1	2	3	4	5	6
94	I am aware of how to identify gifted students in the family context.	1	2	3	4	5	6
95	I am aware of how to identify gifted students in the school context.	1	2	3	4	5	6
96	I am aware of the procedure for the assessment and education of gifted students.	1	2	3	4	5	6
97	I am familiar with the most commonly used assessment instruments for gifted students.	1	2	3	4	5	6
98	I am familiar with Renzulli's three-ring model.	1	2	3	4	5	6
99	I am familiar with MÖNK'S' triadic model of interdependence.	1	2	3	4	5	6
100	I am aware of the most important aspects in identifying the educational needs of gifted students.	1	2	3	4	5	6
101	I am aware of the measures for educational diversity for gifted students: enrichment, extension and flexibility.	1	2	3	4	5	6
102	I am able to create a program of curricular enrichment.	1	2	3	4	5	6
103	I am able to create a program of curricular extension.	1	2	3	4	5	6
104	I am aware of the steps necessary for curricular flexibility.	1	2	3	4	5	6
105	I believe my current level of training in gifted students allows me to provide basic orientation to families.	1	2	3	4	5	6
106	I believe my current level of training is adequate to address the needs of gifted students.	1	2	3	4	5	6
107	I believe the training received in university is adequate to address the needs of gifted students.	1	2	3	4	5	6

**Table A8.** Attention deficit hyperactivity disorder (ADHD).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
108	I am familiar with the needs of students with ADHD.	1	2	3	4	5	6
109	I know how to address the needs of students with ADHD in the LT classroom.	1	2	3	4	5	6
110	I know how to address the needs of students with ADHD in the mainstream classroom.	1	2	3	4	5	6
111	I am familiar with the three principal characteristics of students with ADHD.	1	2	3	4	5	6
112	I am familiar with executive functions.	1	2	3	4	5	6
113	I am able to plan an intervention to develop executive functions.	1	2	3	4	5	6
114	I am familiar with the comorbidities of ADHD.	1	2	3	4	5	6
115	I am aware of cognitive therapy.	1	2	3	4	5	6
116	I am able to plan activities based on cognitive therapy.	1	2	3	4	5	6
117	I am aware of behaviour therapy.	1	2	3	4	5	6
118	I am able to plan activities based on behaviour therapy.	1	2	3	4	5	6
119	I am able to adapt an exam for students with ADHD.	1	2	3	4	5	6
120	I am aware of the learning difficulties of students with ADHD.	1	2	3	4	5	6
121	I am able to address the reading, writing and mathematics needs of students with ADHD.	1	2	3	4	5	6
122	I am familiar with mental operation and their relation to ADHD.	1	2	3	4	5	6
123	I am able to plan assignments for students with ADHD based on thought routines.	1	2	3	4	5	6
124	I am able to plan assignments for students with ADHD based on graphic organisers.	1	2	3	4	5	6
125	I believe my current level of training in ADHD allows me to provide basic orientation to families.	1	2	3	4	5	6
126	I believe my current level of training is adequate to address the needs of students with ADHD.	1	2	3	4	5	6
127	I believe the training received in university is adequate to address the needs of students with ADHD.	1	2	3	4	5	6

**Table A9.** Specific learning disabilities (SLD).

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
128	I am familiar with the needs of students with SLD	1	2	3	4	5	6
129	I know how to address the needs of students with SLD in the classroom.	1	2	3	4	5	6
130	I am aware of the principal reading difficulties (dyslexia) of students with SLD.	1	2	3	4	5	6
131	I am able to address the principal reading difficulties of students with SLD.	1	2	3	4	5	6
132	I am aware of the principal difficulties in writing (dysgraphia) of students with SLD.	1	2	3	4	5	6
133	I am able to address the principal writing difficulties of students with SLD.	1	2	3	4	5	6
134	I am aware of the principal difficulties in mathematics (dyscalculia) of students specific learning disabilities.	1	2	3	4	5	6
135	I am able to address the principal difficulties in mathematics of students with specific learning disabilities.	1	2	3	4	5	6
136	I am familiar with Non-verbal Learning Disorder (NVLD)	1	2	3	4	5	6
137	I am able to address the principal difficulties of students with NVLD.	1	2	3	4	5	6
138	I believe my current level of training in specific learning disabilities allows me to provide basic orientation to families.	1	2	3	4	5	6
139	I believe my current level of training is adequate to address the needs of students with SLD.	1	2	3	4	5	6
140	I believe the training received in university is adequate to address the needs of students with SLD.	1	2	3	4	5	6



**Table A10.** Intervention planning.

N°	ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
141	I am aware of the difference between integration and inclusion.	1	2	3	4	5	6
142	I am aware of the difference between significant and non-significant curriculum adaptation.	1	2	3	4	5	6
143	I am able to create a non-significant curriculum adaptation.	1	2	3	4	5	6
144	I am able to create a significant curriculum adaptation.	1	2	3	4	5	6
145	I am familiar with an Individual Curriculum Plan (ICP).	1	2	3	4	5	6
146	I am able to create an ICP.	1	2	3	4	5	6
147	I am familiar with individual development programs for specialized schools.	1	2	3	4	5	6
148	I am able to create an individual development program for specialized schools.	1	2	3	4	5	6
149	I am familiar with a psycho-pedagogical assessment.	1	2	3	4	5	6
150	I know the education orientation and psycho-pedagogical teams.	1	2	3	4	5	6
151	I am aware of the protocol when a student needing specific educational support is identified.	1	2	3	4	5	6
152	I am aware of Verdugo's 8 Quality of Life (QoL) dimensions.	1	2	3	4	5	6
153	I am familiar with person-centred planning (PCP).	1	2	3	4	5	6
154	I am able to create a person-centred planning.	1	2	3	4	5	6
155	I am familiar with cooperative learning.	1	2	3	4	5	6
156	I am able to create cooperative learning groups.	1	2	3	4	5	6
157	I am aware of the benefits of cooperative learning.	1	2	3	4	5	6
158	I am able to organise the classroom based on cooperative learning.	1	2	3	4	5	6
159	I am aware of the function of the teacher in Learning Therapy.	1	2	3	4	5	6
160	I know the people with whom I must coordinate in order to address the needs of students with specific educational needs.	1	2	3	4	5	6

**Table A11.** University training.

ITEM	Not at All	Very Little	Slightly	Somewhat	A Great Deal	Totally
I have received training in learning diversity in university.	1	2	3	4	5	6
I believe my current level of training in diversity is adequate.	1	2	3	4	5	6
I believe the training received in university in the specialisation in learning therapy was adequate.	1	2	3	4	5	6
My university training made me aware of the importance of inclusion.	1	2	3	4	5	6
If you are currently a teacher, what training was lacking for the appropriate attention to learning diversity?						
After responding to the questionnaire, in what area did you receive the BEST training in university?						
After responding to the questionnaire, in what area did you receive the WORST training in university?						

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