Detección de necesidades de formación de docentes en educación inclusiva

Detection of teacher training needs in inclusive education

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RESUMEN.

Es imperante detectar las necesidades de formación de profesionales de la educación sobre las necesidades educativas de estudiantes con un diagnóstico de Trastorno del Espectro Alcohólico Fetal favoreciendo así, una detección temprana que permita el correcto desarrollo de la persona y una educación basada en derechos. Para ello, el objetivo es diseñar una herramienta que permita valorar los conocimientos y las actitudes de maestros, profesores y orientadores para determinar, si corresponde, las necesidades de formación. Se aplica el método Delphi a una muestra conformada por siete expertos en la materia. En el análisis de datos, se aplicó el rango intercuartílico relativo (RIR) para determinar el consenso y la variación del RIR para determinar la estabilidad entre rondas consecutivas. En la tercera ronda se obtuvo el consenso en la mayoría de los ítems, conservando aquellos en los que RIR<.05. Entre la segunda y tercera ronda consecutiva se alcanzó la estabilidad del panel, siendo la variación del RIR menor a .05 en más del 80% de los ítems. Como conclusión, el cuestionario muestra una elevada validez de contenido e incorpora los elementos más relevantes sobre el TEAF que se deben conocer para detectar un posible caso de TEAF a una edad temprana.

PALABRAS CLAVE.
síndrome alcohólico fetal, necesidades educativas, docentes, formación, cuestionario.

ABSTRACT.

It is imperative to detect the training needs of education professionals on the educational needs of students with a diagnosis of Fetal Alcohol Spectrum Disorder, thus favouring an early detection that allows the correct development of the person and a rights-based education. To this end, the aim is to design a tool to assess the knowledge and attitudes of teachers, professors, and counsellors to determine, if appropriate, training needs. The Delphi method is applied to a sample of seven experts in the field. In the data analysis, the relative interquartile range (RIR) was applied to determine consensus and the variation of the RIR to determine stability between consecutive rounds. In the third round, consensus was obtained for most of
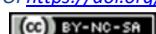
the items, retaining those items where RIR<.05. Between the second and third consecutive rounds, panel stability was achieved, with the RIR variation being less than .05 in more than 80% of the items. In conclusion, the questionnaire shows high content validity and incorporates the most relevant items about FASD that should be known in order to detect a possible case of FASD at an early age.

KEY WORDS.
Fetal alcohol syndrome, educational needs, teachers, training, questionnaire.

1. Introduction.
Taking inclusive education as a starting point, the backbone of an education that values diversity as an enriching element of the teaching-learning process, coinciding with the fourth Sustainable Development Goal of the 2030 Agenda proposed by the United Nations (UN): "Ensure inclusive, equitable and quality education and promote lifelong learning opportunities for all"; considering the different international and national treaties and conventions on education for all, and paying special attention to the analysis of current education in Spain carried out by the UN in 2017, the right to inclusive and quality education for all persons, including those with disabilities, is violated. Specifically, according to this report, the capacity to meet the educational needs of students with intellectual or psychosocial disabilities is shown to be impaired, and the factors driving this deficit are the lack of training in inclusive education and the rights of persons with disabilities, as well as discriminatory attitudes and stereotypes of teachers themselves. Without training, information and awareness it is not possible, on the one hand, to detect individual educational needs and, on the other hand, to assess educational needs in a psycho-pedagogical evaluation in order to adapt the necessary reasonable adjustment and to guarantee the necessary support and resources. In other words, there are currently not enough professionals with a qualified profile to be able to deal with the educational reality of Fetal Alcohol Spectrum Disorder, hereinafter FASD, nor are there available and validated resources that allow us to know the knowledge and attitudes that educational professionals show about FASD. For these reasons, and in order to address this need, it is essential to design a tool to assess the knowledge and attitudes shown by different professional profiles in the educational field in order to determine, if appropriate, the training needs about what is FASD and what are the underlying implications in the personal, social and academic spheres of the person with FASD.

2. Literature review.
Prenatal alcohol exposure produces teratogenic effects that cause somatic, cognitive, behavioural, and adaptive alterations that fall under the term Fetal Alcohol Spectrum Disorder (FASD). (Lange, Rovet, Rehm & Popova, 2017). Several studies show under-diagnosis of FASD, suggesting much higher incidence and prevalence rates than available. (Chudley, 2008; Lange, Rehm y Popova, 2018; Popova, Lange, Shield, Burd & Rehm, 2019, Sans-Fitó et al., 2019; Xu, Hornerkamp-Smith & Chambers, 2019). This reality is conditioned by several factors. On the one hand, the lack of consensus among health professionals on the use of standardised methods for the detection and diagnosis of FASD and, on the other hand, the

lack of awareness, the shortage of specialised professionals and the shortcomings in the training of health and education professionals. (Lange et al., 2018; Sans-Fitó et al., 2019; Xu et al., 2019). To deal with the social, personal, and family repercussions of this disorder, an approach based on prevention and early detection is necessary and, to this end, the training of professionals involved in detection and diagnosis is of vital importance. On the one hand, early diagnosis of FASD provides numerous benefits conducive to participation in developmentally focused interventions that promote improved quality of life and enhance adaptive and social functioning. (Lange et al., 2017). For its part, specialised training will enable such a diagnosis to be made. Consequently, this research prioritises the role of specialised training in FASD in the area of education and, therefore, affecting the different professionals in the educational community who are directly or indirectly involved in the diagnosis: future teachers, active teachers and educational counsellors. In order to address this need, it is essential to design a tool to assess the knowledge and attitudes shown by different professional profiles in the educational field in order to determine, if appropriate, the training needs about what is FASD and what are the underlying implications in the personal, social and academic sphere of the person with FASD. In this way, the aim is to design and develop an ad hoc questionnaire to meet the methodological needs of the proposed research. To guarantee the usefulness and validity of the results, the tool used to collect information must be correctly calibrated, i.e. it must be designed according to standard quality criteria: validity and reliability (Lacave Rodero, Molina Díaz, Fernández Guerrero & Redondo Duque, 2015).

In the first instance, and being the object of this research, content validity expresses the degree to which the questionnaire items represent the content of the construct to be assessed (Lacave Rodero et al., 2015). The most frequently used method for content validity analysis is expert judgement through the Delphi method, although it is not the only one. Through this method it is possible to obtain an expert judgement on the degree of relevance and representativeness of the questionnaire items. The application of this method stands out among others as one of the most appropriate in scientific research, especially in aspects related to the development of evaluation instruments, as well as standing out for its usefulness in the field of social sciences and its application in the area of education. (Cabero & Infante, 2014).

3. Method.
3.1. Methodological approach.
The methodological design of this study follows a mixed approach through the systematic application of the judgement of the expert panel, using the Delphi method. The information obtained through the expert panel between successive rounds provides qualitative and quantitative information, which confers greater quality to the results obtained, allowing for statistical treatment of the information collected.

3.2. Sample and sampling procedure
The composition of the panel of experts is a reference element to ensure the quality of the Delphi process and the results obtained (López-Gómez, 2018). The research problem and the

very nature of the object of study will condition the profile of the members of the panel (Cabero & Infante, 2014; Landeta, 2002). The selection and composition of the panel of experts is based on two distinctive conditions: the type of expert and the characteristics of the established profile (Cabero y Infante, 2014; Landeta, 2002; López-Gómez, 2018). In this research, several inclusion criteria are established to define the profile of the key informant and expert who will be part of the expert panel (Cabero & Infante; 2014; García & Suárez, 2013; Landeta, 2002; López-Gómez, 2018; Powel, 2003; Steurer, 2011).

To ensure the quality of the panel of experts, the criteria applied in the selection process and the composition of the experts should be taken into account (Blasco et al., 2010; Cabero & Barroso, 2013; Cabero & Infante; 2014; López-Gómez, 2018). There are several procedures for assessing the quality of the panel of experts (Cabero & Infante, 2014; Landeta, 2006), considering in this study the expert competence index (K). The calculation of K is obtained from the expert's self-assessment of the level of knowledge about the object of study, as well as from the self-assessment of the sources of argumentation or related research work on which he/she bases his/her specialist knowledge (Blasco, López & Mengual-Andres, 2010; Cabero & Barroso, 2013; Cabero & Infante, 2014; López-Gómez, 2018). The index K is expressed by the formula: $K = \frac{1}{2}(Kc + Ka)$, where Kc is defined as the knowledge coefficient and Ka is the argumentation coefficient. Usually, the most used indicators in the assessment of sources of argumentation are the high degree of influence (A), the medium degree of influence (M) and the low degree of influence (B). (Cabero & Barroso, 2013; Cabero & Infante, 2014; García-Ruiz & Lena-Acebo, 2018; López-Gómez, 2018). The results of the expert competence index are shown in **¡Error! No se encuentra el origen de la referencia.**.

Table 1.

Results of the expert competence index (K).

Expert	Self-assessment of knowledge	Sa1	Sa2	Sa3	Sa4	Sa5	Sa6	Kc	Ka	K
E1	8	.2	.4	.05	.05	.05	.05	.8	.8	.8
E2	9	.3	.5	.05	.05	.05	.05	.9	1	.95
E3	10	.2	.5	.05	.05	.05	.05	1	.9	.95
E4	8	.2	.5	.05	.05	.05	.05	.8	.9	.85
E5	9	.3	.5	.05	.05	.05	.05	.9	1	.95
E6	5	.2	.1	.05	.05	.05	.05	.5	.5	.5
E7	9	.2	.5	.05	.05	.05	.05	.9	.9	.9
E8	8	.3	.5	.05	.05	.05	.05	.8	1	.9

Note: Sa: source of argumentation; E: expert; Kc: knowledge coefficient; Ka: coefficient of argumentation; K: expert competence coefficient. If .8 < K > 1 high competition coefficient → expert is selected. If K < .8 medium competition coefficient → expert is not selected. If K < .5 low competition coefficient → expert is not selected.

After evaluation of the responses, a score of .8 or above for the K-index was established as a screening criterion for membership of the expert team, according to Cabero and Barroso (2013), Cabero and Infante (2014), García-Ruiz and Lena-Acebo (2018), Landeta (2006), López-Gómez (2018), Pérez-Iribar, Beleño-Fuentes, Núñez-Peña and Orquera-Cadena (2017) o Pozo-Llorente, Gutiérrez-Pérez and Rodríguez-Sabiote (2007).

The panel of experts is made up of a representation of seven experts, two of them belonging to the clinical field (28.57% of the total); two belonging to the field of educational guidance research (28.57% of the total); three to the field of university teaching (42.85% of the total), one of them being a key informant immersed in a situation related to the object of study. Table 2 shows the data of the participating experts who made up the final panel.

Table 2.
List of expert judges participating in the Delphi method.

Expert	Working area	Profile
E1	Clinic	Specialist in FASD and perinatal medicine, researcher in FASD and perinatal medicine, head of the neonatology department of a hospital in Spain.
E2	Clinic	Specialist in FASD diagnosis, neuropsychologist and teaching and research staff at a Spanish university.
E3	Educational guidance	Specialist in psycho-pedagogical assessment of FASD cases, educational counsellor, pedagogue.
E4	Educational guidance	Specialist in psycho-pedagogical assessment of FAS cases, educational counsellor, speech therapist.
E5	Teaching	Specialist in social education of FASD cases.
E6	Teaching	Specialist in FASD research and psychological intervention in addictions, teaching and research staff at a Spanish university.
E7	Teaching	Key informant: family member of an FASD case and director of an FASD association.

Note. Source: Own elaboration.

3.3. Fieldwork.

The constituent members of the expert panel were asked to judge the level of suitability of each of the dimensions and indicators that would make up the questionnaire in relation to the stated objective. The experts were asked to select on a Likert scale on a range of 5 to 1 the value they considered most appropriate, with 5 being the score assigned for the highest possible value "fully adequate"; value 4 for "quite adequate"; value 3 "adequate"; value 2 "not very adequate" and finally value 1 "not at all adequate". In addition, a box was provided for each of the elements that could be assessed, in which suggestions, corrections or proposals could be indicated in the space provided for this purpose. In this way, quantitative and qualitative information would be obtained in each round of consultation through controlled feedback, which would allow for greater convergence between the individual estimates of the expert judges.

3.4 Data analysis.

The process of iterative rounds will be finalised when, on the one hand, the maximum consensus is reached between the individual estimates of the experts and, on the other hand,

the stability of the expert panel is obtained, i.e. there are no significant variations in the valuations between consecutive rounds, regardless of whether or not there is consensus between them (Arregui, Vallejo & Villarreal, 1996; Pérez et al., 2010). The criterion for considering stability among the responses and, therefore, consensus in the expert panel's assessments is the relative interquartile range (RIR) consensus indicator. The RIR is the difference between the third quartile (Q3) and the first quartile (Q1) divided by the median (Me), coincident with the second quartile (Q2). According to Landeta (2002, p.91), it is considered the most appropriate measure for assessing the stability of the expert panel's responses, as it assesses the closeness of the experts' assessments. In other words, it allows estimating the consensus between expert assessments to decide on the finalisation of the comparison process between one round and the previous one (Arregui et al., 1996; Landeta, 2002, 2006; López-Gómez, 2018). It will be calculated using the statistical package SPSS V27.

On the other hand, one of the indicators that determine the stability of the expert panel and, therefore, the non-significant variability of the experts' assessments in two successive rounds regardless of the degree of convergence achieved is the degree of variation of the relative interquartile range (RIR variation) between rounds (Arregui et al., 1996; Landeta, 2002; Pérez et al., 2010; López-Gómez, 2018). In this case, if the variation of the RIR is < .5, the stability of the expert panel can be considered and, therefore, the completion of the iterative process (Arregui et al., 1996; Landeta, 2002; Pérez et al., 2010).

4. Results.
4.1 Round 1.

Table 3¡**Error! No se encuentra el origen de la referencia.** shows the measures of central tendency (mean, median, mode) and dispersion (standard deviation -SD- and relative interquartile range -RIR-) obtained after analysing the data collected for each of the dimensions and indicators assessed.

Table 3.
Descriptive statistics.

Dimensions	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR
D 1	4.71	5	5	.76	2	5	5	0
Ind. 1.1	5.00	5	5	.76	2	5	5	0
Ind. 1.2	4.43	5	5	.79	2	4	5	.2
D 2	4.86	5	5	.38	1	5	5	0
Ind. 2.1	4.57	5	5	.79	2	4	5	.2
Ind. 2.2	4.71	5	5	.76	2	5	5	0
Ind. 2.3	4.71	5	5	.76	2	5	5	0
Ind. 2.4	4.57	5	5	.79	2	4	5	.2
Ind. 2.5	4.86	5	5	.34	1	5	5	0
Ind. 2.6	4.71	5	5	.76	2	5	5	0
D 3	5.00	5	5	.00	0	5	5	0
Ind. 3.1	4.43	4	5	.98	2	3	5	.5

Ind. 3.2	5.00	5	5	.00	0	5	5	0
Ind. 3.3	5.00	5	5	.00	0	5	5	0
Ind. 3.4	4.43	5	5	.79	2	4	5	.2
Ind. 3.5	5.00	5	5	.00	0	5	5	0
Ind. 3.6	4.57	5	5	1.13	3	5	5	0
Ind. 3.7	5.00	5	5	.00	0	5	5	0
Ind. 3.8	5.00	5	5	.00	0	5	5	0
Ind. 3.9	4.57	5	5	1.34	3	5	5	0
D 4	5.00	5	5	.00	0	5	5	0
Ind. 4.1	5.00	5	5	.00	0	5	5	0
Ind. 4.2	5.00	5	5	.00	0	5	5	0
D 5	5.00	5	5	.00	0	5	5	0
Ind. 5.1	4.29	4	5	1.25	3	3	5	.5
Ind. 5.2	5.00	5	5	.00	0	5	5	0

Note. N (valid) = 7; N (missing) = 0. "D" should be read as "dimension"; "Ind." should be read as "indicator". RIR ≥ .5 implies no consensus.

In the first round, the expert panel reached consensus on most of the dimensions of the questionnaire, except for the indicators (Ind. 3.1 or "language impairment" and Ind. 5.1 or "attitudes related to alcohol consumption during pregnancy and subsequent breastfeeding"), where an RIR = .05 was obtained. The content analysis of the proposals and suggestions made by the experts in the first round was carried out, and these were taken into consideration in the elaboration of the questionnaire for the second round of consultation.

4.2 Round 2.
The experts were provided with their individual results together with the statistical analysis and content analysis of the contributions of the other panel members and the questionnaire from consultation round two with the suggestions and changes implemented. For its part, the proposed questionnaire provided in the second round of consultation consisted of the questionnaire scale and 109 items distributed heterogeneously among the dimensions. In this second round, consensus was reached on the dimensions and indicators that would make up the questionnaire.
Table 4 presents the descriptive statistics obtained in the second round of consultation on the questionnaire scale.
Table 4.
Questionnaire scale: descriptive statistics.

Assessment indicator	Median	Medium	Fashion	SD	Range	Q1	Q3	RIR
AI01, AI02, AI03 y AI04	5	5	5	.00	0	5	5	0
AI05	1	1.14	1	.37	1	1	1	0

Note. N (valid) = 7; N (missing) = 0. AI should be read as "assessment indicator". RIR ≥ .5 implies no consensus.

The scale of the questionnaire subject to assessment by the expert judges in round two followed the Likert format with five response options, with value 4 associated with the evaluation indicator (AI01) being "strongly agree"; value 3 associated with the evaluation indicator (AI02) being "agree"; value 2 associated with the evaluation indicator (AI03) being "disagree"; value 1 associated with the evaluation indicator (AI04) being "strongly disagree"; and finally, value 0 associated with the evaluation indicator (AI05) being "don't know/no answer". Consensus is reached on all assessment indicators, which are considered fully adequate by the experts, with the exception of AI05 (don't know/no answer), where the experts agree that it is not very or not at all adequate. In addition, considering the suggestions of the panel of experts to be appropriate and with the aim of eliminating the bias of central tendency and social desirability, both associated with scales with an odd number of response options (Abal, Aune, Lozzia & Attorresi, 2017; Baka, Figgou & Triga, 2012; Matas, 2018), it was decided to stipulate as definitive the Likert scale of the questionnaire with four response options.

Table 5, Table 6, Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

Table 7, Table 8 and

Table 9 show the descriptive statistics corresponding to the expert panel's assessment of the questionnaire items for each dimension.

Table 5.
Questionnaire items: descriptive statistics (D1).

Item	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR
001	4.14	4	4	.69	2	4	5	.25
002	4.71	5	5	.48	1	4	5	.2
003	4.29	4	4	.75	2	4	5	.25
004	5	5	5	.00	0	5	5	0
005	4.86	5	5	.37	1	5	5	0
006	4.86	5	5	.37	1	5	5	0
007	4.71	5	5	.48	1	4	5	.2

Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

Table 6.
Questionnaire items: descriptive statistics (D2).

Item	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR

| 008	3.57	4	5	1.61	4	2	5	.75
009	4.43	5	5	1.51	4	5	5	0
010	4.86	5	5	.37	1	5	5	0
011	4.86	5	5	.37	1	5	5	0
012	5	5	5	0	0	5	5	0
013	4.86	5	5	.37	1	5	5	0
014	4.29	5	5	1.11	3	5	5	0
015	4.86	5	5	.37	1	5	5	0
016	5	5	5	0	0	5	5	0
017	4.86	5	5	.37	1	5	5	0
018	5	5	5	0	0	5	5	0
019	5	5	5	0	0	5	5	0
020	5	5	5	0	0	5	5	0
021	5	5	5	0	0	5	5	0
022	4.86	5	5	.37	1	5	5	0
023	4.71	5	5	.75	2	5	5	0
024	5	5	5	0	0	5	5	0
025	5	5	5	0	0	5	5	0
026	4.71	5	5	.48	1	4	5	.2
027	4.71	5	5	.48	1	4	5	.2
028	4.86	5	5	.37	1	5	5	0
029	4.57	5	5	1.13	3	5	5	0
030	4.86	5	5	.37	1	5	5	0
031	5	5	5	0	0	5	5	0
032	5	5	5	0	0	5	5	0
033	5	5	5	0	0	5	5	0
034	4.71	5	5	.75	2	5	5	0
035	4.86	5	5	.37	1	5	5	0
036	5	5	5	0	0	5	5	0
037	4.57	5	5	.78	2	4	5	.2

Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

Table 7.
Questionnaire items: descriptive statistics (D3).

Item	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR
038	4.43	4	5	.97	2	3	5	.5
039	4.57	5	5	.78	2	4	5	.2
040	4.71	5	5	.48	1	4	5	.2
041	4.71	5	5	.75	2	5	5	0
042	4.86	5	5	.37	1	5	5	0
043	4.86	5	5	.37	1	5	5	0
044	5	5	5	0	0	5	5	0
045	5	5	5	0	0	5	5	0
046	5	5	5	0	0	5	5	0
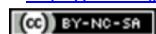
047	4.71	5	5	.75	2	5	5	0
048	4.71	5	5	.75	2	5	5	0
049	4.43	4	5	.97	2	3	5	.5
050	4.57	5	5	.78	2	4	5	.2
051	4.43	5	5	.78	2	4	5	.2
052	5	5	5	0	0	5	5	0
053	4.71	5	5	.75	2	5	5	0
054	5	5	5	0	0	5	5	0
055	5	5	5	0	0	5	5	0
056	5	5	5	0	0	5	5	0
057	4.86	5	5	.37	1	5	5	0
058	5	5	5	0	0	5	5	0
059	4.86	5	5	.37	1	5	5	0

Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

Table 8.
Questionnaire items: descriptive statistics (D4).

Item	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR
060	5	5	5	0	0	5	5	0
061	5	5	5	0	0	5	5	0
062	5	5	5	0	0	5	5	0
063	5	5	5	0	0	5	5	0
064	5	5	5	0	0	5	5	0
065	4.86	5	5	.37	1	5	5	0
066	4.86	5	5	.37	1	5	5	0
067	4.71	5	5	.48	1	4	5	.2
068	4.86	5	5	.37	1	5	5	0
069	4.86	5	5	.37	1	5	5	0
070	5	5	5	0	0	5	5	0
071	4.86	5	5	.37	1	5	5	0
072	4.86	5	5	.37	1	5	5	0
073	5	5	5	0	0	5	5	0
074	4.71	5	5	.75	2	5	5	0
075	4.86	5	5	.37	1	5	5	0
076	5	5	5	0	0	5	5	0
077	4.57	5	5	.78	2	4	5	.2
078	5	5	5	0	0	5	5	0
079	5	5	5	0	0	5	5	0
080	5	5	5	0	0	5	5	0
081	5	5	5	0	0	5	5	0
082	5	5	5	0	0	5	5	0
083	5	5	5	0	0	5	5	0
084	5	5	5	0	0	5	5	0
085	5	5	5	0	0	5	5	0
086	4.71	5	5	.75	2	5	5	0
087	5	5	5	0	0	5	5	0
088	5	5	5	0	0	5	5	0

089	4.86	5	5	.37	1	5	5	0
090	5	5	5	0	0	5	5	0

Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

Table 9
Questionnaire items: descriptive statistics (D5)

Item	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR
091	4.71	5	5	.75	2	5	5	0
092	4.43	4	5	.97	2	3	5	.5
093	4.71	5	5	.48	1	4	5	.2
094	4.86	5	5	.37	1	5	5	0
095	4.86	5	5	.37	1	5	5	0
096	5	5	5	0	0	5	5	0
097	4.71	5	5	.75	2	5	5	0
098	5	5	5	0	0	5	5	0
099	5	5	5	0	0	5	5	0
100	5	5	5	0	0	5	5	0
101	4.57	5	5	.78	2	4	5	.2
102	5	5	5	0	0	5	5	0
103	5	5	5	0	0	5	5	0
104	4.86	5	5	.37	1	5	5	0
105	5	5	5	0	0	5	5	0
106	4.71	5	5	.75	2	5	5	0
107	4.43	5	5	.78	2	4	5	.2
108	5	5	5	0	0	5	5	0
109	5	5	5	0	0	5	5	0

Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

The expert judges' evaluations converge, reaching consensus on most of the items proposed for the questionnaire. However, in 33 of the total number of items (35.97%), the panel recommended modifications to the wording and suggestions related to the modification of the item content, the design of new items and the elimination of other items. On the other hand, in four other different items of the questionnaire (8, 38, 49 and 92), the consensus of the panel of experts is not achieved, obtaining an RIR of .75; .5; .5 and .5, respectively.

4.3 Round 3.
In the third round of consultation, 39 items were provided to the expert judges for assessment. Table 10 shows the descriptive statistics and the consensus decision of the responses obtained in this round according to each general dimension of the questionnaire.

Table 10.
Questionnaire items: descriptive statistics.

	Item	Medium	Median	Fashion	SD	Range	Q1	Q3	RIR
D1	001	4	4	4	.57	2	4	4	0
	002	4.71	5	5	.48	1	4	5	.2
	003	3.71	4	3	.75	2	3	4	.25
	005	4.29	4	4	.75	2	4	5	.25
	006	4.71	5	5	.75	2	5	5	0
	007	4.71	5	5	.48	1	4	5	.2
	008	2,43	3	3	.78	2	2	3	.33
	010	5	5	5	.00	0	5	5	0
D2	011	4.57	5	5	.78	2	4	5	.2
	012	4.71	5	5	.75	2	5	5	0
	013	4.71	5	5	.75	2	5	5	0
	014	4.86	5	5	.37	1	5	5	0
	015	4.43	5	5	.78	2	4	5	.2
	016	4.57	5	5	1.13	3	5	5	0
	019	5	5	5	.00	0	5	5	0
	024	4.57	5	5	.78	2	4	5	.2
	025	4.43	5	5	1.51	4	5	5	0
	026	4.57	5	5	.78	2	4	5	.2
	030	4.71	5	5	.48	1	4	5	.2
	031	4.71	5	5	.48	1	4	5	.2
	032	2.43	3	3	.78	2	2	3	.33
	033	4.86	5	5	.37	1	5	5	0
	034	4.86	5	5	.37	1	5	5	0
	035	5	5	5	.00	0	5	5	0
	036	4.57	5	5	.78	2	4	5	.2
	037	4.71	55	5	.75	2	5	5	0
	038	4.57	4	5	.78	2	4	5	.2
D3	042	4.41	4	4	.69	2	4	5	.25
	053	4.29	5	5	1.1	3	4	5	.2
	055	4.43	5	5	.78	2	4	5	.2
	061	4.71	5	5	.48	1	4	5	.2
D4	085	5	5	5	.00	0	5	5	0
	086	4.57	5	5	.78	2	4	5	.2
	089	4.71	5	5	.75	2	5	5	0
	090	5	5	5	.00	0	5	5	0

	091	5	5	5	.00	0	5	5	0
	092	5	5	5	.00	0	5	5	0
D5	096	4.43	5	5	.78	2	4	5	.2
	109	4.86	5	5	.37	1	5	5	0

Note. N (valid) = 7; N (missing) = 0. RIR ≥ .5 implies no consensus.

In this round, the panel of experts reached consensus on all items of the questionnaire, as the relative rank does not exceed the value .5 in any item. Considering the mean statistic, it is detected that in all the items the value of this descriptive is equal or higher than four, which implies that the panel notices the suitability of these in relation to the stated objective. However, in two items the value of the mean descriptive statistic is close to 2, which shows that the expert judges rate these two items as unsuitable. For this reason, the decision was taken to remove these items from the questionnaire.

4.4 Stability of the expert panel.

Once consensus has been reached in the expert assessments in the third round of consultation, it is necessary to determine the stability of the expert panel to confirm the completion of the iterative process. For this purpose, the variation of the RIR between the last two consecutive rounds, in this case, between the second and third round of consultation, is calculated. Only items where the RIR of round 2 or round 3 is greater than zero are included in the comparison below. So, for items where RIR2 and RIR3 is zero, the variation in RIR will also be zero and therefore there will be stability in those items.

Table 11 shows the variation of the RIR. The iterative process is completed if in 80% of the items the variation of the RIR < .5.

Table 11.
RIR variation.

Dimensions	Item	RIR2	RIR3	RIR variation
D1	001	.25	0	.25
	002	.2	.2	0
	003	.25	.25	0
	005	0	.25	.25
	007	.2	.2	0
	008	.75	.33	.42
D2	011	0	.2	.2
	015	0	.2	.2
	024	0	.2	.2
	026	.2	.2	0
	030	0	.2	.2
	031	0	.2	.2
	032	0	.33	.33
	036	0	.2	0
	037	.2	0	.2

INTERNATIONAL JOURNAL OF EDUCATIONAL RESEARCH AND INNOVATION

REVISTA INTERNACIONAL DE INVESTIGACIÓN E INNOVACIÓN EDUCATIVA

Nerea Felgueras Custodio, Miriam Díaz Vega & Ricardo Moreno Rodríguez. Detección de necesidades de formación de docentes en educación inclusiva

	038	.5	.2	.3
	039	.2	0	.2
	040	.2	0	.2
D3	042	0	.25	.25
	049	.5	0	.5
	050	.2	0	.2
	051	.2	0	.2
	053	.2	.2	0
	055	0	.2	.2
	061	0	.2	.2
D4	067	.2	0	.2
	077	.2	0	.2
	086	0	.2	.2
D5	092	.5	0	.5
	093	.2	0	.2
	096	0	.2	.2
	101	.2	0	.2
	107	.2	0	.2

Note. RIR variation ≥ .5 implies that there is no stability between round 2 and round 3.

The iterative process of consultation is terminated since in 98.17% of the items there is a stability of responses between the last two consecutive rounds, i.e. in most of the items (more than 80% of the items) the variation of the relative interquartile range is < .5.

Once the statistical analysis determining the consensus of the panel and the stability between successive rounds was completed, a final report with the statistical data extracted from the analysis was provided to each expert member, as well as the proposal of the final questionnaire. After 10 calendar days had passed for the experts to give a positive assessment of the designed instrument, the tool was unanimously approved by the panel of experts.

5. Discussion.

There is an urgent need to create new methods or strategies to identify the training needs of different professional profiles related to education, with the ultimate aim of offering quality education adapted to the individual needs of each student, without distinction (Taresh, Ahmad, Roslan, Ma'rof & Zaid, 2020). Emphasis should be placed on the profile of the teacher and the educational counsellor for the following reasons. In relation to teachers, as they are the figures who dedicate approximately one third of the hours of the day to the education of children and adolescents on a compulsory basis, as well as being one of the figures responsible for the education of the pupil. Likewise, they are the reference figures who should detect risk factors or warning signs that raise suspicion of the presence of any factor hindering the student's teaching-learning progress (Taresh et al., 2020). The educational guidance professional is responsible for carrying out the psycho-pedagogical assessment of the student, as well as his/her educational needs. Furthermore, education as a fundamental right of all people allows for their inclusion in society and poor management of educational institutions combined with social, family and demographic factors, lack of specialised human
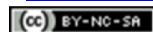
resources, teachers' attitudes, school failure, early risk behaviours (e.g. substance abuse and sexual risk behaviours) and individual determinants (e.g. idiosyncrasies of disability status) can lead to early school leaving and, therefore, to early school leaving. Early risk behaviours (e.g. substance abuse and sexual risk behaviours) and individual determinants (e.g. idiosyncrasies of disability status) can lead to early school leaving and thus to social exclusion of the school-age person (Bowman, McKinstry, Howie & McGorry 2020; Emmers, Baeyens & Petry, 2019; Vinciguerra et al., 2020). For these reasons, this research focuses its efforts on the design of a tool to detect the training needs of future teachers, active teachers, and educational counsellors through the Delphi method. The Delphi technique through expert judgement has been applied in a multitude of knowledge areas, with education and health being the ones that stand out most strongly (Cabero & Infante, 2014; García & Suárez, 2013; López-Gómez, 2018; López de Arana, 2020). At the same time, this technique has been studied as a method for approaching the design and validation of scales and questionnaires (Andrés-García et al., 2019; López-Gómez, 2018; López de Arana, 2020). In the same vein, it is considered a very useful method in the design and validation of instruments when there is no tool to meet the needs of the research (Andrés-García et al., 2019; López-Gómez, 2018; López de Arana, 2020). It is therefore the ideal method for the design and validation of ad hoc questionnaires. For this reason, this method was selected after it was found in the available literature that there was no instrument that met the demands of the current study. In addition, expert judgement is frequently used in the psychometric study of questionnaires, specifically to study the content validity of questionnaires (López de Arana, 2020).

Among the benefits of applying this method is the ability to adapt to the specific conditions of each investigation, i.e., it allows a certain flexibility in its development, ensuring the validity of the results, especially in investigations where the object of study is complex and novel (Cabero & Infante, 2014), as in this case. However, a number of fundamental methodological parameters must be met to guarantee the validity of the results; these are: ensuring the anonymity of the expert group, the selection and composition of the expert panel, the number of experts, the quality of the panel, the iterative process between rounds oriented towards obtaining a statistical measure of consensus of the expert group and, finally, the consensus and stability criteria to finalise the process (López-Gómez, 2018). On the other hand, taking as a reference authors such as Cabero and Infante, (2014), García-Ruiz and Lena-Acebo (2018), López-Gómez (2018) or López de Arana (2020), all the methodological parameters of the Delphi method have been considered to ensure the viability of the results.

6. Conclusions
The purpose of this study focuses on the design of an evaluation tool to assess the training needs of different professional profiles in education based on the identification of knowledge and attitudes about FASD. The assessment tool "Knowledges and attitudes about Fetal Alcohol Spectrum Disorder (KAFASD)" identifies knowledge about the consequences of alcohol consumption during the planning period of pregnancy, gestation and breastfeeding; about the general and specific characteristics of this disorder; about the educational needs that students with this profile may present as well as the associated educational response; and, finally, about the attitudes shown by education professionals involved in the process of

detection and diagnosis of FASD. Therefore, we have achieved an instrument that assesses the content we want to know, justified by the results obtained from the statistical analysis based on the Delphi method.

In addition, it has allowed the design of a tool that did not exist and that facilitates the identification of the knowledge that education professionals have about FASD. In addition, it has allowed the design of a tool that did not exist and that facilitates the identification of the knowledge that education professionals have about FASD. In future studies, it would be advisable to carry out a more in-depth psychometric study, to address the criterion and construct validity and reliability of the questionnaire based on a pilot study. This would allow, in the first instance, to finalise the design and validation of a questionnaire and, secondly, to identify the training needs of education professionals and thus raise awareness of this disorder in the education community.

7. Acknowledgements.

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