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Analysis of pre-service teachers' attitudes towards inclusive education

Análisis actitudinal de las nuevas generaciones docentes hacia la inclusión educativa

Rodríguez-Fuentes, A., & Caurcel Cara, M.J.

University of Granada (Spain)

Abstract

The rise of global policies, guarantors of a democratic education, materialized in a model of inclusive school for everyone is not yet a tangible reality. Their education policies that are in place do not contribute to it's cause. From this problem arises the purpose to study such professional education policies, in order to develop a consistent attitude, among professionals, with the acceptance of the otherness and it's correspondent education requirements. The design followed for this study is quantitative, transversal, non-experimental, descriptive and correlational, making use of two standard and confirmed questioners, given to 712 university graduates, which data underwent different analysis: percentage, central tendency, dispersion, differentials and correlational. It is shown the correct attitude to deal with people with disabilities, as well as, the need to implement strategies to effectively attend to this groups in the academic context, after establishing differences between groups and the scarce consistency of individuals, which prevent us from talking about consolidated patterns.

Keywords: Educational inclusion; Attitude; Teacher education; Perception; Feeling; Behavior; Prejudice

Resumen

La asunción de políticas globalizadas garantes de la democratización de enseñanzas materializadas en el modelo de escuela inclusiva para todos no es todavía una realidad palpable. Sus políticas formativas afanadas en tal empresa tampoco consiguen contribuir a su causa. De tal problema surge el propósito del estudio de tales políticas de formación de profesionales para el desarrollo actitudinal acorde a las premisas de aceptación de la otredad y su atención educativa correspondiente. Se sigue un diseño cuantitativo transversal no-experimental, descriptivo y relacional, valiéndose de dos cuestionarios estandarizados y validados, suministrados a 712 estudiantes universitarios, cuyos datos se sometieron a análisis porcentuales, tendencia central, dispersión, diferenciales y correlaciónales. Se infiere la adecuada actitud para tratar con personas con diversidad funcional y la necesaria dotación de estrategias para hacer efectiva la atención en el contexto académico, luego de establecer diferencias entre colectivos y escasez de consistencia individuales, lo que impide hablar de patrones consolidados.

Palabras clave: Educación inclusiva; Actitud; Formación de profesores; Percepción; Creencias; Sentimientos; Conductas; Prejuicios

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Different paradigms (from the functionalist to the socio-critical one) offer diverse explanations to professional actions within the education field. They are sometimes complementary but, on other occasions, they are conflicting. Traditional didactic models have emanated from them: from the behavioural to the pedagogical ones, going through the cognitive, socio-cognitive and constructive models (Gallego and Rodríguez, 2016). Even other modern overcomers of limitations for behaviourism, cognitivism and constructivism have appeared, such as connectivism presented by George Siemens and Stephen Downes (Altamira, Correa & Nava, 2016), whose basic first principle is the

Corresponding author / Autor de contacto: **Rodríguez-Fuentes, A.** University of Granada, Faculty of Educational Sciences (Campus de Cartuja, 18071- Granada, Spain) arfuente@ugr.es

exaltation of diversity of opinions as a source of learning and knowledge. Along these same lines goes the complex thinking of Edgar Morín based on the reflexive holistic vision, detailed and interconnected to reality (Szekely & Mason, 2019), in this case, diverse. More present is some than in others, it is acknowledged the existence of a mediation between the stimuli in the context and the final behaviour of the educational agent, in this case, students and teachers.

Therefore, the action is a consequence of the stimulus reinterpretation following a cognitive and cognoscitive structure but also an affective and attitudinal one. Other intrinsic components would be added, such as the personal values and interests, affected by other extrinsic ones, as mediation and social experience. The situation is not easy to understand. Behaviour depends, all in all, on the combination of a series of preliminary dimensions which are interrelated and determined, so it becomes complex to explain and predict (Talou & Borzi, 2012). If we add the dynamic and evolving component of the previous dimensions, complexity is exponentially multiplied.

Nonetheless, it is required to know in depth and, if needed, carry out actions for improvement and change, so we must resort to the preliminaries activating them. One of its intrinsic components, even though determined by context and experience, is the attitudinal. Attitude invites and goes towards perception and action, since it predisposes mentally and, therefore, conditions greatly behaviour and response. Thus, attitude and action are the two "faces" of behaviour (Hwang & Evans, 2011). This is also characterised by previous intrinsic and extrinsic features and it is total or partially changing as well while it is being learnt, even though it is long-lasting. It is made up by 3 dimensions (Rodríguez, Caurcel & Alain, 2019): cognoscitive, affective and behavioural. That is the reason why aspects different to the previous ones are also studied, such as prejudices, fears and contacts, respectively. This research intends to explore all the aspects derived from the model, providing us with purposely selected instruments: with the first instrument, predisposition (dimension 3), perception (dimension 1), feelings (dimension 2), worries (dimension 2). With the second instrument, beliefs (dimension 1), pre-behaviours (dimension 3) and coping (dimension 3) (Figure 1).

Figure 1. Attitudinal dimension and corresponding factor and measuring instrument

COGNOSCITIVE	AFFECTIVE	BEHAVIOURAL
Perception *(factor 1 of instrument 1)* **beliefs** *(factor 1 of instrument 2)*	**Feelings** *(factor 2 of instrument 1)* **Worries** *(factor 3 of instrument 1)*	**Predisposition** *(factor 1 of booth instruments)* **Copping** *(factor 2 of instrument 2)*

The adequate teaching attitude towards human diversity, in general, and the students', in particular, as well as before the social inclusion of every citizen and the educational inclusion of the students is the prerequisite for the achievement of a unique society and a communal school (Azorín, 2017; Varcoe & Boyle, 2014). The optimal inclusion demands a determined updated attitude constituted by cognoscitive, sentimental and behavioural dimensions, which could be obsolete or contradictory, so the establishment of inclusive attitudinal profiles is required. From such a problem arises the purpose of studying the attitudes of future teachers in order to determine if these attitudes fit the current philosophy of "a school for everyone". Therefore, updated assessment instruments must be employed, given the change produced in recent years around educational inclusion (with respect to school integration), and the change originated generation after generation in the attitudinal field.

They have been studied in multiple contexts, moments, stages and variations (attitudes before otherness, specific difficulties, socio-cultural diversity, functional diversity, …) The aim is to know if the attitude could hinder the implementation of actual inclusive methods, as

has been pointed out by some recent literature on teaching attitudes (González & Triana, 2018; Pegalajar & Colmenero, 2017; Rodríguez, Etopa & Rodríguez, 2012), even before becoming teachers during their initial training (Álvarez & Buenestado, 2015). As García et al. (2013) prove in their bibliometric research on this topic, teachers' attitude has already been given enough attention, but not to those attitudes of trainee teachers. For the latter, the inclusive attitudinal adjust should start cogently, so they display multiple inclusive methods in their near future, as well as reinforce and complement those who already carry them out and inspire the ones who don't implement them.

As contextualisation and update of this research is advisable (Loreman, Sharman & Forlin, 2013), it becomes specially relevant the operational objective of this moment, consisting in assessing the attitudes towards an inclusive education for trainee teachers at University of Granada, in order to create a framework for such components in profiles, if existing, according to factors associated to their attitudes, assessing and verifying the possible existence of a consolidated pattern, and pondering its suitability in order to make decisions about it, since without these measures, inclusion is in grave risk of failing from the start. Thus, as an empirical valuation, the following hypotheses are formulated:

H1: the attitudes of university students in the degrees of Preschool and Primary Education are appropriate, in all its constituting dimensions.

H2: There is an internal coherence between the individual answers allowing to establish an attitudinal pattern for the collective of trainee students.

H3: Academic and socio-demographic variables, such as gender, school year, educational centre, … are influential in the attitudinal development towards educational inclusion.

Method

This study consists in a cross-sectional design, non-experimental type, multivariate, descriptive and relational, developed under the supposition of the quantitative methodological paradigm.

Population, sample and sampling

Starting from a population of 5,075 students registered during the school year 2018/19 in the Education Degrees of University of Granada (Spain) (Academic Report, 2018-2019), 712 students from the four educational centres took part in the study (Table 1). The sample obtained a confidence degree of 95% and an error margin under 2%, following the math calculation of representative sample size (http://www.adimen.es/calculadora-muestras.aspx); under the error margin commonly assumed in educational research (5%), which would mean a sample size of 357. A snowball sampling was performed, taking into account the representation of the different educational centres shown in Table 1, as well as the two specialisation branches within the Education degree: Preschool and Primary. Thus, a proportional number of students was obtained from each of them, as it is also reflected in Table 1.

Table 1. Features of the population under study and sample

Education degree	**Preschool**	**Primary**	**Total**		
FACULTY OR HIGH SCHOOL…	*Population*			*Sample*	*%*
Granada Education Sciences (FCEG)	1350	2147	3497	330	46,35
"The Inmaculada" of Granada (Privada) (ELIG)	302	557	859	230	32,30
Education and sports sciences of Mellila (FEHM)	111	197	308	113	15,87
Education, Economy & Tecnology of Ceuta (FEET)	175	236	411	39	5,48
Total	1938	3137	5075	712	100

Table 2 displays the socio-demographic and academic data from the student sample. Most of them were on the second year (49.4%) in the Primary Education Degree (52.70%) and Preschool (36%), whereas the students in the third year were completing their practicum and constitute a minority within the sample. The students in the 4th year (27.50%) were

specialising mainly in Special Needs Education, Physical Education and Foreign Languages. The age range went from 17 to 47 years old ($\overline{X}_{age}$=21.45 years old; DT=3.82), 80.8% were women (n=575) who mostly identified themselves with the female genre.

Table 2. Socio-demographic and academic data from the sample

		$\overline{X}$ (DT), min-max 21.45 (3,82), 17-47
		N (%)
Sex	Women	575 (80.8)
	Men	137 (19.2)
Gender	Female	574 (80.6)
	Male	136 (19.1)
	Othe	2 (0.3)
School year	1º	138 (19.4)
	2º	352 (49.4)
	3º	15 (2.1)
	4º	207(29.1)

Note: $\overline{X}$ = Mean; DT= estándar desviation; min. = mínimum; máx. = máximum.

Instruments

In order to measure the attitudes towards inclusion, two self-report measurements were employed. The Spanish version for "Scale for Measuring Pre-Service Teachers' Perceptions about Inclusion The Sentiments, Attitudes and Concerns about Inclusive Education Revised" *(SACIE-R)* (Forlin, Earle, Loreman & Sharma, 2011; Rodríguez, Caurcel & Alain, 2019), made up by 12 items with four answer choices type Likert (1= Completely disagree to 4 = Completely agree). It measures three fundamental constructs: *attitudes* or predisposition and perception of educational inclusion and concept about the students included there (items, 3, 6, 8, 12 and 15); f*eelings* towards those people with different capabilities (items 5, 11, 13); and *worries* about having "different" students in the classroom (items 4, 7, 10 and 14). A high score shows a positive attitude before educational inclusion. This instrument, designed for both working and trainee teachers, is being used after its validation in diverse contexts (Aiello et al., 2017; Alaverdyan, 2018; Flores & Villardón, 2015; Hernández & García, 2017; Yada & Savolainen, 2017). With the Spanish sample, the general confidence was acceptable for the Education degree students (α=0.67), close to the one obtained in its original version (α=0.74); the subscale "attitudes" obtains a high internal consistency level (α=0.84), the "feelings" one is moderate (α=0.60), and the "worries" is relatively low (α= 0.50).

The "*Attitudes scale towards inclusion*" *(ASIE)* (Álvarez & Buenestado, 2015; Boer, Timmerman, Pijl & Minnaert, 2012) was also used. It comprises 109 items with four answer choices type Likert (1= Completely disagree to 4 = Completely agree), which measures specific *beliefs* around attention to diversity (items 1, 2, 4, 5, 10, 13, 16, 18, 19) and *copping* of demands to solve problems within the "diverse" classroom (items 6, 7, 8 and 11). Before answering, they had to read a case about a student suffering from ADHD (Attention Deficit Hyperactivity Disorder), which provides the understanding for the students, some of them who have never had any practicum time, need about the topic of attention to diversity. For the Spanish context, the study obtained a high reliability level (α=0.83), being slightly inferior for the study sample in α=0.79 (α=0.71 beliefs and α=0.49 attitudes).

Besides, it was created a personal register of socio-demographic data to collect items such as: age, gender, educational centre, degree, specialisation diploma and school year, the decrease or absence of a capacity and the contact or no contact with people with Special Educational Needs (SEN).

Procedure

Before the data collection, researchers debriefed the students about the study object and the voluntary character of their participation. After that, the working process was detailed, guaranteeing their confidentiality and requesting for their informed consent. Two data collection procedures were conducted: presential, distributing paper surveys; and online, using a survey created with the "Doc" tool from Google-form. It was sent through the university teaching platform

PRADO, UGR, always during the students' lesson times and with the researchers being present.

Data analysis

The data were analysed with the statistical software SPSS, version 24.0 for Windows. In order to know the result distribution, the descriptive statistics were calculated (mean, mode and standard deviation), as well as frequencies. After checking data normality and variance homecesdaticity by means of the Kolmogorov-Smirnov's test, inference analyses were performed. For the dicothomous variables of gender, SEN presence and contact with people with special needs, t for Student was used and for the rest of variables of diverse values, the ANOVA of a factor and the consequent *post hoc* HSD test of Tukey and Bonferroni, together with the homogeneous subset test. For those reduced groups made up by certain variables, such as age and the studied specialisation diploma, the analysis of the effect size estimation was added, by means of the calculation of Cohen's d and the Eta squared. Finally, the study was completed with correlational intrafactorial analyses (using Pearson's rho), intended to give consistency to the creation of the discovered maps or attitudinal patterns. For these inferential analyses, it was established a signification level of $p<0.05$.

Results

Results on the Predisposition and perception of Education students

In Table 3, according to the values in the mean and mode, it could be noted that the predispositions and perception of trainee teachers about educational inclusion of students with diverse difficulties, needs and accessibilities agrees with the current postulates for inclusive education. The mean was around the value 3 ($\overline{X}$=2.90), with a significant dispersion (DT=0.94), corresponding to the value "agree" with the integration in ordinary classes, and the mode reflects that same value. The detail of partial answers showed that they were more prone to placing those students who have oral expressions problems in regular classes (item 3), as well as those suffering from attention difficulties (item 6), opposite to the attitude towards the students with SEN who require a more specific intervention (items 8, 12 and 15).

Table 3. Measurements of tendency and dispersion about predisposition-perception

Predisposition and Perception	N	$\overline{X}$	DT	M_o	%			
					1	2	3	4
3. Students who have difficulty expressing their thoughts verbally should be in regular classes.	712	3.05	0.90	3	7.70	15.20	41.90	35.30
6. Students who are inattentive should be in regular classes.	712	3.00	0.88	3	6.60	19.00	42.40	32.0
8. Students who require communicative technologies (e.g. Braille/sign language) should be in regular classes.	712	2.95	0.99	4	10.50	19.80	34.30	35.40
12. Students who frequently fail exams should be in regular classes.	712	2.73	1.02	3	15.90	21.90	35.50	26.70
15. Students who need an individualized academic program should be in regular classes	712	2.79	0.91	3	10.00	24.20	43.30	22.60

Note: M_o = Mode

No differences were found regarding "gender", "presence of SEN" or "degree". The opposite occurred with the rest of variables: "contact", "school year" and "age", which were revealed as influencing the answers. Those students who have had contact with people functionally diverse showed a higher predisposition to integrate SEN students in ordinary classes with regular students in all the items [in item 3: 3.13 vs 2.92, t(710)=-3.09, p=.002, d=0.24; in item 6: 3.10 vs 2.84, t(710)=-4.01, p=.000, d=0.37; in item 8: 3.06 vs 2.77, t(710)=-3.81, p=.000, d=0.29; in item 12: 2.84 vs 2.56; t(710)=-3.69, p=.000, d=0.28; and in item 15: 2.88 vs 2.63, t(710)=-3.62, p=.000, d=0.28].

Depending on the "school year", statistically significant differences were found for all the items (p<.05) (Table 4). The students in the last years manifested a better predisposition towards educational inclusion, that is to say, they were more favourable to inclusion in ordinary classes for those students with problems and/or special needs: oral (item 3), attention (item 6), communicative, users of alternative communicative systems (item 8), year repeaters (item 12) and those who need personalised programmes (item 15). *Post hoc* Tukey and Bonferroni's tests proved that differences are more common in the final years, mainly the last one (Year 4) and the initial levels, more evident in Year 1. Thus, the mean for the answers to items in this predisposition factor exceed value 3, tagged as "agree", for students in Year 4 (3.31, 3.28, 3.30, 3.14 y 3.46 in the previous items) and even for those in Year 3 (3.27, 3.07, 3.13, 2.80 and 3.13, respectively), whereas in the initial years it does not surpass value 3 in any case. Year 1: (2.85, 2.83, 2.86, 2.47 and 2.72) and Year 2 (2.96, 2.89, 2.76, 2.59 y 2.69, respectively). It can be inferred from all these data that, after their university years and practicum stages (Years 3 and 4), the students in the different branches of Education degrees improve their attitude towards inclusion.

Table 4. Means, standard and inferential deviations about predisposition-perception.

Predisposition & Perception	School year	N	$\overline{X}$	DT	F	p	η^2
3. Students who have difficulty expressing their thoughts verbally should be in regular classes.	1º	138	2.85	1.07	10.14	.000*	0.04
	2º	352	2.96	0.88			
	3º	15	3.27	0.59			
	4º	207	3.31	0.75			
6. Students who are inattentive should be in regular classes.	1º	138	2.83	0.96	10.77	.000*	0.04
	2º	352	2.89	0.90			
	3º	15	3.07	0.59			
	4º	207	3.28	0.73			
8. Students who require communicative technologies (e.g. Braille/sign language) should be in regular classes.	1º	138	2.86	1.06	14.60	.000*	0.06
	2º	352	2.76	0.99			
	3º	15	3.13	0.74			
	4º	207	3.30	0.84			
12. Students who frequently fail exams should be in regular classes.	1º	138	2.47	1.12	16.99	.000*	0.07
	2º	352	2.59	1.01			
	3º	15	2.80	0.94			
	4º	207	3.14	0.88			
15. Students who frequently fail exams should be in regular classes.	1º	138	2.72	0.91	4.91	.000*	0.00
	2º	352	2.69	0.95			
	3º	15	3.13	0.64			
	4º	207	2.96	0.82			

Note: *p<.05

Regarding the "educational centre", significant differences were found (p<0.05) for item 3, F(3, 708)=5.53; p=.001, η^2=0,02; in 6, F(3, 708)= 3.64; p=.013, η^2=0.02 and in item 12, F(3, 708)= 8.03; p=.000, η^2=0.03. For items 3 and 6, the differences appeared between the FCEG (Education college in Granada), where students present a better disposition towards educational inclusion (means: 3.18 and 3.12, respectively) and the EIG (Business school) (means: 2.96 and 2.90). In items 3 and 12, de differences appear between FCEG (means 3.18 and 2.90) and the FEHM (Education and Humanities college in Melilla) (means: 2.84 and 2.45). Finally, differences were also present between FCEG and FEET (Education college in Ceuta) respecting item 12: 2.90 versus 2.34. These differences are relevant for both Bonferroni and Tukey's tests, at a significance level of 0.05. It can be highlighted that educational inclusion is more developed among the students in the FCEG and that items 3 and 12, referring students with oral problems and year repeaters, are the ones generating more

confusion or heterogeneity in their answers with respect to integration in ordinary classes.

Regarding "age" the ANOVA found out that it was only discriminatory in two out of the five items [item 8: F(24, 685)= 1.75; p=.015, η_2=0.06; and item 12: F(24, 69)= 1.64; p=.028, η_2=0.05] even though there isn't any clear explanatory pattern about the differences as they do not cluster in different subsets.

With respect to the intradimensional correlation of intraindividual answers, no close relation among all the items was found, but a direct relation (positive), median (around 0.5) and significant (p<.05), among the participants' answers between items 3 and 8 (r=0.54), 6 and 12 (r=0.52), 6 and 15 (r=0.52) y 8 and 15 (r=0.56), and a more intense relation between items 3 and 6 (r=0.62) and 6 and 8 (r=0.61). All of that leads to the conclusion that, sometimes, those who are more prone for the students with certain difficulties to be included in ordinary classes are also favourable to students with other difficulties to be integrated there too. However, it does not always happen this way and not very intensely, so together with the differences identified depending on the participants' features, it is not sufficiently consolidated the coherent thinking around absolute inclusion, regardless the difficulty or diversity involved.

Results on Feelings towards diverse people

The students showed adequate feelings towards people with functional diversity. Their mean was relatively high (3.60) and the mode matched the maximum value (see Table 5). Dispersion is not excessive (0.68), so a certain consistency can be assured with respect to the concerned answers.

Table 5. Measurements of central tendency and dispersion about feeling towards diverse people.

Feelings	N	$\bar{X}$	DT	M_o	%			
					1	2	3	4
5. I tend to make contacts with people with disabilities brief and I finish them as quickly as possible	712	3.65	0.74	4	3.40	5.80	13.50	77.40
11. I am afraid to look directly at a person with a disability.	712	3.77	0.56	4	1.10	3.40	12.90	82.90
13. I find it difficult to overcome my initial shock when meeting people with severe physical disabilities	712	3.38	0.78	4	2.10	12.50	30.80	54.60

No significant differences appeared relating the variables "SEN presence", "contact", "age", "educational centre" and "degree". On the other hand, the differences between the answers provided by students with different "gender" and "school year" were actually significant (p<.05).

As for "gender", (Table 6), taking into account the contrast statistics (Levene's test), the t-test revealed differences at a signification level p<.05 for items 5 and 13, obtaining the female group higher means compared to the male one.

Table 6. Means, standard and inferential deviations about feelings depending on gender.

Feelings	Men (n= 137)		Women (n= 575)		t	gl	p	d
	$\bar{X}$	DT	$\bar{X}$	DT				
5. I tend to make contacts with people with disabilities brief and I finish them as quickly as possible	3.50	0.82	3.69	0.71	-2.47	710	.014*	0.26
11. I am afraid to look directly at a person with a disability.	3.68	0.65	3.79	0.53	-1.88	710	.62	
13. I find it difficult to overcome my initial shock when meeting people with severe physical disabilities	3.21	0.83	3.42	0.78	-2.80	710	.005*	0.27

Note: *p<.05

Regarding "school year" (Table 7), the ANOVA revealed differences in means and data dispersion in the initial years compared to the final ones, specially prevailing items 5 and 11 in the last year; their means exceeded the half a point difference favourable to the last year students, being dispersion minuscule (0.20) compared to that in the initial years (0.99 and 1.15).

Table 7. Means, standard and inferential deviations about feelings depending on school year.

Feelings	School-year	N	$\overline{X}$	DT	F	p	η^2
5. I tend to make contacts with people with disabilities brief and I finish them as quickly as possible	1º	138	3.75	0.67	3.40	.017*	0.01
	2º	352	3.56	0.80			
	3º	15	3.60	0.83			
	4º	207	3.73	0.64			
11. I am afraid to look directly at a person with a disability.	1º	138	3.88	0.41	3.64	.013*	0.02
	2º	352	3.70	0.63			
	3º	15	3.80	0.41			
	4º	207	3.81	0.52			
13. I find it difficult to overcome my initial shock when meeting people with severe physical disabilities	1º	138	3.43	0.79	1.43	.223	
	2º	352	3.32	0.81			
	3º	15	3.40	0.74			
	4º	207	3.44	0.72			

Note: *p<.05

Nevertheless, trying to evaluate the consistency of the individual observed patterns for feelings, Pearson correlation coefficient was calculated. For all the cases, it was confirmed the lack of consistency among the considered individual answers, with low relation levels (under r=0.5), which points to the absence of a solid pattern around inclusive attitudes.

Results on Worries and implications of inclusion.

Compared to perceptions and feelings, the values obtained for worries were relatively low, especially for half of the items (4 and 14), in which the means were some of the lowest in the study, as well as for the modes (see Table 8). Thus, a global mean of 2.74 was achieved, still counting with significant dispersion (0.82). The students were worried about the specific knowledge they should acquire and the additional workload which could involve attention to diversity in ordinary classes and schools.

Table 8. Measurements of central tendency and dispersion about inclusion worries

Worries	N	$\overline{X}$	DT	M_o	%			
					1	2	3	4
4. I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	712	2.22	0.93	2	23.50	42.10	23.30	11.10
7. I am concerned that my workload will increase if I have students with disabilities in my class	712	3.49	0.75	4	2.90	7.00	27.80	37.80
10. I am concerned that I will be more stressed if I have students with disabilities in my class.	712	3.42	0.75	4	2.20	8.80	33.30	55.60
14. I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	712	1.81	0.85	1	41.70	40.40	12.50	5.30

The differential analyses performed showed that the previous statement is confirmed regardless of "students with or without SEN", "contact", "age" and "degree". Conversely, there are significant differences when the variables "gender", "school year" and "educational centre" are considered.

Regarding "gender" (Table 9), women showed a lesser lack of knowledge and lower level of worries again, with a mean difference of almost 5 points and lower dispersion.

Table 9. Means, standard and inferential deviations about worries depending on gender.

Worries	Men (n= 137)		Women (n= 575)		t	gl	p	d
	$\overline{X}$	DT	$\overline{X}$	DT				
4. I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	2.01	0.92	2.27	0.93	-2.90	710	.004*	0.28
7. I am concerned that my workload will increase if I have students with disabilities in my class	3.22	0.85	3.56	0.72	-4.80	710	.000*	0.46
10. I am concerned that I will be more stressed if I have students with disabilities in my class.	3.25	0.81	3.46	0.72	-3.07	710	.002*	0.29
14. I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	1.94	0.88	1.78	0.84	1.95	710	.052	

Note: *p<.05

And depending on "school year" (Table 10), significant differences under the *post hoc* tests were present between the first and the last year and only for half of the items (11 and 14). This maybe happens because the students in the first year haven't assumed the inclusive education philosophy yet (which perhaps reveals that they do not have such educational model as a referent for their previous stages), whereas during their last school year, they not only have assumed the inclusive philosophy but also appreciate more the value of the inclusive phenomenon for other students, both as an axiological development, for themselves and as a professional challenge. According to "educational centre", certain differences were established for half of the items: in item 4, $F(3, 708)= 2.64$; $p=.049$, $\eta_2= 0.01$ and in item 14, $F(3, 708)= 4.76$; $p=.003$, $\eta_2= 0.02$. For item 4, the homogeneous subset test creates two subsets: one for the colleges in Ceuta and Melilla and another one for those in Granada.

The resulting means for the colleges in Ceuta and Melilla (1.83 and 2.17, respectively) are lower than those for the centres in Granada (2.31 in ELIG and 2.21 in FCEG), showing similar dispersions. This is perhaps justified by the particularity derived from the enormous cultural and religious diversity peculiar to the cities of Ceuta and Melilla. Item 14 is grouped in just one subset for all the educational centres; besides, the differences arisen are only significant between two of the centres.

As for the answer correlation regarding Pearson coefficient, there is no considerable relation between the answers to the items, which could be interpreted as a lack of consistent individual patterns with respect to worries; however, there are worries about particular aspects. A positive and medium-high relation was actually achieved (r=0.56) between items 7 and 10: "additional workload" and "stress", which apparently are highly related in the individual statements.

Table 10. Means, standard and inferential deviations about worries depending on school year

Worries	School year	N	$\bar{X}$	DT	F	p	η^2
4. I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	1º	138	2.28	1.03	1.03	.381	
	2º	352	2.23	0.93			
	3º	15	1.87	0.64			
	4º	207	2.19	0.88			
7. I am concerned that my workload will increase if I have students with disabilities in my class	1º	138	3.57	0.78	3.14	.025*	0.01
	2º	352	3.41	0.80			
	3º	15	3.73	0.59			
	4º	207	3.57	0.64			
10. I am concerned that I will be more stressed if I have students with disabilities in my class.	1º	138	3.57	0.66	2.88	.035*	0.01
	2º	352	3.36	0.78			
	3º	15	3.47	0.74			
	4º	207	3.43	0.73			
14. I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	1º	138	2.01	0.95	4.07	.007*	0.02
	2º	352	1.81	0.85			
	3º	15	1.80	0.94			
	4º	207	1.69	0.75			

Note: *p<0.05

Results on Beliefs and behavioural predisposition towards inclusion

When presented with the questions accompanied by an example of a specific student, their opinions, beliefs and predisposition towards inclusion were very good. That way, after the recodification of answers to item 2, as the instrument authors advised, values pointed to the highest value in most cases (4= completely agree). The global mean was 3.64, and the standard deviation 0.60.

Table 11. Measurements of central tendency and dispersion about beliefs-predisposition towards inclusion

Beliefs & Predisposition	N	$\bar{X}$	DT	M_o	%			
					1	2	3	4
1.- Students like Juan have the right to be educated in the same classroom as typically developing students	712	3.59	0.62	4	0.70	5.20	28.50	65.60
2.- Inclusion is NOT a desirable practice for educating typically developing students	712	3.21	0.96	4	7.40	14.90	26.70	51.00
4.- I am willing to encourage Mark to participate in all social activities in the regular classroom	712	3.80	0.49	4	0.80	2.30	14.70	83.10
5.- Students like Juan should be given every opportunity to function in an integrated classroom	712	3.83	0.45	4	0.70	1.10	12.50	85.70
10.- I am willing to adapt the curriculum to meet the individual needs of all students regardless of their ability	712	3.70	0.54	4	0.70	1.80	24.70	72.80
13.- I am willing to include students like Mark in the regular classroom with the necessary support	712	3.70	0.56	4	0.70	2.80	22.20	74.30
16.- I am willing to modify the physical environment to include students like Mark in the regular classroom	712	3.67	0.60	4	1.30	2.80	23.90	72.10
18.- I am willing to adapt my communication techniques to ensure that students like Mark can be successfully included in the regular classroom	712	3.68	0.54	4	0.60	2.00	26.00	71.50
19.- It is feasible to teach children with average abilities and exceptional needs in the same classroom	712	3.59	0.66	4	2.00	3.50	28.10	66.40

The previous data are not equally distributed according to the participants' features, except for "age". The most determining variable was "educational centre", in which differences were observed in 77.77% of items (2, 4, 5, 10, 13, 16 and 18). The students who displayed a set of beliefs that could slow down the educational inclusion process were the students in FEHM, differently to all the other educational centres, especially FCEG and, to a lesser extent, in ELIG. For five of the items (2, 4, 10, 13 and 16) which showed significant differences (p<.05), the *post hoc* testing determined two homogeneous subsets: one for Melilla and another one for the rest of centres.

Table 12. Means, standard and inferential deviations about beliefs depending on age

Beliefs & Predisposition	Centre	N	$\bar{X}$	DT	F	p	η^2
1.- Students like Juan have the right to be educated in the same classroom as typically developing students	FCEG	330	3.63	0.59	1.83	.140	
	ELIG	230	3.53	0.66			
	FEHM	113	3.55	0.64			
	FEET	39	3.72	0.65			
2.- Inclusion is NOT a desirable practice for educating typically developing students	FEET	330	3.59	0.62	6.47	.000*	0.03
	ELIG	230	3.33	0.86			
	FEHM	113	3.00	1.07			
	FEET	39	3.22	0.97			
4.- I am willing to encourage Mark to participate in all social activities in the regular classroom	FCEG	330	3.48	0.69	6.70	.000*	0.03
	ELIG	230	3.21	0.95			
	FEHM	113	3.84	0.41			
	FEET	39	3.83	0.42			
5.- Students like Juan should be given every opportunity to function in an integrated classroom	FCEG	330	3.63	0.78	3.44	.017*	0.01
	ELIG	230	3.83	0.38			
	FEHM	113	3.80	0.48			
	FEET	39	3.86	0.39			
10.- I am willing to adapt the curriculum to meet the individual needs of all students regardless of their ability	FCEG	330	3.84	0.42	10.33	.000*	0.04
	ELIG	230	3.72	0.65			
	FEHM	113	3.90	0.31			
	FEET	39	3.83	0.45			
13.- I am willing to include students like Juan in the regular classroom with the necessary support	FCEG	330	3.78	0.43	13.31	.000*	0.05
	ELIG	230	3.70	0.53			
	FEHM	113	3.47	0.72			
	FEET	39	3.66	0.61			
16.- I am willing to modify the physical environment to include students like Mark in the regular classroom	FCEG	330	3.70	0.54	6.79	.001*	0.02
	ELIG	230	3.79	0.44			
	FEHM	113	3.72	0.52			
	FEET	39	3.43	0.76			
18.- I am willing to adapt my communication techniques to ensure that students like Juan can be successfully included in the regular classroom	FCEG	330	3.69	0.66	4.59	.003*	0.02
	ELIG	230	3.70	0.56			
	FEHM	113	3.75	0.50			
	FEET	39	3.65	0.63			
19.- It is feasible to teach children with average abilities and exceptional needs in the same classroom	FCEG	330	3.49	0.72	2.53	.056	
	ELIG	230	3.66	0.55			
	FEHM	113	3.67	0.60			
	FEET	39	3.74	0.47			

Note: *p < 0.05

"Gender" was determining less intensely (Table 13), since women obtained values above men for most (66.67%) items =2, 10, 13, 16, 18 and 19), to the established significance level (p<.05). Identical intensity resulted from the "school year "variable of the participants (Table 14). In most items (66.67%: 1, 2, 10, 13, 16 and 18), it was

evidenced that the students in the higher levels possess beliefs more prone to educational inclusion, being those in the last year the origin of these significant differences with respect to the first year, following the Tukey and Bonferroni statistics. The students in the last year occupied a homogeneous subset separate from the rest.

Table 13. Means, standard and inferential deviations about beliefs depending on gender.

Beliefs & Predisposition	Men (n= 137)		Women (n= 575)		t	gl	p	d
	$\bar{X}$	DT	$\bar{X}$	DT				
1.- Students like Juan have the right to be educated in the same classroom as typically developing students	3.51	0.64	3.61	0.62	-1.65	710	.099	
2.- Inclusion is NOT a desirable practice for educating typically developing students	2.95	0.99	3.27	0.94	-3.62	710	.000*	0.34
4.- I am willing to encourage Mark to participate in all social activities in the regular classroom	3.73	0.54	3.82	0.47	-1.94	710	.053	
5.- Students like Juan should be given every opportunity to function in an integrated classroom	3.78	0.42	3.84	0.46	-1.45	710	.147	
10.- I am willing to adapt the curriculum to meet the individual needs of all students regardless of their ability	3.49	0.60	3.74	0.51	-5.06	710	.000*	0.48
13.- I am willing to include students like Juan in the regular classroom with the necessary support	3.55	0.62	3.74	0.53	-3.63	710	.000*	0.34
16.- I am willing to modify the physical environment to include students like Mark in the regular classroom	3.38	0.73	3.74	0.54	-6.47	710	.000*	0.65
18.- I am willing to adapt my communication techniques to ensure that students like Juan can be successfully included in the regular classroom	3.55	0.62	3.72	0.51	-3.33	710	.001*	0.32
19.- It is feasible to teach children with average abilities and exceptional needs in the same classroom	3.45	0.78	3.62	0.62	-2.89	710	.004*	0.27

Note: *p<.01

Regarding "degree and specialisation", the observed differences in 44.4% of their items, following the *post hoc* tests, had their origin in the unfavourable beliefs towards inclusion in the Primary Education students, Foreign Languages branch. They were below expectations, and also lower than the rest of specialisation branches, which causes the creation of two different groups according to the data: one for the students in the Foreign Languages branch and another group for all the others.

For variables such as "students with SEN" and "contact", slight differences have been observed in items 2 and 4, 22.22% among the total number, with more fitting beliefs in those students with SEN and those who had frequent contact with them.

Regarding the correlational analysis, even though there is a certain relation among items, its absence is more frequent, which can be interpreted as the lack of a consolidated pattern in the beliefs around inclusive education among the students. The only relations showing certain intensity, medium-high, were established between items 4 and 5 (r=0.69), as well as between items 16 and 18 (r=0.61) Less intensity, considered as medium, can be found in the relation between the following items: 10 and 13 (r=0.52); 10 and 16 (r=0.50), and 10 and 18 (r=0.50), and an accepted significance level (p<.05).

Table 14. Means, standard and inferential deviations about beliefs depending on school year.

Beliefs & Predisposition	School year	N	$\bar{X}$	DT	F	p	η^2
1.- Students like Juan have the right to be educated in the same classroom as typically developing students	1º	138	3.47	0.74	4.31	.005*	0.02
	2º	352	3.56	0.62			
	3º	15	3.73	0.46			
	4º	207	3.71	0.52			
2.- Inclusion is NOT a desirable practice for educating typically developing students	1º	138	3.59	0.62	16.22	.000*	0.06
	2º	352	2.96	1.06			
	3º	15	3.09	1.00			
	4º	207	3.73	0.59			
4.- I am willing to encourage Mark to participate in all social activities in the regular classroom	1º	138	3.55	0.70	1.74	.157	
	2º	352	3.21	0.96			
	3º	15	3.88	0.35			
	4º	207	3.77	0.53			
5.- Students like Juan should be given every opportunity to function in an integrated classroom	1º	138	3.73	0.46	2.32	.074	
	2º	352	3.81	0.48			
	3º	15	3.80	0.49			
	4º	207	3.86	0.39			
10.- I am willing to adapt the curriculum to meet the individual needs of all students regardless of their ability	1º	138	3.79	0.51	2.46	.061	
	2º	352	3.87	0.35			
	3º	15	3.88	0.39			
	4º	207	3.83	0.45			
13.- I am willing to include students like Juan in the regular classroom with the necessary support	1º	138	3.77	0.44	5.38	.001*	0.02
	2º	352	3.64	0.60			
	3º	15	3.80	0.41			
	4º	207	3.73	0.49			
16.- I am willing to modify the physical environment to include students like Juan in the regular classroom	1º	138	3.70	0.54	4.82	.003*	0.02
	2º	352	3.75	0.47			
	3º	15	3.62	0.64			
	4º	207	3.80	0.41			
18.- I am willing to adapt my communication techniques to ensure that students like Juan can be successfully included in the regular classroom	1º	138	3.80	0.42	4.74	.003*	0.02
	2º	352	3.70	0.56			
	3º	15	3.65	0.60			
	4º	207	3.60	0.67			
19.- It is feasible to teach children with average abilities and exceptional needs in the same classroom	1º	138	3.80	0.41	1.83	.140	
	2º	352	3.79	0.43			
	3º	15	3.67	0.60			
	4º	207	3.77	0.50			

Note: *p<.05

Results on Copping with the requirements within the diverse classroom.

The first action was the recodification of items 6, 8 and 11, as recommended by the authors. After that, the information in Table 15 shows that the received answers were positive regarding the actions trainee teachers would need to take with respect to attention to diversity. The mean reached the vale 3.59, with a deviation of 0.71.

The differential analysis highlights different answers per participant grouping depending on the considered variables, except for "contact". "Gender" has a crucial influence (p<.05) in all the answers (Table 16). Female students presented better willingness to take the actions required by the students within the classroom.

Table 15. Measurements of central tendency and dispersion about copping with the requirements of inclusion.

Requirements	N	$\overline{X}$	DT	M_o	%			
					1	2	3	4
6.- I am uncomfortable including students like Juan in a regular classroom with other students without a disability	712	3.61	0.75	4	3.40	5.80	17.70	73.20
7.- I am willing to modify the goals for each individual student	712	3.67	0.60	4	1.40	2.40	24.30	71.90
8.- Regular education teachers cannot meet the individual needs of students like Juan	712	3.33	0.85	4	4.80	10.80	31.00	53.40
11.- I get frustrated when I have to adapt the curriculum to meet the individual needs of all students	712	3.74	0.64	4	2.40	3.40	12.40	81.90

Table 16. Means, standard and inferential deviations about inclusive copping depending on gender.

Requirements	Men (n= 137)		Women (n= 575)		t	gl	p	d
	$\overline{X}$	DT	$\overline{X}$	DT				
6.- I am uncomfortable including students like Juan in a regular classroom with other students without a disability	3.30	0.84	3.68	0.70	-5.48	710	.000*	0.51
7.- I am willing to modify the goals for each individual student	3.45	0.69	3.72	0.56	-4.93	710	.000*	0.47
8.- Regular education teachers cannot meet the individual needs of students like Juan	3.18	0.89	3.37	0.84	-2.38	710	.018*	0.23
11.- I get frustrated when I have to adapt the curriculum to meet the individual needs of all students	3.53	0.78	3.79	0.59	-4.39	710	.000*	0.42

Note: *p<.05

The variable "degree/ specialisation" follows in intensity degree. It tells apart the answers by Primary Education students in the Foreign Language specialisation branch from the rest, which groups them in a different subset, apart from the other degrees for most (75%) of items (6, 7 and 8), as they presented worse copping regarding the requirements of a diverse classroom. The "students with SEN" also showed better copping for half of the items in the factor (50%), that is to say, to solve the students' needs on their own (items 6 and 11), although differences were not registered as for the need to adapt the school programme (items 7 and 8).

"School year" is influential in the capacity to cope with problems in a diverse classroom (Table 17). Hence, it has distinguished between students in the first year and all the others in item 7; and between the first and the last years for item 11, that is, for half of the factor's items. However, it only places means in different subsets for the last year with respect to all the other ones, which is located in the same subset. A more adequate copping towards inclusion is observed on the last year students.

"Educational centre" generated two subsets, one for Melilla and a different one for the other schools, since it was registered a higher need for change in the willingness to carry out the requested actions by the students within the classroom in Melilla's college.

Lastly concerning intensity, it has been observed that "age" does not result in any difference as for the answers, except for item 8 (25%) where a certain progress in the pro-inclusion copping arises, but without forming different subsets, so this is statistically irrelevant.

Correlations didn't convey a clear unanimous pattern among the participants, since intense relations were not present in their answers to the different items, not surpassing r=0.4.

Table 17. Means, standard and inferential deviations about inclusive copping depending on school year

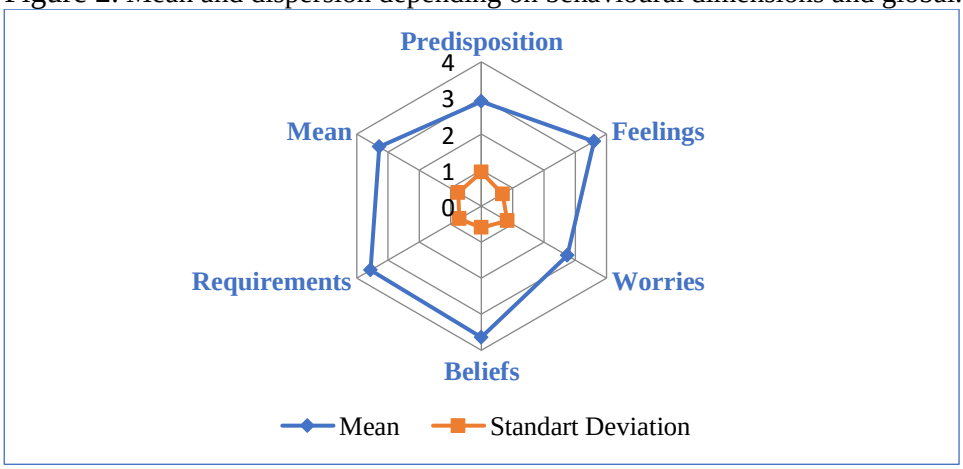
Requirements	School year	N	$\bar{X}$	DT	F	p	η2
6.- I am uncomfortable including students like Juan in a regular classroom with other students without a disability	1º	138	3.67	0.74	2.02	.104	
	2º	352	3.54	0.78			
	3º	15	3.53	0.64			
	4º	207	3.68	0.70			
7.- I am willing to modify the goals for each individual student	1º	138	3.57	0.78	3.13	.025*	0.02
	2º	352	3.41	0.80			
	3º	15	3.73	0.59			
	4º	207	3.57	0.64			
8.- Regular education teachers cannot meet the individual needs of students like Juan	1º	138	2.86	1.06	14.60	.000*	0.01
	2º	352	2.76	0.99			
	3º	15	3.13	0.74			
	4º	207	3.30	0.84			
11.- I get frustrated when I have to adapt the curriculum to meet the individual needs of all students	1º	138	3.88	0.41	3.64	.013*	0.02
	2º	352	3.70	0.63			
	3º	15	3.80	0.41			
	4º	207	3.81	0.52			

Note: *p< .05

Global results

The general attitude is supportive of educational inclusion (3.29 out of 4), which corresponds with the value "agree", although it is inconsistent depending on the dimensions (see Figure 2). "Predisposition and perception towards inclusive education" and "Worries and implications of inclusion" were below the global mean. The opposite is true for the values "Feelings towards people with different capabilities", "Beliefs and behaviours around diverse students", as well as "Copping with the requirements of educational inclusion". The relevance of the less valued factors highlights the need of working intensely on them.

Figure 2. Mean and dispersion depending on behavioural dimensions and global.

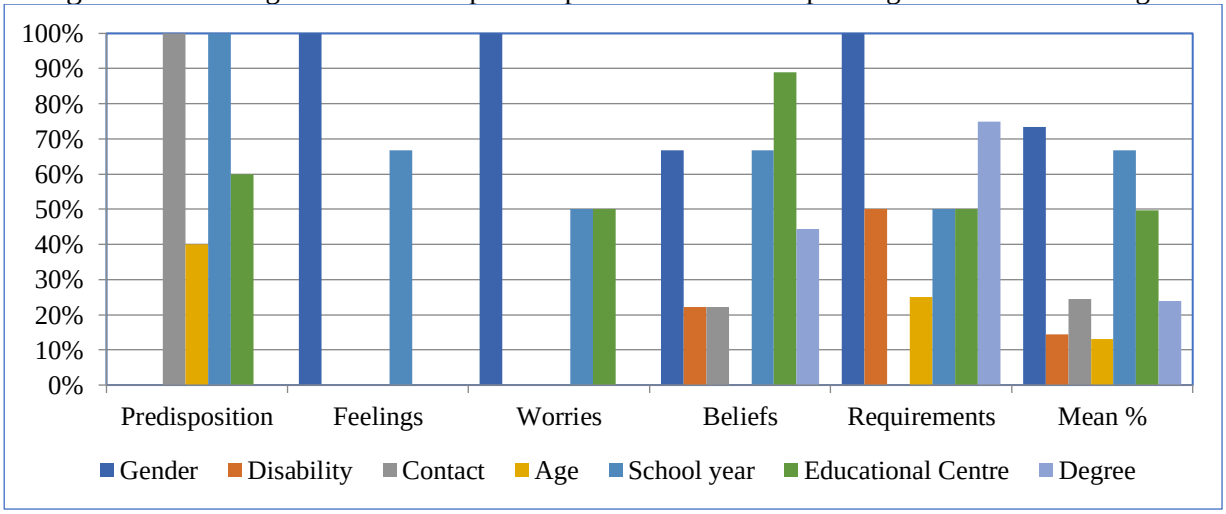


On the other hand, it was observed that attitudes were better when the questions focused on specific students, stating name and difficulty suffered, as the obtained results were higher than those collected using more abstract situations (3.09 versus 3.60). From these data, it can be deduced, as an pedagogical implication, that a generalisation of attitudes is required in order to internalise them at an abstract level, not only specific; as

a didactic implication, it can be inferred that working on specific cases can become the base for its success.

Nonetheless, relations among each participant's answers (intraindividual) did not have a high inclusive coherence, given their correlations. Thus, there were no intense and direct correlations among their statements, as it would have been expected, which points at the absence of a consolidated pattern following the educational inclusion philosophy. Together with the previous inadequacy for some subscales ("Predisposition and perception of educational inclusion" and about "Worries and implications of inclusion") and even for scales (the first, SACIE-R against the second one, ASIE), this conclusion records the lack of consistency and solidity in the participants" inclusive attitudes. This may happen because these attitudes are still consolidating at that moment, which pinpoints the relevance of training for this aspect. This is reinforced with the data in Figure 3, which states the differences depending on dimensions, this time interindividual, attitudinal and global regarding certain features in the participants. The differences are intense if we look at "gender", "school year" and "educational centre", favouring female attitudes against the male ones, students in the last year with respect to those in the first one, and the centres in Granada versus the ones in Ceuta and, specially, Melilla.

Figure 3. Percentage differences as per independent variables depending on dimensions and global.



Discussions and conclusions

This research was intended to measure the attitudes of trainee teachers in University of Granada, with the purpose of creating an attitudinal map and proving the existence of a uniform pattern in those future teachers. Attitudes, in general, were adequate regarding feelings and consideration towards diverse people, about beliefs and personal predisposition towards inclusion, as well as around positive copping of the students' individual needs. Other recent studies also agree with these results prone to inclusion (Álvarez & Buenestado, 2015; Castillo & Miranda, 2018; Macías, Aguilera, Rodríguez & Gil, 2019; Mendoza, 2015; Sánchez, Díaz, Sanhuesa & Friz, 2018) and concerning the appropriate conduct towards people with functional diversity (Araya, González & Cerpa, 2014; Llorent & Álamo, 2016; Macías, 2016), although there is room for improvement (Clavijo, López, Cedilo, Mora & Ortiz, 2016). Moreover, these results coincide altogether with those revising previous studies on more traditional research, which could correlate with the school integration movement, prior to educational inclusion. In general, they also match the results obtained in other contexts, having also being reviewed by the aforementioned researchers.

However, the conclusions were not so appropriate regarding the selective consideration of the student type who should attend ordinary classes, due to their excessive and negative worrying about their own training and acting capabilities relating certain students with SEN, mainly, just like due to the implications not always well appreciated about their school inclusion. These results coincide with those reached by other authors, such as Tárrraga, Grau & Peirats (2013), who recorded negative attitudes in the students referring to specific training, together with Hernández and García (2017), Mangano (2015) and Mendoza (2015), who reflected in their research the profusion of fears and worries towards inclusion, due to their lack of skills to develop inclusive practices and to address the SEN (Llorent & Álamo, 2016), which makes them fell excessively dependant on other professionals' support. It is advisable to add that these findings have also been obtained through traditional research in the late 20th and early 21st century, following the revisions carried out by Tárraga et al. (2013), which also apply to the body of working teachers (Clavijo et al., 2016; Ewing, Monsen & Kielblock, 2018). Thus, it is a consolidated opposition that hinders inclusion and should be obliterated, guaranteeing training quality that, according to the students themselves, is inadequate with respect to educational inclusion (Flores, Prats and Solar, 2014), and SEN consideration (Bahienes & Rosetti, 2014). With them, the attitudinal dimension requires for improvement (Hittiarachchi & Das, 2014; Sánchez, Días, Sanhueza & Friz, 2018), not only concerning the programme but also the affective and relational aspects for the interaction with diverse students, taking real and practical cases as a starting point (Castillo & Miranda, 2018), for the development of attitudes and feelings towards inclusive work in the classroom (Varcoe & Boyle, 2014), and, when applicable, changing segregating ideas, attitudes, passivity and behaviours into the current, more inclusive ones (Santos, Cernadas & Lorenzo, 2014).

Nevertheless, it cannot be stated that this is a uniform attitudinal pattern, given the high dispersions and the low correlations recorded among the intraindividual and interindividual answers. Intraindividual due to the inconsistency in their answers, not all of them following the inclusive philosophy and praxis. Interindividuals due to the influence of several variables as "school year", which affect all the offered answers unanimously, as it is reflected in other studies (Araza, González & Cerpa, 2014), even in the attitudinal supremacy of the last school year (Costelo & Boyle, 2013), despite having taken from Year 2 subjects directly related to attention to diversity in an inclusive school, fact highlighted by some authors (Sánchez et al. 2008; Hettiarachchi & Das, 2014). In a similar way, "gender" and "educational centre" were also determining (in four out of the five depending variables under study). The former constitutes a differential topic in this type of national and international studies (Álvarez & Buenestado, 2015; Mendoza, 2015; Novo, Muñoz & Calvo, 2015), but it is not the case in other literature (Araya et al., 2014; Clavijo, 2106; Macías et al., 2019) However, the second variable has been less studied.

All in all, it is generally advisable to bring the attitudinal development forward as a preferential intervention for the first college years, as it is in the last year when more appropriate attitudes are observed; also, a revision of gender stereotypes, given that men present more inadequate attitudes compared to women, as well as the attitudinal improvement of students in some educational centres, with Melilla as the most improved centre, where cultural diversity is bigger.

"Degree" and "contact with SNE people" showed a lesser strength, as they determined the answers for almost half of the depending variables (two out of five). Regarding "degree", there are hardly any differences between the students in the Preschool and Primary Education degrees, despite being remarked by different authors in their research

conducted in diverse contexts (Macías et al., 2019; Mendoza, 2015; McCollow, Shurr & Jasper, 2015; Tárraga, Garu & Peirats, 2013; Polo, 2017). As it was predictable after analysing the study by Tárraga et al. (2013), due to its revision of related literature and results, the students who opted for specialisation in Special Needs Education showed more adequate attitudes towards inclusion and focus on SNE. Concerning "contact", differently from other studies (Clavijo, 2016; Mendoza, 2015) and in line with others (Crowson & Brandes, 2014; Macías, 2016), it was not very determining. Finally, "age" and "students with SEN" can't be considered as influential variables, although their sample sizes have not been large enough.

The aforementioned sample limitation is joined by others typically hindering any kind of research using the Likert scale survey, even counting with standardised and validated instruments, due to truthfulness in the answers and the snowball sampling instead of a random one, despite the sample being sufficient. It should also be added the risk of an out-of-context and out-of-time generalisation of results, given the characteristics and progression of attitudes in the individuals, in general, and towards inclusion as a current philosophy in particular. Thus, it would be advisable to continue this research in other contexts so as to complete the attitudinal map of trainee teachers, as well as replicating it for them as an update. Transforming this cross-sectional design into a longitudinal one, to measure not only attitudes but their progression, identifying not only patterns but also success and failure points in its development, could undoubtedly contribute to an increase in the knowledge corpus within this field. It would also be useful employing other research designs, quantitative and also qualitative models, by means of diverse techniques such as interviews, discussion groups, ethnographic observation…

Nonetheless, with the collected data and their analysis, there is enough basis to propose, as other authors such as Bozu and Artega (2018) have done before, a revision of current contents and processes around initial training for teacher; and opt for a new culture within the teaching profession, by means of new training policies offering better initial training that is more contextual and based on bonds with their surrounding area and community, being more reflexive and practical too. This implies the need to integrate specific experiences in academic programmes, in order to boost the attitudinal development prone to inclusion since the first years within the most deficient identified areas, as well as for the educational centres most in need of it. In order to achieve that, the most practical and real scenarios should be employed, such as solving practical cases, real or hypothetical, didactic simulations, bringing the practicum forward in time, getting trainee teachers implied in the support of students with special needs at all educational levels, even for university ones, by means of the "volunteer peer" technique; testimonies of teachers who actively use and foster inclusion during their teaching practice, compiling and watching videos, documentaries, music videos or films, about this topic. There are already specific programmes to optimise the attitudinal component of university students (Meyer & Lester, 2016; Yunknis, 2015), which could function as a mould or base for the creation and implementation of programmes personalised to the context or the students they are trying to serve. Their development and verification could constitute another research line, of quasi-experimental design: pre-test as an evaluation of the starting point, treatment by means of the programme and post-test or evaluation of the point of arrival. In order to achieve that, educational policies should fall on academic institutions, so that attitudes, being the focus of our study, stop alienating teaching action from the democratised educational initiatives, homogenising them into one academic

direction. The tutorial action and innovation plans in the university districts can contribute to the attitudinal development and progression of trainee teachers, by evidencing the intrinsic value of diversity for all the students, both those with SEN and those who do not have them; even for teachers, as a challenging and professional development element for them. Indeed, the study's prospective has been a coaching-based innovation project with the purpose of demonstrating, by means of accredited experiential gamification experiences, that we all are equal and, at the same time, we all are different; just like we all learn and, at the same time, we all teach.

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Authors / Autores

Rodríguez-Fuentes, A. (arfuente@ugr.es) 0000-0002-8036-9902

University of Granada (Spain). Department of Didactic and School Organisation. PhD in Pedagogy and Educational Sciences, guest professor at various universities in Europe (France, Italy and Portugal), America (Colombia, Cuba, USA, Panama, Peru and Ecuador) and Africa (Morocco). His preferred line of research is the attention to diversity within the framework of the inclusive school, of which he has published national and international books and articles. Thus, the last international project conducted has been on "Analysis of the Written Competence of Students with Disabilities in the Republic of Panama", sponsored by the country's government, and a national project on "Attitudes of Teachers in Training and Practice towards Inclusive Education".

Caurcel Cara, M.J. (caurcel@ugr.es) 0000-0002-2169-9100

University of Granada. Lecturer. PhD in Psychopedagogy, member of the research group "Psychological and educational attention to diversity (HUM846)" and of the Mind, Brain and Behaviour Research Centre of the University of Granada. Guest professor at various universities in Europe (Portugal, Italy and Austria). Author of research articles in various impact journals (WOS, Scopus...) in the field of Education and Psychology, as well as books and chapters in prestigious publishing houses (Dykinson, Author-House, Comares, Pirámide, EOS...). She has participated in research projects financed. Its main lines of research are attention to diversity, inclusive education, inclusive leadership, teacher training, ICT, Cyberbullyin and Sexting.

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