



Factors to enhance the development of inclusive university communities: ideas, beliefs and attitudes of university teachers towards disability

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Título: Factores para potenciar el desarrollo de comunidades universitarias inclusivas: ideas, creencias y actitudes del profesorado universitario hacia la discapacidad.

Resumen: El éxito de los procesos de inclusión depende de varios factores, entre ellos del nivel de empoderamiento de la comunidad educativa frente al proceso. En este sentido, el rol del docente es un elemento clave, ya que la actitud y las expectativas que muestren ante los alumnos que presentan necesidades educativas especiales, influirán positiva o negativamente en su autoestima, motivación y aprendizaje. En el presente artículo se indagan en las ideas, creencias y actitudes hacia estudiantes con necesidades educativas especiales, de docentes, y se analiza la influencia que las variables género, edad, años de experiencia docente, contacto e información sobre la discapacidad tienen sobre dichas actitudes. En general, se pudo apreciar que las actitudes que presentaban los docentes eran bastante positivas, no obstante mostraban un gran desconocimiento de las experiencias de inclusión de los estudiantes con discapacidad que se llevan a cabo en su universidad, demandando mayor formación e información. Se discuten los resultados, se presentan las limitaciones del estudio, y se ofrecen futuras líneas de investigación.

Palabras clave: Actitudes. Creencias. Inclusión. Profesorado. Universidad.

Abstract: The success of the processes of inclusion depends on several factors, including the level of empowerment of the educational community in the process where the role of teachers is a key element, because their attitude and expectations of students with special educational needs will influence their self-esteem, motivation and learning. This article investigates the ideas, beliefs and attitudes towards SEN students demonstrated by teachers, and analyses the variables of gender, age, years of teaching experience, contacts and information about disability on these attitudes. Overall, it was observed that teachers' attitudes were positive; however they showed a lack of knowledge of the experiences of inclusion of students with disabilities at the university and required more training and information. The results are discussed, the limitations of the study are presented, and suggestions for future research are offered.

Keywords: Attitudes. Beliefs. Inclusion. Faculty. University.

Introduction

Current educational systems face the challenge of becoming inclusive schools that facilitate and act to improve/opt for quality education without exclusion. This involves the transformation of the whole educational system and requires active and participative involvement of all the community. The success of the processes of inclusion depends on several factors, including the level of empowerment of the educational community in the process (Sandoval, 2009). The perception of the members of the educational community will depend on the inclusion measures, strategies and procedures that are in place to make it effective.

To a great extent the body of research aimed at evaluating attitudes towards disability has focused on knowing the views of the teachers and highlighting the variables that are linked to favourable or unfavourable opinions (Chiner, 2011; Dengra, Duran & Verdugo, 1991; Garcia & Alonso, 1985; León, 1995; Martin & Soto, 2001; Parasuram, 2006; Shannon, Tansey & Schoen, 2009; Soto, 2007; Stauble, 2009). In a review of teachers' attitudes towards disability, among the variables that have generated most interest we found gender, age, years of experience, contact with pupils with special educational needs (SEN) and training acquired at different ed-

ucational stages (Chiner, 2011; Garcia & Alonso, 1985; León, 1995).

Regarding gender the results have been rather inconsistent. While some studies claim that women teachers have a higher tolerance towards inclusion (Eichinger, Rizzo & Sitrovník, 1991), others have found no differences in terms of this variable (Galović, Brojčin & Glumbić, 2015; Garcia & Alonso, 1985; Parasuram, 2006; Sánchez, 2011). Abós and Polaino (1986) published a paper in which reference was made to several factors having a bearing on school integration. Their results highlighted that a variable that influenced the attitudes of teachers is gender; and that men expressed more favourable views than women to the idea of integration.

Regarding teachers' age, Dengra et al. (1991) and Garcia and Alonso (1995) concluded that the variable of age and time spent teaching negatively correlated with positive attitudes towards students with SEN. Thus, Parasuram (2006) showed that teachers with less than five years of teaching experience had more positive attitudes.

When the variable is the experience of contact with students with SEN, research suggests that teachers who have had more opportunities to work with these students have a more favourable attitude towards inclusion. Previous contact with students with SEN promotes the development of positive attitudes (Avramidis & Norwich, 2002; Parasuram, 2006; Rodríguez-Martin & Alvarez, 2015). In the Spanish educational context, Aldea (1993) points out that teachers working with students with SEN are more in agreement with their inclusion that those who have not had that experience.

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Another important factor in assessing the attitudes of teachers towards inclusive education is the knowledge they have on SEN. Work has been done that has shown that information about disability throughout their university education could be one of the determinants of attitudes (Carberry, Waxman & McKain, 1981; León, 1995), further proving that the greater the level of information and training the more positive the attitudes (García & Alonso, 1985; Mestre, Guil, Marcilla, Aguilar & Gonzalez, 1996; Verdugo, Jenaro & Arias, 2002). Díaz, Carballo and Jimenez (2006) noted that a large number of teachers considered the training they received during the degree course either non-existent or bad. A fruitful line of work on the attitudes of physical education teachers has been highlighted by various authors (Gonzalez de la Cruz, 2000; Hernandez, 1998, 1999; Hernandez, Casamort, Bofill, Niort & Blazquez, 2011; Torres, 2010). Studies in both primary and secondary education show that a high percentage of physical education teachers do not treat diversity as reflected in the law. One of their main arguments (Mendoza, 2009) is their lack of knowledge and so to avoid making mistakes in their work they do not participate at all.

Teacher training has been identified as a major contributor to the attitudes of the teacher (Stauble, 2009). In this way, a wide field of study has been the analysis of the attitudes of teachers and future teachers at different educational levels. Overall, they found no significant differences in the attitudes of teachers depending on the educational stage (Chiner, 2011).

At the university level there have been several studies (Comes, Parera, Vedriel & Vives, 2011; Martínez & Bilbao, 2011; Mayo, 2012; Rodríguez-Martin & Alvarez, 2015; Sánchez, 2011; Soto, 2007). Martínez and Bilbao (2011) conducted a study in order to understand the attitudes of the teachers of the University of Burgos towards people with disabilities taking into account the impact of socio-demographic variables gender, centre, years of experience, contact with persons with disabilities and experience in educational integration. The results showed that attitudes are one of the main elements that may facilitate or hinder the process of inclusion of students with disabilities in higher education and knowledge of such attitudes can help promote a change of attitude so that Spanish universities are able to reflect a positive vision of people with disabilities, with their possibilities, potentials, capabilities, and rights and freedoms comparable to those of other people.

Likewise, Mayo (2012) analysed the attitudes of university teachers of the University of Santiago de Compostela towards students with disabilities and how this integration affects their teaching practice, pointing to the need to increase teacher training regarding disability in order to reduce levels of teacher unease, and provide quality education to this group of students. Comes et al. (2011) came to similar conclusions in Roviera i Virgili University, noting the importance of having information / training on disability and

how to serve their students with disabilities before giving their classes.

In a large study at the University of Almería, Sánchez (2011) analysed the educational and social integration of students with special needs associated with a disability from the perspectives of teaching and research staff, administrative staff, students in general and students with disabilities. The teaching and research staff showed a good acceptance of the integration of students with disabilities in college, regardless of the centre, although it was noted that the lowest level corresponded to the centres for Health, and the highest to Education. No significant gender differences were found. In addition, it became clear that integration is favoured by the fact of having received information about students with disabilities.

Recently, and similarly, Rodríguez-Martin and Alvarez (2015), in a study that sought to identify the attitudes of a sample of university teachers and students and the inclusion of students with disabilities in the university have found discrepancies in the action of teachers according to gender and branch of knowledge. Garabal-Barbeira (2015) analysed the attitudes of students and teachers towards students with disabilities at the University of A Coruña, Spain. Most teachers reflected that they are not trained to meet the needs of students with disabilities.

As is clear from the literature therefore, that it is in the field of attitudes towards disability that the role of the professional involved is of utmost importance because the way the teacher responds is critical to transforming education. Thus our interest focuses on addressing this issue from a socio-educational perspective, allowing us first to look into the ideas, beliefs and attitudes of teachers of the Faculty of Educational Sciences (FES) of the University of Granada (UGR) towards students with SEN, and secondly, to analyse the influence that the variables of gender, age, years of teaching experience, contact and information have on those attitudes. This is the axis that guides this research article to the extent that the attitudes of teachers towards including students is a powerful predictor of the quality of education for the inclusion of students with disabilities (Cook, Tankersley, Cook & Landrum, 2000).

Method

Design and Participants

The teaching and research staff of the FES department in the University of Granada, comprises around 401 members (Academic Report of the Faculty of Education Sciences, 2018), teaching in building 248. 82 teachers have participated in the study. Table 1 sets out the socio-demographic characteristics of the sample. See Table 1.

Table 1.
Socio-demographic characteristics of teachers participating in the study.

Age	Number	Percentage
21-30	4	4.90
31-40	33	40.20
41-50	27	32.90
51-60	12	14.60
>60	6	7.30
Total	82	100
Gender	Number	Percentage
Masculine	38	46.30
Feminine	44	53.70
Total	82	100
Department	Number	Percentage
Didactics of Sciences	3	3.70
Didactics of Social Sciences	1	1.20
Didactics of Musical Expression	1	1.20
Didactics of Language and Literature	8	9.80
Didactics of Mathematics	8	9.80
Didactics and Student Organization	14	17.10
Methods of research and diagnosis in education	7	8.50
Pedagogy	7	8.50
Evolutionary Psychology and Education	26	31.70
Didactics of Sociology	3	3.70
No reply	4	4.90
Total	82	100
Years of experience	Number	Percentage
< 5 years	23	28
From 6 to 10 years	18	22
From 11 to 15 years	16	19.50
From 16 to 20 years	9	11
From 21 to 25 years	13	15.90
From 26 to 30 years	3	3.70
Total	82	100

Procedure

This study is part of a broader investigation that is being developed at the University of Granada. The questionnaire was used as a tool for gathering information for the research. It had support staff, but the training, preparation and management of the tests, was carried out by teachers of the FES. The activity was offered to all teachers of the Faculty on a voluntary basis. The collection of information was conducted during the months of January to June, in the mornings and afternoons, individually and anonymously. The time spent on its completion was 45-60 minutes. In the different applications the objectives of the investigation were explained to the participants so that they could provide comments and suggestions they deemed appropriate. After collecting these data they were digitalized for further statistical analysis. The answers given were included in a database and analysed using SPSS 25.0.

Instruments

Data collection was conducted through two questionnaires:

The *Scale of Attitudes towards People with Disabilities* (Verdugo et al., 2002), a multidimensional scale (consisting of 37 items) developed in Spain, with studies of reliability (Cronbach's alpha .92) and validity (one general and the other specific for physical, sensory and mental impairment). The task to be performed by the respondent is to say whether they agree or disagree with each of the sentences presented, either positively or negatively, with the meanings and scores of the following opinions: *I strongly agree (MA)* (1); *I quite agree (BA)* (2); *I partially agree (PA)* (3); *I partially disagree (PD)* (4); *I mainly disagree (BD)* (5); *I totally disagree (TD)* (6). The answers close to 1 are those that indicate the more favourable attitudes. The factorial analysis of the scale revealed the existence of five factors: *evaluation of capabilities and limitations, recognition / denial of rights, personal involvement, generic rating, and Assumption of roles*. In addition to the items listed in the scale other were added relating to age, gender, education and profession of the participants. Items relating to contact with disabled people were also included, specifically they were asked whether they had had contact or not with the disabled and, if so, its frequency (almost permanent, habitual, frequent or sporadic) and the type of disability presented by the person with whom they had had contact (motor, auditory, visual, intellectual or multiple).

The questionnaire on *Ideas and attitudes on skills, training and professional development* that teachers at the University of Almeria gave to the group of students with special needs associated with a disability (Research group on Diversity, Disability and Special Educational Needs), consisted of 40 items. The structure was presented on a Likert scale, with four possible answers: 1. *Strongly disagree*; 2. *Disagree*; 3. *Agree*; 4. *Strongly agree*. Thus the custom or predisposition to locate the central response as the most appropriate scale and therefore less committed is avoided. All questions are closed except the last, which in each questionnaire appears open to the formulation and observations the respondent wishes to make.

In order to ensure the quality of the instruments and reduce the possible errors associated with them, the construction of the questionnaire followed a thoughtful process, prepared in accordance with the guidance of some experts in this area. Once the first version was produced, it was put to the trial of education experts. Subsequently, a pilot study was carried out, applying to students of the same university, in order to ensure the suitability of the object of study and the understanding of the questions. Following the analysis of the pilot study, in which the wording of some questions was modified and others were removed, because they were repetitive and/or not providing relevant information, the final versions were obtained (Sánchez, et al., 2009).

Results

We shall now present the results obtained after performing a statistical analysis of data. In the first place, a descriptive analysis of the *ideas and beliefs* of teachers was carried out, tak-

ing into account the percentage of teachers who had students with disabilities and what type they were. Subsequently, a descriptive analysis of *attitudes* was made to relate different variables such as gender, age, contact and information received on the subject of disability.

Ideas and beliefs of teachers

Out of a total of 82 teachers from the UGR who completed the questionnaire on *Ideas and attitudes on skills, training and professional development* (Research Group GI Diversity, Disability and Needs Special education), 75 said they have had students with disabilities in their class (91.5%), compared to 7 who said they had never had any (8.5%). Of those teachers who said they had, 2.4% indicated that the disability was physical, 1.2% stated that it was psychic, 20.7% said it was auditory, 7.3% visual, and 58.5% highlighted that the students with disabilities they had taught had various types of disabilities.

Looking at the data in the descriptive analysis of the ideas and beliefs of teachers (Table 2), we see that they agree

that access of students with disabilities to the University should be facilitated ($M = 3.85$, $SD = .448$) and that is the task of all personnel involved in universities to help their proper integration ($M = 3.78$, $SD = .498$). However, they feel that training courses to facilitate these students' learning ($M = 3.41$, $SD = .831$) are necessary, and that there should be greater coordination among teachers in this regard ($M = 3.52$, $SD = .689$). They also thought it desirable that teachers were informed beforehand that they would have students with disabilities in their subjects ($M = 3.56$, $SD = .704$) and advising them ($M = 3.70$, $SD = .560$); because they believed that teachers did not have sufficient resources to achieve successful integration of students with disabilities at the University ($M = 1.77$, $SD = .708$). Moreover they had no knowledge of how other universities integrated of such students ($M = 1.93$, $SD = .086$). They think, therefore, that there must be a central unit to coordinate and advise disabled students and teachers involved in their training ($M = 3.78$, $SD = .498$).

Table 2.

Descriptive statistics on teachers' ideas and beliefs.

	<i>M</i>	<i>SD</i>
The University must make access available for students with disabilities	3.85	.448
It is important to foster favourable attitudes towards these students	3.93	.378
There should be a central unit to coordinate and advise students with disabilities and the teachers involved in their training	3.78	.567
The University must have specialized teaching staff for these students	2.98	1.077
It is necessary for the University to sign collaboration agreements with Public and / or Private Associations and Institutions to improve care for these students	3.57	.847
These students should have more flexibility when it comes to demanding the acquisition of their skills knowledge appropriate for their studies	2.54	.984
I know the experiences of integration of the students with disabilities that are developing in our University	1.93	1.086
The teaching staff has sufficient didactic and organizational resources to achieve a good integration of students with disabilities in the University	1.77	.708
The coexistence and climate of the classroom improves when students with disabilities share the academic tasks with their peers	3.22	.847
The presence of students with disabilities in classrooms makes it difficult for teachers to work	1.78	.930
These students should be helped to access the contents, adapting the methodology and evaluation	3.48	.820
It is necessary to counsel the teachers that work with these students	3.70	.560
The University is not the most appropriate place for the academic and professional training of students with disabilities	1.22	.588
It is enriching for the whole university community to live with these students	3.63	.658
The integration of students with disabilities in the University is a task that is incumbent on all faculty and staff involved, in close collaboration	3.78	.498
There should be specific class / classroom groups for the care of students with disabilities at the University	1.98	1.042
The tests of access to the University must contemplate the resources and adaptations necessary to respond to the needs of students with disabilities	2.98	1.207
Specialized training courses on how to facilitate the learning and assessment of students with disabilities are required	3.41	.831
It is necessary that the teachers who that attend students with disabilities coordinate for their better care	3.52	.689
Increased financial efforts to care for these students must be made	3.30	.990
The integration of students with disabilities in the University requires the adaptation and development of didactic and organizational resources	3.45	.740
The integration of students with disabilities is accepted by the whole university community	2.61	1.027
Students, especially those with a disability, must know the competencies required in each degree before enrolling	3.50	.805
Objectives and content should be the same for all students	3.39	.871
Specific teacher training is required to work with these students at the University	3.24	.840
It is necessary to inform the teachers of the students with disabilities who are going to take their subjects in advance	3.56	.704
The University must provide the means for students with disabilities to participate in university life like the rest of their classmates	3.76	.511

	<i>M</i>	<i>SD</i>
There should be a specific protocol for the care of students with disabilities at the University	2.77	1.010
The teachers are trained to attend students with disabilities at the University	2.00	.831
The presence of students with disabilities in university classrooms produces a drop in the general academic level	1.45	.834
The University has the means to solve any type of adaptation in the elements of access to the curriculum of these students	1.83	.886
Integration of students with disabilities helps improve their socialization and academic performance	3.39	.953
The student with a disability must have the same opportunities and possibilities of promotion as his / her fellow university students	3.74	.750
It is necessary for the University to develop a specific Reception Plan for students with disabilities	2.80	1.191
The degree obtained by students with disabilities must be the guarantor of the set of competences for their professional practice	3.34	1.168
The presence of teachers / support staff for students with disabilities in the classroom is not adequate because it distracts other students	1.40	.844

Teacher attitudes

Table 3 shows the mean scores of the factors analysed under the Scale of Attitudes towards people with disabilities.

Table 3.
Descriptive statistics of the questionnaire

	<i>n</i>	<i>M</i>	<i>SD</i>
Overall Mean of Factor I	82	2.14	1.018
Overall Mean of Factor II	82	2.66	1.063
Overall Mean of Factor III	82	3.20	1.301
Overall mean of Factor IV	82	3.75	1.612
Overall Mean of Factor V	82	2.82	1.218
Overall mean	82	2.91	1.141

Overall, the degree of agreement among surveyed regarding their conception of persons with disabilities, their learning ability and performance, and inferences about skills ($M = 2.14$; $SD = 1.018$), is noteworthy. So far as recognition / denial of rights is concerned, the assessments regarding the recognition of fundamental rights of the person (e.g. equal opportunities, right to vote, access to credit, etc.) were on analysed and, in particular, the right towards normalization and social integration, demonstrated positive attitudes ($M = 2.66$, $SD = 1.063$).

Block III deals with personal involvement, in which judgments relating to specific interaction behaviours that the person would take effect in relation to persons with disabilities. This revealed, as reflected through measures close to 3.20, that teachers have a fairly favourable predisposition to act and showed an effective acceptance of persons with disabilities in social, personal and work situations. Factor IV, generic rating, sets out overall views and general qualifica-

(Verdugo et al., 2002). In general it can be seen that teachers have quite positive attitudes ($M = 2.91$, $SD = 1.141$), and there are small differences between the different factors.

tions that respondents made about the allegedly defining features of the personality or behavior of people with disabilities, not appreciating ratings that denote negative or pejorative stereotyped labelling applied to persons with disabilities ($M = 3.75$, $SD = 1.612$). Finally in the section on Assumption of roles the respondent made assumptions about the conception of themselves as people with disabilities with very similar scores in the responses given ($M = 2.82$, $SD = 1.218$).

After performing the descriptive analysis of the different factors that make up the scale, a multivariate analysis of variance (ANOVA) was performed to analyse the effects of the variables that gender, age, years of teaching experience and contact have on the different factors that make the scale of attitudes towards disability (Factor I. Evaluation of the capabilities and limitations, Factor II Recognition / Denial of rights. Factor III Personal involvement; Factor IV generic rating; Factor V. Assumption of roles), also showing means and standard deviations by titration. Of the different variables analysed no significant differences were found when taking into consideration *gender* [$F(1, 80) = 1.47$, $p < .228$], *age* [$F(4, 77) = 1.24$, $p < .300$], *contact with people with disabilities* [$F(1, 80) = .48$, $p < .487$] or information received on this subject [$F(2, 79) = .20$, $p < .813$]. However differences were found in respect of *years of experience* of Factor IV, with teachers from 11 to 15 years of experience being more likely to assign features or specific behaviours to students with disabilities [$F(5, 76) = 3.16$, $p < .012$].

Table 4.
Comparison of means based on the variable of Years of experience.

		<i>n</i>	<i>M</i>	<i>SD</i>	<i>F</i>	<i>Sig.</i>
Overall means	Less than 5 years	23	4.38	1.139		
Factor IV	Between 6 and 10 years	18	3.37	1.818	3.163	.012
	Between 11 and 15 years	16	2.69	1.969		
	Between 16 and 20 years	9	4.20	1.140		
	Between 21 and 25 years	13	4.28	.676		
	Between 26 and 30 years	3	3.20	2.778		

Discussion and conclusions

Aware that inclusion in higher education has seen significant progress in recent years (Bilbao, 2010; Comes et al, 2011), surprisingly there are not many studies that focus on the educational stage that is the objective of this research, which analyses the ideas, beliefs and attitudes of teachers of Faculty of Educational Sciences at the University of Granada. It is important to know the perception of this group since it significantly affects the way to meet the educational needs of all students. This study allows us to find that in general the ideas, beliefs and attitudes towards disability, by teachers of the UGR, are quite positive.

The teacher's role is key because the attitude and expectations shown to students with SEN, positively or negatively, affect their self-esteem, motivation and learning (Sales, Moliner & Sachis, 2001). Therefore, we observe the need to develop positive attitudes towards diversity and inclusion of students from initial teacher training as part of the curriculum or through additional training, sensitizing the future teacher to the importance of their beliefs to the heterogeneity of students and how they influence their present and future performance, behaviour and development (Reina, 2003; Sales et al., 2001; Sanchez, Diaz, Sanhueza, & Friz, 2008). Since inclusion is an attitude that affects many people, they must be informed, sensitized and committed (Arnaiz, 2005) with the objective that it is carried out in different areas, such as functional, physical, social and educational (Soto, 2007). Thus, university teachers have not only to be excellent in the transmission of knowledge, but should also encourage the development of values, attitudes and interests that help all students to develop, both personally and professionally in his or her life. This requires proper coordination and the acquisition of cooperative strategies among the entire educational community (Sandoval, 2009).

The study of the ideas and beliefs of teachers reveals that this training is necessary because (as found in this research) teachers are not educated to give an adequate response to students with disabilities, it being necessary to make it possible for teachers to address their functions related to attention to diversity, understanding and promoting organizational and curricular changes that are required by inclusive education (Sales, 2006). The knowledge that teachers have about disability is quite poor, there is not enough information about it (Cook, Cameron & Tankersley, 2007; Soto, 2007), a fact that the data presented here corroborates, as well as the study of Méndez and Mendoza (2011), who claim that 76% of teachers considered it appropriate to be given specific training. The lack of preparation, resources and time to face a student with a disability (Alemany & Villuendas, 2004) is obvious. In addition, Suriá (2011) indicates that most centres lack resources and tools appropriate for students who have a disability (Torres, 2010), as supported by the teachers in the present study, which indicated that they did not have sufficient resources to achieve successful integration of students with disabilities at the University.

Today, virtually all Spanish universities have specific support services for these students. Some of the functions they perform are giving information, fostering, advice and personalized attention, study support, the removal of architectural barriers, pedagogical and curricular changes, adaptation assessments, awareness of the university community, coordination with other agencies and institutions related, among others (Alcantud, Avila & Asensi, 2000). Nevertheless, more training and information for teachers, who do not have them require a protocol for performance to intervene with students with disabilities (Bilbao, 2010), considering it a necessary step to address diversity (Vieira & Ferreira, 2011).

The descriptive analysis of the effects that certain variables have on the attitudes of teachers, allow us to find that these conclusions apply to teachers regardless of their gender, although this is controversial, since while Alemany and Villuendas (2004) did find that men have more favourable attitudes than women to educational integration, studies like that of Avramidis and Norwich (2002) noted that women teachers are those with greater tolerance and predisposition towards these students, in turn showing greater sensitivity towards integration (Bilbao, 2010). Although the data here provide no significant differences in relation to gender or age (confirmed in other studies such as that of Bilbao, 2010), authors like Leon and Avargues (2007) find that younger teachers are more tense when they have students with disabilities in their classrooms, while there is research indicating just the opposite, that the younger teachers have more favourable attitudes towards integration (Parasuram, 2006; Suriá, 2011). In general, regardless of the age or gender of teachers, many show a great ignorance of experiences of integrating students with disabilities at the university, as in the present study and in that conducted at the University of Almería by Sanchez (2011).

Professional experience is the variable related with age, which according to the data obtained has an effect. Thus, when there is a better knowledge of these students, there is a greater guarantee of success in the process of teaching and learning, having had a greater chance of contacting students who are subject to a disability (Avramidis & Norwich, 2002). Several studies support this fact, noting that teachers who have not had direct contact with people with disabilities have more rejecting attitudes than those who have dealt with this group (Gómez & Infante, 2004; Polo, Fernandez & Diaz, 2010), although contact is not itself guaranteed to create favourable attitudes and express training is necessary.

If contact with people with disabilities, information and prior training acquire a key value, it will then require the effective development of the proposals set out in the social dimension of the European Higher Education Area, an issue that can and must respond specifically through action plans for students with disabilities at each university (Cayo, 2008 quoted in Rodriguez-Martin & Alvarez, 2015). It is necessary that teachers feel prepared to respond efficiently to the diversity of their classrooms, promoting favourable attitudes, through the services and resources that the educational sys-

tem provides, developing campaigns for raising awareness and promoting tutorial action plans (Rodríguez-Martin & Alvarez, 2015), with the aim of developing the full potential of their students on equal opportunities (Sales et al., 2001).

Ethical approval: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent was obtained from all individual participants included in the study.

References

- Abós, P., & Polaino, A. (1986). Integración de deficientes educables: un estudio de actitudes docentes [Integration of the educable handicapped: a study of teaching attitudes]. *Revista Española de Pedagogía*, 172, 194-206.
- Academic Report of the Faculty of Education Sciences (2018). Retrieved from: <https://educacion.ugr.es/pages/facultad/documentos/memoriaacademica201718>
- Alcantud, F., Ávila, V., & Asensi, C. (2000). *La integración de estudiantes con discapacidad en los estudios superiores*. [Integration of students with disabilities in higher studies] Valencia: Universidad de Valencia.
- Aldea, S. (1993). Investigación sobre integración social y educativa de los niños deficientes en centros ordinarios. [Research on social and educational integration of handicapped children in ordinary centers] *Revista Interuniversitaria de Formación del Profesorado*, 18, 287-295. Retrieved from: <http://dialnet.unirioja.es/servlet/articulo?codigo=117808>
- Aleman, L., & Villuendas, M. D. (2004). Las actitudes del profesorado hacia el alumnado con necesidades educativas especiales [Teachers' attitudes towards students with special educational needs]. *Convergencia*, 34, 183-215.
- Arnaiz, P. (2005). *Atención a la diversidad. Programación curricular* [Attention to diversity. Curriculum programming]. San José: Editorial Universidad Estatal a distancia.
- Avramidis, E., & Norwich, B. (2002). Teachers' attitudes towards integration/inclusion: a review of the literature. *European Journal of Special Needs Education*, 17(2), 129-147.
- Bilbao, M. C. (2010). Percepción de los recursos que favorecen la integración de estudiantes con discapacidad en la educación superior según los docentes de la Universidad de Burgos [Perception of the resources that favor the integration of students with disabilities in higher education according to the professors of the University of Burgos]. *Educación y Diversidad*, 4(2), 33-50.
- Carberry, H., Waxman, B., & Mckain, D. (1981). An In-service workshop for class teachers concerning mainstreaming of the learning disabled child. *Journal of Learning Disabilities*, 14, 26-28.
- Comes, G., Parera, B., Vedriel, G., & Vives, M. (2011). La inclusión del alumnado con discapacidad en la Universidad: la opinión del profesorado [The inclusion of students with disabilities in the University: the opinion of the teaching staff]. *Innovación educativa*, 21, 173-183.
- Cook, B. G., Cameron, D., & Tankersley, M. (2007). Inclusive teachers' attitudinal ratings of their students with disabilities. *The journal of special education*, 40(4), 230-238.
- Cook, B. G., Tankersley, M., Cook, L., & Landrum, T. J. (2000). Teachers' attitudes toward their included students with disabilities. *Exceptional Children*, 67(1), 115-135.
- Chiner, E. (2011). *Las percepciones y actitudes del profesorado hacia la inclusión del alumnado con necesidades educativas especiales como indicadores del uso de prácticas educativas en el aula* [The perceptions and attitudes of teachers towards the inclusion of students with special educational needs as indicators of the use of educational practices in the classroom]. Tesis doctoral, Universidad de Alicante, España. Departamento de Psicología de la Salud. Retrieved from: <http://rua.ua.es/dspace/handle/10045/19467>
- Dengra, R., Durán, R., & Verdugo, M. A. (1991). Estudio de las variables que afectan a los maestros hacia la integración escolar de niños con necesidades educativas especiales [Study of the variables that affect teachers towards the school integration of children with special educational needs]. En AAVV, *Anuario Español e Iberoamericano de Investigación en Educación Especial* (pp. 47-48). Madrid: CEPE.
- Díaz, M.T., Carballo, R., & Jiménez, M.A. (2006). Respuesta educativa a la diversidad desde la perspectiva del profesorado de la ESO: Estudio en la Comunidad Autónoma de la Rioja [Educational response to diversity from the perspective of ESO teachers: Study in the Autonomous Community of La Rioja]. *Contextos Educativos, Revista de educación*. 8-9, 33-50.
- Eichinger, J., Rizzo, T., & Sirotnik, B. (1991). Changing attitudes toward people with disabilities. *Teacher Education y Special Education*, 14, 121-126.
- Galović, D., Brojčin, B., & Glumbić, N. (2015). The attitudes of teachers toward inclusive education in Vojvodina. *International Journal of Inclusive Education*. 18(12), 1262-1282. DOI: 10.1080/13603116.2014.886307.
- Garabal-Barbeira, J. (2015). Actitudes de docentes y estudiantes hacia la discapacidad en la Universidade da Coruña [Attitudes of teachers and students towards disability at the University of Coruña]. *Revista de Estudios e Investigación en Psicología y Educación*, 11, 11-19. DOI: 10.17979/reipe.2015.0.11.220
- García, J.N., & Alonso, J.C. (1985). Actitudes de los maestros hacia la integración escolar de niños con necesidades especiales [Teachers' attitudes towards school integration of children with special needs]. *Infancia y Aprendizaje*, 30, 51-68. Retrieved from: <http://dialnet.unirioja.es/servlet/articulo?codigo=667387>
- Gómez, V. e Infante, M. (2004). Actitudes de los estudiantes de educación hacia la integración de personas con discapacidad y hacia la educación multicultural [Attitudes of education students towards the integration of people with disabilities and towards multicultural education]. *Cultura y educación*, 16(4), 371-383.
- González de la Cruz, S. (2000). Estudio sobre el profesorado de Educación Física de Secundaria ante los alumnos con necesidades especiales en Albacete [Study on the teachers of Secondary Physical Education before students with special needs in Albacete]. *Ensayos: Revista de la Facultad de Educación de Albacete*, 179-200. Retrieved from: http://www.uclm.es/ab/educacion/ensayos/pdf/revista15/15_13.pdf
- Hernández, F. J. (1998). Educación física especial: Actitud y formación de los docentes en primaria [Special physical education: Attitude and training of teachers in primary]. *Apuntes de Educación Física y Deportes*, 51, 70-78. Retrieved from: http://articulos-apuntes.editec.com/51/es/051_070-078_es.pdf
- Hernández, F. J. (1999). Educación Física Especial: Actitud y formación de los docentes en Secundaria en la ciudad de Barcelona [Special Physical Education: Attitude and training of secondary school teachers in the city of Barcelona]. *Apuntes de Educación Física y Deportes*, 56, 48-56. Retrieved from: http://articulos-apuntes.editec.com/56/es/056_048-056_es.pdf
- Hernández, F. J., Casamort, J., Bofill, A., Niort, J., & Blázquez, D. (2011). Las actitudes del profesorado de Educación Física hacia la inclusión educativa: revisión [The attitudes of Physical Education teachers towards educational inclusion: a review]. *Apuntes de Educación Física y Deportes*, 103(1), 23-30. Retrieved from: <http://articulos-apuntes.editec.com/103/es/024-030.pdf>
- León, M. J. (1995). Las actitudes del profesor tutor de alumnos con necesidades educativas especiales en su aula, acerca de la integración escolar. Una revisión de las investigaciones del campo [The attitudes of the tutor teacher of students with special educational needs in their classroom, about school integration. A review of field research]. *Revista de Educación de la Universidad de Granada*, 8, 141-152.
- León, J. M., & Avargues, M. L. (2007). Evaluación del estrés socio laboral en el personal de la Universidad de Sevilla [Evaluation of socio-

- occupational stress in the staff of the University of Seville]. *Revista Mapfre Medicina*, 18, 323-332.
- Martínez, M. A., & Bilbao, M. C. (2011). Los docentes de la Universidad de Burgos y su actitud hacia las personas con discapacidad [The professors of the University of Burgos and their attitude towards people with disabilities]. *Siglo Cero*, 42(4), 50-78.
- Martín, D., & Soto, A. (2001). La atención a la diversidad. Una cuestión de actitudes [The attention to diversity. A question of attitudes]. *XXI. Revista de Educación*, 3, 149-157. Retrieved from: <http://rabida.uhu.es/dspace/bitstream/handle/10272/321/b11992967.pdf;sessionid=6FB8F723253F3C57CF03FF9437C33C99?sequence=1>
- Mayo, M. E. (2012). La atención a la diversidad en las aulas universitarias: necesidades y dificultades del personal docente e investigador [Attention to diversity in university classrooms: needs and difficulties of teaching and research staff]. Retrieved from: <http://diversidad.murciaeduca.es/publicaciones/dea2012/docs/emayo2.pdf>
- Méndez, J., & Mendoza, F. (2011). Eliminando las barreras para la inclusión y la participación en la Universidad Autónoma de San Luis de Potosí [Eliminating barriers to inclusion and participation in the Autonomous University of San Luis de Potosí]. *XI Congreso Nacional de Investigación Educativa*.
- Mendoza, N. (2009). La formación del profesorado en Educación Física con relación a las personas con discapacidad [Teacher training in Physical Education in relation to people with disabilities]. *Ágora para la Educación Física y el Deporte*, 9, 43-56. Retrieved from e: http://www5.uva.es/agora/revista/9/agora9_mendoza_4.pdf
- Mestre, J. M., Guil, M. R., Marcilla, A., Aguilar, M., & González, D. (1996). El nivel de información como determinante de las actitudes hacia la deficiencia mental en familiares de deficientes mentales [The level of information as a determinant of attitudes towards mental deficiency in relatives of mentally handicapped]. *Revista de Educación Especial*, 22, 17-25.
- Parasuram, K. (2006). Variables that affect teachers' attitudes towards disability and inclusive education in Mumbai, India. *Disability & Society*, 21(3), 231-242. DOI:10.1080/09687590600617352
- Polo, M. T., Fernández, C., & Díaz, C. (2011). Estudio de las Actitudes de Estudiantes de Ciencias Sociales y Psicología: Relevancia de la Información y Contacto con Personas Discapacitadas [Study of the Attitudes of Students of Social Sciences and Psychology: Relevance of Information and Contact with Disabled People]. *Universitas Psychologica*, 10 (1), 113-123.
- Reina, R. (2003). Propuesta de intervención para la mejora de actitudes hacia personas con discapacidad a través de actividades deportivas y recreativas [Intervention proposal to improve attitudes towards people with disabilities through sports and recreational activities]. *Revista digital efdeportes*, 59. Retrieved from: <http://www.efdeportes.com/efd59/discap.htm>
- Rodríguez -Martín, A., & Álvarez, E. (2015). Universidad y discapacidad. Actitudes del profesorado y de estudiantes [Universidad y discapacidad. Actitudes del profesorado y de estudiantes]. *Perfiles educativos*, 37 (147), 86-102.
- Sales, A. (2006). La formación inicial del profesorado ante la diversidad: una propuesta metodológica para el nuevo Espacio Europeo de Educación Superior [The initial training of teachers in the face of diversity: a methodological proposal for the new European Higher Education Area]. *Revista interuniversitaria de formación del profesorado*, 20(3), 201-217.
- Sales, A., Moliner, O., & Sachis, M. L. (2001). Actitudes hacia la atención a la diversidad en la formación inicial del profesorado [Attitudes towards attention to diversity in initial teacher training]. *Revista Electrónica Interuniversitaria de Formación del Profesorado*, 4(2), 1-7. Retrieved from: <file:///C:/Users/usuario/AppData/Local/Microsoft/Windows/INetCache/IE/46M744GC/Dialnet-ActitudesHaciaLaAtencionALaDiversidadEnLaFormacion-1031317.pdf>
- Sánchez, A. (2011). La Universidad de Almería ante la integración educativa y social de los estudiantes con discapacidad: Ideas y actitudes del personal docente e investigador [The University of Almería in the face of the educational and social integration of students with disabilities: Ideas and attitudes of teaching and research staff]. *Revista de Educación*, 354. Enero-Abril, 575-603.
- Sánchez, A., Díaz, C., Sanhueza, S., & Friz, M. (2008). Percepciones y actitudes de los estudiantes de Pedagogía hacia la inclusión educativa [Perceptions and attitudes of Pedagogy students towards educational inclusion]. *Estudios Pedagógicos XXXIV*, 2, 169-178.
- Sánchez, A., Gutiérrez, R., Luque de la Rosa, A., Navarro, M. R., Pérez, F., Ramos, M. G.,... (2009). *Integración educativa y social de los estudiantes con discapacidad en la Universidad de Almería* [Educational and social integration of students with disabilities at the University of Almería]. Almería: Editorial Universidad de Almería.
- Sandoval, M. (2009). Concepciones de los estudiantes de magisterio sobre la inclusión educativa. Universidad de Oviedo [Conceptions of teaching students about educational inclusion. Oviedo University]. *Aula abierta*, 37(1), 79-88.
- Shannon, C. D., Tansey, T. N., & Schoen, B. (2009). The Effect of contact, context, and social power on undergraduate attitudes toward persons with disabilities. *Journal of Rehabilitation*. 75(4), 11-18.
- Soto, R. (2007). Actitudes docentes de la Universidad de Costa Rica hacia los(as) estudiantes con discapacidad de la Universidad [Teaching attitudes of the University of Costa Rica towards students with disabilities at the University]. *Revista Educación*, 31(1), 11-42.
- Stauble, K. R. (2009). Teacher attitudes toward inclusion and the impact of teacher and school variables. University of Louisville, United States – Kentucky.
- Suriá, R. (2011). Análisis comparativo sobre las actitudes de los estudiantes hacia sus compañeros con discapacidad [Comparative analysis of students' attitudes towards their peers with disabilities]. *Revista Electrónica de Investigación Psicoeducativa. Electronic Journal of Research in Educational Psychology*, 9(1), 197-216.
- Torres, M. A. (2010). Actitudes y aptitudes del profesorado de primaria para llevar a cabo una acción educativa inclusiva con alumnos con necesidades educativas especiales en las clases de Educación Física [Attitudes and aptitudes of primary school teachers to carry out an inclusive educational action with students with special educational needs in Physical Education classes]. *Revista Digital*, 15(145). Retrieved from: <http://www.efdeportes.com/efd145/alumnos-con-necesidades-educativas-especiales-en-educacion-fisica.htm>
- Verdugo, M. A., Jenaro, C., & Arias, B. (2002). Actitudes sociales y profesionales hacia las personas con discapacidad: Estrategias de evaluación e intervención [Social and professional attitudes towards people with disabilities: Evaluation and intervention strategies]. In M. A. Verdugo (Dir.), *Personas con discapacidad. Perspectivas psicopedagógicas y rehabilitadoras* (pp. 79-135). Madrid: Siglo XXI Editores.
- Vieira, M. J., & Ferreira, C. (2011). Los servicios de atención a estudiantes con discapacidad en las universidades de Castilla y León [Attention services for students with disabilities in the universities of Castilla y León]. *Revista española de orientación y psicopedagogía*, 22, 185-199.