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PEDAGOGY

Perception of Inclusion and Cooperative Learning of University Students Related to Physical Activity and Physical Education

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Abstract

The objectives of the present study were, on the one hand, to analyse the internal consistency of four questionnaires referring to the perception and knowledge of inclusion and cooperative learning (CL), and on the other, to discover the perception and knowledge of inclusion and CL in Physical Education (PE) of university students studying courses related to PE, Physical activity (PA) or sport, as well as to analyse the differences by sex and level of studies (degree versus post-graduate studies). Two hundred and eighty university students participated in this study and answered four questionnaires. The results show that the total internal consistency of all the questionnaires was excellent (α = 0.9). Furthermore, it was observed that the participants perceived inclusion and CL in a positive light, although they considered themselves to be not sufficiently trained. Significant differences were also observed according to sex and level of study. The women's group and the post-

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graduate students were those who revealed the most knowledge and best perception of inclusion ($p < 0.05$). The results show that it is necessary to include more training in inclusive PA and PE in the study plans of future PE teachers.

Introduction

In Spain, as established by Organic Law 3/2020 (LOMLOE, 2020), the educational norm specifies that several university studies are available to work as a Physical Education (PE) teacher, both in Primary Education and Secondary Education. Specifically, in the case of Primary Education, to be able to work as a PE teacher, it is necessary to have passed the degree in Primary Education with a minor in PE (LOMLOE, 2020). In turn, to be able to work as a PE teacher in Secondary Education, it is necessary to have passed the degree in Physical Activity and Sports Sciences and the Master's in Teacher Training for Compulsory Secondary Education, the Sixth Form, Vocational Training and Language Teaching (LOMLOE, 2020). Moreover, there are other post-graduate studies with their own qualifications, university experts, official master's degrees, or doctoral studies related to PE, physical activity (AF), or sport (LOMLOE, 2020), that complement the university training of future PE teachers. A large proportion of the students who complete these studies will be the future professionals who will work as PE teachers, both in primary and secondary education. In this regard, it has been stated that it is very important for these students and future teachers to have adequate specific training in different subjects related to PE (Avramidis et al., 2000; Perlado et al., 2019).

Bearing in mind that in both primary and secondary schools there is a great deal of diversity among the students, and it has been indicated that inclusion presents physical, cognitive, emotional, affective and attitudinal benefits (Fernández et al., 2019), future professionals should be trained to face the challenges that may arise, and should acquire in their degree and post-graduate training competencies related, among others, to educational inclusion and diversity, which permit them to develop their future professional work adequately. However, in spite of the importance of acquiring knowledge and competencies related to educational inclusion and diversity, during their university training, several investigations which analysed the

study plans of the different universities, like for example, the Degree in Primary Education, concluded that in general, very few subjects were taught that were related to attention to diversity (Rodríguez et al., 2017; Valencia-Peris & Mínguez-Alfaro, 2018; Valencia-Peris et al., 2020). Although it has been stated that to have adequate knowledge, competencies, abilities and attitudes (Jiménez-Monteagudo & Hernández-Álvarez, 2013; Torres & Fernández, 2015) helps teachers to be better prepared for their professional work, a suitable strategy for achieving quality inclusive education and appropriate attention to diversity may be to train, at the university stage, teachers who are competent, reflective and committed to the values of inclusion (Echeita et al., 2008). Similarly, some studies affirm that the teachers who have specific training in inclusive PE obtain higher scores in self-efficacy regarding inclusion (Abellán et al., 2019; Grassi-Roig et al., 2022; Hutzler & Daniel-Shama, 2017; Reina et al., 2016), reinforcing the idea that it is necessary to go further in the improvement of university training in this subject.

It has also been found that the adequate use of cooperative learning (CL) helps to build inclusive education, so that all the students, with or without a disability, have the possibility to be educated through PE (Bermejo et al., 2022; Klavina et al., 2014; Páez et al., 2018; Qi & Ha, 2012; Simoni et al., 2013; Velázquez et al., 2014; Velázquez, 2018). In this regard, CL is defined as the "pedagogical model in which students work together in small, generally heterogeneous groups, to maximise their own learning and also that of the rest of their classmates" (Velázquez, 2015, p. 26). In this same vein, Fernández-Río (2014, p. 69) affirms that CL is understood as "a pedagogical model in which students learn with, from, and for other students, using a teaching-learning approach which facilitates and potentiates this interaction and positive interdependence in which the teacher and students act as co-learners". Although there may be difficulties to implement CL in PE classes, mainly due to lack of experience and abilities in the students, prior negative experiences, lack of training on the part of the teachers, organisational problems in the school and classroom or lack of control in the classroom (Martínez-Benito & Sánchez, 2020), applying CL in PE seems to favour the inclusion of the students both in Primary (Klavina et al., 2014; Páez et al., 2018) and Secondary Education (Simoni et al., 2013; Muntaner Guasp &

Forteza Forteza, 2021). In this same line of thought, different studies conclude that CL is the methodology that most favours the inclusion of immigrant girl students (Nieva & Lleixà, 2016) and students with a disability (Klavina et al., 2014; Páez et al., 2018) at different educational stages (Simoni et al., 2013). Similarly, CL must be developed and applied in initial teacher training so that teachers can experience and implement this methodology (Herrero-González et al., 2021; Jiménez-Díaz & Salicetti-Fonseca, 2022).

However, despite studies on the perception of university students regarding inclusion or CL, most investigations focus on one topic and do not address them together. There are also a few studies that have analyzed whether there are differences in perception and knowledge of inclusion and CL according to sex among university students. Similarly, no studies have been found that analyze whether there are differences according to the level of studies (degree vs. post-graduate). Conducting this study is crucial because understanding the perceptions of future physical education teachers regarding inclusion and collaborative learning can provide indicators of whether they are adequately prepared to implement inclusive education and whether they have a positive attitude toward these topics. Furthermore, both gender and academic level in this sample can influence the perception and knowledge of inclusion and collaborative learning. Therefore, the objectives of the present study were: 1) to analyze the internal consistency of several questionnaires on inclusion and CL applied to university students, 2) to discover the perception and knowledge of inclusion and CL in PE of university students who are studying topics related to PE and PA or sport, and 3) to analyze the differences according to sex and level of studies (degree vs. post-graduate).

Method

Participants

Two hundred and eighty university students participated in this study (22.1 ± 3.0 years) from five Spanish universities and four different degrees, of whom 97 were women (21.9 ± 2.8 years) and 183 were men (22.2 ± 3.2 years). All the participants were university students who were enrolled in one of the following official study courses related to PA or PE: Degree in Physical Activity and

Sports Sciences, Degree in Primary Education–PE minor, an official Master's Degree related to PA and sport, a Master's Degree in Teacher Training in Secondary Education or a doctoral programme related to PA and sport. The study followed the guidelines established in the Declaration of Helsinki (2013) and was approved by the Ethics Committee for Research on Human Beings at the University of the Basque Country (UPV/EHU) (CEISH M10/2021/165).

Procedure

Four previously validated questionnaires on inclusion and CL were used to understand the perception and knowledge of university students regarding inclusion and CL in PE: 1) (Tárraga et al., 2013), 2) (González-Gil et al., 2017), 3) (Traver & García, 2007), and 4) (García et al., 2012). The questionnaires were sent out between November 24, 2022, and February 16, 2023, via email to the various management organs of the faculties, departments, master's academic committees, and doctoral programs at the Spanish universities offering official courses. After the corresponding approval from the management organs of the various courses, university students received the questionnaire via the corporate email system. A reminder was sent one month after the questionnaire was sent out. Data collection was conducted via the Google Forms platform, and the data were later downloaded into an .xls file for further analysis.

Measurements

Bearing in mind that the validation of the four questionnaires had been conducted between 2007 and 2017 (García et al., 2012; González-Gil et al., 2017; Tárraga et al., 2013; Traver & García, 2007), and that between five to 15 years had passed, the questionnaires were minimally adapted to the current terminology. The modifications were minimal and specifically addressed the formulation of items using inclusive language regarding gender. The adaptation was carried out by two experts in questionnaires and the study topic, one with more than 20 years' scientific experience and practice in the field of PE and many scientific publications on the topic, and the other a graduate of Primary Education and Master's in Physical Activity and Sports Sciences.

Questionnaires On Inclusion In Physical Education

The questionnaire "The scale of attitudes towards special educational needs (EANEE by its Spanish acronym)" was validated by Tárraga et al. (2013) and used to discover the perception of the university students regarding inclusion in PE. This is the Spanish adaptation of the *Opinions Relative to Integration of Students with Disabilities Scale* (ORI) by Antonak and Larrive (1995). The adaptation by Tárraga et al. (2013) had been used recently by Abellán and Sáez-Gallego (2020) in a study with similar characteristics to the present investigation. The questionnaire contains 23 items with answers on a Likert-type scale with 5 options: 1= "strongly disagree," 2 = "disagree," 3 = "indifferent," 4 = "agree," 5 = "strongly agree" and is divided into five blocks. The first block (n = 9 items) refers to the benefits of inclusion. The second block (n = 4 items) focuses on generalist attention vs. specialist attention. The third block (n = 4 items) analyses the methodology and management of behaviour in the classroom. The fourth block (n = 3 items) refers to the effort and dedication of the teachers toward the students with special educational needs. Lastly, the fifth block (n = 3 items) examines the training and competence of the teachers.

The questionnaire "Teachers' evaluation of educational inclusion (adaptation of the CEFI-R for university students)", previously validated by González-Gil et al. (2017), was used to discover the perception and knowledge of the participating university students in studies on inclusion and how to implement it. This scale is based on the CEFI-R questionnaire, which assesses teacher training in inclusion by González-Gil et al. (2019). The CEFI-R questionnaire has often been used in studies of similar characteristics aimed at university students (Falla et al., 2022; Rojo-Ramos et al., 2020) and teachers (Tárraga-Mínguez et al., 2022; Triviño-Amigo et al., 2022b; Triviño-Amigo et al., 2022a). The questionnaire contains 16 items with answers on a Likert-type scale with 5 options: 1 = "strongly disagree," 2 = "disagree," 3 = "indifferent," 4 = "agree," 5 = "strongly agree" and is divided into four dimensions. The first dimension (n = 4 items) refers to the conception of diversity. The second dimension (n = 5 items) relates to methodology. The third dimension (n = 4 items) examines the teachers' support. The last dimension (n = 3 items) examines the community's participation. For the present study, the original Likert

scale of 1 to 4 (González-Gil et al., 2017) was modified to equate the answers to those of the rest of the questionnaires.

Questionnaires On Cooperative Learning In Physical Education

The questionnaire "Scale of teachers' attitude toward educational innovation using cooperative techniques (CAPIC)", validated by Traver and García (2007), was used to discover the perception of the university students regarding CL. This questionnaire had been used recently in a study with participants of similar characteristics (Fernández and Espada, 2016). The questionnaire is composed of 19 items with answers on a Likert-type scale with five options: 1 = "strongly disagree," 2 = "disagree," 3 = "indifferent," 4 = "agree," 5 = "strongly agree" and is divided into 13 categories: 1. It improves the interpersonal relations of the students (n = 2 items); 2. It favors the integration of students with special educational needs, both of an affective nature and relative to academic performance, facilitating adaptation to different learning paces (n = 3 items); 3. It avoids or at least counters competitiveness, favouring mutual help and giving value to collaboration (n = 2 items); 4. Positive evaluation of individual contributions to the solution of group conflicts, using a personal contribution to a common task (n = 2 items); 5. It improves the ability to express oneself both individually and in a group, making possible and favouring the communication of everyone at several levels (n = 2 items); 6. It enriches the group through the contribution of new ideas (n = 1 item); 7. It motivates students much more, fomenting their participation in the work developed in the classroom (1 item); 8. It favours debate and group work (2 items); 9. It favors the acquisition of the habit of group coexistence and respect for others (n = 2 items); 10. It favours and potentiates student socialisation; 11. We all learn: students and teachers; interactively building knowledge, becoming aware that we all learn from everyone, not just the teacher (n = 2 items); 12. It favors and makes possible the existence of the group, creating a "group climate" and giving it cohesion (n = 1 item); 13. It favours the attitude of solidarity (n = 1 item); and 14. It favours taking on responsibility (n = 2 items).

The questionnaire "Analysis of Cooperation in Higher Education (ACOES)", previously validated by García et al. (2012) was used to discover the perception and knowledge of the participants on the use of CL. The ACOES questionnaire had been used recently in a study

with participants with similar characteristics and aimed at university students of the Degree in Primary Education (Feria-Madueño et al., 2017). The questionnaire is composed of 49 items with answers on a Likert type scale with 5 options 1 = strongly disagree", "2 = disagree", "3 = indifferent", "4 = agree", "5 = strongly agree, and is divided into 7 dimensions: conception of group work (n = 5 items); usefulness of group work for their training (n = 6 items); planning of group work by the teachers (n = 4 items); criteria for organising the groups (n = 8 items); norms for the groups (n = 9 items); internal working of the groups (n = 7 items); and efficacy of group work (n = 10 items). Moreover the ACOES scale incorporates three open questions at the end of the questionnaire.

Statistical Analysis

The results are presented as mean ± standard deviation. A descriptive analysis was also conducted calculating the frequencies and percentages of the replies of the participants for each item or question. The Kolmogorov-Smirnov and Levene tests were performed to check the normality of the data and equality of variance, respectively. Cronbach's Alpha (α) was used to calculate the internal consistency of each questionnaire and of the different dimensions or blocks of each questionnaire, and was qualitatively interpreted as follows: acceptable (0.60 – 0.70) and excellent (0.70 – 0.90) (Nunnally & Bernstein, 1994). The Mann Whitney U test was used to calculate the difference in means between the results obtained from the men and women or of those obtained according to the level of studies (degree vs. post-graduate). The magnitudes of the differences was calculated using the probability of superiority (PS) (Erceg-Hurn & Mirosevich, 2008), according to the following qualitative interpretation: no differences between means (PS = 0.00 – 0.50), small (PS = 0.50 – 0.56), medium (PS = 0.56 – 0.71) and large (PS > 0.71) differences (Grissom, 1994). The χ^2 test was used to analyse the differences in the distribution of frequencies and percentages of answers between men and women and the level of studies. The statistical analysis was performed with the Statistical Package for the Social Sciences (SPSS Inc, version 27.0, Chicago, IL, USA.). Statistical significance was established at $p < 0.05$.

Table 1
Results of the Internal Consistency of all the Items in Each Questionnaire and Each Block

EANEE	
1. Benefits of inclusion (9 items)	0.5
2. Generalist attention vs. specialist attention (4 items)	0.4
3. Methodology and management of behaviour in the classroom (4 items)	0.3
4. Effort and dedication of the teachers towards the students with special educational needs (3 items)	0.6
5. Training and competence of the teachers (3 items)	0.2
Total items EANEE (23 items)	**0.7**
CEFI-R	
1. Conception of diversity (4 items)	0.7
2. Methodology (5 items)	0.9
3. Support (4 items)	0.6
4. Participation of the community (3 items)	0.8
Total items CEFI-R (16 items)	**0.7**
CAPIC	
1. It improves students' interpersonal relations (2 items)	0.9
2. It favours the integration of students with special educational needs, both of an affective nature and related to academic performance, facilitating adaptation to different learning paces (3 items)	0.1
3. It avoids or at least counters competitiveness, favouring mutual help and giving value to collaboration (2 items)	-0.2
4. Positive evaluation of individual contributions to the solution of group conflicts, using a personal contribution to a common task (2 items)	0.8
5. It improves the ability to express oneself both individually and in a group, making possible and favouring the communication of everyone at several levels (2 items)	-0.5
6. It enriches the group through the contribution of new ideas (1 item)	-
7. It motivates students much more, fomenting their participation in the work developed in the classroom (1 item)	-
8. It favours debate and group work (2 items)	-0.2
9. It favours the acquisition of the habits of group coexistence and respect for others (2 items)	0.7
10. It favours and potentiates student socialisation (2 items)	0.8
11. We all learn: students and teachers; building knowledge in an interactive manner, becoming aware that we all learn from everyone, not just the teacher (2 items)	0.8
12. It favours and makes possible the existence of the group, creating a "group" climate and giving it cohesion (1 item)	-
13. It foments an attitude of solidarity (1 item)	-
14. It favours taking on responsibility (2 items)	0.8
Total items CAPIC (25 items)	**0.8**
ACOES	
1. Conception of group work (I consider group work to be) (5 items)	0.8
2.Usefulness of group work for their training (Personally, group work helps me to) (6 items)	0.9
3. Planning of the group work by the teachers (On the planning that the teachers carry out for group work I think that) (4 items)	0.8
4. Criteria for organising the groups (The constitution of the group should be) (8 items)	0.4
5. Norms of the group (The operating norms of the group) (9 items)	0.7
6. Internal working of the groups (Normally, when doing a group task) (7 items)	0.8
7. Efficacy of group work (The performance of the group improves if) (10 items)	0.9
Total items ACOES (52 items)	**0.9**
Total questionnaires (113 items)	**0.9**

CEFI-R = Teachers' evaluation of educational inclusion, EANEE = The scale of attitudes towards special educational needs, CAPIC = Scale of teachers' attitude towards educational innovation using cooperative techniques, ACOES = Analysis of Cooperation in Higher Education.

Results

The results of the internal consistency of the different questionnaires used are presented in Table 1. The CEFI-R questionnaire obtained an excellent value for total internal consistency (n = 16 items, α = 0.7), and an acceptable or excellent consistency per block (α = 0.6-0.9). The EANEE questionnaire obtained excellent values of internal consistency in all the items (n = 23 items, α = 0.7), although the consistency per block was lower (α = 0.2-0.6). The CAPIC questionnaire obtained an excellent internal consistency (n = 25 items,

α = 0.8), although the internal consistency of some blocks was also lower (α = -0.5, 0.9). Lastly, the ACOES questionnaire showed an excellent total consistency (n = 52 items, α = 0.9), as did the consistency per block (α = 0.7-0.9) except in one of the blocks where it was lower (α = 0.4). Moreover, the internal consistency of all the items of all the questionnaires was excellent (n = 113 items, α = 0.9).

The EANEE Questionnaire

Table 2 shows the results obtained by the participants on the EANEE questionnaire. High percentages in favour of inclusion were observed in the items related to the block "Benefits of inclusion." Regarding the blocks "Generalist attention vs. specialist attention" and "Effort and dedication of the teachers towards the students with special educational needs," high percentages were obtained in the most of the items for the "indifferent" and "I agree" options. Regarding the blocks "Methodology and management of behaviour in the classroom" and "Training and competence of the teachers," high percentages were seen in the "I disagree," "Indifferent," and "I agree."

The men obtained higher values than the women in items 5, 9, 10, 12, 14, 16, 17, 18, and 20 ($p < 0.05$, PS = 0.58 – 0.65, medium, χ^2 = 8.7 – 20.9, $p < 0.01$). Moreover, they also obtained higher values than the women in item 8 ($p < 0.05$, PS = 0.60, medium), although significant differences were not observed in the χ^2 test ($p > 0.05$). However, the women obtained higher values than the men in items 15, 19 and 21 ($p < 0.05$, PS = 0.38 – 0.40, χ^2 = 10.6 – 16.5, $p < 0.01$). There was no difference in the means of men and women in item 23, but significant differences were obtained in the Chi^2 test (χ^2 = 10.8, $p < 0.05$).

Regarding the differences according to level of studies (graduate vs. post-graduate), no significant differences were found ($p > 0.05$) in any of the items on the EANEE questionnaire.

The CEFI-R Questionnaire

Table 3 presents the descriptive results obtained by the participants in the CEFI-R questionnaire. In the items related to the block "Conception of diversity," high percentages were obtained in the options "I strongly disagree," "I disagree," and "Indifferent." Regarding the block "Methodology" high percentages were obtained in the

Table 2

Results Obtained by all the Participants (N = 280) on the Questionnaire Scale of Attitudes Toward Special Educational Needs (EANEE)

Item	Mean ± SD	I strongly disagree	I disagree	Indifferent	I agree	I strongly agree
BENEFITS OF INCLUSION						
18. Inclusion probably has a negative effect on the emotional development of the students with special educational needs..	1.9 ± 1.1	45.7% (128)	31.8% (89)	12.1% (34)	7.5% (21)	2.9% (8)
10. The behaviour of the students with special educational needs is a bad example for their classmates without special educational needs.	1.8 ± 1.1	53.2% (149)	24.3% (68)	13.9% (39)	5.7% (16)	2.9% (8)
19. Students with special educational needs should be given the opportunity to be integrated into generalist classes whenever possible.	4.3 ± 0.8	1.4% (4)	1.8% (5)	10.0% (28)	37.9% (106)	48.9% (137)
2. The inclusion of students with special educational needs facilitates interactions between students with and without special educational needs and foments understanding and acceptance of differences among students.	4.3 ± 0.8	0.7% (2)	1.8% (5)	13.6% (38)	39.6% (111)	44.3% (124)
15. The inclusion of students with special educational needs can be beneficial for students without special educational needs.	4.2 ± 0.8	1.1% (3)	3.2% (9)	10.0% (28)	42.5% (119)	43.2% (121)
12. The inclusion of students with special educational needs does not promote their social independence.	2.2 ± 1.2	31.4% (88)	33.9% (95)	17.1% (48)	13.6% (38)	3.9% (11)
5. The "extra" attention required by students with special educational needs has negative repercussions for the rest of the students in the classroom.	2.1 ± 1.1	34.3% (96)	36.8% (103)	16.1% (45)	10.7% (30)	2.1% (6)
16. Students with special educational needs probably create confusion in the generalist classroom.	2.5 ± 1.1	18.6% (52)	32.1% (90)	29.2% (79)	19.3% (54)	1.8% (5)
1. The majority of students with special educational needs make the necessary efforts to carry out their school tasks.	3.8 ± 0.8	1.1% (3)	7.1% (20)	22.9% (64)	52.9% (148)	16.1% (45)
GENERALIST ATTENTION *vs.* SPECIALIST ATTENTION						
11. The students with special educational needs will probably develop academic abilities more quickly in a generalist classroom than in a specialist classroom.	3.3 ± 0.9	2.9% (8)	14.6% (41)	39.3% (110)	34.3% (96)	8.9% (25)
6. The challenge of being in a generalist classroom foments the academic progress of students with special educational needs.	3.7 ± 0.9	1.4% (4)	7.5% (21)	27.5% (77)	45.4% (127)	18.2% (51)
4. The best option for students with special educational needs is to be included in generalist classrooms.	3.9 ± 0.9	2.5% (7)	5.7% (16)	20.4% (57)	46.1% (129)	25.4% (71)
22. Being separated in specific classrooms has a positive effect on the emotional development of students with special educational needs.	2.5 ± 1.1	17.9% (50)	32.9% (92)	31.1% (87)	14.3% (40)	3.9% (11)
METHODOLOGY AND MANAGEMENT OF BEHAVIOUR IN THE CLASSROOM						
3. Students with special educational needs will probably exhibit behavioural problems in generalist classrooms.	3.1 ± 1.0	5.7% (16)	26.1% (73)	31.1% (87)	29.6% (83)	7.5% (21)
8. The increase in freedom in a generalist classroom creates too much confusion in students with special educational needs.	2.8 ± 1.0	9.3% (26)	28.9% (81)	37.1% (104)	21.4% (60)	3.2% (9)
23. The students with special educational needs are not socially isolated in generalist classrooms.	2.8 ± 1.1	12.5% (35)	27.1% (76)	31.8% (89)	14.3% (40)	3.9% (11)
7. The inclusion of students with special educational needs requires significant changes in the methodology of the generalist classroom.	3.5 ± 1.0	1.8% (5)	14.3% (40)	27.9% (78)	39.6% (111)	16.4% (46)
EFFORT AND DEDICATION OF THE TEACHERS TOWARDS THE STUDENTS WITH SPECIAL EDUCATIONAL NEEDS						
20. The behaviour in class of a student with special educational needs does not generally require more patience on the part of the teacher compared to the behaviour of students without special educational needs.	2.9 ± 1.0	8.2% (23)	28.6% (80)	33.6% (94)	23.6% (66)	6.1% (17)
14. The students with special educational needs do not monopolise the time the generalist teacher devotes to their students.	3.1 ± 1.0	4.3% (12)	22.9% (64)	34.3% (96)	32.1% (90)	6.4% (18)
13. It is not more difficult to maintain order in a classroom with a student with special educational needs than in a classroom without students with special educational needs.	3.2 ± 1.1	6.1% (17)	21.8% (61)	30.0% (84)	32.9% (92)	9.3% (26)
TRAINING AND COMPETENCE OF THE TEACHERS						
9. Generalist teachers have sufficient professional competence to work with students with special educational needs.	2.6 ± 1.1	17.1% (48)	32.9% (92)	25.0% (70)	20.7% (58)	4.3% (12)
17. Generalist teachers have sufficient training to teach students with special educational needs..	2.5 ± 1.1	17.5% (49)	42.1% (118)	20.0% (56)	15.7% (44)	4.6% (13)
21. Specialist teachers attend to students with specialist educational needs better than generalist teachers.	3.9 ± 1.0	2.5% (7)	9.6% (27)	12.1% (34)	47.9% (134)	27.9% (78)

SD = standard deviation. The data from the Likert scale are shown in percentages and frequencies.

options "Indifferent,", "I agree," and "I strongly agree". Referring to the items related to the block "Support" and "Participation of the community," high percentages were observed in the options "I agree" and "I strongly agree."

The men recorded higher values than the women in items 1 and 4 ($p < 0.05$, PS = 0.57 – 0.65, medium, $\chi^2 = 15.8 – 21.1$, $p < 0.01$). In contrast, the women recorded higher values than the men in items 10 and 14 ($p < 0.05$, PS = 0.39 – 0.41, $\chi^2 = 10.5 – 14.3$, $p < 0.05$). Moreover, the women recorded higher values than the men in item 9 ($p < 0.05$, PS = 0.41), although no significant differences were seen in the Chi^2 test ($p > 0.05$).

With regard to the differences according to level of studies (graduate vs. post-graduate), the post-graduate students obtained higher values than the graduate students in items 10 and 14 ($p < 0.05$, PS = 0.30 – 0.33, $\chi^2 = 10.3 – 15.4$, $p < 0.05$). Similarly, the post-graduate students obtained higher values than the graduate students in items 11, 13, 15 and 16 ($p < 0.05$, PS = 0.34 – 0.37), although no significant differences were observed in the χ^2 test. Moreover, although no differences in means were found between the graduate and post-graduate students in item 4, there were significant differences in the χ^2 test ($p < 0.05$).

The CAPIC Questionnaire

Table 4 shows the results obtained by the participants in the CAPIC questionnaire. High percentages were obtained in "I agree" and "I strongly agree" in most of the items, except items 5, 10, 13, 15, and 22 in which high percentages were obtained in "I strongly disagree" and "I disagree." In item 22, a high percentage was recorded in the options "Indifferent" and "I agree."

The men got higher values than the women in items 6, 10, 13, and 15 ($p < 0.05$, PS = 0.59 – 0.64, medium, $\chi^2 = 12.4 – 21.2$, $p < 0.01$). In contrast the women got higher values in items 1, 2, 3, 4, 7, 8, 9, 11, 12, 17, 18, 19, 20, 21, 23, 24, and 25 ($p < 0.05$, PS= 0.33 – 0.39, $\chi^2 = 12.1 – 27.9$, $p < 0.01$ or $p < 0.05$). Moreover, the women got higher values than the men in item 16 ($p < 0.05$, PS = 0.43) although no significant differences were observed in the χ^2 test ($p > 0.05$). Significant differences were not observed between the women's and men's means in items 5 and 14, but there were significant differences in the χ^2 test ($\chi^2 = 14.9 – 22.9$, $p < 0.01$).

Table 3

Replies Obtained by all the Participants (N = 280) on the Teachers' Evaluation of Educational Inclusion (Adaptation of The CEFI-R for University Students) Questionnaire

Item	Mean ± SD	I strongly disagree	I disagree	Indifferent	I agree	I strongly agree
CONCEPTION OF DIVERSITY:						
1. I would prefer not to have students with special educational needs in my classroom.	2.5 ± 1.1	46.4% (130)	17.5% (49)	27.5% (77)	6.8% (19)	1.8% (5)
2. A child with specific needs for educational support interrupts the classroom routine and hinders the learning of their companions.	1.0 ± 0.9	40.4% (113)	41.1% (115)	11.1% (31)	6.8% (19)	1.8% (5)
3. Students with special needs for educational support cannot follow the daily programme.	2.2 ± 1.1	32.1% (90)	36.8% (103)	13.9% (39)	15.0% (42)	2.1% (6)
4. I worry that my work load will increase if I have a child with special needs for educational support in my classroom.	2.0 ± 1.1	43.6% (122)	26.8% (75)	16.4% (46)	10.4% (29)	2.9% (8)
METHODOLOGY:						
5. I would know how to teach each of my students differently according to their individual characteristics.	3.4 ± 1.0	5.0% (14)	18.9% (53)	17.5% (49)	51.4% (144)	7.1% (20)
6. I would know how to develop didactic units and classes bearing in mind student diversity.	3.4 ± 1.0	3.6% (10)	16.1% (45)	20.0% (56)	53.2% (149)	7.1% (20)
7. I would know how to adapt my form of assessment to the individual needs of each of my students.	3.6 ± 1.0	2.9% (8)	14.6% (41)	16.1% (45)	52.1% (146)	14.3% (40)
8. I would know how to manage and adapt the didactic material to respond to the needs of each of my students.	3.6 ± 0.9	2.9% (8)	11.4% (32)	15.4% (43)	58.9% (165)	11.4% (32)
9. I would be able to adapt my communication techniques to ensure that all the students can be successfully included in the ordinary classroom.	4.0 ± 0.9	1.8% (5)	6.4% (18)	11.4% (32)	53.2% (149)	27.1% (76)
SUPPORT:						
10. Joint planning between teachers and support teachers would facilitate the support being provided in the classroom.	4.5 ± 0.7	0.4% (1)	1.4% (4)	5.4% (15)	35.0% (98)	57.9% (162)
11. I think that the best way to provide support for the students is that the support teacher be incorporated into the classroom instead of being in the support classroom.	4.2 ± 0.9	1.1% (3)	3.9% (11)	15.4% (43)	36.4% (102)	43.2% (121)
12. The function of the support teachers is to work with all the students in my classroom.	3.2 ± 1.3	10.7% (30)	20.0% (56)	24.3% (68)	26.8% (75)	18.2% (51)
13. I consider that the place for the support teachers is in the ordinary classrooms with each of the teachers.	4.0 ± 0.9	1.1% (3)	6.8% (19)	15.4% (43)	44.6% (125)	32.1% (90)
PARTICIPATION OF THE COMMUNITY:						
14. The educational project should be reviewed with the participation of the different agents in the educational community (teachers, parents, students).	4.2 ± 0.9	1.1% (3)	4.3% (12)	8.9% (25)	43.9% (123)	41.8% (117)
15. It is fundamental to have a close relationship between the students and the rest of the agents in education (parents' association, neighbourhood association, school council, …).	4.3 ± 0.8	1.1% (3)	2.1% (6)	11.1% (31)	35.7% (100)	50.0% (140)
16. The school should work in conjunction with the neighbourhood resources (library, social services, health services,…).	4.3 ± 0.8	0.7% (2)	2.5% (7)	7.9% (22)	44.3% (124)	44.6% (125)

SD = standard deviation. The data from the Likert scale are shown in percentages and frequencies.

With regard to the differences according to level of studies (graduate vs. post-graduate), the post-graduate students had higher values in items 7 and 24 ($p < 0.05$, PS = 0.37 – 0.38) although significant differences were not observed in the χ^2 test ($p > 0.05$). No differences were observed in the means of the graduate and post-graduate students for item 5, but there were significant differences on the χ^2 test ($\chi^2 = 11{,}1$, $p < 0.05$).

The ACOES Questionnaire

Lastly, Table 5 shows the data obtained by the participants in the ACOES questionnaire. A strong majority of the items related to the blocks, "I consider that group work is," "Personally, group work helps me to," "Normally, when doing group work," and "Group per-

Table 4

Replies Obtained from all the Participants (N = 280) in the "Scale of Teachers' Attitude Towards Educational Innovation using Cooperative Techniques" (CAPIC) Questionnaire

Item	Mean ± SD	I strongly disagree	I disagree	Indifferent	I agree	I strongly agree
1. I am convinced that if my future students use cooperative working methods their interpersonal relations will improve.	4.4 ± 0.8	0.4% (1)	3.2% (9)	6.8% (19)	40.0% (112)	49.6% (139)
2. I consider that the application of cooperative working methods among my future students in my group will develop abilities of social interaction among these same students.	4.3 ± 0.7	0.4% (1)	1.4% (4)	6.4% (18)	47.5% (133)	44.3% (124)
3. If I organised the activities in my future class so that they had to work in groups, it would favour the integration in the class of the students with special educational needs.	4.3 ± 0.7	0.4% (1)	1.4% (4)	8.9% (25)	44.3% (124)	45.0% (126)
4. The application of cooperative working methods in my future class group will facilitate my adaptation to the different learning paces.	4.2 ± 0.7	0.4% (1)	1.8% (5)	11.1% (31)	50.0% (140)	36.8% (103)
5. I believe that the application of cooperative working methods does not improve the performance of students with greater difficulties.	2.3 ± 1.3	31.4% (88)	34.6% (97)	11.1% (31)	14.3% (40)	8.6% (24)
6. I consider that even though I organised my class so that my future students could work in a cooperative manner, it would not avoid competitiveness among them.	3.1 ± 1.1	8.6% (24)	24.6% (69)	26.8% (75)	31.1% (87)	8.9% (25)
7. I am convinced that one of the best ways I have to favour mutual help in my future students is to make them value collaboration and work cooperatively in class.	4.2 ± 0.7	0.4% (1)	0.7% (2)	11.4% (32)	49.3% (138)	38.2% (107)
8. If I accustom the students in my future class to work in a cooperative manner, I will contribute to their valuing individual contributions to solve group conflicts positively.	4.3 ± 0.8	0.4% (1)	1.8% (5)	10.7% (30)	44.6% (125)	42.4% (119)
9. I am convinced that making students work cooperatively in class favours their willingness to collaborate, through their personal contribution to the common task.	4.3 ± 0.7	0.4% (1)	2.5% (7)	7.9% (22)	50.0% (140)	39.3% (110)
10. I believe that, although my future students work with cooperative methods in class, it wlll not favour communication among them.	2.2 ± 1.2	33.2% (93)	40.0% (112)	9.6% (27)	11.4% (32)	5.7% (16)
11. Using the application of cooperative forms of work among my future students, I consider that their capacity for expressing themselves both personally and as a group will improve.	4.2 ± 0.7	0.4% (1)	2.9% (8)	8.9% (25)	52.5% (147)	35.4% (99)
12. I believe that the fact that the students in my future class work cooperatively will enrich the group through the contribution of new ideas.	4.3 ± 0.7	0.7% (2)	0.7% (2)	10.0% (28)	45.0% (126)	43.6% (122)
13. I am convinced that the use of methods of cooperative work among the students of my future class will not favour motivation towards learning.	2.4 ± 1.2	26.8% (75)	36.8% (103)	11.1% (31)	19.3% (54)	6.1% (17)
14. CI consider that the fact that the students in my future class work cooperatively, will favour new channels of communication and enrich group discussion.	4.0 ± 0.9	2.1% (6)	3.6% (10)	14.3% (40)	48.2% (135)	31.8% (89)
15. I think that if the students work as a group the ones with higher achievements will suffer.	2.3 ± 1.2	31.8% (89)	31.1% (87)	17.5% (49)	15.4% (43)	4.3% (12)
16. I am convinced that participating in group discussions in the classroom helps students to put themselves in the others' places and better understand their reasons.	4.2 ± 0.8	1.1% (3)	2.9% (8)	11.8% (33)	45.7% (128)	38.6% (108)
17. Using methods of cooperative work in my future classroom, I consider that I will favour the acquisition of habits for group coexistence.	4.3 ± 0.7	0.4% (1)	1.4% (4)	9.3% (26)	47.9% (134)	41.1% (115)
18. I am convinced that the use of methods of cooperative work among the students in my future class will favour and potentiate their socialisation.	4.3 ± 0.7	0.4% (1)	2.1% (6)	8.9% (25)	46.4% (130)	42.1% (118)
19. I think the fact that the students in my future class work cooperatively will help them to see the social diversity in their own group.	4.3 ± 0.7	0.4% (1)	0.7% (2)	7.5% (21)	46.4% (130)	45.0% (126)
20. If the students in my future class work cooperatively, I believe they will become aware that all of us can learn from everyone.	4.4 ± 0.7	0.4% (1)	2.5% (7)	6.4% (18)	42.9% (120)	47.9% (134)
21. I think that participating in group work in the classroom will favour the building of knowledge in an interactive manner.	4.2 ± 0.7	0.4% (1)	1.8% (5)	11.4% (32)	50.0% (140)	36.4% (102)
22. I am convinced that, although my future students work cooperatively, the group will not be more cohesive because of it.	2.7 ± 1.3	17.9% (50)	35.0% (98)	17.1% (48)	19.3% (54)	10.7% (30)
23. If my future students work cooperatively, I consider that it will make them more aware of those classmates who have learning difficulties or personal problems	4.1 ± 0.8	0.7% (2)	3.9% (11)	13.9% (39)	48.6% (136)	32.9% (92)
24. I think that belonging to a group doing cooperative work makes the students feel more responsible for the tasks they have to do.	4.1 ± 0.8	1.1% (3)	3.6% (10)	13.2% (37)	50% (140)	32.1% (90)
25. I believe that working cooperatively, my students stimulate their sense of co-responsibility.	4.1 ± 0.7	0.4% (1)	2.5% (7)	11.4% (32)	53.6% (150)	32.1% (90)

SD = standard deviation. The data from the Likert scale are shown in percentages and frequencies.

formance improves if" obtained very high percentages in the options "I agree" and "I strongly agree." Regarding the blocks: "With respect to the planning of group work by the lecturers at my university, I think that …" "The constitution of the group should be…," and "The operating norms of the group," very high percentages were recorded in the options "Indifferent" and "I agree" in most of the items, except item 24, which obtained very high percentages in the options "I strongly disagree" and "I disagree." Regarding item 23, which refers to the suitable number of participants per group, the results show that groups of four (48.9% of participants), five (20.4% of participants) and 3 (9.6% of participants) were considered the most suitable.

The last three questions on the ACOES questionnaire are open questions on strengths, weaknesses and suggestions regarding cooperative learning. Item 50 reads "Point out some STRENGTHS of group work that have not been included in the previous items." This item was answered by 107 participants (38.2% of the total). Many of them affirmed that it is a methodology that "motivates" and foments "empathy," "leadership," "responsibility," "companionship," "cohesion," respect," and "debate." Similarly, many of the participants stated that it can help to "manage emotions," "work with different people," "get to know classmates better," "see different points of view," and "understand one's own classmates." Moreover, a large number of the participants reinforced the idea that CL "helps to develop social abilities." Furthermore, the participants consider that CL helps "learning" and that it "can become meaningful."

With item 51, "Point out some WEAKNESSES of group work that have not been included in previous items," 103 participants (36% of the total) answered this question. Several participants affirmed that there are "difficulties to implement it," "many aspects to take into account," "lack of knowledge and difficulty in implementing it," and that "the mere fact of carrying out an Aronson puzzle, does not ensure that there is actual cooperation." Similarly, the participants agreed that "not all the students work equally hard" assessing that "not all the members of the group are equally committed" and therefore "the roles should be changed every so often to avoid the students becoming complacent?"

Table 5

Results Obtained by all the Participants (n = 280) in the ACOES (Analysis of Cooperation in Higher Education) Questionnaire

Item	Mean ± SD	I strongly disagree	I disagree	Indifferent	I agree	I strongly agree
I CONSIDER THAT GROUP WORK IS …:						
1. A good method for developing my social competencies: (reasoning, dialogue, listening ability, debating skills, respect for contrary opinions...)	4.4 ± 0.7	0.4% (1)	1.1% (3)	7.5% (21)	41.8% (117)	49.3% (138)
2. An opportunity to get to know my companions better	4.4 ± 0.7	0.4% (1)	0.7% (2)	8.9% (25)	39.6% (111)	50.4% (141)
3. A way of getting a better understanding of knowledge	4.3 ± 0.7	0.4% (1)	1.1% (3)	12.1% (34)	42.5% (119)	43.9% (123)
4. A way of sharing the total volume of work	4.2 ± 0.9	1.1% (3)	4.3% (12)	10.4% (29)	43.2% (121)	41.1% (115)
5. A way to facilitate preparation for exams	4.0 ± 0.9	2.1% (6)	3.2% (9)	21.1% (59)	42.9% (120)	30.7% (86)
PERSONALLY, GROUP WORK HELPS ME TO …:						
6. Present and defend my ideas and knowledge in front of other people	4.2 ± 0.8	0.7% (2)	2.9% (8)	10.4% (29)	45.7% (128)	40.4% (113)
7. Feel an active part of my own learning process	4.2 ± 0.8	1.1% (3)	2.1% (6)	11.8% (33)	45.7% (128)	39.3% (110)
8. Understand the knowledge and ideas of my companions	4.3 ± 0.7	0.7% (2)	0.7% (2)	8.9% (25)	42.1% (118)	47.5% (133)
9. Understand the importance of coordinated work in my professional future as a teacher	4.3 ± 0.8	0.4% (1)	3.2% (9)	11.4% (32)	40.0% (112)	45.0% (112)
10. Reach agreements when faced with different opinions	4.3 ± 0.8	0.7% (2)	1.4% (4)	8.9% (25)	41.1% (115)	47.9% (134)
11. Look for information, investigate and learn autonomously	4.0 ± 0.9	1.1% (3)	5.7% (16)	16.8% (47)	41.1% (115)	35.4% (99)
ON THE PLANNING OF MY UNIVERSITY LECTURERS OF GROUP WORK, I THINK THAT …:						
12. The amount of group work requested is suitable for the teaching load of the course	3,5 ± 1,1	5,4% (15)	16,1% (45)	18,9% (53)	44,6% (125)	15,0% (42)
13. The level of difficulty of the group work is suitable for our training	3,7 ± 0,9	1,8% (5)	7,5% (21)	22,5% (63)	55,4% (155)	12,9% (36)
14. There is coordination among the group work tasks requested in the different subjects	3,1 ± 1,2	10,4% (29)	21,8% (61)	23,9% (67)	32,5% (91)	11,4% (32)
15. Attendance at practical classes resolves the doubts that arise when doing group work	3,7 ± 1,1	5,4% (15)	7,9% (22)	20,4% (57)	43,2% (121)	23,2% (65)
THE CONSTITUTION OF THE GROUP SHOULD BE …:						
16. Decided by the students applying criteria based on friendship	3.1 ± 1.1	7.9% (22)	23.6% (66)	27.5% (77)	30.4% (85)	10.7% (30)
17. Decided by the students applying academic criteria	3.2 ± 1.2	8.2% (23)	20.7% (58)	23.2% (65)	34.3% (96)	13.6% (38)
18. Decided by the teachers applying academic criteria	3.0 ± 1.2	11.8% (33)	24.3% (68)	24.6% (69)	27.1% (76)	12.1% (34)
19. Made up of a diversity of group members (age, sex, training, experience...)	3.9 ± 1.0	2.5% (7)	5.7% (16)	16.8% (47)	45.0% (126)	30.0% (84)
20. Stable during the subject, term, year...	3.6 ± 1.2	5.0% (14)	14.6% (41)	18.2% (51)	37.5% (105)	24.6% (69)
21. Modified for the development of different activities in the same subject	3.6 ± 1.1	5.7% (16)	12.5% (35)	20.4% (57)	43.6% (122)	17.9% (50)
22. Decided incorporating the designation of a group coordinator	3.7 ± 1.0	2.9% (8)	7.1% (20)	26.8% (75)	40.0% (112)	23.2% (65)
23. Decided with a minimum of participants (indicate in the blank square the number you consider most appropriate)	6.0 ± 4.7	-	-	-	-	-
OPERATING NORMS OF THE GROUP:						
24. There should not be any norms	1.9 ± 1.1	43.6% (122)	32.1% (90)	13.9% (39)	6.8% (19)	3.6% (10)
25. There should be norms, but established by the students	3.7 ± 1.0	2.1% (6)	9.6% (27)	23.9% (67)	45.7% (128)	18.6% (52)
26. There should be norms, but established by the teachers	3.0 ± 1.1	10.4% (29)	23.6% (66)	28.9% (81)	31.4% (88)	5.7% (16)
27. They should be negotiated between the teachers and the students	3.9 ± 1.1	5.0% (14)	7.1% /(20)	17.5% (49)	38.2% (107)	32.1% (90)
28. They should be presented in a document which defines the responsibilities assumed by the group	3.8 ± 0.9	2.9% (8)	4.3% (12)	23.9% (67)	46.1% (129)	22.9% (64)
29. They should define the roles of each of the individuals that constitute the group	3.9 ± 0.9	1.1% (3)	5.0% (14)	23.6% (66)	48.2% (135)	22.1% (62)
30. They should include the consequences for the participants of not fulfilling their commitments.	3.9 ± 0.9	1.8% (5)	5.7% (16)	19.6% (55)	47.1% (132)	25.7% (72)
31. They should specify the timetable and place for the meetings	3.8 ± 1.0	3.6% (10)	6.4% (18)	22.5% (63)	44.3% (124)	23.2% (65)
32. They should include the obligation to attend the meetings	3.8 ± 1.0	2.9% (8)	6.8% (19)	20.7% (58)	44.6% (125)	25.0% (70)
USUALLY, WHEN DOING GROUP WORK:						
33. We meet at the beginning to plan the different steps which we have to take	4.0 ± 0.9	1.4% (4)	6.1% (17)	8.9% (25)	55.7% (156)	27.9% (78)
34. We consult the basic documentation provided by the teacher	4.1 ± 0.8	0.7% (2)	3.2% (9)	11.8% (33)	58.2% (163)	26.1% (73)
35. We carry out a search for information from different sources (Internet, library, …)	4.2 ± 0.7	0.4% (1)	1.1% (3)	7.9% (22)	55.4% (155)	35.4% (99)
36. We make consensual decisions, to guarantee the general coherence of the group work	4.2 ± 0.8	0.7% (2)	3.6% (10)	6.8% (19)	53.6% (150)	35.4% (99)
37. During the development of the work we carry out “briefings” so that all the group knows what the others are doing and we have a good idea of how the activity is progressing	4.1 ± 0.8	1.1% (3)	4.3% (12)	11.4% (32)	51.4% (144)	31.8% (89)
38. All the members of the group participate equally	3.8 ± 1.1	4.3% (12)	12.9% (36)	15.0% (42)	38.6% (108)	29.3% (82)
39. We assess and make proposals for improvement	3.8 ± 1.0	2.5% (7)	11.1% (31)	17.9% (50)	40.0% (112)	28.6% (80)
GROUP PERFORMANCE IMPROVES IF:						
40. The teachers facilitate clear guidelines for the group activities to be developed	4.3 ± 0.7	0.7% (2)	2.5% (7)	6.4% (18)	51.4% (144)	38.9% (109)
41. The activities proposed by the teachers require analysis, debate, reflection and criticism	4.1 ± 0.8	0.7% (2)	2.9% (89	13.2% (37)	54.3% (152)	28.9% (81)

With reference to the last questions, "Point out some SUGGESTIONS" to improve cooperative methodology, it was answered by 61 participants (21.8% of the total). The participants think it convenient to change the groups more often so that "all the students interact with one another." They also suggest "working in different groups during the year and if a group works well to maintain it, and if not to modify it." Moreover, they think it is convenient "to establish very clearly defined guidelines," "that are applied from early childhood," "to leave time at the end of the class so that the participants can meet together," and to "give the students the possibility to choose the topic to be used, within the available possibilities." Another consideration contributed by a participant is worthy of being highlighted: "Nowadays it has not been possible to extract 100% of the benefits of working following the cooperative methodology." Lastly some participants consider that "we should try to transmit the values of working cooperatively from a young age, to be able to grow up with the values that this way of working offers, and which are very interesting for our growth as a society."

The men obtained higher values than the women in item 24 ($p < 0.05$, PS = 0.60, medium, $\chi^2 = 13.0$, $p < 0.01$). In contrast, the women obtained higher values than the men in items 1-11, 17, 20, 30, 33-36, and 40 ($p < 0.05$, PS = 0.36 – 0.44, $\chi^2 = 9.7 – 23.6$, $p < 0.01$). The women also obtained higher values than the men in items 31, 32, and 48 ($p < 0.05$, PS = 0.42 – 0.43), although no significant differences were observed in the χ^2 test ($p > 0{,}05$). However, no differences between the women's and men's means were observed in items 18, 37, 38, 41, and 42, but significant differences were obtained in the χ^2 test ($\chi^2 = 9.6 – 13.5$, $p < 0.05$).

With respect to the differences according to level of studies (graduate vs. post-graduate), the post-graduate students recorded higher values in items 1, 2, 3, 22, 23, 29, and 41 ($p < 0.05$, PS = 0.32 – 0.37) although no significant differences were observed in the χ^2 test ($p > 0{,}05$). In contrast, no differences were observed between the means of graduate and post-graduate students in items 7, 8, 17, and 28, but significant differences were revealed in the χ^2 test ($\chi^2 =$ 10.9-12.0, $p < 0.05$).

Discussion

The main objectives of this research were, in the first place, to analyse the internal consistency of several questionnaires on inclusion and CL applied to university students and, in the second place, to know the perception and knowledge of inclusion and CL of university students who are following studies related to PE, PA, or sport, according to the sex and level of studies (graduate vs. post-graduate) of the participants. Although there are studies on the perception and knowledge that university students have of inclusion and CL (Abellán et al., 2019; Block et al., 2021; Hortigüela-Alcalá et al., 2016; Pegalajar & Colmenero, 2013; Prieto et al., 2016; Sánchez-Molina et al., 2021), very few analyse if there are differences according to sex and level of studies. The results of this study show that the questionnaires used have excellent internal consistency and that the total internal consistency of all of the questionnaires is even better, Differences were observed according to sex in the EANEE (items 5, 8, 9, 10, 12, 14, 15-21, and 23), CEFI-R (items 1, 4, 9, 10, and 14), CAPIC (items 1-21, 23-25) and ACOES (items 1-11, 17,18, 20, 24, 30-38, 40-42, and 48) questionnaires. Moreover, differences were observed according to level of studies in the CEFI-R (items 4, 10, 11, 13-16), CAPIC (items 5, 7, and 24) and ACOES (items 1, 2, 3, 7, 8, 17, 22, 23, 28, 29, and 41) questionnaires. Therefore, it can be observed that both sex and level of studies can influence the perception and knowledge of inclusion and CL in university students of PE, PA and sport.

It has been stated that it is important to know the internal consistency of the questionnaires used in research, in order mainly to assess the reliability of the measurement instruments (Cascaes da Silva et al., 2015). The results of the internal consistency of the four questionnaires used in the present study and administered to university students of PE, PA, and sport were excellent, and moreover showed excellent internal consistency in the items of all the questionnaires together. Equally, similar results have been obtained in the validation of the questionnaires in comparable studies that have analysed their internal consistency (Abellán & Sáez-Gallego, 2020; García et al., 2012; González-Gil et al., 2017; Traver & García, 2007; Triviño-Amigo et al., 2022a; Tárraga-Mínguez et al., 2022). However, the results of the present study showed that in some specific blocks of the EANEE, ACOES, and especially the CAPIC questionnaire, the inter-

nal consistency was somewhat lower than the internal consistency results of the all the items in each questionnaire. Another previous investigation also found similar results of lower internal consistency to the ones obtained in the present study in some of the blocks in the CAPIC questionnaire. (Traver & García, 2007). Likewise, in the validation of the ACOES questionnaire, as in the present study, a low value of internal consistency was found in block 4, "criteria for organising the groups." Although the internal consistency was not good in some blocks of some questionnaires, possibly due to the fact that in these blocks the different items deal with open topics, the obtention of excellent values of internal consistency in all the items of each questionnaire and in the totality of the items of all the questionnaires seems to evidence that the questionnaires can be used for university students studying PE, PA, and sport.

As well as determining the internal consistency of questionnaires, previous studies have indicated the importance of knowing the conception and knowledge of university students regarding inclusion in education (Abellán et al., 2019; Aldabas, 2020; Hortigüela-Alcalá et al., 2016; Tárraga et al., 2013), due to the fact that once they have finished their university studies, teachers have to be prepared to teach in heterogeneous classrooms that include students with and without a disability (Akalin et al., 2014). It has been said that teachers with specific training in inclusive PE obtain higher values in self-efficacy regarding inclusion (Abellán et al., 2019; Grassi-Roig et al., 2022; Hutzler & Daniel-Shama, 2017; Reina et al., 2016). However, the initial training of teachers related to inclusion is scarce (García-Barrera, 2017) and can generate rejection (Mosia, 2014). The results of the present study show that the participants had a good perception and knowledge of educational inclusion. The results obtained are similar to previous studies in university students of Infant, Primary and Secondary education, and in teachers of Infant, Primary and Secondary education (Abellán & Sáez-Gallego, 2020; González-Gil et al., 2017; Tárraga-Mínguez et al., 2022; Triviño-Amigo et al., 2022a). These good results are possibly due to the fact that particularly in the studies for Infant, Primary and Secondary Education, as well as studies related to PE, PA and sport, subjects are included that specifically deal with inclusion in education. However, one of the main novelties of the present study is the analysis of the differences

in the knowledge and perception of inclusion according to sex and level of studies, aspects that have hardly been investigated to date. The present study revealed significant differences according to sex in the EANEE questionnaire (significant differences in 14 items) and in the CEFI-R questionnaire (significant differences in 5 items) in which the women obtained higher results. These differences in the knowledge and perception of inclusion according to sex may be due to the different academic self-concept possessed by women and men (Chacón-Cuberos et al., 2020). Bearing in mind that academic self-concept has a positive influence on the improvement in performance, on the increase in motivation and on the increase in academic self-concept (Wang & Yu, 2023), it has been indicated that men have a higher general, emotional and physical self-concept; however, women obtain higher values in academic self-concept (Chacón-Cuberos et al., 2020). Similarly, differences were observed according to the level of studies in the CEFI-R questionnaire (significant differences in 7 items) with the post-graduate students being those with the best values. As was affirmed in a previous study, the study plan which the participants have followed or even if they have or have not had specific training in inclusion (Abellán et al., 2019; Grassi-Roig et al., 2022) can determine their knowledge and perception of inclusion. Possibly post-graduate studies can help improve the perception and knowledge of inclusion because the students study specific subjects in greater depth and extend their knowledge of inclusion. Another of the possible reasons for the differences found could be that the post-graduate students have been able to have previous professional experiences or ones parallel to their post-graduate studies and thus, as stated by Alshehri (2023) experiences influence the attitude towards inclusion. However, in most graduate and post-graduate training it seems that few subjects are taught that are related to attention to diversity (Rodríguez et al., 2017; Valencia-Peris & Mínguez-Alfaro, 2018; Valencia-Peris et al., 2020), so that it could be necessary to extend this specific training.

Previous studies have also suggested the importance of knowing the perception and knowledge that university students have of CL (Muñoz et al., 2020; Nguyen et al., 2021; Rodríguez et al., 2017; Sánchez-Molina et al., 2021), as its adequate use can favour the building of an inclusive education, and equally, so that all the students,

with and without a disability, have the possibility to learn through PE (Bermejo et al., 2022; Páez et al., 2018; Velázquez et al., 2014). The results of the present study show that the participants had a good perception of CL, in spite of not feeling sufficiently trained to implement it. The results obtained are similar to those revealed in recent studies carried out on students of Infant, Primary and Secondary Education, PE, Medicine, and PE teachers (Feria-Madueño et al., 2017; Fernández & Espada, 2016; Matzumura-Kasano et al., 2019; Vicent & Aparicio-Flores, 2019) and may be due to the fact that the participants had never experienced CL, bearing in mind that an experience in initial training favours and improves knowledge and self-efficacy for using this pedagogical model (Völlinger & Supanc, 2020). As in the section on inclusion, one of the main novelties of this study is the analysis of the differences in the knowledge and perception of CL according to sex and level of studies, aspects that have hardly been studied to date. The results obtained in the present study show significant differences according to sex in the CAPIC questionnaire (significant differences in 24 items), with the men obtaining higher scores, and in the ACOES questionnaire (significant differences in 28 items) with the women obtaining higher values. These results may be due to the physical self-concept and motivation of the students in the PE classes, bearing in mind that the lack of motivation and participation is related to a lower physical self-concept (Taylor et al., 2014). It is important to highlight that CL is a methodology that favours the participation of all the students as well as motivation towards PE (Bores-García et al., 2021; Fernández-Río, 2017). Therefore, it can be sensed that the students with less motivation and a worse physical self-concept prefer CL as a methodology as it helps all the students to participate and feel more motivated. Moreover, significant differences were observed according to the level of studies (graduate vs. post-graduate) in the CAPIC questionnaire (significant differences in 3 items) and the ACOES questionnaire (significant differences in 11 items) with the post-graduate students the ones scoring the highest values. These results coincide with those obtained by Pegalajar & Colmenero (2013), as they observed that the older participants, given that they have received more training, perceive CL in a more positive way. Thus, it seems that both age and higher training can

improve the perception and knowledge of university students regarding CL.

Conclusions

The results of the study show that, in spite of the fact that in some specific blocks of some questionnaires the internal consistency was somewhat lower, excellent values for internal consistency were obtained in all the questionnaires and the set of items of all the questionnaires, which seems to evidence that the questionnaires can be used for university students studying topics related to PE, PA or sport. Moreover, good values were obtained for perception and knowledge of inclusion and CL in students of PE, PA, and sport. However, differences were found according to sex and level of studies. The women affirmed that they had a better perception than the men in the EANEE, CEFI-R and ACOES questionnaires. Equally, the post-graduate students showed a better perception of inclusion and CL than the degree students. From the results obtained, both sex and level of studies can influence the perception and knowledge of inclusion and CL in university students of PE, PA, and sport.

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