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⁵ Challenges to inclusive education at the university: the perspective of students and disability support service staff

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This study presents a series of key aspects to achieve inclusive education in Spanish universities, from the viewpoint of students with disabilities and disability support service staff. The study used a qualitative methodology through in-depth semistructured interviews. Data analysis was inductive, through a system of categories and codes. Results revealed various essential aspects to facilitate inclusive education: the positive attitude of the faculty members towards students with disabilities promotes the inclusive education, the need to make reasonable adjustments (methodologies, evaluation systems, and resources) to guarantee the learning of students with disabilities, and the use of technologies to facilitate access to learning. Results allowed us to conclude that the faculty was a key figure in the inclusion of students with disabilities and it's necessary a universal learning design approach into practice to benefit all students.

Keywords: Higher education; disability; inclusive education; faculty members

Introduction

The European Union is firmly committed to ensuring that higher education is inclusive and offers quality education to all students. In fact, this maxim can be observed through various international initiatives and policy actions (i.e. European Strategy 2020 of the European Commission 2010; the 2030 agenda for sustainable development of the United Nations 2015). Currently, the profile of students is very diverse, and universities are attempting to increase their enrollments of students who traditionally have been underrepresented (Cotton, Nash, and Kneale 2017; Hitch, Macfarlane, and Nihill 2015; Shah, Bennett, and Southgate 2015), like it is the case of students with disabilities (Seale et al. 2015).

This new reality has forced universities to rely on services to address the needs of the students. In fact, coinciding with the regulations of other countries, the last Law of Spanish Universities (Royal Decree 1393/ 2007) mentions the requirement for universities to have a support office for students with disabilities.

Although some initiatives and efforts have been made, such as establishing these offices, various authors agree that this is insufficient to ensure access to these students, and that progress and permanence must also be addressed (Gibson 2015; Mahtab and Ahmad 2011; Seale 2017; Thomas 2016; Wilson et al. 2016). In this regard, many studies have reported that students with disabilities identify a number of barriers at their university (Clouder et al.

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2016; Fuller et al. 2004; Hadjikakou and Hartas 2008; Hopkins 2011). For example, the absence of social support can act as a great barrier, as highlighted by students with disabilities when justifying their dropout from university (Strnadová, Hájková, and Květoňová 2015). However, the disability support services staff (Fossey et al. 2017) and many students with disabilities both point to the negative attitude of some faculty members towards disability as an important barrier (Dowrick et al. 2005; Leyser et al. 2011; Strnadová, Hájková, and Květoňová 2015). Specifically, Leyser et al. (2011) found that the academic staff is more skeptical and distrustful towards students with invisible disabilities. This attitude leads them to be less sympathetic to their needs and rights, as well as to be very reluctant to make the reasonable adjustments that the students require, such as providing the course material in advance, allowing them to record the classes, not using whiteboards when having students with visual disabilities, or videos without subtiles (Dowrick et al. 2005; Kendall 2017; Strnadová, Hájková, and Květoňová 2015).

In Magnus and Tøssebro's (2014) study, people with disabilities reported that, when faced with demand for reasonable adjustments, some faculty members respond ambivalently or even initially refuse to make such adjustments, or question these students' needs. This reluctance by some faculty members can lead students to decide not to attend the classes and to risk not passing the subject instead of continuing to negotiate the adjustments with them. Students think that the problems to make the appropriate adjustments are sometimes due to the academic staff's lack of knowledge of the different disabilities and adjustment processes that they require (Collins, Azmat, and Rentschler 2018; Martins, Morges, and Gonçalves 2018; Stein 2014). They also think that if these aspects were adequately addressed, it would benefit not only students with disabilities, but also all students in general (Szumski, Smogorzewska, and Karwowski 2017). This is due to the fact that the obstacles they sometimes encounter are not so different from those of the rest of their classmates (Fuller et al. 2004).

In this regard, staff of the disability services note that making reasonable adjustments is complex because the needs of these students are very diverse and, hence, so are the adjustments they require (Fossey et al. 2017; Lipka, Forkosh Baruch, and Meer 2019). Thus, it is not surprising that the adjustments are not always made adequately and, unfortunately, students must face rigid and non-inclusive curricula (Hopkins 2011).

For their part, the faculty members argue that sometimes they do not make the adequate adjustments because they have a large work overload (Riddell et al. 2007). At other times, because they think that such adjustments could lead to lower academic standards and offer additional advantages to students with disabilities.

Some studies have identified the elements that facilitate student inclusion, among which are the family network, friends, some faculty members, classmates, and the support services. Clearly, such support facilitates these students' academic life (Authors 2017; Lawson, Cruz, and Knollman 2017; Lombardi, Murray, and Kowitt 2016; Skinner 2004).

With respect to the faculty, disability support service staff (Fossey et al. 2017) and students with disabilities (Murray, Wren, and Keys 2008) note that faculty members' positive attitude towards this student body is very beneficial and helpful. Getzel (2008) pointed out the importance of the figure of the faculty members and emphasized that students with disabilities receive more support from faculty who is more aware and better trained about the characteristics and needs of students with disabilities, as well as those who incorporate the concepts of universal design for learning in their subjects. In this line, it is known that the faculty members' experience and training in the field of disability promote a positive attitude and inclusive practices (Murray, Wren, and Keys 2008; Waittoller and King Thorius 2016).

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In addition to the positive attitude of the teaching staff, reasonable adjustments are another key point to facilitate the inclusion of students with disabilities, both from the point of view of disability service staff (Fossey et al. 2017) and from that of students (Fuller et al. 2004). In this respect, the academic staff's good predisposition is the starting point of making these adjustments (Stein 2014).

With regard to educational methodologies, various works have shown that students with disabilities improve their learning when the faculty follows a participative methodology, and the students value this methodology very positively (Hopkins 2011; Stein 2014). Likewise, faculty members who draw on the assumptions of the universal learning design benefit these students because this stance includes all students and, therefore, does not require specific modifications as a function of the type of disability (Evans, Muijs, and Tomlinson 2015).

Finally, some studies conclude that the proper use of information technologies can also promote inclusive education in the university setting. In contrast, the absence or misuse of technological tools by the faculty members (inaccessible designs of websites or online material) may be a barrier for students with disabilities (Claiborne et al. 2011; Kurt 2011). In this sense, students with disabilities state that they feel capable and prepared to study at the university when they have the appropriate technology (Author, forthcoming). Given this consideration, the use of online training is especially important to promote the inclusion of students with disabilities in the university (Pearson and Koppi 2006). However, although some faculty members have a negative attitude towards this type of technology, in other cases the problem is that they lack adequate training (Van Jaarsveldt and Ndeya-Ndereya 2015). In short, the learning of students with disabilities is highly conditioned by their access to technological tools, as these can contribute to eliminating barriers and promoting inclusive education.

This work intends to identify the aspects that facilitate and hinder inclusive education at the university, according to the staff of disability support services and the students with disabilities. In particular, we intend to analyze the attitude of the teaching staff toward students with disabilities, learn about reasonable adjustments that are necessary in the university classroom, and analyze the use of information technologies in university teaching to promote inclusive education.

Method

The purpose of the research was to know and understand diverse aspects that have contributed to inclusion in the processes of teaching and learning from the perspective of disability service staff of seven Spanish universities and of students with disabilities. Three research questions guided this analysis:

How can the faculty's attitude influence the inclusion of students with disabilities? What adjustments by faculty members are required to meet the needs of students with disabilities?

What role do the new technologies play in the learning processes of students with disabilities?

The study involved eight technicians from the support services of seven universities and 44 students with disabilities from one university. To gain access to the staff, we contacted the disability support services of nine universities in southern Spain (Autonomous Community of Andalusia). However, only the offices of seven of these universities agreed to participate. Regarding these universities, we note that they had enrolled 2463 students with

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disabilities in 2017, out of a total of 20,793 students with disabilities in Spain (Fundación Universia 2017).

Eight staff participated in the study, as each service has only one professional, except for one of the universities, which has two. Regarding the training profile of them, most of them are licensed in Psychology, Pedagogy, or Social Work. Complementarily, they have received training in diverse Master's degrees, courses, and meetings on research and attention to disability. Regarding the professional profile, in general, they have an average of ten years' experience in these services. Most of them have no other professional experience apart from the disability support office.

We gained access to the students through the disability support services of one of the universities. Forty-four students were willing to participate in the study. The sample's age ranged between 19 and 59, with a median age of 24 years. Of the sample, 22 were men and 22 women. Considering the entire group, 25% were in their first year, 16% in their second year, 25% in the third year, 14% in the fourth year, and 9% in their fifth year of university studies. The rest (11%) were postgraduates, studying official Master courses. In terms of studies, organized by areas of knowledge, 21% of the students were enrolled in Art and Humanities degrees, 18% in Science, Engineering, and Architecture, 18% in Social and Legal Sciences, 25% in Educational Sciences and Psychology, and 18% in Health Sciences. Concerning their disabilities, 38% of the students had a physical disability, 15% a mental disability, 36% a sensory disability, and 11% had difficulties because of health conditions (asthma, degenerative diseases, etc.).

We used qualitative methodology in this research. In particular, in-depth semi-structured interviews were conducted with all the participants. Although similar in both groups, the questions were personalized for each group. Thus, two interview scripts were designed. Some of the questions were: which specific barriers do you think that the students have encountered with regard to the faculty members? Which aids? Do you know what kind of reasonable adjustments (objectives, tasks, methodology, types of exams, etc.) are carried out in the classroom to meet the needs of these students? What type do they tend to be? How do you rate them? Why? Do you know whether virtual learning and technological tools (blog, wikis, platforms, etc.) are used in the subjects? If so, how do you rate them? Do you think that they contribute towards facilitating the learning processes or do they hinder them? Why?

These interviews lasted about an hour and a half and were later transcribed. The information was analyzed using a system of categories and codes (Miles and Huberman 1994). To facilitate data analysis, the MaxQDA 12 computer program was used.

170 Results

The results of this work show different aspects that facilitate and hinder inclusive education in the university setting, as identified by disability support service staff and the students. In particular, we address the key role of the faculty in student inclusion through the analysis of their attitudes toward disability, reasonable adjustments for learning, and the use of technology as a facilitator of educational inclusion.

The faculty's attitude toward students with disabilities

The participants of this study highlighted the importance of the faculty in the academic life
 of university students with disabilities. In particular, the faculty members' attitude towards

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students with disabilities was found to play an essential role in the students' academic life, as it could facilitate or hinder these students' learning processes. ...1 . L

185	From the point of view of disability service staff, the faculty in general presented a positive attitude towards students with disabilities, and did not imply a barrier for these students.
	University 1 ¹ : In my experience, most of the academic staff has a facilitating disposition and attitude.
190	The view of the students with disabilities, however, was different to that of staff because they felt that the faculty's attitude towards them was not always positive. In particular, they pointed out that some academics were not interested or concerned about their needs, and
	they often acted as a barrier to their academic life. In addition, they indicated that some faculty members put their own needs or those of the rest of the student body above the needs of the students with disabilities.
195	SSE7: Some academic have told me, do not sit there because I need to move around the class-
	room, I need to hand out things or whatever, or just because I like to move around.
	In this sense, the students thought that some of the faculty was not empathetic towards them or towards the rest of students. In addition, they noted that it was very important
200	for them to show a more open, positive, and proactive attitude towards the students. Notwithstanding the foregoing, some students pointed out that not all the faculty members showed a negative attitude; others had a positive attitude towards them, and this attitude was a great aid to their academic life. In particular, they stated that it motivated
	them very much when the academic staff positively valued their work and efforts to
205	achieve the goals set out in their subjects. Likewise, it helped them very much when the faculty members were concerned about them and made efforts to meet their needs.
	SSE4: I'm fairly content with the academics because they help me in everything, they don't forget me, and always help me. It motivates you when someone is willing to help you and talk to you with complete normality.
210	The need to make reasonable adjustments to achieve a more inclusive education
	The results obtained in this study showed that the teaching methodologies were a key aspect for the inclusion of students with disabilities. In this sense, the disability
215	support staff considered that, in some cases, it was necessary for the faculty members to adjust their teaching methodologies, materials, and evaluation systems to address the needs of their students with disabilities. However, the staff thought that the faculty frequently had trouble making such adjustments. In particular, they pointed out that, when complex adjustments were required, it could be difficult for academics to carry them out. There were no concrete guidelines and they might not know the procedure
220	to be followed to achieve these adjustments and, therefore, to meet to the needs of stu- dents with disabilities. However, the staff also indicated that there were other changes or adjustments that were easier to carry out, such as selecting the type of exam, the times to carry out the assessment exams, or the evaluation system. Finally, the staff from the different universities pointed to the faculty's general worked overload as an additional difficulty, which did not facilitate carrying out the necessary adjustments for students
25	with disabilities.

University 5: The academic staff's work overload, adapting certain practices, even adapting some PowerPoint material for blind students ... Some adaptations are easy, they do not require much work, but we also found some adaptations where they had to adapt all the Power Points that the professor had prepared.

Students with disabilities also thought that, in order to promote their inclusion, the faculty members should modify their teaching methodologies and their evaluation systems (types of exams, time to carry them out, use of computers, flexible schedules, etc.), and use resources tailored to their needs. They also noted that ideally such changes should be made at the start of course, before the initiation of the classes, and should therefore be planned in advance.

Both students with disabilities and staff considered that the faculty members had difficulties in making all these adjustments when developing their classes. On the one hand, the students indicated that some faculty members did not want to make any changes in the way they taught their classes or the evaluation systems of their subjects. On the other hand, they stressed that faculty was frequently insufficiently prepared or trained to make the adequate adjustments and thereby offer a more inclusive education. In this sense, students and staff both considered that the faculty should receive training in disability issues to meet the needs of different students with disabilities.

SSE9: Teachers are not trained and they must be prepared. You come into their class and they don't know what to do. You say, "Look I have this disability and I need these adaptations" and they respond, "Well, how do I do that?" I have often had to be the one who has had to tell them how they have to adapt certain things.

The use of technologies: a fundamental pillar to promote inclusive education

- ²⁵⁰Both from the perspective of the staff and the students, technologies were considered a facilitating element for students with disabilities, and their use increased students' academic motivation. They highlighted that the use of technological resources had certain advantages: it favored class follow-up, promoted autonomy and independence, and allowed academic staff to provide more individual attention to students.
- University 1: It promotes learning where the academic can keep track of the student ... It allows you to perform activities like self-assessment through the virtual classroom, question-naires. I believe that it has been a very positive advancement.
 SSL8: I must highlight the importance of the new technologies for persons with disabilities. In my case, if it were not for these, I could not study or work.
- 260 The incorporation of the technologies was widespread in the different universities studied. However, some improvements are still needed, primarily related to the accessibility of technological platforms and university websites, as both groups of participants indicated.
 - In connection with the use of virtual platforms, all the participants thought that one of the main problems was the inappropriate use made of them. For instance, they said that some faculty members simply used the platform as a means of transmission of content and documents, without generating a space of interaction for meaningful and collaborative learning.
- Likewise, staff and students both highlighted, on the one hand, the importance of adapting the materials that are incorporated into the platforms to the different disabilities (large print, subtitles, formats compatible with JAWS, etc.).

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University 2: It is a useful tool whenever it is available. As soon as we use a tool that is not accessible to everyone, it stops being useful. SSL8: If the University has created something as important as virtual learning, we must be aware that it should be accessible to everyone.

On the other hand, they indicated that faculty members do not always have sufficient training in the use of technological tools, making it difficult to use them correctly. In particular, the staff noted that the faculty should be trained in the use of specific software to attend to students with disabilities. The students also stressed the need for the faculty to be trained in the use of the technological tools that favored their learning.

University 2: The academic staff needs training. They should know, for example, that if a PDF document is scanned, its format turns into an image that JAWS, which is a specific software for visual impairment, cannot make audible, so it is not accessible for that person.

ETE4: In my Faculty, I have a digital whiteboard, but nobody uses it, the professors tell me "No, ... so much virtual learning ... I am not willing to be constantly recycling." The problem is that I understand that it is tiresome to learn; but what is for you a small effort, is my whole life for me. For me, it is the difference between being able or not being able to achieve my goals.

Finally, we note that university institutions play an essential role in the promotion and the good use of technological resources. In this sense, the staff stressed the need to perform more information campaigns in order to inform students about the services at each university. Notwithstanding the foregoing, both groups expressed that, in general, the computerization of the different services and the information available on the websites of the different universities has much improved.

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	Conclusions	and dise	ussion

In this work, we have identified certain aspects that facilitate and impede inclusive education at the university. Most of the studies have focused only on analyzing the perspective of the students with disabilities, without considering other actors (Babic and Dowling 2015; Fuller et al. 2004, Madriaga et al. 2010). However, in addition to the perspective of students, this work provides the viewpoint of the disability support services staff of different universities. This double perspective constitutes an innovative element and allows us to see the reality at university and to clarify some of the key aspects to achieve a more inclusive education. In particular, we have analyzed the role of the faculty members in inclusive education, the adjustments that are necessary to carry out in the classroom to allow these students to learn, and the use of technologies that facilitate their participation.

The participants of this study have identified the faculty members as protagonists in the inclusion of students with disabilities. There are some discrepancies in this work between the opinions of staff and students regarding the faculty. The staff thought that the faculty in general showed a positive attitude towards these students. However, the students with disabilities stated that they did not always encounter this attitude from the faculty members and that, on the contrary, some academics were not very empathetic or concerned about their needs. This attitude affects the students negatively. Fuller et al. (2004) found that the negative attitude of the faculty members was one the reasons of students with disabilities to justify dropping out of their university careers. Furthermore, Garrison-Wade (2012) pointed out that, in the face of the academic staff's negative attitude, the students were placed in a very difficult situation because they usually lacked the information and

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necessary skills to claim the services they need to achieve their goals and deal with this situation. In this sense, we agree with Fossey et al. (2017) that the support services should inform the students about their rights and foster their skills to promote their autonomy, as well as inform them about strategies to negotiate without disadvantages.

The participants in this study claimed that, in recent years, significant progress in the inclusion of students with disabilities has been achieved in higher education, but they stressed the need to keep advancing and carrying out a series of adjustments to achieve a more inclusive education. In this sense, we found that, in addition to the negative attitude of some faculty members, students encounter other difficulties directly related to the teaching and learning processes. In particular, we identified that the teaching methodologies used are frequently not very inclusive, and that reasonable adjustments to address the needs of these students are not made (Strnadová, Hájková, and Květoňová 2015).

The results of this work are in line with those of Fossey et al. (2017), as the staff of disability support service indicated that addressing the needs of students with disabilities is not always easy for the academic staff, nor does the staff always dispose of sufficient time and the necessary tools for this. Especially, as in the study of Kilpatrick et al. (2017), the faculty had more limitations with students who have an invisible disability because such disabilities are more difficult to identify and generate greater uncertainty. In these cases, Jensen et al. (2004) recommend that students tell the academic staff about their needs and the adjustments they require. In these situations, the staff needs advice and training to understand the characteristics and needs of students with disabilities and inclusive teaching methodologies, and to accept the assumptions of universal design for learning so they can provide adequate attention to these students (Getzel 2008). In this sense, like the participants in the work of Fossey et al. (2017), the staff of the study highlighted that training would allow the faculty to schedule the necessary adjustments in advance to meet the needs of their students with disabilities, as demanded by our participating students.

In this context, disability support services are especially important because they can offer orientation and advice to the faculty members about the reasonable adjustments in their subjects, as well as providing guidelines and support to families and classmates (Strnadová, Hájková, and Květoňová 2015).

Training of faculty members in the field of disability is very relevant to inclusive education. Thus, the results of this study coincide with those found in other studies (Lovet et al. 2014; Murray, Lombardi, and Wren 2011): students and disability support service staff alike demand training in disability. Training would also benefit the academic staff's attitude towards disability and towards inclusive education (Lombardi, Murray, and Kowitt 2016).

According to Moriarty (2007), the absence of an inclusive mindset is a barrier to the use of inclusive pedagogy. If the faculty members are not sufficiently proactive and do not reflect on diversity, they are more likely to use traditional and little inclusive teaching methodologies. Likewise, if they do not agree with the use of new technologies, they are less likely to use diverse teaching strategies or virtual learning in the classroom. In this regard, from the point of view of both groups of participants, the results of this work have revealed that the use of information technology is another key element for inclusive education. Both groups believe that the use of technological tools eases following the classes and it favors autonomy and personalized attention to students. It is, therefore, necessary to address the training of faculty members in this area and for the universities to design specific training programs for the academic staff's professional development so that they can acquire the knowledge and pedagogical skills required to integrate and use the technologies appropriately and, more specifically, to learn how to design accessible environments and study materials (Seale et al. 2015).

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In recent years, universities have made a great effort to introduce technological tools, which have enjoyed a boom in higher education. However, students and disability support service staff both agree regarding the need for improvements, because these tools are sometimes misused, or the portals and their contents are not always accessible, or they are not adapted to the different disabilities (Seale et al. 2015).

In conclusion, the foregoing shows that the faculty is essential to the success of students with disabilities (Debrand and Salzberg 2005). Therefore, the faculty members' training in disability issues and their attitude and willingness to provide reasonable adjustments are very important to adequately attend to these students (Moswela and Mukhopadhyay 2011). To solve the issues discussed in this article and help eliminate the barriers at univer-370 sity, the real inclusion of students with disabilities should be considered as the goal. According to Lourens and Swartz (2016), this means feeling like a welcomed member in the community, a member who actually belongs to the community and whose contribution to diversity is valued and accepted. It is, therefore, necessary to adopt the universal design for learning when promoting adapted teaching and learning environments that allow access to all students instead of focusing on designs adapted only to the needs of specific groups (Evans, Muijs, and Tomlinson 2015). In this regard, research shows that the faculty members who are trained and who implement inclusive practices benefit all the students, not just specific groups (Garrison-Wade 2012; Marom and Weintraub 2015). This is why it is necessary to develop inclusive education practices that take into account diverse needs and interests (Cunningham 2013). In short, like Liasidou (2014), we believe that it is essen-380 tial to make an ideological shift in education to improve the real participation of students with disabilities in all social and educational fields.

Limitations and need for further research

385 A possible limitation of this study is the sample because it reflects the voice of students with disabilities and of disability support service staff from different universities. It would be interesting to contrast these voices with those of the faculty members, classmates, and management staff. However, so far the vast majority of the research on this subject has focused mainly on the voices of the students with disabilities. Therefore, by also including the voices of the staff, we believe that this work contributes to a broader and more com-390 prehensive vision of the reality of university students with disabilities. On another hand, it would have been interesting to have included participants from other Spanish, European, or international universities. This would allow comparing the reality of these students according to the country of origin.

We recommend future research to expand the analyses to include the opinions of other involved groups, as well as to include more universities. It might also be important to know the limitations and supports to students with disabilities in different universities and to examine possible differences according to the university of origin and type of disability.

Finally, it would be very interesting for future work to determine examples of good practices to train the faculty members and attend to the university students with disabilities. This would improve the attention that the universities provide to these students.

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Notes

1. To preserve the participants' confidentiality, various abbreviations were used. The different universities were identified as: University 1, 2, 3, 4, 5, 6, 7 and 8. The following abbreviations are used to identify students: HS = Health Sciences; SSL = Social Sciences (Law); SSE = Social Sciences (Education); ETE = Engineering, Technology & Experimental Sciences; H = Humanities.

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