

# What if we could imagine the ideal faculty? Proposals for improvement by university students with disabilities

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## ABSTRACT

This article presents the partial results of a broader research project entitled, "University Barriers and Aids Identified by Students with Disabilities", which is currently underway at a Spanish University. The general aim is to analyze the role of faculty in inclusive education of students with disabilities, and more specifically, proposals for improvement made by these students. A biographic-narrative methodology was used to collect data. The study concludes that faculty must show a positive attitude toward disability, promote inclusive practices using alternative methodologies, make curriculum adaptations, use new technologies and be trained in attending the needs derived from disabilities.

## 1.INTRODUCTION

The right of all people to access to Higher Education (HE) dates back to 1948 (Universal Declaration of Human Rights, Art. 26.1, UN, 1948). This convention was followed by other international agreements establishing the obligation to guarantee people with disabilities undiscriminated access to higher education. Noteworthy, among others, are the Convention on the Rights of People with Disabilities in 2006 and anti-discrimination acts in countries such as Australia (1992), the United States (1990) and the United Kingdom (1995, 2010).

In Spain, this right is also recognized by legislation, such as Legislative Royal Decree 1/2013 on the rights of people with disabilities and their social inclusion, and the Organic Law 4/2007 on universities explicitly mentions inclusion of people with disabilities, guaranteeing them equal opportunity and non-discrimination.

Several studies on access by these students to HE have concluded that this is an opportunity for people with disabilities as an experience in empowerment and a vehicle for improving their quality of life (Moswela & Mukhopadhyay, 2011; Shaw, 2009). However, people with disabilities have a difficult road to travel, often described as an "obstacle course", in which their time at the university is exacerbated by the barriers they have already had to face in other stages of their education, and usually culminating in complicated access to the labor market.

Nevertheless, universities are gradually starting to become more committed to inclusion of students with disabilities, creating, among other initiatives, offices serving students with disabilities, or making rules that establish and regulate their rights. In this sense,

we agree with Jacklin, Robinson, O'Meara, and Harris (2007) and Tinklin, Riddell, and Wilson (2004) that the presence of students with disabilities is challenging how HE works. In fact, the presence of these students is a challenge for the whole university, not only in terms of achieving physical access to buildings, but also access in the much broader sense of curriculum, teaching, learning and evaluation.

Indeed, curricular changes made to benefit students with disabilities have been found to be positive not only for them but for the rest of the student body as well (Shaw, 2009). In this sense, as mentioned by Ferni and Henning (2006), good teaching principles are relevant for the whole student body.

Despite the progress made in disability matters, there is still a long road to cover, and significant barriers to access, retention and graduation still persist for many students, especially, but not only, for students with disabilities (Pliner & Johnson, 2004). A significant number of studies have found a series of obstacles (attitude, access to curriculum, architecture), which hinder the educational trajectory of university students with disabilities (e.g., Moswela & Mukhopadhyay, 2011; Redpath et al., 2013; Shevlin, Kenny, & Mcneela, 2004).

Many of these studies have come to the conclusion that the university must be inclusive and guarantee participation, in which the entire student body belongs and learns (Hardy & Woodcock, 2015). Indeed, the inclusive education model (Doughty & Allan, 2008; Makinen, 2013) and the social model of disability (Oliver, 1990) are now being recognized as fundamental to ensuring that the needs of all students are responded to adequately.

Studies like the one by Leyser, Greenberger, Sharoni, and Vogel (2011) have concluded that critical factors in the university classroom for students with disabilities to be successful include faculty training, positive attitudes and willingness to adapt the curriculum. However, as Corbett and Barton (1992) suggest, there may be resistance among faculty members to changing their teaching practices. Overcoming this and helping university staff to change the way they think and practice is perhaps the greatest challenge to any organization concerned about faculty training in inclusive education.

In other studies it was concluded that awareness training is very important for faculty to show a positive attitude in response to the educational needs of the whole student body. In fact, attitudinal barriers have been identified as one of the main obstacles to people with disabilities studying successfully (Moswela & Mukhopadhyay, 2011). This reality is reflected not only in this study, similar results have appeared in previous studies in other international contexts.

For example, Borland and James (1999) mentioned barriers to access to curriculum that impede entering the teaching-learning space, such as not being able to participate in certain practice activities or methodologies which prevent a student with a sensory disability from following them.

Other studies have discussed rigid, non-inclusive curriculums (Hopkins, 2011). For example, students with disabilities found it hard to get the necessary curriculum adaptation (Fuller, Healey, Bradley, & Hall, 2004). They mentioned not being able to get notes in advance, and that it takes students with disabilities much longer to get the information that is available to other students.

Some studies describe barriers such as faculty not letting them record classes, not offering alternatives to video presentations, or not adapting exams (Borland & James, 1999; Moswela & Mukhopadhyay, 2011).

This resistance may be related to some professors' understanding that adaptations provide students with disabilities an advantage over the rest of their classmates, or that it is hard for them to give "extra" help to students with disabilities because of the pressure they are under and their heavy workload (Riddell & Weedon, 2014). Sometimes they feel that if they make adaptations in their teaching practice it would lower the curriculum level.

Some studies have suggested the need for faculty training in teaching-learning strategies for curriculum adaptation specific to the educational requirements of students with disabilities. However, it is also significant that many of the faculty barriers found have nothing to do with disability. Jacklin et al. (2007) mention barriers that could also be found by any student with no disability (for example, inappropriate teaching methods or excessively broad course content).

A line of research arising from the need for training which was identified in several of the studies mentioned above has to do with the design, development and evaluation of faculty training programs in matters of disability. For example, the Teachability Project (Teachability, 2002) provides a resource for revising teaching and learning to improve accessibility by students with disabilities. Another faculty training program in this subject is the ASD curriculum (Debram & Salzberg, 2005). In Spain, Guasch (2010) coordinated the design of training materials for alternative methodological approaches in response to the educational requirements of

students with disabilities.

Zhang et al. (2010) suggested that in online education the rhythm could be set by the student himself and the professor could participate more actively in it. This study also suggested that improving personal beliefs of faculty could be essential to improving services for these students. In another study (Murray, Lombardi, & Wren, 2011) faculty participating in training were found to be more knowledgeable and sensitive to students with disabilities.

However, the studies reviewed did not only find barriers. There are also aids contributing to the student's inclusion. Among them is the generalized use of information and communication technologies (ICT) in university classrooms, favored as a way of including students with disabilities in the university system (Hadjikakou & Hartas, 2008; Pearson & Koppi, 2006; Seale, Geogerson, Mamas, & Swain, 2015). However, it would also have to be noted that students have expressed their frustration in accessing technology resources (Claiborne, Cornforth, Gibson, & Smith, 2010).

Another type of recognized aid is related to testing and evaluation, such as extra time on exams, use of computers during exams, or taking the exam in other places. Faculty members have also contributed to the inclusion of these students, teaching them, motivating them and accompanying them throughout their education should also be highlighted.

Finally, this article includes some suggestions which the students thought would make their professors' teaching and their own learning more inclusive. This is precisely the main contribution of this study, since previous research has concentrated exclusively on the analysis of faculty barriers and aids identified by the students, but not how persons with disabilities suggest the university environments they are in could be improved (Hadjikakou & Hartas, 2008; Hopkins, 2011; Moswela & Mukhopadhyay, 2011; Pearson & Koppi, 2006; Riddell & Weedon, 2014). In short, the main barriers found by these studies refer to negative attitudes of faculty toward disability, strict, non-inclusive curriculum, lack of faculty training in teaching and learning strategies, new technologies and matters related to disability. Concerning aids, they emphasized the use of information and communication technologies, faculty members who motivate and assist them in learning and adaptations in testing and evaluation.

## **2. RESEARCH DESIGN**

This study is part of a larger research project funded by the Spanish Ministry of Economy and Competitiveness entitled, "University Barriers and Aids Identified by Students with Disabilities" (ref. EDU 2010e16264). This four-year study (2011e2015) is being undertaken by a research team comprised of University of Seville faculty members from different areas and fields of knowledge (Education Sciences, Economic Sciences, Health Sciences and Experimental Sciences).

Our work adds to the body of research on this topic and provides a vision that is underscored by the subjective life histories of students with disabilities. Its novelty lies in the purpose of the study, which is to analyze not only barriers, but also assistance and aids in the university and its classrooms identified by the students themselves. On the other hand, and as it has been described (Hanafin, Shevlin, Kenny, & McNeela, 2007), international research regarding the participation of people with disabilities in HE usually focuses on physical or sensorial disabilities. In this study, the participants included students with a wide variety of disabilities.

Although an analysis based on each disability was not carried out, such ample participation facilitated representatives from various perspectives. It is noteworthy that this work is one of the few research projects on the international scene that uses the biographic-narrative methodology, which emphasizes the importance of the participants themselves, who speak out without silencing their subjectivity. As a research methodology, it is well adapted to listening to the voices of collectives who may be suffering discrimination, as in the case of students with disabilities (Booth, 1996). Hopkins (2011) also used this method, but the sample studied was limited to six participants

### **2.1 Purpose and research questions**

The purpose of our research was to study the barriers and aids to the entrance, trajectory and results of university students with disabilities as identified from their own perspective. However, for this article, we concentrated exclusively on analyzing the role of the faculty, and specifically, we posed two research questions:

- A) What are the barriers and aids students with disabilities identify in the faculty?
- B) What would students with disabilities suggest the faculty do to improve the response to their educational needs?

## 2.2 Participants

Forty-four students with some type of disability who were enrolled at the university participated. These students ranged in age from 19 to 59 with a mean age of 30.5. Of these, one half were men and the other half were women. 25% of them were in their first year of degree studies, 16% were in their second year, 25% in their third year, 14% in their fourth year and 9% in their fifth. The rest were doing postgraduate studies in official Master's Degree programs. Regarding the length of their stay at the university, about two-thirds of the students had been at the university for about five years, while the remaining had been studying for over five years. It is important to mention that 14% of the students had been at the university for ten years or more. Finally, their disabilities, using the terminology employed by this university, were 38% physical disabilities, 15% psychological disabilities, 36% sensory disabilities and 11% had difficulties associated with some health related issues (asthma, degenerative diseases).

## 2.3 Data Collection

The biographical-narrative made specific use of student life histories, which were thematic, since they concentrated on a particular subject matter and period of their lives, their university trajectory. Various research phases were established. The first phase included two stages. Firstly, a number of discussion groups and biographic interviews were established. Forty-four students participated in this first stage. Secondly, sixteen students who had already participated provided micro-histories of their lives. These histories are characterized by the topics covered, as they focused on a specific period in their lives, their university career.

To visualize this period, three data collection instruments were used: lifeline2 (visual depictions of an individual's life events in chronological order), focus interviews (interviews focusing on critical incidents in a person's life) and self-reports (this is a document in which the actual participant in the research narrates, in first person, what he/ she considers most significant to the topic under study: his/her university life history.) In the second phase of research, the life histories of eight students who participated in the second stage were included to carry out what is known in biographical-narrative methodology as in-depth life stories and polyphony of voices (Frank, 2011). A wide range of data collection techniques were used, including in-depth interviews, photography, and interviews with key informers in the life of each student.

All this information was collected over a period of three years. For this article, we made use of the data collected with the techniques described above, except for the information acquired from interviews with other informants, and selected only the information referring to faculty with respect to barriers, aids and proposals for improvement.

## 2.4 Data Analysis

The analysis was done from a double perspective. First each history was examined by a narrative analysis as proposed by Goodley, Lawthom, Clough, and Moore (2004). Then to compare all the information collected from participants by all the techniques, a structural analysis was performed (Riessman, 2008), using a system of categories and codes based on the proposal by Miles and Huberman (1994), and the MaxQDA10 data analysis program.

Specifically, for this article, a series of codes was used:

Faculty barriers: Barriers identified related to faculty (attitude, relations, training).

Faculty aids: Aids identified related to faculty (attitude, relations, training).

Faculty improvements: Recommendations for improving the performance of faculty members.

## **2.5 Ethical considerations**

All participants provided informed, written consent to participate in the study. Participants were guaranteed anonymity and confidentiality of all information provided. All participants were informed that they were free to withdraw at any point in the study, in which case, their data would not be taken into consideration for the analysis and all information would be eliminated. Another aspect that was contemplated referred to their co-participation in the research process. All students were invited to participate in the decision-making of the actual research process. Thus, they all participated in the design of the instruments used to collect the data and in the analysis.

## **2.6 Limitations of this study**

One possible limitation of this study is the sample itself. Access to it was a slow process that lasted a complete school year. The law on protection of personal information did not allow the research team direct access to it, and so the Student Disability Service acted as intermediary and contacted the students. At first only about 20 people were interested in participating. Therefore, we had to think of other strategies, such as presenting the project on other campuses and the snowball technique. In any case, we would have liked more students to have participated.

Another limitation of the study is that the data refer to a single university. It would be of interest to find out what is happening at other universities from the perspective of students with disabilities. Other voices could be heard as well, such as faculty, administration and service staff and students with disabilities. It would therefore be recommendable for other future studies to approach this subject by making an analysis based on different voices or with different informers (not just students with disabilities), using the data collection instruments (for example, with on-site observation of spaces and infrastructures), more specifically and with a more detailed analysis at each of the colleges on different university campuses.

Although the sample selected for this study is from a single Spanish university, and it is therefore impossible to disassociate their comments from the context in which they are immersed, their responses and comments when discussing their relations with the faculty approach matters which for the most part overcome any specific university and can therefore be applied perfectly to any other context of higher education. This is corroborated by the conclusions of studies from other universities in other countries which back our own.

## **3.RESULTS**

One of the most interesting facets of this study analyzing the situation of students with disabilities in higher education was the possibility of asking them what the ideal professor would be like. Through the answers they gave us, it was possible to analyze their dreams and desires, and detect their needs in their present situation. After analyzing this information, four points were identified by students with disabilities as ways they would like their professors to improve: faculty's attitudes towards them, their teaching practices, use of new technologies and training in matters related to disability.

Each of these points is analyzed below. However, we understand that these proposals were born precisely from the existence of deficiencies in each of these topics. Therefore, to complete the analysis, not only the suggestions for improvement made by the students are discussed, but also the main barriers and aids, if any, they found in each of these areas

### 3.1 Faculty attitudes: a long road yet to be traveled

When the students were asked about what in their opinion would improve the role of the faculty in their university trajectory, they called for a change in attitude. All the students agreed that if the faculty had a more open, positive and receptive attitude toward them, their learning/teaching process would be greatly facilitated. These students mentioned that the fact that there are students with disabilities in their classroom necessarily requires a receptive attitude by faculty in order to attend to their needs. This is even more patent when some professors, far from being concerned about their situation and requests, were determined to treat them just like the rest.

“RSC15: “The kind of professor I like the most is the one who from the beginning comes up to you and says, ‘If you have any problem don't hesitate to count on me. This is my office ...’ However, there are others who see you and they don't say anything to you, they don't care or anything. They treat you like just another student and I think that's not the way, you are not just another student, you have needs that they should be aware of.”

However, the students also agreed in pointing out that the receptive faculty attitude they claim does not mean any special treatment or favor over the rest of their fellow students, but merely give them an equal opportunity.

Likewise, they gave reasons why they thought faculty members did not attend to their special needs adequately. The answer is obviously not simple. However, three main ideas concerning attitudinal barriers do come through. Firstly, they say that many university faculty members do not listen to them, nor are they concerned about them, and therefore, show no interest in their special needs.

On the contrary, as RH8 mentions, the attitude of professors who refuse to listen to their needs is not directed specifically at them, but at the needs of any student whether he has a disability or not.

“RH8: But I don't think these criticisms we're making about certain professors are a matter of not knowing how to deal with a person who has a special need. That's their problem. They are going to deal as poorly with a person with a special need as with a student with no disability but who has any kind of problem and needs help.”

Other professors, although receptive, place their own needs first, or even those of the rest of the class in front of the special needs of these students:

“RSP7: Some faculty members have told me, ‘No, don't sit there, I need to move around the classroom, I need to hand out whatever,’ or just because ‘I like to move around.’ Then I say, ‘Okay, tell me where I should sit.’ And in the end it's next to his desk, and I say ‘No not here because I can't see the board.’”

Finally, some professors simply do not show any sympathy for the students, which lead to not understanding their needs, since they do not put themselves in the student's place.

The students participating mention few aids insofar as the professors' attitude is concerned, and when something is mentioned, it is usually to highlight the exception to the rule. In this sense, several students stressed that it was a big help that their work and the effort they had to make were valued, and that motivated them to keep going. They also valued positively the attitude of professors who are concerned and make an effort for them, since it motivates them to give the best of themselves in return.

### 3.2. How can teaching be made more inclusive? Better teaching methodologies and practices as indispensable ingredients for equal opportunity

Another point analyzed was the professor's role in the classroom, in teaching, lesson plans and student assessment. This was doubtless one of the points the students discussed the longest when they were sharing their classroom experiences.

The students would like their classes to be more participatory, since the student would be more involved and his attention would be held. They also agreed on asking for more practical teaching, and even insisted on the

importance of internships, as an experience that could be of great help in their later insertion in the labor market when they completed their studies.

When these students expressed their thoughts about what classroom teaching should be like, they almost always stressed factors, which had no direct relationship with their disability and could also be problems for any other student. Their suggestions included better lesson preparation, better, clearer lectures, more dynamic classes, and faculty who could motivate students, capture their attention, and be less distant:

“RSE8: [ ... ] a professor who was more dynamic, who was able to capture the student's attention.”

Concerning classroom dynamics, they were also strongly in agreement about asking for more personalized attention by the faculty. Even going a little further with this idea, they mentioned that the professor should become involved in inclusion of the student with disability in the classroom, promoting dynamics fostering and facilitating his socialization and allowed him to feel like just another student in the class.

One point the students emphasized had to do with evaluation and necessary curriculum adaptation. They felt without doubt that this is where the most improvement was needed. They asked for professors to make the necessary adaptation, and if possible, before classes begin.

In view of all of the above, it is clear that with respect to methodologies and classroom dynamics, these students were asking their professors for more personalized attention, specific previously planned adaptations, more participatory classes and more practical teaching. However, all these desires are born precisely from the many day-to-day barriers they find in their interaction with faculty in the classrooms to the point where it was here that the students in the project expressed the most difficulties.

They described barriers related to the teaching materials made available to them. For them, it is important to have appropriately adapted materials. In fact, not having them could cause them to drop out of the course. Even faced with the risk of having to drop out, many of the participating students reported that when they asked professors for teaching materials adapted to their needs, they were told this would be favoring them.

They pointed out the general scarcity of adapted resources made available to them to help them follow their classes, and difficulty in getting even these. Furthermore, especially problematic were adaptations related to course planning, such as the requirement to attend classes or lack of flexibility in dates for handing in work.

They also highlighted that faculty did not plan or have any interest in any type of adaptation, since most of them did not follow university guidelines for teaching plans. In this sense, they asked that faculty keep students with disabilities in mind when planning their courses so the necessary course adaptations would already be scheduled.

They also told about negative experiences with adaptations of exams or evaluations, since faculty members in general were very unwilling to change the type of test or make an alternative evaluation.

It is again difficult to find positive experiences with curriculum adaptation. Although some students described not having too much trouble in getting adaptations, they always had to take the initiative:

“RSE8: Except for isolated cases, we haven't had any problem with willingness of professors when they give exams. I've had personal interviews with them and they've extended the exam time, changed the way they are taken, even asked about what IT format was best for me. In this sense, I'm satisfied.”

Finally, the comment made by RTE1 on his positive experiences with curriculum adaptation is of interest, since they could significantly influence his academic trajectory, and suggest that adaptation is not just a matter of the professor for the student, but also the reverse:

“RTE1: The subject of this professor, who gave me these practice sessions during tutoring time because I couldn't have done them during class, or, for example, a professor who sent me an e-mail to inform me about the lab practice schedule, and if I had any problem with that, to get in touch with him. It's going halfway, not just them adapting to you, but you adapting to them too and adapting to their schedule, so they can fit it to your situation.”

### **3.3 Incorporating new technologies in teaching repertoires as tools contributing to inclusion**

The new technologies and the way they could contribute to inclusion of students with disabilities in the university was one of the factors most stressed by the students participating in the study. The reflection of RSP1 on the importance of making maximum use of the new technologies is interesting, because many other groups could benefit from them in addition to students with disabilities:

“RSP1: I think we should use the technologies available ... Not only for people with disabilities, but also other groups, because people with children or who have jobs or people ... But to make this a priority, you also have to make it a priority for education to be compatible with children or with a disability, because it seems like the university is designed for 19 or 20-year-old kids supported by their parents.”

In addition to insisting on general use of new technologies, students with a visual disability also made concrete proposals, such as promoting the use of digital blackboards, or locating monitors on each desk so the students could see the information the professor is projecting more easily.

However, the barriers in this section appeared when the professor did not use the technology he had available to him, either because of disinterest or lack of training in its use.

The students also emphasized how helpful the university's virtual learning platform (Blackboard Learn) is for all of the students. Nevertheless, many students said that faculty members often do not make use of it, or are unconcerned with learning how to use it and take advantage of it.

RTE4 underlined that sometimes professors were unwilling to learn how to use the virtual learning platform, and that could become a real barrier to passing the course:

“RTE4: At the college I do too, but nobody uses it and that's because the professors tell me, ‘It's not so much virtual teaching ... It's that I'm not about to be constantly relearning.’”

### **3.4. Faculty training in disability as a “subject pending” at the university**

All the students who participated in this study agreed that faculty training in disability is an improvement the university must undertake. In fact, this group of students wanted the faculty to be trained not only in technical matters, such as the use of digital blackboards or any other new technology, but also in specific content referring to disabilities and the needs derived from them. In this respect, a basic demand that appeared was for faculty members to know the different types of disability, since the response would have to be different depending on which one is involved.

Another suggestion was related to the need to make the faculty aware of the presence of students with disabilities in their class-rooms so they could respond adequately to their needs and have a closer, proactive attitude toward disability.

“RSP4: I don't know, I think the faculty is a little afraid. I've even been told, ‘Well, I've never had a student with a disability and I don't know what to do for you.’ And I say, okay, don't worry about it, I don't bite and I won't bother you.’ They should be made aware, given some kind of course on how to deal with people with disabilities. It's not very complicated, but it is true that we need a little more attention.”

As some students explained, it would be a good idea to organize some kind of a course or workshop where they were informed and taught about disability. For example, it was suggested that just as the students usually have to attend an orientation meeting when they start at the university to explain how it works and its organization, something similar could be organized for the faculty to inform them about the presence of students with disabilities in their classrooms, or the different types of disabilities, and trained, for example, in curriculum adaptation.

The participants in this study agreed that staff received insufficient assistance from the university on how to respond to diversity. They mentioned, for example, that when the faculty had to respond to students with disabilities in their classrooms for the first time, the information they received from the institution was minimal, and did not specify how to respond to the special needs of the students.

Therefore, the sources of the improvements suggested above were the deficiencies they had found in this area. It was specifically emphasized that the faculty is not well informed or trained.

“RSP9: They are not trained in this because you get there and they don't know what to do. You say, ‘Look, I have this disability and I need these adaptations’ and they tell you, ‘Well, and how do I do that?’ and often I have had to be the one who explains how they have to adapt my things.”

However, some students do not think it is a lack of training, but rather a lack of habit, since although they are able to explain their lessons a different way, it is hard for them to change old habits and adopt new teaching methods. They start out with good intentions, but eventually go back to their old ways again.

And other times, more than a weakness in faculty training, as mentioned in another section, they emphasized that the problem is in the absence of a positive attitude toward the disability. That is, they suggested that it is complicated for the faculty to be trained to attend to diversity because first they have to sympathize with the students, and sometimes they do not.

#### **4.CONCLUSIONS AND DISCUSSIONS**

Not just a few universities in the Spanish and international contexts declare in their missions the need for students with disabilities to participate in university life under equal conditions with the rest of their fellow students, and the faculty is a critical part of guaranteeing an inclusive educational response. Furthermore, in this article we asked what the barriers and aids students with disabilities identified in the faculty, and what recommendations they would make to improve the response to their educational needs.

This study concluded that the faculty must show a positive attitude toward disability, promote inclusive practices using alternative methodologies to the standard lecture, adapt curriculum, use new technologies in the classrooms and be trained in the use of new technologies and attending to the needs derived from disabilities.

It is interesting that among the findings presented in this article, many of the barriers identified by the students (course subject matter too broad, rigid teaching methods, distant relationship with the students) have nothing to do with disability, and are matters which also affect the rest of the students as well. Fuller et al. (2004) and Jacklin et al. (2007) came to similar conclusions. This leads us to believe that the improvements made for students with disabilities would also be positive for the rest of the students. This is the same conclusion arrived at in studies such as those by Ferni and Henning (2006), Powney (2002) and Shaw (2009).

Even though some barriers are the same for students with disabilities as for the rest, it should be recalled that for people with disabilities, they might be more complicated, becoming an obstacle course of one barrier after another. Sometimes their university experiences are different from the “typical” student's because of the obstacles, challenges and strategies they have to implement. Often these barriers are numerous and significant and can lead to their having to leave the university (Riddell & Weedon, 2014).

On the other hand, although the transformations that must be undertaken at the university are sometimes complicated and profound, other times the modifications are easier, like providing transparencies and documents in advance or allowing classes to be recorded. Such matters, which at first sight seem within reach, can be a huge obstacle for certain students when the faculty does not show a positive attitude in taking up these initiatives.

Similar findings have come from other studies. Collins (2001), for example, found that students with disabilities identified attitude as the most significant barrier to their progress. In this sense, Coriale, Larson, and Robertson (2012) found that students with disabilities missed not having met with more positive attitudes in the faculty. Therefore, as this article concludes, a first proposal for faculty improvement would be for them to show a positive attitude toward disability and the needs derived from it. Professors should therefore show a sympathetic attitude leading to a relationship of trust in which they put themselves in the position of the students in general and those who have a disability in particular. Such an open attitude and closer relationship would also be positive for the rest of the student body. However, changing attitudes is not easy, as has been

shown above (Borland & James, 1999; Moswela & Mukhopadhyay, 2011).

To work to improve this attitude in faculty, the university should organize disability awareness, information and training actions. The development of faculty training programs, which could show how assistance can be provided to these students is especially important for this, and should be encouraged on each campus and in the individual colleges (Gairín & Sua'rez, 2014).

Concerning teaching practices, these students recommend that in addition to the lecture, the faculty use other alternative and updated methods. Today such strategies as peer tutoring, project work, cooperative learning or multi-level teaching have been found to be effective in responding to everyone. We also know, as recommended by the UNESCO (2009), that there are agreements about faculty as facilitators, where students are the main actors in the learning process. In this context, the learning cultures of James (2014) could be included in curriculum design. Furthermore, research on the experiences of students with disabilities also recommends that the principles of universal design be introduced in practice classes (Watchorn, Larkin, Ang, & Hitch, 2013).

The implementation of teaching practices based on the universal design of learning could avoid learning barriers in the future, not only for students with disabilities, but also the whole student body. Riddel, Tinklin, and Wilson (2005), Shaw (2009) and Warren (2002), based on similar results, found that inclusive practices for students with disabilities positively influenced teaching and learning of all students.

Another of the conclusions arrived at in this study is that students with disabilities wanted the faculty to be better trained in the use of the new technologies as applied to teaching and learning. Other studies, such as those by Forman, Nyatanga, and Rich (2002) or Seale (2006) insist on the same thing, underlining that the new technologies are a fundamental tool, that IT can be applied to teaching and learning, and should be made available to any of the student body who require their use. For this to be possible, the faculty must be adequately trained in the use of these technologies and make them accessible to all students. Other studies have also reported the lack of faculty training in their use, and that this could become a methodological obstacle and a significant educational barrier for the student body (Claiborne et al., 2010).

These findings lead us to believe that it is insufficient for technology resources merely to be present at the university. The faculty must be trained in their use and willing to use them. Furthermore, their implantation should be based on the principles of accessibility and universal design, since equal opportunity for learning implies that accessibility is included when training plans are designed (Burgstahler, Corrigan, & McCarter, 2004).

Another point to underline in this study is that students with disabilities suggest that faculty be trained in matters of disability. In fact, we agree with Hurst (2006) that training in disability should be obligatory for the entire staff. Therefore, it would be advisable for universities to include faculty training programs in attention to students with disabilities on their agenda; more so considering that there are studies revealing that faculty members who have participated in some type of training in this sense are more knowledgeable and sensitive in their response to students with disabilities (Murray et al., 2011). This is why Zhang et al. (2010) noted that universities should implant mechanisms that ensure the faculty has scheduled training opportunities.

At the present time, proposals for faculty training in disability matters are already available (Debram & Salzberg, 2005; Healey, Jenkins, Leach, & Roberts, 2001; or Teachability, 2002), but more have to be designed and sufficient resources allotted for their development. It would be of great interest if in the future universities took these proposals into consideration and designed similar training programs to those described in these studies. We think a proposal for training with the following goals would enable a more aware faculty to respond to the needs of students with disabilities:

Knowing the student with a disability's perspective of institutional and classroom barriers and aids, knowing the sociological frame- work of disability and inclusive education, developing regulations in each university related to attention to students with disabilities, knowing the types of disabilities that may be found in university classrooms, knowing the different ways the curriculum can be adapted, knowing and practicing methodologies adequate for dealing with classroom diversity, and revising and adapting the syllabus to the

needs of disabled students.

Moreover, future studies should approach the design, development and evaluation of such training programs, which are practically nonexistent, at least in the international literature reviewed. In conclusion, and since the main purpose of this study was to find out from the students themselves the recommendations they would make to faculty, thereby improving their university experience, we could make some proposals for improvement in the university. First of all, to promote a more positive and receptive attitude toward students with disabilities in the faculty, for example, with specific training and awareness plans so they are informed of the specific needs of this group of students and how to respond adequately. This positive attitude would benefit these students in such a way that it would make them feel included in the classroom. Secondly, to start up faculty training courses in the new technologies and their application to teaching, as well as good teaching practices in adapting materials to make them more inclusive and accessible.

Finally, to inform the faculty in training courses about disabilities, and provide the necessary tools and advisory services so they can adapt the curriculum appropriately. In this regard, we consider that this faculty training would have a positive impact not only on the students with disabilities but also on the whole classroom as it would enrich the teaching and learning process.

At the end, all these improvement proposals provided by the students with disabilities can contribute to build a more inclusive university. A better university at which any student should have a place and could feel included and at which curricula, educational practices and learning will become universal and accessible to everyone.

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