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An up-to-date review of the situation of university students with disabilities

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ABSTRACT

This study seeks to provide information about the situation and needs of university students with disabilities. In this regard, the paper gives information related to Spanish legislation about this group, describes the services, programmes and opportunities offered to these students, and reviews and describes the main field studies in the scientific literature which carry out research on the situation, the characteristics and other aspects related to university students with disabilities. Finally, as an illustrative example, it presents the data and conclusions from a study conducted by the University of Oviedo, dealing with their disabled students

Key Words: University and disability, disability, disabled students, university students with disabilities, inclusion, integration, accessibility, architectural barriers, social barriers, attitudes, attitudes to disability, change of attitude, assessment, needs analysis, intervention.

INTRODUCTION

Studies on university and disability are recent, few, and isolated. As a matter of fact, no research was ever published before 1996. In addition to the quantitative shortage, the scientific literature sets out qualitative problems as regards procedures and findings. These problems entail a lack of a general vision of the situation of university students with disabilities and prevent inter- or intra-institutional comparative studies from being carried out.

The first difficulty arises when establishing the quantitative relevance of these students, since there is no census of disabled university students, but only estimations. Secondly, the majority of the studies published have an action framework confined to their own university, and are based on the enrolment information provided when the students communicate their situation of disability in order to apply for free registration. This source of information does not provide access to national statistics, as not all the universities observe the tax exemption established by the law. According to data from CERMI (the *Spanish Committee of Representatives for the Disabled*), the

universities from the Spanish autonomous communities of Galicia, Extremadura and La Rioja did not yet have such tax exemption in the academic year 2005-2006. One more fact is that not all the students who tick the disability box are really disabled, since they also tick it if one of their the academic year 2005-2006. One more fact is that not all the students who tick the disability box are really disabled, since they also tick it if one of their parents is disabled and they depend economically on them. Furthermore, there are disabled students who do not tick the disability box for lack of information or for fear of being discriminated against.

According to data from the INE (Spanish *Institute of National Statistics*), out of the 2,339,200 disabled people aged 16 to 64, almost 225,000 completed secondary education. As regards higher education graduates, the percentage of disabled people who graduated hardly goes beyond a third of non-disabled people; in fact, the figures are 8.7% versus 23.7%. If the second cycle of secondary education (grades 11 and 12) and higher education are considered, the percentage of graduates with disability is 19.1%, whereas the non-disabled graduate population amounts to 44.9%. Yet, in spite of this discouraging data, an important increase of disabled students who gain access to university education can be noticed (Calvo, 2006; De la Red, De la Puente, Gómez and Carro,

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2002; Forteza and Ortego, 2003; Papadopoulos and Goudiras, 2005; Segura and Andreu, 1999). It is estimated that the number of Spanish university students with disabilities is higher than 7,000, although it is worth mentioning that around 35% of them, that is to say, about 2,450 students, take distance learning courses at the Spanish Open University UNED (González-Badía and Molina, 2006a). If we bear in mind that the number of students registered only in universities that require attendance, the figure was 1,120,831 in the academic year 2006-2006 (MEC, 2007), the estimated 4,550 students with disabilities in this type of Spanish university represent 0.40% of the total number of university students.

On the basis of this data, and without disregarding possible mistakes, it can be stated that the university does not seem to be the priority choice in the education of people with disabilities, either because of determining personal factors, or because of the requirements imposed by the institution itself. There are a number of authors who incline for the second alternative, and so brand the university as being segregationist and exclusive, or, rather, in more positive terms, as lacking preparation or resources for integrating these students. (Bausela, 2002; Bilbao, 2003; Susinos and Rojas, 2004). In the same line of thought, and from different contexts, Wright (2006), Calvo (2006), and González-Badía and Molina (2006a) agree in pointing out and denouncing the lack of resources in the institution of the university, and assert that it is the students themselves who need to find the necessary resources in order to overcome difficulties and barriers. This theme is, therefore, an emergent social problem for which the university community should provide solutions.

The circumstances we have described justify the need for complete information about the situation and needs of the university students with disabilities. This is a basic requirement in order to increase equality of opportunities of these students and to encourage their full social integration. For this reason we now go on to deal with the Spanish legislation related to university students with disabilities, to the services, programmes and further measures that are offered, and, finally, we examine and describe the main field studies in the scientific literature devoted to finding out the situation, characteristics and other aspects of university students with disabilities.

1. SPANISH LEGISLATION ON UNIVERSITY STUDENTS WITH DISABILITIES

The legislation that regulates the full integration of people with disabilities into society is established in the *Spanish Constitution* in *Title I*, on fundamental rights and duties, *Chapter III*, *article 49*, on the principles governing social and economic policies. From a more specifically legislative point of view, *The Constitutional Law 13/1982*, of the seventh of April, on the social integration of people with disabilities, widely known as the *LISMI* ("*Ley de Integración Social de los Minusválidos*"), regulates the principles of normalisation and integration of people with disabilities in all the spheres of social life.

As for education, article 27/10 of the Spanish Constitution recognises the autonomy of universities in the terms established by the law. The Constitutional Law 6/2001 of the twenty-first of December, on universities, establishes various actions in the twenty-fourth additional regulation, on persons with disabilities, titled "De la integración de estudiantes con discapacidad en las Universidades" (On the integration of students with disabilities into university), and its article 46 regulates equality of opportunities and admits no discrimination, for personal, social or disability circumstances in the access to, admission into or continuance in university; and in the exercise of academic rights.

The university law presently in force is Constitutional Law 4/2007, of the twelfth of April, on Universities, which substitutes the controversial LOU (Constitutional Law on Universities) passed in 2001. Throughout six articles, the new law addresses the university's role in its assistance to people with disabilities. Thus, the first three articles make reference to equality of opportunities; stress the avoidance of discrimination and the establishment of measures that may guarantee this basic right. The fourth article is centred on accessibility to university buildings and rooms, including virtual spaces, and refers, for accessibility conditions, to the so-called LIONDAU, that is, Law 51/2003, of the second of December, on Equality of Opportunities, no Discrimination and Universal Accessibility for the Disabled. The fifth article proclaims that all the study plans proposed by the universities need to bear in mind that, in any professional activity, education and training need to be developed through respect and promotion of human rights, and through the principles of universal accessibility and design for all. This is a measure that stresses laws as the aforementioned LISMI or LIONDAU. However, due to lack of precision, it may still stay at the theoretical level, as has happened so far. The sixth article regulates total exemption of tax and expenses leading to obtaining a university degree. A practical reality of this new legislative precision has been the approval of tax exemption for the 2007-2008 academic year in the autonomous communities of Madrid and Galicia, so joining the almost total number of Spanish universities which keep to this measure.

Finally, the content of the fourth additional regulation, on specific assistance programmes, formerly dealing with universities of the Catholic Church, now has specific programmes, personalised assistance and adaptations for the group of people with disabilities.

After having set out the present-day legal framework of actions for people with disabilities within the university, we now move on to show the services, programmes and further measures offered to these students.

2. UNIVERSITY PROGRAMMES AND SERVICES

In order to find out about university programmes and services, we have carried out a search on the

actions that are being taken in Spanish universities. The aim of this process was to obtain information about people with disabilities at university, the actions put into effect and their results.

Thus, on the one hand, *university associations* for the disabled do not abound in Spain. We have located some twenty of them which originated and function within the university. Among the associations found, three types can be differentiated:

First, there are associations of general disability which do not mention any specific disability type, such as the Asociación pro-disminuídos, from the Autonomous University of Barcelona, or the Asociación pro-discapitados from the University of Alicante, who have very similar objectives, fundamentally centred on the guarantee of rights, university integration, promotion of work integration, accessibility, advice, information, and so on.

Second, there are university associations with names not related to disabilities, whose actions include programmes for disabled people, or collaborate with associations of non-university people with disabilities. Among them, the Asociación Progresista de Jóvenes Renovadores, from the University of Salamanca, organises conferences on the integration of disabled people into university, and the association Solidarios para el Desarrollo, from Madrid's Complutense University, which carries out support actions for disabled students, both in the academic sphere and in the area of accessibility and it has branches in other Spanish universities.

Third and finally, the least frequent type of associations are those whose action framework is restricted to one disability, such as the Asociación Universitaria de Personas con Parálisis Cerebral, from Madrid's Complutense University. These associations pursue objectives similar to those of the first type of associations described, although they restrict their action framework to the disabilities under their names.

On the other hand, as for university research groups whose area of interest is centred on disability, three aspects can be distinguished on the basis of the themes researched and on the objectives to reach:

Firstly, there are groups who do research on new technologies and who seek the construction or improvement of technological tools which may facilitate the use of computerised resources for people with reduced mobility and with software tools which may facilitate the use of computers. For example, the Grupo de Investigación GT-1, from the University of Alcalá de Henares, the Proyecto de Iriscom and the University of Navarra, who carry out research on advanced technology for tetraplegics, or the Grupo de investigación multidisciplinar de I+D Informática para discapitados, from the University of Oviedo. Secondly, there are research groups of an educational nature who address themes such as educational approaches to disability, the educational levels of these people, teaching models, or curriculum adjustments, such as the Proyecto Roma from the University of Málaga, or Estudios sobre nivel

educativo y discapacidad, from the University of Deusto.

Third and finally, there are research groups of a psychological and psycho-social nature, who centre their work on themes such as integration, well-being, accessibility, work situation, and so on. Examples are the Instituto Universitario de Integración en la Comunidad, INICO, from the University of Salamanca or the Unidad de Investigación Polibienestar, from the University of Valencia.

University	Programmes and services
U. Alicante	Student support programme (CAE); incorporation programme for university students with disabilities; promotion of voluntary service programme; accompaniment programme; opportunities, social and work integration programme.
Madrid's Autonomous U.	Disability area of the Office of Solidarity and Cooperation; MHADIE European Project (Measuring Health and Disability in Europe).
Madrid's Complutense U.	Group for developmental support: Aid programme for disabled students
U. Granada	Programme for disabled university students.; Aid programme for disabled university students; Aid service for documentary support for disabled people.
U. Huelva	Plan of comprehensive attention: the figure of the collaborating student
U. Salamanca	Unit of university students with disabilities; The <i>Destroying Barriers</i> Programme
UNED	Handynet; Star
U. Valencia (UVEG)	University consultancy for students with disabilities; Programme of voluntary service; Programme of adapted housing; Programme for barrier elimination; Programme of educational consultancy; Programme of education and awareness raising; Programme for equality of opportunities; Programme of personal support
U. Oviedo	Committee for disability

Table 1. University programmes and services for students

If we now look at the *programmes or attention services to people with disabilities* offered by universities, heterogeneity and diversity are dominant again. A guide has recently been published, "Universidad y Discapacidad: Guía de Recursos" (González-Badía and Molina, 2006b), which exhaustively collects the variety of services offered in each Spanish university. Given the fact that enumerating each and all of the activities developed by the different programs would widely exceed the extension of this text, we have chosen to report on those which show a greater level of development. On the basis of such criterion, it is interesting to mention the measures offered by the University of Alicante, the Autonomous University of Madrid, Madrid's Complutense University, the UNED, and the universities from Granada, Huelva, Salamanca, Valencia (General Studies, UVEG), and Oviedo (Table 1).

The goal of the services and programmes developed by these Spanish universities is integrating this group socially by facilitating both class attendance and the development of all the activities related to their student activities; that is, choosing and adapting furniture, providing technical aids, facilitating adapted transportation, looking for volunteers, adjusting curriculum programmes, and so on.

In short, this revision allows us to verify the presence of numerous actions, educational courses, *master programmes*, suppression of architectural barriers, services, programmes, and various types of measures, in a more or less successful but always well-intentioned manner, from the most varied focuses and viewpoints of the polyedric spectrum of integration. Some universities are more involved than others, but all make explicit reference to the need to facilitate the integration and access to university of this group.

3. RESEARCH ON UNIVERSITY STUDENTS WITH DISABILITIES

In order to find out about the existing scientific literature on university students with disabilities, our first step consisted in making a bibliographical search stored in the six leading databases concerning our theme of interest, *Psycinfo*, *Psyclist*, *Medline*, *Eric*, *Psicodoc* y *Dialnet*, by using the following headings: “*university students and disability and integration*”, “*university students and disability and needs*”, “*disabled students and inclusion and university*”, “*disabled students and integration and college*” and “*disabled students and mainstream university*”. We also used the corresponding Spanish headings, “*estudiantes universitarios y discapacidad e integración*”, “*estudiantes universitarios y discapacidad y necesidades*”, “*estudiantes con discapacidad e inclusión y universidad*”, “*estudiantes discapacitados e integración y universidad*” and “*estudiantes con discapacidad e integración en la universidad*”

Due to the heterogeneity of the publications found, as much for the methodology and the procedures used as for the object of study and the themes dealt with, the articles found have been divided into two sections. In the first group are those centred on *awareness raising campaigns*, conducted for the training of those professionals who will be part of the educational environment of the students with disabilities, that is, teachers and other university staff. The *change of attitude* programmes carried out in a university setting are also gathered together.

The second group of publications classifies the studies on the assessment of the situation of students with disabilities, that is to say, on the needs that they perceive, or on those reported on by other members and professionals of the university community.

3.1. AWARENESS RAISING CAMPAIGNS AND CHANGE OF ATTITUDE PROGRAMMES

To begin with, the first studies on awareness raising campaigns to be remarked on are those by

Schlosser and Millar (1991) in Canada, by the University of Syracuse (1981) in the United States, and by O’Hanlon (2003) in the United Kingdom. The general objective of all of them is to train and to raise the awareness both of the university teaching staff and those students whose future professional responsibilities will bring them close to the disabled.

In a more detailed way is, on the one hand, the *situational report* by Schlosser and Millar (1991), conducted with information from the teaching staff of the University of Alberta, Canada. This report initially assesses the attitudes to disability of the participant teachers and their perception of their own responsibility in the integration of disabled students within the whole group of students. Next, the programme includes the teaching of courses to foster integration, which are conducted by support associations and support groups. Once the programme had been developed and assessed, the conclusions establish that the training of the teaching staff should necessarily continue, and that, according to the teachers’ preference, an action protocol for students with special educational needs should exist.

On the other hand, after analysing the situation of students with problems and learning difficulties in the state-run education centres of the United Kingdom, the study by O’Hanlon (2003) emphasizes the need to go deeper into integration and equality, by following the guidelines established in the *Special Educational Needs and Disability Act* (2001). Therefore, it was insisted that the institutions run by the state improve the treatment of and adapt their assistance to the special needs of students with disabilities. In addition to the above, O’Hanlon’s book includes comic strips which show the everyday life of people with disabilities with the aim of bringing teachers closer to the difficulties that groups of disabled people face in their everyday lives. In this way, in addition to supporting public awareness raising, this publication provides a basic tool for the teachers who have to deal with students showing some disability.

Secondly, as for publications making reference to *change of attitude programmes* in university settings, we can cite, first, the studies by Houck (1992), Sim, Milner and Love (1998), and Gliner, Haber and Weise (1999), in which research on attitudes is a priority and a basic condition for improving the adaptation of all students with some type of disability. In the same line, authors such as Aune and Kroeger (1997), Duquette (2000), and McCarthy and Misquez (2003) also analyse the importance of attitudinal variables, and they study the influence of others, such as personal and socio-demographic factors in achieving academic success of disabled students. In addition to these works, studies conducted by Wurst and Wolford (1994) and Reber (1995) are added and described in detail.

The first of these specific programmes, by Wurst and Wolford (1994), was conducted at the State University of New York. In the different phases of the programme, a total of 18 students pretended to have a visual or auditory disability while they were carrying out everyday activities. Another aspect of the

programme consisted in organising groups to discuss disability topics with experts on the subject. When the programme ended, the participants stated that their empathy to students with disabilities had increased as well as feeling that their sensorial ability has also increased. At the same time, they could better understand the stigma associated with disability. In short, the results of the programme showed better attitudes to visual and auditory disabilities, and the need to conduct more programmes which might favour a change of attitude in this direction.

As for the second programme, Reber's (1995) research puts forward three specific objectives: First, to analyse university students' attitudes towards the need to include students with disabilities; second, to observe whether such attitudes vary in relation to the type of disability and third, to check the effects on university students with no disabilities, of three educational programmes based on different experiences about the inclusion of students with disabilities. The participants of the study were divided into three groups. Thus, 23 of them participated in a *practicum*, another 59 attended a *theoretical review* course, and the remaining 100 were in a *self-education* programme. As for the first two objectives, the findings support the idea that the attitudes vary in relation to the type of disability shown, the most negative being against the most visually impressive disabled people, such as those suffering epileptic fits. Finally, in relation to the third objective, the findings indicate that those students who did know about the theoretical situation of the disabled and had taken the *practicum* showed more positive attitudes towards these groups than the other students who had just taken the *theoretical programme*, and those who had only followed the *self-education* course.

All in all, the awareness raising campaigns and the change of attitude programmes implemented in university settings have proved useful in modifying the attitudes of students and university staff towards their disabled peers. Even though the attitudes towards this group may be positive, these activities improve positive attitudes and eliminate many prejudices and stereotypes, especially those activities centred on providing information about disabilities, and the other activities which favour contact and exchange. However, this practice is not common, and the change of attitude programmes reported on or published in the usual documentary sources are very few and far between. Very recently, the results of two Spanish studies centred on the assessment of the attitudes shown by students registered on courses related to the scope of disability have emphasized the importance of these programmes, since the findings have pointed out that having information about disabilities improves the attitudes to disabled peers (López and Polo, 2006a; Moreno, Rodríguez, Saldaña and Aguilera, 2006).

3.2. ASSESSMENT OF THE SITUATION OF STUDENTS WITH DISABILITIES

Una vez expuestas las actuaciones llevadas a cabo dentro de la comunidad universitaria en temas de sensibilización y cambio de actitudes en alumnos y profesores universitarios, se presentan en este apartado

los estudios que abordan las percepciones y necesidades que los alumnos universitarios con discapacidad encuentran en sus centros de estudio.

After having explained the actions carried out within the university community in relation to awareness raising and change of attitude of university teachers and students, this section presents the studies that deal with the perceptions and needs encountered by university students with disabilities in their centres of study.

More than a decade ago, the report presented by the *Florida State Postsecondary Education Planning Commission* (1991) pointed out a series of general recommendations that affected areas such as the state coordination of attention services to those with disability, the improvement of institutional resources for these groups, the elimination of access barriers, and the improvement in work offers and advisory services.

A few years later, Misquez, McCarthy, Powell and Chu (1997) described the situation of students with disabilities in different university campuses, proposed basic adaptations for greater integration of students, such as note takers, sign language interpreters, Braille printers, adapted software, housing, support services, adapted computers, and so on. In the same way, other authors, such as Fichten, Asunción, Barile, Judo, Alapin, et al. (1998), interested in knowing about the use of computers by students with disabilities in different university centres in Canada, find that the most frequent needs are the adjustments for students with visual or motor problems and for financial advice to obtain these adjustments.

The field of new technologies for the disabled has been an object of study for a long time. First of all we will mention the research by Federici, Micangeli, Ruspantini, Borgianni, Corrali, Pasqualoto *et al.* (2003), at the University of Rome. This study specifically analyses the use and accessibility of aid and support services for students with disabilities by following two different approaches. In one of them, which is top-down, the researchers analyse the adjustment of the aid service to national standards and to international institutions. In the case of the other approach, which is bottom-up, the students fill out a questionnaire which verifies their opinion about accessibility to the web page. Secondly, Fichten, Asunción, Barile, Genereux, Fossey, Judo *et al.* (2001) assess the needs related to technological accessibility for a total of 725 university students aged 17-75 with some type of disability. The results show that the majority of these students use computers, that almost half of them have had their computers adapted and so use them in an efficient way. The universal design of this specific type of service is also pointed out as a need which is demanded both by teachers and students. More recently, Limonche (2006) presents the results of an analysis of accessibility to web pages of different Spanish universities, and points out that 45.8% of these information portals do not meet any of the accessibility requirements. The author proposes the need for universal design, and so coincides with the study by Fichten *et al.* (2001).

The needs, such as they are perceived by the students with disabilities themselves and evaluated in relation to diverse contextual and personal aspects have also given rise to some research interest. If we first focus on the studies developed outside the Spanish setting, one of the pioneering works is the study by Bowen (1983), which examines the needs of the students from the University of Florida with motor, visual and auditory disabilities. Among the most demanded improvements made by these subjects it is worth mentioning accessibility to parking, suppression of architectural barriers for wheel chairs, improvement in visual signs, in computer equipment and materials and in the attitude of the library staff. The study by West (1993), which includes a sample of 761 students with disabilities who were interviewed to measure their satisfaction as regards accessibility, attention services and housing, shows general satisfaction towards the services provided. However, the majority of the participants find problems in attitudes, accessibility and resources, which significantly limit their education. Furthermore, the study by Hill (1996), which analyses the needs perceived and the demands claimed by 264 university students with disabilities, points out that a fourth of the participants find a lack of institutional support in spite of the fact that the majority find the services provided in various fields adequate. On the other hand, two thirds find the teaching staff very receptive to making teaching adjustments, although the remaining third complains about the lack of these adaptations, and considers it very negative in their process of adjustment to the centre. In this way, Hill concludes that it is necessary to enhance the work of state-run centres in order to avoid that disability keeps on being a cause for discrimination. Finally, Berry and Mellard (2002) develop their study in 15 university centres in three states, and sent questionnaires to students and teachers in order to analyse the satisfaction with the adaptation to services, housing and other university settings. The conclusions are quite positive. The students with disabilities state that they feel comfortable in their university setting and academically prepared to successfully complete that educational stage.

A series of publications analyse services or infrastructures specific to the university setting. In this area, Lum (2007), denounces the lack of adapted sports facilities in American universities; he found only 11 institutions in the country offered this service. For their part, Campos, Verdugo and Sancho (2006) contrast the situation of American and Spanish attention services to these students and conclude that, given the contextual differences, comparison is impossible, although they take the experiences of the USA as a point of reference, given that they have a long history. As for the services centred on a given disability, Beaupré (1993) and Weiner and Weiner (1996) investigate the adjustment needs of youngsters with mental disorders. Lifchez (1987) in his turn assesses problems of accessibility to different centres for the physically impaired. Montero (2002) focuses the object of his study on people affected by the lack of attention syndrome due to hyperactivity. McGuire, Hall and Litt (1991), Suritsky (1992), Keim (1996) and Egan (2001) analyse the adjustment priorities of

students with learning problems in the university setting. Finally, two publications appear which address the situation of mental health; one of them in the American setting, Cook (2007), and the other one in the Spanish setting, Lodeiro, Teasley, Vitales and Muñoz (2006). The results of all these studies coincide when pointing out the increasing number of university students with this problem and the lack of resources which respond to their needs.

Finally, we have only found four studies relating to the needs of university students with disabilities registered in Spanish universities, such as they are perceived and informed about by the students themselves.

The work by López, Felipe, Ruiz and Vicente (2006), a pilot study assessing the needs pointed out by eight students with disabilities at the University of Extremadura, finds that the most important needs lie in the lack of information provided by the university to the student, and on the teachers' lack of training on educational needs. For their part, López and Polo (2006b) assess the physical, socio-personal, and work barriers of 29 students with disabilities from the University of Granada, and find that the most remarked upon needs are related to physical disability, integration, and technical aids. Likewise, Rodríguez, Romero and Luque (2006) assess the needs for support in a large sample of 188 students with disabilities from the University of Malaga, and find that the support most in demand is financial, followed by technical aids.

Finally, within the same theme, we would like to present the illustrative example of the study conducted by our research team, (Aguado, Alcedo, González, García, Cuervo, Real et al., 2005, 2006), which collects information provided by 108 students with disabilities registered at the University of Oviedo.

3.2.1. STUDENTS WITH DISABILITIES AT THE UNIVERSITY OF OVIEDO

This research was promoted by the *Mesa de la Discapacidad* (Disability Committee) and sponsored by the *Vicerrectorado de Estudiantes y Cooperación* (Vicerectorship of Students and Cooperation) of the University of Oviedo, set up in January 2005. This project was one of its first endeavours. This committee put forward the need to find about the situation and needs of the group of students with disabilities registered at the university, in order to put into practice appropriate solutions. With this purpose, the research focused on three basic objectives, namely, finding out about the situation and demands of the group of disabled students at the University of Oviedo; making the university community, both the institution and all its members, aware of and sensitive to these problems, offering measures and alternative solutions to the problems shown by this group and an improvement in the existing conditions.

The instrument used for data collection is an *ad-hoc* designed open interview, entitled *Entrevista a Estudiantes Universitarios con Discapacidad* (Interview for university students with disabilities).

The final version of the interview¹ has the following components: personal data, data relative to disability, questions related to accessibility, to access to curriculum adaptation, to integration within the university community, and to technical aids. To give the interview 20 interviewers or field researchers were selected and submitted to a ten- hour long theoretical and practical training course.

Out of the 196 students with disabilities included in a census, 87 of them did not carry out the interview for various reasons, ranging from the fact that 14 students were not disabled in spite of being included in the general list, to the fact that another 40 directly refused being interviewed for different reasons.

As for socio-demographic characteristics, the sample is exactly halved on gender, with an average age of 27.11, resident mostly in urban areas, and taking courses in eight campuses of the Asturian university, whose School of Business and Administration holds the highest number of students with disabilities registered.

As shown in Table 2, the clinical variables, which are types of disability, there are 120 disabilities in the 108 people interviewed. This number is explained by the multiple disability of nine of those interviewed. From this distribution there is a principle category, namely physical disability, which brings together 50% of the disabilities, followed by chronic diseases, which amounts to 25% of all the cases.

Type of disability	Total	%
Physical disabilities	60	50,0
Visual disability	18	15,0
Auditory disability	9	7,5
Chronic diseases	30	25,0
Mental disorders	3	2,5
Total	120	100

Note: The 108 students with disabilities have a total of 120 disabilities, which is due to the fact that nine of them show multiple disabilities

Table 2. Distribution of the sample by type of disability.

As for the variables making reference to the situation of university students, the information was organised into three sections, namely, *accessibility*, *adjustments for access to the curriculum*, and *technical aids*. Each student was asked in each section both about what they considered *adequate*, and about what they considered *necessary*.

In the first section, on **accessibility** (access to the centre of studies, to the buildings or rooms, spaces, and common services) the resulting data show that the students as a whole think that there are more problems to be solved, more *needs*, than issues solved *adequately*. This demand is present in most of the types of disabilities represented in our sample, the groups of physical and visual disabilities being those who point out the greatest number of difficulties in

access to the centres, buildings, rooms and common services both in the centre in which they are registered, and at university.

As for the second section, on **adjustments for access to the curriculum** (planning, teaching approaches and resources, and evaluation), the tendency of the previous section is repeated in the answers related to the whole, that is to say, the average of positive responses, *adequate*, is lower than the average of negative responses, *needs*. However, the analysis of responses in relation to the different types of disabilities shows that the students with physical disability are the ones who point out the lowest number of needs, that in this group the number of responses under the category *adequate* is slightly higher than that under the category of *needs*.

For the rest of the groups this relation is reversed. The students with auditory disability and mental disorder are those who consider that there are more *needs*, or problems waiting for a solution, than *problems solved* as regards access to the curriculum. Two generalised and reiterated claims are made in relation to all the issues related to the curriculum, namely, materials and resources adjusted to the needs of the disabled, and more information to the university community about disability, possibilities, difficulties and needs.

In relation to the third aspect, **technical aids** (technical necessities for the different types of disability: motor, auditory, multiple and chronic diseases, mental disorders or unclassified disabilities), the demands from the students are various, multiple and relative to the type of disability. In short, we can generalise by saying that the aids demanded are basically centred on measures for improvement in personal mobility and displacement, on technical aids centred on the computer, on aids for facilitating reading and writing, for sound audition and transmission, and for favouring dialogue and communication.

In brief and on the general basis of the results, two important conclusions can be drawn:

- The data show a high number of answers in the "adequate" box, which leads to the conclusion that many aspects are valued positively by the students with disabilities in the University of Oviedo. However, in almost all the questions posed, this adequacy is lower than the deficits put forward.
- In tune with the former statements, in practically all the questions assessed, the number of answers about *needs* has been higher than the number of *adequate* answers. That is to say, the students think that the number of *needs* to be solved as regards *accessibility*, *adjustments for access to the curriculum*, and *technical aids* is higher than the number of *adequately* solved problems.

After having revised the legislative measures and regulations related to the integration of university students with disabilities as well as the various publications focusing on the analysis of the situation, and on the characteristics and needs found and pointed out by the different bodies of the university

community (mainly teaching staff and students with and without disabilities), this is the moment to proceed and come to conclusions and to make suggestions.

CONCLUSIONS AND SUGGESTIONS

The revision of the integration and situation of students with disabilities in the Spanish universities permits us to verify, firstly, that the novelties in the national legislative scene come hand in hand with the reform of the *LOU* (the Constitutional Law on Universities), which makes numerous references to the issue of disability. It expands and legislates on the rights of these students, thus partially reducing the autonomy given to the universities by the Constitution. The legislation on this issue marks the distance between the situation in reality and the situation which should be taking place by right. Knowledge of it by the university community and especially, by the students with disabilities, favours the possibilities of educational integration and inclusion. However, the lack of compliance with the law is frequent on many of these precepts.

The autonomy that the Constitution bestows upon the universities, and the lack of legal precision on assumption of responsibilities are usually cited as sources of discriminating situations (Alcantud, 2004; Forteza and Ortego, 2003; Gago, Malasaña, and Moya, 2002; Rodríguez, Romero, and Luque, 2005). This takes place in spite of the increase of measures and services developed for these students by the university centres themselves. It is obvious that the coverage and quality of these services is not yet adequate and do not respond to the actual needs of the students with disabilities.

Secondly, after having analysed the publications and main field studies on the situation, the characteristics and needs of these students, we can draw the following conclusions:

- The research on this theme shows great heterogeneity and responds to specific needs arising in given contexts. There is no stable research line shared by the authors on the subject.

- In tune with the former statements but from a more specific point of view, there are many studies which share objectives but show discrepancies in approach and procedures to such an extent, that they make it impossible to contrast results.

- There is a lack of follow-up studies that could evaluate the needs of these students, since all the publications show specific actions on the population with disabilities at concrete moments. This fact impedes knowledge about the development of the changes and of what type, in the situation of these students.

- Nevertheless, the results of the majority of the studies make reference to weaknesses and limitations in such basic needs as availability of adequate premises, instrumental measures, administrative services, libraries that allow for the normal development of studies and so on. These results also show the lack of compliance of fundamental rights such as not being discriminated

against on access to university for personal or social circumstances, including disability; admission to the centres; continuance in the university and exercise of academic rights.

In the light of these conclusions, a series of proposals aiming at providing solutions for the weaknesses and problems detected can be made. In tune with what has been pointed out above about the students with disabilities from the University of Oviedo (Aguado *et al.*, 2005), the solutions proposed are grouped around three themes: *problems of a structural nature*, including both elimination of barriers and promotion of accessibility; *problems of a statutory nature*, and finally, *problems of a relational nature*, whose objective is the integration of people with disabilities. In greater depth:

The first proposal responds to problems of accessibility, **problems of a structural nature**. In the face of these problems, three areas of action are put forward, namely, elimination of specific obstacles, a general plan of updating and modernizing technical aids and a general plan of accessibility in all the buildings of the different university centres. These measures would make physical access possible and in the case of technical aids, would provide the students with the resources necessary to develop their everyday activities.

- The second proposal, on **problems of a statutory nature**, expresses the need to create legal measures which could regulate the situation of these students, so that the resolution of these everyday problems could result in a norm and not in the specific good will of some people, teachers, vice rectors or students. For specific and isolated problems, the constitution of *Disability Committees* is proposed in every centre, which should enhance the university community's awareness of this problem and facilitate the resolution of specific problems.

- The last proposal seeks to respond to the problems of integration in university life, **problems of a relational nature**, which require programmes that could encourage the promotion of integration. These programs should be founded on a change of attitudes, on raising the awareness of the university community and on the training of interpersonal skills for both students with disabilities and their peers in order to increase their relational skills. These programmes have proved fully efficient at other educational levels (Aguado, Flórez and Alcedo, 2003, 2004). For specific integration problems, we propose the *ad hoc* establishment of programmes adapted to the student's individual problems.

These guidelines or action proposals would mitigate situations that may be branded as *discriminating* and which data up to this moment show; *equality of opportunities* and consequently, the *integration* of the students in an educational institution which is presupposed to be *universal*, at least

etymologically, that is to say, belonging to all and for all, are still not fulfilled.

Thus, as a general conclusion, we can state that even though the process of integration or inclusion of students with disabilities has improved in university settings in general and in Spanish universities in particular, that is to say, many things are good, the fact is that a number of things can still be done, and many are well-worth doing.

REFERENCES

- Aguado, A.L., Alcedo, M.A., González, M., García, L., Cuervo, J., Real, S. y Casares, M.J. (2005). La Universidad de Oviedo ante las personas con discapacidad: Informe: Entrevista a Estudiantes con discapacidad-2005. Informe de investigación (xerocopiado). Oviedo: Universidad de Oviedo. Vicerrectorado de Estudiantes y Cooperación.
- Aguado, A.L., Alcedo, M.A., González, M., García, L., Cuervo, J., Real, S. y Casares, M.J. (2006). La Universidad de Oviedo y las personas con discapacidad. *Intervención Psicosocial*, 15 (1), 49-63.
- Aguado, A.L., Flórez, M.A. y Alcedo, M.A. (2003). Un programa de cambio de actitudes hacia personas con discapacidad en entorno escolar. *Análisis y Modificación de Conducta*, 29 (127), 673-704.
- Aguado, A.L., Flórez, M.A. y Alcedo, M.A. (2004). Programas de cambio de actitudes ante la discapacidad. *Psicothema*, 16 (4), 667-673.
- Aune, B.P. y Kroeger, S.A. (1997). Career development of college students with disabilities: an interactional approach to defining the issues. *Journal of College Student Development*, 38 (4), 344-356.
- Beaupré, P. (1993). Le perfectionnement des maîtres de classe ordinaire en intégration scolaire: une condition essentielle. *Revue Francophone de la Déficience Intellectuelle*, 4 (2), 165-176.
- Berry, G. y Mellard, D. (2002). Current status on accommodating students with disabilities in selected community and technical colleges (Fall 1999-Spring 2001). University of Kansas Center for Research on Learning.
- Bilbao, M. C. (2003). Necesidad de investigación en la integración de estudiantes con discapacidad en la universidad. En Casado, R. y Cifuentes, A., (Coords.), *El acceso al empleo y a la universidad de las personas con discapacidad: barreras y alternativas* (pp. 171-191). Burgos: Servicio de Publicaciones, Universidad de Burgos.
- Bowen, D. (1983). Library needs and uses by disabled students at the Florida State University: a survey. Ponencia presentada en la Conferencia del Servicio de la Biblioteca Académica para Estudiantes con Discapacidad, Tallahassee, Florida, 6-7-V.
- Campo, M, Verdugo, M.A., Díaz, E. y Sancho, I. (2006). En M. Barañano (Ed.): *Adaptar la Igualdad, normalizar la diversidad*. II Congreso Nacional sobre Universidad y Discapacidad. XI Reunión del Real Patronato sobre Discapacidad. (pp. 367-377). Madrid: Vicerrectorado de Estudiantes, Universidad Complutense de Madrid.
- Constitución Española de 1978.
- Cook, L.J. (2007). Striving to help college students with mental health issues. *Journal Psychosoc Nursing Mental Health*, 45 (4), 40-44.
- De la Red, N., de la Puente, R., Gómez, M. C. y Carro, L. (2002). El acceso a los estudios superiores de las personas con discapacidad física y sensorial. Valladolid: Secretariado de Publicaciones e Intercambio Editorial. Universidad de Valladolid.
- Duquette, C. (2000). Experiences at university: perceptions of students with disabilities. *Canadian Journal of Higher Education*, 30 (2), 123-141.
- Forteza, D. y Ortego, J.L. (2003). Universidad y discapacidad: estado de la cuestión y temas pendientes. *Bordón: Revista de Orientación Pedagógica*, 55(1), 103-114.
- Egan, M. D. (2001). Case studies of reading processes and strategies of compensated learning-disabled adult readers. *Abstracts International Section A: Humanities and Social Sciences*, 62 (2-A), 158.
- Federici, S., Micangeli, A., Ruspantini, I., Borgianni, S., Corradi, F., Pasqualotto, E. y Beladinelli, M.O. (2003). Accessibility and usability evaluation of the help desk web page for students with disability in the University of Rome "La Sapienza" web site. *Cognitive Processing*, 4 (suppl.), 31-32.
- Fichten, C.S., Asuncion, J.V., Barile, M., Genereux, C., Fossey, M., Judo, D., Robillard, C., De Simona, C. y Wells, D. (2001). Technology integration for students with disabilities: empirically based recommendations for faculty. *Educational Research and Evaluation: An International Journal on Theory and Practice*, 7 (2-3), 185-221.
- Fichten, C.S., Barile, M., Asuncion, J., Judo, D., Alapin, I., Reid, E., Lavers, J., Genereux, C., Guimont, J. y Schipper, F. (1998). A comparison of postsecondary students with disabilities and service providers: Views about computer and information technologies. Ponencia presentada en la Conferencia Anual del California State University-Northridge 14th, Los Ángeles, CA, 15-20-III.
- Florida State Postsecondary Education Planning Commission (1991). *Disabled student access to postsecondary education: update*. Tallahassee: Report and Recommendations.
- Gliner, J.A., Haber, E. y Weise, J. (1999). Use of controlled vignettes in evaluation: does type of response method make a difference? *Evaluation and Program Planning*, 22 (3), 313-322.

- González-Badía, J. y Molina, C. (2006a). Situación de los estudiantes con discapacidad en las universidades españolas. *Fiapas*, 111, 30-33.
- González-Badía, J. y Molina, C. (2006b). *Universidad y Discapacidad. Guía de Recursos. Colección Telefónica Accesible*. Madrid: Cinca, SA.
- Hill, J.L. (1996). Speaking out: perceptions of students with disabilities regarding adequacy of services and willingness of faculty to make accommodations. *Journal of Postsecondary Education and Disability*, 12 (1), 22-43.
- Houck, C.K. (1992). Students with learning disabilities in the university environment: a study of faculty and students perceptions. *Journal of Learning Disabilities*, 25 (10), 678-684.
- Keim, J. (1996). Academic success and university accommodation for learning disabilities: is there a relationship? *Journal of College Students Development*, 37 (5), 502-509.
- Ley Orgánica 13/1982, de siete de abril, de Integración Social de los Minusválidos (BOE, 10-4-1982).
- Ley Orgánica 6/2001, de 21 de diciembre, de Universidades (BOE, 24-12-2001).
- Ley Orgánica 51/2003, de 2 de diciembre, de Igualdad de oportunidades, no discriminación y accesibilidad universal de las personas con discapacidad (BOE, 3-12-2003).
- Ley Orgánica 4/2007, de 12 de abril, por la que se modifica la Ley Orgánica 6/2001, de 21 de diciembre, de Universidades (BOE, 13-4-2007).
- Lifchez, R. (1987). *Rethinking architecture: design students and physically disabled people*. University of California Press, xix, 191.
- Limonche, F. (2006). Universidad, nuevas tecnologías y difusión de valores. En M. Barañano (Ed.): *Adaptar la igualdad, normalizar la diversidad*. II Congreso Nacional sobre Universidad y Discapacidad. XI Reunión del Real Patronato sobre Discapacidad. (pp. 84-87). Madrid: Vicerrectorado de Estudiantes, Universidad Complutense de Madrid.
- Lodeiro, I., Teasley, C., Vitales, A. y Muñoz, P. (2006). Colaborar para fomentar la integración de las personas con enfermedades psíquicas en los estudios superiores. En M. Barañano (Ed.): *Adaptar la igualdad, normalizar la diversidad*. II Congreso Nacional sobre Universidad y Discapacidad. XI Reunión del Real Patronato sobre Discapacidad. (pp. 546-558). Madrid: Vicerrectorado de Estudiantes, Universidad Complutense de Madrid.
- López, V., Felipe, E., Ruiz, I. y Vicente, F. (2006). Necesidades, apoyos y satisfacción de estudiantes universitarios con discapacidad: un estudio cualitativo. En M. Barañano (Ed.): *Adaptar la igualdad, normalizar la diversidad*. II Congreso Nacional sobre Universidad y Discapacidad. XI Reunión del Real Patronato sobre Discapacidad. (pp. 274-283). Madrid: Vicerrectorado de Estudiantes, Universidad Complutense de Madrid.
- López, M.D. y Polo, M.T. (2006a.). Actitudes hacia las personas con discapacidad de estudiantes de la Universidad de Granada. *Revista Española de Orientación y Psicopedagogía*. 17 (2), 195-211.
- López, M.D. y Polo, M.T. (2006b). Análisis de las barreras físicas y sociopersonales/laborales de los estudiantes con discapacidad. En J.L. Benítez, J. De la Fuente, A.B. García y F. Justicia, F. (Coords.): *La universidad ante el reto del espacio europeo de educación superior: investigaciones recientes* (pp. 281-294). Madrid: Egos.
- Lum, L. (2007). Got Game. *Diverse: Issues in Higher Education*, 23 (25), 24-26
- McCarthy, W. C. y Misquez, J. E. (2003). Engineering insights: developing stem education for students with disabilities leads to k-16 partnerships. *Proceedings Frontiers in Education Conference*, 2.
- McGuire, J. M., Hall, D. y Litt, A. V. (1991). A field-based study of the direct service needs of college students with learning disabilities. *Journal of College Student Development*, 32 (2), 101-108.
- Misquez, E., McCarthy, B., Powell, B. y Chu, L. (1997). University students with disabilities are the chief on-campus accommodation ingredient. Ponencia presentada al Annual CSUN (California State University, Northridge) Conference.
- Montero, J. (2002). ADHD management program: a program design for ADHD college students. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 63 (6-B), 3017.
- O'Hanlon, C. (2003). *Educational inclusion as action research: An interpretive discourse*. Mc Graw-Hill Education. Open University Press: Berkshire.
- Papadopoulos, K.S. y Goudiras, D.B. (2005). Alumnos con discapacidad visual y exámenes en la universidad. *Entre dos mundos: Revista de Traducción sobre Discapacidad Visual*, 28, 5-13.
- Reber, C.K. (1995). Attitudes of preservice teachers toward students with disabilities: do practicum experiences make a difference? Ponencia presentada en el Annual Meeting of the American Educational Research Association. San Francisco, CA.
- Rodríguez, G., Romero, J. F. y Luque D. J. (2005). *Accesibilidad y Universidad: un estudio descriptivo. Intervención Psicosocial: Revista sobre igualdad y calidad de vida*, 14 (2), 209-222.
- Segura, C. y Andreu, I. (1999). *Panorama actual de la población universitaria con discapacidad de la Universidad Politécnica de Valencia*. Valencia: Servicio de Publicaciones Universidad Politécnica de Valencia.

Schlosser, G. y Millar, G. (1991). Special education professional development and training in Alberta: a status report. Informe presentado por el Alberta Department of Education. Education Response Centre. Edmonton.

Sim, A. J., Milner, J. y Love, J. (1998). Definitions of need: can disabled people and care professionals agree? *Disability & Society*, 13 (1), 53-74.

Suritky, S.K. (1992). Notetaking difficulties and approaches reported by university students with learning disabilities. *Journal of Postsecondary Education and Disability*, 10 (1), 3-10.

Susinos, T. y Rojas S. (2004). Notas para un debate sobre los servicios de apoyo en la Universidad Española. *Revista de Educación*, 334, 119-130.

Syracuse University (1981). Making integration work. Human policy reports: an action series. New York: Special Education Resource Center.

Weiner, E., Weiner, J., (1996). Concerns and needs of university students with psychiatric disabilities. *Journal of Postsecondary Education and Disability*, 12 (1), 2-9.

West, M. (1993). Beyond section 504: Satisfaction and empowerment of students with disabilities in higher education. *Exceptional children*, 59 (5), 456-467.

Wright, A. (2006). Provision for students with learning difficulties in general colleges of further education-have we been going round in circles?. *British Journal of Special Education*, 33 (1), 33-39.

Wurst, S.A. y Wolford, K. (1994). Integrating disability awareness into psychology courses: applications in abnormal psychology and perception. *Teaching of Psychology*, 21 (4), 233-235.

Webgrafía

Bausela, E. (2002). Atención a la diversidad en la educación superior. *Profesorado, revista de curriculum y formación del profesorado*, 6(1-2):. <http://www.ugr.es/~recfpro/rev61COL4.pdf>.

Calvo, M. J. (2006). Universidad y Discapacidad. *Revista Electrónica Informática de Terapia Ocupacional (R.E.I.T.O.):* <http://www.cs.urjc.es/revistas/reito/J1702.pdf>.

INE (2003). Las personas con discapacidad y su relación con el empleo. Encuesta de Población Activa del segundo trimestre de 2002: http://iier.isciii.es/er/pdf/er_pdre.pdf.

MEC(2007):http://wwwn.mec.es/educa/ccuniv/html/es_tadistica/curso2006-2007/mat1y2c_upub.pdf.

Moreno, F.J., Rodríguez, I.R., Saldaña, D., Aguilera, A. (2006). Actitudes ante la discapacidad en el alumnado universitario matriculado en materias afines. *Revista Iberoamericana de Educación*, 40 (5): <http://www.rieoei.org/investigacion/1491Moreno.pdf>.