

Transforming faculty conceptions of disability and inclusive education through a training program

Abstract

This study analyzes the evolution of faculty conceptions of disability after participating in an inclusive education training program. Qualitative methodology was used to evaluate the program, with semistructured group and individual interviews, open questionnaires and observation. Data analysis was performed using a category system created inductively. The results show the impact of the training on participants' knowledge about disability, supports, and barriers encountered by the students, the existing resources in the university, and educational approaches such as inclusive education and Universal Design for Learning. The results allow concluding the importance of training in inclusive education for faculty members.

Keywords

Faculty training; conceptions of disability; barriers and support; inclusive education; Universal Design for Learning.

INTRODUCTION

The presence of students with disabilities in the university classrooms is an increasing reality (Seale, 2017). From the European Union, international initiatives and political actions, such as the European Strategy on Disability 2010-2020 of European Commission, or the 2030 Agenda for Sustainable Development of the United Nations, have been launched seeking to turn universities into more inclusive institutions. These actions are meant to encourage social and educational inclusion, access, and permanence of people with disabilities in the educational system, including Higher Education. As in other European countries, attention to diversity and to university students with disabilities is regulated in Spain by the national legislation and by the Organic Law of Universities 4/2007. In addition, the universities themselves have their own rules for this purpose. These rules have led to the creation of services to attend to and orient the collective of students with disabilities, who consider them to be a great help (Hanafin, Shevlin, Kenny, & McNeela, 2007; Moriña & Perera, 2018). However, these efforts are often considered to be insufficient because students with disabilities continue to encounter many barriers that hinder their academic and social development in the university setting (Mutanga, 2018).

The studies on inclusive education in Higher Education have focused primarily on analyzing the barriers and supports that students with disabilities identify in the university (Author et al., 2018; Kilpatrick et al., 2017; Yssel, Pak, & Beilke, 2016). The investigations in which faculty members have participated have focused on analyzing their experiences with students with disabilities and their attitudes towards those students, and towards making reasonable adjustments to their subjects (Abdella, 2017; Collins, Azmat, & Rentschler, 2018; Martins, Borges, & Gonçalves, 2017).

Nevertheless, there are fewer studies which give voice to faculty members than studies in which the students themselves participate.

Faculty members often show a lack of information and training in relation to the needs of students with disabilities (Black, Weinberg, & Brodwin, 2014; Love et al., 2015). Faculty usually acknowledge their need for training to attend to students with disabilities, as well as their lack of knowledge about inclusive practices and the rules of the institutions where they work (Cook, Rumrill, & Tankersley, 2009; Gelbar, Madaus, Lombardi, Faggella-Luby, & Dukes, 2015). For this reason, they often demand more training in disability and inclusive education.

In spite of their lack of knowledge, faculty members are usually willing to make the necessary adjustments when so required by a student (Baker, Boland, & Nowik, 2012; Phillips, Terras, Swinney, & Schneweis, 2012). According to Borges, Martins, Lucio-Villegas, and Gonçalves (2017), the greater presence of these students in the universities makes faculty more aware of the need to respond to them and offer support. Even so, faculty members find it difficult to offer some supports, such as allowing classes to be audio-recorded or preparing the materials in advance to be sent to the students with disability (Kendall, 2017). They also state that making the adjustments sometimes implies extra work that is not acknowledged (Collins et al., 2018) and they feel insecure because they do not know how to behave in unfamiliar situations (Lombardi, Vukovic, & Sala, 2015).

In general, faculty members are willing to promote inclusion, but the students claim that some of them have a negative attitude towards disability (Järkestig-Berggren, Rowan, Bergbäck, & Blomberg, 2016; Strnadová, Hájková, & Květoňová, 2015). These attitudes are more common towards invisible disabilities, and the professors seem more skeptical and suspicious about these students (Leyser, Greenberger, Sharoni, & Vogel,

2011; Wolman, McCrink, Rodríguez, & Harris-Looby, 2004), as well as being less comprehensive of their needs and rights and more reluctant to make adjustments to their subjects.

Faculty members' lack of information is one of the main barriers for these students, who consider that faculty are incapable of promoting their inclusion in the classroom (Author et al., 2015). Within this context, faculty training in disability takes on special importance. The academic staff that receives training in this topic is more sensitive to the needs of the students and they have tools and skills to attend to them more efficaciously, and not just these students, but to the entire diversity existing in their classrooms (Becker & Palladino, 2016; Kurniawati, de Boer, Minnaert, & Mangunsong, 2016; Shaw, 2009). It has also been shown that faculty training in inclusive practices such as the Universal Design for Learning (UDL) has a very positive impact on the learning experience of all the students (Davies, Schelly, & Spooner, 2013; Jensen, MacCray, Krampe, & Cooper 2004; Lombardi & Murray, 2011).

This work aims to present faculty conceptions of disability. Specifically, we analyze their ideas and knowledge of the conceptions of disability, the barriers and supports encountered in the university by students with disabilities, the rules governing the rights of this student body, and the support services and inclusive educational practices and UDL. These approaches are analyzed before and after the faculty members' participation in a training program, in order to determine its influence on the modification of their conceptions.

METHOD

This work is included within the project [*title and reference omitted for anonymous review*], financed by the Ministry of Economy and Competitiveness of Spain and carried out during the years 2014-2017. The purpose of the research was to

design, develop and evaluate a faculty training program on disability and inclusive education. The program was intended to train the faculty to offer an inclusive educational response to students with disabilities in the university.

After designing the training program, it was developed during the 2015/2016 course, and it was evaluated at three moments: prior to its initiation (training needs initial evaluation); in the middle of its development (process evaluation); and at the end of the training (results evaluation).

In this article, we present the results obtained in the initial and final evaluation, in order to reflect participants' knowledge at the beginning and how the program influenced the modification of their previous ideas and the acquisition of new knowledge.

The training program

The training program on disability and inclusive education was carried out using the Blended-Learning (B-Learning) method, which combines face-to-face training with online learning. The program, which lasted for six months, had a total of 54 hours: 42 hours were dedicated to online training, and three face-to-face training sessions were organized (12 hours).

For the online training, the program was carried out by means of the BlackBoard platform. Using this tool, eight modules were presented progressively. Each of the modules, with theoretical and practical contents, contained reflection and content application activities that were carried out through discussion forums. These forums allowed interaction between participants and trainers. Moreover, each module ended with an activity of individual knowledge evaluation.

The face-to-face training sessions, which took place at the beginning, in the middle, and at the end of the program, were dedicated to resolving participants' doubts

which could arise in the online phase, and also to work on case studies. Each session was attended by a university student with disability who shared his academic experience, reporting the difficulties encountered in the university and what faculty could do to reduce them.

In relation to the training contents, the different modules were focused on the following themes: the conceptions of disability and the inclusive education model; barriers and supports for students with disabilities found in the university; legislation and support services for students with disabilities; different types of disabilities, the associated educational needs, and the reasonable and adequate adjustments to respond to them; and UDL as an inclusive educational practice.

Participants in the investigation

In order to gain access to the participants, the program was advertised on the university's training center website, offering a total of 30 places. Although 23 faculty members signed up, finally two of them did not begin the program, and a third one dropped out in the first weeks. In total, 20 participants were involved in the whole training program.

To obtain a certificate from the training center, participants had to attend the face-to-face training sessions and perform the evaluation activities of each module of contents.

With regard to participants' profile, there were faculty members from different areas of knowledge: 12 from the area of Social and Juridical Sciences (8 of them from the area of Education), 4 from Health Sciences, and 4 from Humanities. With regard to their experience at the university, half of the participants had more than five years of experience working as faculty. The other half corresponded to younger faculty who had less than five years of teaching experience. Regarding gender, 12 participants were

women and 8 were men. Lastly, regarding experience with students with disabilities, 14 of the participants claimed to have had some students with disabilities in their classrooms, and the rest had no experience.

Evaluation instruments

Program evaluation was performed using a qualitative methodology. Specifically, the research was based on the single-case study method. At the three evaluation moments, semistructured group and individual interviews¹, open questionnaires and observation during the training sessions were used.

In the group interviews, three groups of participants (two groups with 7 participants, the third with 6) were organized at each evaluation moment, all of them coordinated by two researchers. The mean duration of the group interviews was one and a half hours. All the interviews were audio-recorded and subsequently transcribed for analysis.

Moreover, at each evaluation moment, the participants completed a written questionnaire with open questions in which they presented their views on the program individually.

Lastly, two of the researchers observed the training sessions, registering all the information and events of interest on a log sheet.

At the initial evaluation, some questions were proposed, such as: What is disability? Do you know what barriers and supports there are in the university for students with disabilities? Do you know the university regulations about attention to students with disabilities? What do you know about the university support service for students with disabilities? What is inclusive education? Do you know anything about UDL? Do you have any experience in this respect?

¹ Individual interviews were used if a faculty member could not attend one of the group interviews.

At the final evaluation of the program, among others, the same questions were asked in order to identify modifications of the faculty's knowledge during their participation in the program.

Data Analysis

We followed the proposal of Miles and Huberman (1994) for the qualitative data analysis. Using a categories and codes system created inductively by the research team, a structural analysis of all the information was performed. The analysis was carried out by means of the computer program MaxQDA12.

Ethical Issues of the Investigation

At the beginning of the research, all the participants were ensured that the data provided would be treated confidentially and anonymously. Similarly, we informed about the elimination of the data if a participant decided to leave the process at any time.

RESULTS

The results of this article show the change in the faculty conceptions of disability and its reality in the university, due to the learnings acquired through a training program on disability and inclusive education. The results are organized in four sections, where the faculty's knowledge about different themes is analyzed: conceptions of disability; barriers and supports encountered by students with disabilities; the existing regulations and the support services for these students; inclusive education and UDL.

Understanding the term "disability"

One of the goals proposed in this study was to know the effect of the training program on the faculty's conceptions of disability. In general, knowledge about disability was very poor before starting the program, and some expressions with negative nuances were used to define it. Faculty members often used words like

“limitation,” “deficiency,” “decrease,” “obstacle,” “difficulty,” and even “problem.”

They are people who have a reduced or even absent basic (Faculty 5).

It is an issue that prevents a person’s development, a difficulty or an obstacle (Faculty 1).

In this way, the participants initially conceived disability as a difficulty residing mainly in the person who presents it, such that this person has a series of limitations that prevent him or her from carrying out daily actions with normality.

After receiving the training, these conceptions with negative connotations about disability were dispelled, and the participants showed a greater comprehension of the term. Faculty now conceived disability from the prism of the social model and inclusive education model.

A situation that limits a person’s adaptation to the contexts in which he/she moves if they are not sufficiently adapted to diversity. The disability may be permanent or transient and may be due to numerous factors and express itself in many ways (sensory, motor, intellectual...) (Faculty 11).

The participants realized that disability resides in the environment and put aside their initial idea that it was a problem of the person presenting it. Hence, they understood that it was necessary to create an inclusive environment adapted to the characteristics of all the students, which would allow their full participation, regardless of their individual characteristics. In faculty’s opinion, this learning was essential, because it completely changed the way they looked at disability, ceasing to conceive it as a health problem that hinders the development of the people who present it.

Barriers and support in the university environment for students with disabilities

Determining the participants’ ideas about the reality experienced by students with disabilities in the university environment was also one of our objectives. Based on

their experience, participants could see that these students encountered different kinds of barriers in their day-to-day life. On the one hand, they thought that there was a large quantity of physical, infrastructural, and spatial barriers in the different faculties. On the other hand, they identified social barriers such as prejudice toward disability, and psychological barriers, such as fear of rejection by others or frustration. These negative attitudes and lack of knowledge about disability were not only attributed to these faculty members, but also to their colleagues and to the university community in general.

Besides the former barriers, they realized that their subjects were not designed to take the needs of these students into account, and this could generate risks to participate and make it more difficult to transmit the information and to use teaching materials and resources appropriate to their needs. They also admitted that reasonable adjustments were hardly made, and this could make it more difficult for these students to successfully pass the different subjects. They also indicated a lack of resources to make the adjustments. However, when referring to reasonable adjustments, the professors did so in very general terms, without specifying possible concrete adjustments.

There are barriers in the sense that the subject is not prepared and the faculty members' erroneous mentality about teaching students with disabilities (Faculty 17).

A last barrier identified was the lack of sensitivity and training of faculty members. In the participants' view, responding to this lack through training could lead to the elimination of all the other barriers that exist within the classroom.

There is a lack of information and a lack of resources to adapt the contents to students' needs (Faculty member 9).

These results show that faculty members were aware of the existence of numerous barriers in the university for students with disabilities.

With regard to their knowledge about supports, the participants showed more ignorance in comparison with their knowledge of the barriers. They offered some ideas related to the supports that the university, as an institution, provides to the students, but they acknowledged that they had very little information about these processes:

I don't know the resources existing in the university because I have not had any cases and I have not resorted to the rules, but I imagine that there are some resources to facilitate the adaptations of materials and the elimination of barriers, especially for people with physical disabilities (Faculty 11).

Many participants stated that the student's classmates helped them. They thought that the rest of the students could be a great support for the inclusion and learning of students with disabilities. Likewise, they noted the great support provided by sensitized faculty who are concerned about their students' learning and the development of inclusive educational practices.

Participation in the program helped faculty to know in greater detail about the obstacles encountered by students with disabilities. The participants became aware of more specific barriers related to faculty members' negative attitudes, social barriers, and the lack of specific support and of reasonable adjustments to the subjects. They not only learned about all these difficulties, but also how to respond to them through the practical contents addressed in the program. Therefore, the training managed to sensitize, train, and inform faculty members, providing them with tools to adjust their teaching projects, methodologies, evaluations, and tutorials to students with disabilities.

The need to design a universal teaching project, as a first step. Teaching me to observe the subject in all its blocks, contents, methodology, assessment, tutorials, etc., and find likely points for its adaptation to students with disabilities (Faculty 17).

In addition to the supports that were in their hands as academic staff, the training received allowed them to know in more depth which supports are provided by the institution, such as the university support service, adjustments of the teaching materials or free tuition.

They pay no tuition, there is a parking place reserved for them, the generalized use of new technologies gives easier access to the subjects, the work of collaborating students, more time for book loan ... (Faculty 9).

In short, the program revealed the experience of students with disabilities when they enroll in higher studies. Faculty members discovered all the difficulties that they face through the testimonials of the students who came to share their experiences in the face-to-face training sessions. This aroused their commitment to improve their teaching and to work to achieve the full inclusion of all their students.

What about legislation and support services?

Another important area addressed in the training was the state and regional legislation on disability, as well as that of the university. The participants' lack of information and training in these aspects revealed a large gap between the rules and their application. At the beginning of the program, the participants admitted that they had very little or no information about the university regulation of the rights of students with disabilities, such that many of them had never read any kind of regulations in this regard, in spite of their years of experience as academic staff. Those who explained some aspect of the regulations did so about very general processes. They alluded to the students' contact with the support service when they began their studies or to the equal rights of all the students. Only two participants expressed some notion about the obligation to adapt the exams reflected in the legislation of the university.

Basically nothing. I presume that it is an extension of that used in Centers of

Primary Education and High School. What little I know refers to the sphere of facilitation of exams (Faculty 12).

I know that these students have a right to an extra percentage of time to take their test (Faculty 9).

Very similar results were found with regard to their initial knowledge about the Support Service for Students with Disabilities of the university. Many of the participants did not know about the existence of the support service, or they had a very limited idea of the functions it carries out. Most of them did not know its name or exactly how it worked, although they had heard of it.

I know that there is an organism that attends to students with disabilities, and it also orients faculty members (Faculty 4).

Some participants knew about some of the resources that this organism provides to students with disabilities, such as the collaborating student² or the sign language interpreter.

After receiving the training, the learnings acquired by the participants were considered very good and useful, as they claimed to be more informed about the different types of regulations in force and their practical application.

What I know now, after participating in the course, is that disability is regulated (apart from State regulations) by the Students' General Regulations and, subsequently, by specific rules of development, the rules for academic attention to students with disabilities. Subsequently, in terms of implementation of this regulation, the Plan of Comprehensive Attention was established for students with disabilities, in order to involve all the levels of the University, the family, and society in general (Faculty 17).

²A classmate of the student with a disability that the Support Service for Students with Disabilities assigns to provide support during the academic year.

This information turned out to be of great importance for faculty, who considered that it should be extended to all the university staff. They not only discovered these students' rights, but also their obligations as faculty members. They claimed that having this information made them feel more confident in cases in which a student required some type of adaptation of the subject, as they had learned the procedures and the reasonable adjustments referred to in the legislation.

Likewise, they considered the knowledge acquired about the Support Service for Students with Disabilities, its functions, and the resources offered to be very useful. Moreover, they stated that, in the future, they would use these resources when they needed to attend to a student with disability and thereby provide a high quality educational response.

Now I know about the resources, such as technical support, self-copying books, adaptations of access, special services in the libraries, sign language interpreters, collaborating student service, support for the development of the academic activity, etc. (Faculty 9).

The final evaluation expressed these learnings. This new knowledge allowed them to assess the services, coming to regard them as insufficient and to highlight the need to articulate them, not only at the university level, but at the level of faculties and centers.

I didn't know that there existed all this action by the institution, but I see that it is insufficient from the viewpoint of the administration because it has no ramifications in all the centers, it should be nearer to the students and their environment in the center, which is where they will encounter the problems (Faculty 17).

From theory to practice: inclusive education and the Universal Design for Learning

Lastly, it was interesting to know the participants' prior ideas before starting the training about other two conceptions: inclusive education and UDL. These educational approaches were addressed in the program at the theoretical and practical level, which also allowed comparing their prior knowledge with that acquired during the program.

As with other concepts, when asking the participants what they understood as inclusive education, many of them did not comprehend the concept perfectly, but could give an approximate definition. Nevertheless, they acknowledged that term "inclusive" suggested some ideas but they had no knowledge or experience about how to develop this type of education in practice. In addition, they conceived inclusive education as centered exclusively on attention to people with disabilities, without taking into account other factors such as ethnic group, language, or age.

The integration of people with disabilities, providing the relevant resources to make equal use of conditions (Faculty 12).

After studying the module of inclusive education and the social model of disability, the participants switched from being little informed and having very general ideas about this approach to achieving a much more global understanding of it. They recognized inclusive education as a new way of conceiving the teaching-learning process which helps all types of students and which, in turn, implies a qualitative change in teaching methodologies and in university policies.

One that conceives diversity in a broad sense and as wealth, rather than as a problem, and that is based on a learning of quality and on the full participation of all the students, drawing on the principles of equity and social justice. Inclusive education involves a significant change in the way of thinking of faculty and of the institutions (Faculty 16).

In addition to learning about inclusive education from a theoretical approach, the program provided training so faculty could develop inclusive strategies in a practical way. Thus, the participants learned how to make reasonable adjustments to their subjects.

Based on the learning of these principles of inclusive education, the reality of university students with disabilities, their educational needs, and the strategies used to meet them, the program ended with a module focused on UDL. This educational approach brought together all the previously cited knowledge, leading to a reconceptualization of the design of teaching projects and their development.

With regard to faculty's initial knowledge about UDL, most of them had never heard of it. Some might have had some idea, as in the case of inclusive education, extracted from what the term itself suggests. Still, no participant had any experience with this approach, not even faculty from the area of Educational Sciences.

It may be elaborating a project that includes all kinds of students. I have no experience at the University level, just some idea of inclusive primary school, but very little practice (Faculty 14).

After completing the training, faculty worked on redesigning their teaching projects according to the UDL principles, creating alternatives in those methods and materials in which a student with a disability might encounter some difficulty. In addition, the participants made a big commitment to work in their classrooms from the viewpoint of UDL. In the final evaluation, all of them showed mastery and comprehension of this approach and were capable of offering detailed explanations of what it meant, its advantages, and the need to practice it in Higher Education.

It implies designing a learning process (teaching, the methodology, the teaching project, all the pillars of the process) that includes all the students, that has been

planned from the beginning to be extended to any student, that meets all their needs. Basically, no matter the situation of the student (with or without disability), the learning process is prepared to welcome him (Faculty 17).

The practical work in their own teaching projects made faculty aware of the quantity of barriers that existed in their subjects, not only for students with disabilities, but for all the students. In addition, they understood that it was a question of the initial design, which would prevent the need to make reasonable adjustments to develop the subject, and this would imply a reduction of time and effort both for the students and faculty.

What the course summarizes for me is the idea of seeing our subjects in different way. I think they need a deep revision. Not so much to adapt it to a specific disability that we face one year, but something deeper. It means teaching it in a different way, making the effort to focus it so that will be a mold in which any student can fit, which is flexible and, at the same time, robust and dynamic, to be evaluated year after year, student after student, to see whether it is still valid or whether it needs some changes. (Faculty 17).

In short, faculty members who participated in the study started with a very low level of knowledge about the reality of disability, its institutional treatment, and inclusive teaching strategies to meet the needs of these students. These results show how faculty members who did not receive the training may find more difficulties to adequately attend to a student with disability in their classrooms.

The training program, therefore, enabled faculty to offer an inclusive educational response to students with disabilities. In addition, it helped them to better understand this reality, it promoted their commitment and sensitivity towards people with

disabilities and offered them all the necessary resources to deal with them from an inclusive approach to education.

DISCUSSION

Among the main conclusions, this study highlights, firstly, how faculty members who had received no specific training in disability conceived this reality as a limitation residing in the person. Before starting the program, the participants alluded to disability as a problem, a barrier in itself that hinders the personal and social development of whoever presents it. This conception corroborates the idea presented by Martins et al. (2017), who stated that the norm is to think about disability from the perspective of the medical model. This is a vision that conceives of a person without disabilities and without “defects” as “normal.” Accordingly, the results found in this study show that faculty had a lack of knowledge of the social model of disability. In contrast, once they addressed this model in the training, their perspective underwent a radical change. The faculty members’ training in the social model of disability contributes to their comprehension of disability as a social problem in which the barriers reside in the lack of the adaptation of spaces, processes, and resources, and they acquired a more positive image of disability (Barton, 2009).

Another conclusion of the study is related to the knowledge acquired by the participants about the barriers and supports for students with disabilities in the university. The barriers were analyzed in the program from the viewpoint of the students who participated in the face-to-face training sessions. All of this allowed faculty members to know about many of these barriers, such as architectural and social barriers, the lack of a positive attitude towards disability, the lack of reasonable adjustments to the subjects, and the lack of training. These same barriers have been found in other studies carried out previously in other university contexts (Seale, 2017;

Yssel et al., 2016). Moreover, other experiences have highlighted the advantages having students with disabilities as speakers in the faculty training (Dotras, Llinares, & López, 2008; Sharma, Forlin, & Loreman, 2008).

With regard to the faculty's attitudes or unwillingness to make reasonable adjustments (Strnadová et al., 2015), other studies have obtained similar results to those reported herein. Different studies have pointed out that some faculty members are reluctant to make certain adjustments, or they find it hard to implement some of them (Kendall, 2017). Others, however, have found that, in general, faculty are willing to perform these supportive actions (Collins et al., 2018; Phillips et al., 2012). In addition, the faculty's acknowledgment of the lack of information is shared by many university institutions (Black et al., 2014; Love et al., 2015).

The lack of information is directly related to the lack of knowledge that the participants presented about the existing support to students with disabilities. As found by Cook et al. (2009) and Gelbar et al. (2015), most faculty do not know about the rules and regulations governing the rights of these students and the support services. In response to this issue, training provides all the information required about the legislation and university services, contributing to the elimination of numerous barriers faced by students with disabilities (Fuller, Healey, Bradley, & Hall, 2004). Studies like that of Dotras et al. (2008) have also trained faculty in the university legislation about attention to diversity.

Lastly, the conceptions of inclusive education and UDL are discussed before and after the program. As found by Cook et al. (2009), faculty without training show a lack of general knowledge of these terms. They are unaware of the appropriate educational strategies to meet the needs of university students with disabilities, which generates a great lack of confidence in certain situations (Järkestig-Berggren et al., 2016; Lombardi

et al., 2015). The students tend to point out the lack of knowledge of faculty to develop inclusive methodologies to meet their educational needs (Fuller et al., 2004; Mutanga, 2018). Coinciding with the study of Sharma et al. (2008), this type of training promotes a feeling of confidence in faculty members when adjusting their subjects to students with disabilities, and it improves their attitudes and willingness to work more inclusively (Abdella, 2017). Besides learning about inclusive education, training allows faculty to acquire practical knowledge about adjustments in educational methods and in the design of accessible educational resources, an outcome also present in the studies of Dotras et al. (2008) and Kurniawati et al. (2016). As found by Kendall (2017) and Shaw (2009), faculty members also think that all these actions will benefit all the students, not only those who have a disability. Lastly, faculty become aware of the benefits of working from the UDL approach. They understand that the proactive work of adapting the course for all kinds of students, instead of using the reactive approach of individual adjustments, involves less effort of adaptation and a greater benefit for all the students (Collins et al., 2018).

Limitations and future directions

During the development of this research, some limitations were found. One of them lies in the lack of participation of faculty from areas of Experimental Sciences and Technical fields, as these two areas were not represented in the study. On another hand, a total number of 20 faculty members participated in the training, where initially 30 places were offered. This leads to thinking about strategies to foster faculty participation in this type of training, as well as to raise awareness and sensitize the entire educational community about the need for training in the field of disability. Nevertheless, in spite of these limitations, the results found in the study show, on the one hand, the need for faculty training in the field of inclusive education and disability; and, on another hand,

the large benefits this training implies both for faculty and for students. Faculty members' knowledge of the reality of disability when they have no training in this issue tends to be limited. The design and development of training programs focused on attention to students with disabilities is crucial in institutions of Higher Education, and it is often faculty members themselves who demand this type of training (Phillips et al., 2012). Few studies focus on this type of experiences. Those that have been carried out coincide with the results presented in this study, showing the efficacy of this type of programs (Dotras et al., 2008; Kurniawati et al., 2016). Therefore, it is necessary to have faculty trained in disability to attend inclusively to all the students. Teaching practices like UDL should be incorporated in the teaching strategies to achieve a high quality university education based on equal opportunities (Jensen et al., 2004; Lombardi & Murray, 2011). Coinciding with Borges et al. (2017), this path towards inclusion should cease to depend on the good will of the faculty, and educational policies should guarantee an egalitarian Higher Education.

Conclusion

This study shows the results of a study focused on the faculty training in inclusive education and disability. Thanks to the learnings and experiences gained during the program, faculty have acquired tools and knowledge that will help them to offer a more inclusive education to students with disabilities. In addition, this experience represents a change in the way of thinking about what disability means, and the awareness about the reality faced by these students in the university.

The results represent a contribution to the scientific knowledge because normally, the studies giving voice to faculty members focus on their experiences and their needs for training. In this work, we describe the way in which faculty members understand disability and their knowledge of the needs of students with disabilities and

of inclusive educational practices. Likewise, it shows the high impact that training has on faculty conceptions of disability and how this type of training can help faculty to respond adequately to the educational needs of students with disabilities.

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