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ORIGINAL

THE ATTITUDE TOWARDS DISABILITY AND TEACHING INTERVENTION IN ADAPTED SPORTS

ACTITUDES HACIA LA DISCAPACIDAD E INTERVENCIÓN DOCENTE DESDE EL DEPORTE ADAPTADO

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ABSTRACT

Results of pre-experimental research carried out with 82 students enrolled on the 3rd year of the ESO program (for 14 to 16 year-olds) at a secondary school in Madrid. This research aims to gauge students' attitude towards disability and at the same time evaluate whether their attitude changes as a result of an intervention program carried out with three attitudinal components, in the form of a Didactic Unit for Adapted Sport: namely, cognitive (idea), affective (emotion) and behavioural (predisposal to action) components. Change was assessed using an adapted version of Verdugo, Arias and Jenaro's

questionnaire (1994). Significant differences were detected between pre-test and post-test results, which points to the program's effectiveness.

KEYWORDS: Attitude, disability, intervention, simulation.

RESUMEN

Se presenta el resultado de una investigación pre-experimental llevada a cabo con 82 alumnos de 3º de ESO (14-16 años) de un Instituto de Secundaria de Madrid. En ella se pretende conocer la actitud hacia la discapacidad de estos alumnos, así como evaluar si se produce un cambio en la misma a partir de un programa de intervención a través de los tres componentes actitudinales: el cognitivo (la idea), el afectivo (la emoción) y el conductual (la predisposición a la acción), en forma de Unidad Didáctica de Deporte Adaptado. Para evaluar dichos cambios se ha utilizado una versión adaptada del cuestionario de Verdugo, Arias y Jenaro (1994). Los resultados alcanzados demuestran la eficacia del programa ya que las diferencias entre los valores del pre-test y el post-test son estadísticamente significativas.

PALABRAS CLAVE: Actitud, Discapacidad, Intervención, Simulación

INTRODUCTION

We often find ourselves facing an extremely diverse body of students in our classrooms, and this means that preconceived attitudes, ignorance and/or a lack of empathy between the students are often key obstacles to instilling values in them, or teaching them values. The present study was designed to gauge to what extent our students understand disability and how that understanding conditions their attitudes towards it. At school the students are moreover not accustomed to sharing experiences with disabled students, so the entire experience proved new for them. At the end of the day, our overriding intention was to influence the students on an affective-emotional level by putting them into situations where they were forced to "put themselves in someone else's shoes", in order to help them acquire a basic level of understanding and provoke thoughtful debate about the fundamental meaning of equality.

According to Katz (1984, from Hernández and Morales, 2010), the intensity of a person's attitude reflects how emotionally attached the person is to it; also in the words of this author, any attempt to change attitudes should focus on a person's beliefs or emotional/affective make-up. For this reason, we are placing particular emphasis on affective factors in our research, as a motivational tactic to provoke attitude change based on the premise postulated by Eiser (1989, from Sarabia, 1992:137), namely:

“Attitudes are internalised subjective experiences. They are processes that an individual consciously experiences, although the factors that give rise to them may be rooted in society or external to the individual”.

Although we should not forget that the socialisation process begins in the family, and the family has a significant role to play in attitude creation, the lengthy schooling process that students follow in our educational system is positive when it comes to fostering the instillation of new attitudes and the modification of existing attitudes. In this sense, teaching practice is key and persuasion and influence are intrinsically linked to this process (Velázquez and Maldonado, 2004).

With the idea therefore that education can be a powerful motor for change, we are going to try to encourage our students to value and respect people with disability as they should, by giving them a better understanding of disability and adapted sports, and never allowing them to forget that only by learning to respect others can one learn to respect oneself. This is why it is so important that we learn to apply and develop a sense of empathy, understood as the spontaneous emotion and sensation produced when we put ourselves in the shoes of another, and really get under their skin.

Puig de Bellacasa (1987) outlined three different ways of addressing the issue of disability: the traditional model, the rehabilitation paradigm and the paradigm of personal autonomy. In this research we will concentrate on the latter, an approach first developed in the U.S. in the seventies, which concentrates on the importance of removing social barriers that limit the emancipation of people with disability. It focuses on environmental factors that condition the physical, social and attitudinal atmosphere in which a person lives and develops his/her life (Egea and Sarabia, 2001; Gutiérrez, 2009). To maximise an individual's personal development, we must therefore ensure that the necessary changes are made and a normalisation process is fostered at school; we must promote

“A new attitude towards disability that reflects the understanding that a person's disability is the product of his/her interaction with his/her environment, and a transformed vision of what people with disability can achieve throughout their lives. This vision is particularly inspired by the values of self-determination, inclusion and equality” (Schalock, 2001;83).

Therefore, following the example set by Verdugo, Arias and Jenaro (1994), our teaching intervention will take into account the three distinctive components of attitude. It will also be developed through three lines of activity: direct contact with people with disability, objective understanding of disability and the simulation of disability (first-hand experience). Our aim is to provoke a change of attitude by highlighting the difference between previously-held attitudes and the reality students come to perceive when they receive more information about disability and the capacity of people with disabilities - why they understand

more about people with disabilities and when they have first-hand experience of certain disabilities through simulation.

RESEARCH OBJECTIVES

The principal objective of the present research is therefore to analyse if attitudes towards people with disability and their capacities change as the result of an intervention program designed to work on three attitudinal components: cognitive, affective and behavioural factors. On that basis, the following specific objectives are set:

1. Gauge and identify the attitudes third-year ESO students at the IES Carmen Martín Gaité secondary school hold towards disability.
2. Design and carry out an intervention program to change attitudes towards disability using a Didactic Unit for Adapted Sport.
3. Analyse possible modifications in the attitudes held by third-year ESO students at the IES Carmen Martín Gaité secondary school towards disability.

METHODOLOGY

The methodology that will be followed in this research project is of a pre-experimental nature, as there will only be one type of subject and no control group (given the contamination that would affect a control group, because sessions must per force be held in the school's sports arena, where they can be seen by other students).

SAMPLE

The research will focus on third-year ESO students at the IES Carmen Martín Gaité secondary school in Navalcarnero, a large village situated to the southwest of the region of Madrid. The third-year ESO student population at that secondary school consists of 107 students, divided into four classes.

The initial sample for this study involves 82 third-year ESO students: three of the four classes the secondary school has in that age group. The sample encompasses 43 girls and 39 boys. By the time the post-program test was held, this sample was whittled down to 75 students, as 7 students could not attend. The sample was chosen on a random basis with the only prerequisite that the Physical Education classes had to be concentrated over Tuesdays, Wednesdays and Thursdays, so that the intervention could be carried out in a more restricted timetable.

We have established that if we are 95% sure of the program results, the margin for error is 0.077, equivalent to 92.3% probability that the research results can be extrapolated to the entire third-year ESO student population at the IES Carmen Martín Gaité secondary school.

INSTRUMENTS USED

To forward the research objective, a questionnaire on attitudes towards disability was used in pre-test and post-test assessment for data mining purposes, and the intervention was carried out using a Didactic Unit for Adapted Sports designed by the authors of this research project.

✓ Questionnaire

We used a questionnaire to obtain data using direct response, namely a reduced version of Form G defined in "*Escala de Actitudes hacia las personas con Discapacidad*" ("Scale of Attitudes towards People with Disability"), published by Verdugo, Arias and Jenaro (1994). This scale was modified slightly in its wording to adapt it to the educational context and specifically, the physical activity/sports scenario. We also included 4 items taken from Form E (Verdugo, Arias and Jenaro, 1994) that refer to the capacities of people with physical, psychic and sensorial disability to carry out physical activity/sports, in order to adapt the instrument chosen to the context in which it was applied. Item order was also changed, so that items from the subscale relating to perceptions of the capacity of people with disability to carry out physical activity/sports (items 2, 5, 9 and 13) were not clustered together, and could not therefore be answered on automatic pilot.

The 20-item questionnaire featured statements or observations about people with disability, which students had to rate on a Likert scale ranging from totally agree to completely disagree. The questionnaire also included a series of questions in its first section relating to:

- General information: age and gender
- Society's perception of disability. Students had to position themselves with regard to the options suggested or define the concept of disability in their own words.
- Degree of understanding or direct experience of disability in general and physical activity/sports practiced by people with disability in particular.

The questionnaire was required from students before and after the intervention program, leaving an appropriate space of time between asking students to fill out the questionnaire and the program sessions themselves.

✓ Intervention program: Didactic Unit for Adapted Sports

During our research, the need to design a program to encompass the objectives and specific aims we sought to achieve (namely, a change of attitudes towards disability) became one of paramount importance; this program would also help us to develop the research and assess its effectiveness vis-à-vis the primordial objective set.

This type of intervention should achieve the following (Verdugo, Arias and Jenaro, 1994:52):

1. Provide information about disability.
2. Foster empathy towards people with disability.

On the basis of these objectives, we devised our intervention using a Didactic Unit for Adapted Sport. On the one hand, we had to consider that the didactic approach we chose to use to transmit this type of content (adapted sports) must be designed to go one step further than mere conceptual and/or procedural understanding; as far as possible, it should also provide the basis for students to acquire attitudinal concepts, albeit via the former. The inclusion of practical experience of adapted sports would help the students to understand first hand the capacity that people with disability have to take part in physical activities and to appreciate the abilities such people possess (often heightened abilities, or different abilities than those of the students taking part in the program). This would therefore make the students aware of the difficulties people with disability face and also how important it is that everyone understands this and acts in consequence. Given the educational and training resources available in the area of Physical Education, awareness can be promoted to greater effect using a combination of practical understanding and the simulation of motor situations from the disadvantaged perspective of disability.

We will use the following techniques during this intervention (Didactic Unit for Adapted Sport): direct and indirect information about disability and adapted sports, plus the simulation of disabilities in adapted sports. This would be complemented by debate, guided discussion and interviews. These techniques are known to foster positive attitudes towards disability (del Rio, 1987; Verdugo, Arias and Jenaro, 1994, Sarabia, 1992; Aguado, 2004; Guitart, 2002).

✓ Program sessions.

When it came to designing the number and content of the sessions, the decision was made not to stick rigidly to the existing timetable of Physical Education classes, but rather to adjust the timetabling of sessions that called upon the participation of external parties to the possibilities that those people and the secondary school itself had to organise said activities. The sessions were planned and carried out with the aim to transmit a significant degree of learning, in a format where any doubts the students had could be addressed not only by the teacher but also by the students themselves, by learning to listen and to share the solutions they found to the challenges they were faced with.

Students' reflections and suggestions could be voiced whenever the teacher deemed fit, either to the entire class or to the groups they were working with. This would vary, depending on the effectiveness of the solutions students found to the problems posed. This was designed to encourage students to consciously review their own learning experience, although obviously this kind of reflection forms an integral part of the learning process itself.

1st session: presentation of the Didactic Unit (objectives, content, assessment). Explanation of the methodology and answer any doubts expressed in that regard. Show a short film about disability. Guided discussion (groups of 6 students).

2nd session: BOCCIA. Understand and apply the strategic principles of Boccia. Demo by an elite Boccia athlete and student simulation.

3rd session: WHEELCHAIR BASKETBALL. Manage the wheelchair and understand/apply the principles of inclusive basketball.

4th session: ATHLETICS, GOALBALL and INDOOR FOOTBALL.

Understand and apply the principles of athletics for the blind. Goalball and indoor football (simulation).

5th session: Show videos of high performance training for adapted sports. Guided discussion and conclusions.

- Short film and high performance videos.

Videos, films and videogames form part of adolescents' daily lives, so we sourced a short film that nonetheless delivers a valuable message. We sought to use videos that made an impact on our students from the outset, to drive home the content of the Didactic Unit. We therefore designed each session to start based on information that would challenge and break the students' existing preconceptions. When we sourced the videos, we looked for ones that were totally different to each other but shared one common message and governing theme: personal achievement and the capacities of people with disability. All the videos touched on the subject of personal autonomy and provided visual examples of how situations can change, taking seemingly hostile environments such as the one shown in the video of the butterfly circus (short film that won the annual short film festival run by www.thedoorpost.com in 2009, "The Doorpost Film Project, 2009", Director: Joshua Weigel, Actors: Eduardo Verástegui and Nick Vujicic, president of the association "Life without limbs") that are then overcome thanks to the removal of social barriers and the introduction of genuine avenues for integration and personal achievement, such as those shown in the high performance training videos. Report on Jon Santacana and Miguel Galindo skiing (Vancouver, Santacana) broadcast on Aragón TV (YouTube, April 2010), and the 2006 Goalball World Championship final (USA vs. Japan), where the USA beat Japan 6-1 (YouTube, April 2010).

- Getting to know and interacting with an elite Boccia athlete.

The introduction to this session was delivered by the sportsman in person, who shared his personal and professional circumstances with students. He then went on to tell students about how his involvement with the sport of Boccia began. In the sports' pitch itself, he then introduced students to the basic concept and key elements of Boccia, and started to play with them in teams of three. The students played in wheelchairs. The person in charge of the session

regularly intervened and provided guidelines for the game. The session made a big impact on the students, who got really involved from start to finish.

- Simulation of inclusive basketball in wheelchairs (physical disability), athletics, goalball and indoor football (visual disability).

To impart these sessions, we used people with specialist qualifications in each area. The session on wheelchair basketball was given by an official trainer from the CEDI (*Centro de Estudios del Deporte Inclusive*, or Centre for Research in Inclusive Sport) and the session on sports for people with visual disabilities was given by two trainers from the ONCE association in Madrid. In both sessions, students were able to experience the difficulties that people with reduced mobility face first hand, having to manage wheelchairs and realising how important it is that games are adapted to inclusive formats where everyone is able to take part. They also experienced the difficulties that the loss of sight (the session was taught using blindfolds) posed in terms of moving around the court, gameplay etc.

DATA ANALYSIS

To make the analysis of questionnaire responses easier from a coding point of view, students were asked to rate each item from 1 to 4. The most positive response scored a maximum of 4 and the most negative response the minimum of 1.

We first set out to analyse the frequency distribution, calculating the average response for each item in pre- and post-test assessments. Items were also grouped together in the subscales mentioned above in order to make it easier for the research team to analyse data and extrapolate conclusions. We then drew up contingency tables to see if the frequency of replies for each item had increased at any point over the rating scale (from 1-4) according to gender or age criteria - or if on the contrary, the answers received were distributed evenly. To find out if the differences in distribution detected were significant or not, we carried out Pearson's chi-squared test on the contingency tables. We then calculated the percentage of variation between average responses for each item in the pre- and post-test assessments. Finally, we made a comparative analysis by applying a non-parametric test (given the small size of the sample and that we could not guarantee basic assumptions required to apply a parametric test) to the difference detected in average scores obtained from two related samples (Wilcoxon). We were therefore able to analyse if significant differences existed between responses provided in the pre- and post-intervention program test assessments.

RESULTS AND DISCUSSION

- PRE-TEST

1. Social concept of disability

The first section of the questionnaire we asked students to fill in focused on society's perception of disability. It contained 9 possible definitions of the term disability and students could pick a maximum of 2. Of the 9 possible options, two received the most responses: *impediment, limitation, incapacity* (32.9%) and *handicap, invalidity* (21%). A considerable distance behind those two, the option *cannot look after him/herself* (12.2%) came in in third place. The remaining options were selected on a very varied basis.

It is reasonable to assume that the most popular response, *impediment, limitation, incapacity* is the answer that seemed most obvious to the students. Similar results were found in the study organised by Felipe Rello (2009) with a similar sample population taken from another IES secondary school in Madrid, where the same response was picked the most in pre-test assessment (30.35%). However, in our secondary school the second most popular response, *handicap, invalidity* (21%) was the third highest option in the Giner de los Ríos secondary school, where it represented 17.85% of the sample. In that secondary school, the second most popular option was *physical, psychic or sensorial impairment or limitation* (29.46%) in percentage terms, which in our secondary school only came fourth (8.5%). No student proposed an alternative definition, although 2 marked this option.

2. Degree of understanding or first-hand experience of disability in general, and specifically physical activities/sports practiced by the disabled.

The second section of our questionnaire was designed to evaluate, through 6 questions, the degree of understanding or first-hand experience our students had of people with disabilities. Significantly, some 56.1% (more than half the students surveyed) knew someone with disability. The percentage is similar to that found in the pan-European study carried out in 2002 by Freeway, which revealed that some 58% of Europeans know someone with disability. Of our 56.1%, the distribution of first-hand acquaintance per type of disability was as follows: 19.5% knew someone with a physical disability, 11% someone with a mental handicap, 6.1% someone with a visual disability and 6.1% someone with a hearing impairment. Some 13.4% professed to know people with multiple disabilities.

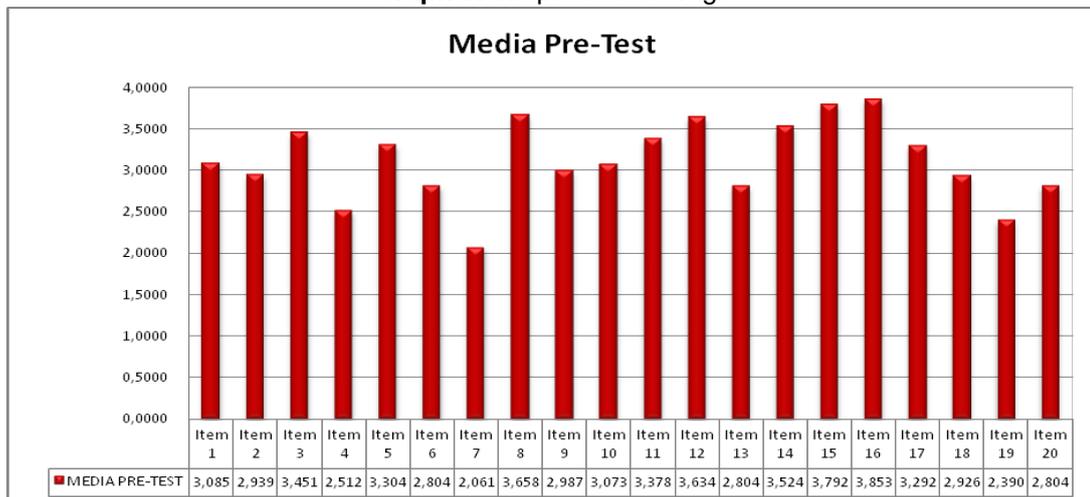
As far as the type of relationship was concerned, some 29.3% were related to the disabled person and some 13.4% had met the disabled person through shared leisure activities/had established a friendship with them. Only three students surveyed (3.7%) knew a fellow student with disability.

In other studies such as that carried out by Escandell and García (1998:300) amongst university students enrolled on different teaching courses, in other words a population clearly older than our students, the percentage of people who knew someone with disability was 39.3%. However, in Moreno *et al.* (2006:6), this percentage rose to 61.2% amongst university students enrolled on courses to become education professionals working with people with learning difficulties and mental, sensorial, motor and other disabilities at the Psychology and Science Education faculties in Seville.

3. Prevailing social attitude towards people with disability.

As we can see from graph 1 below, the average response to every single item was over 2, which reflects a positive attitude towards disability. The average global score, which reflects the prevailing social attitude towards people with disability, was 2.9.

Graph 1: the pre-test average



The item that ranked lowest on average was number 7, "The majority of people with disability prefer to practice physical activities/sports with people who face the same problem" (2.0) and the item that ranked highest on average was number 16, "People with disabilities should be able to practice physical activities/sports if they want to" (3.8).

Looking at the various subscales, subscale 3 or "Personal involvement" (items 8, 12 and 17) received the highest average scores (3.5). Of those, 74.4% of students said that they totally agreed with (gave a score of 4 to) item 8, "I would not mind studying with people with disability" and only one student (1.2%) completely disagreed with the idea (gave it a score of 1). Subscale 4, "Generic assessment" (items 7 and 19), scored the lowest on average (2.2). Within that subscale, item 7 (which we have already discussed above) attracted the lowest score of all the statements included in the survey (2.06) and some 74.39% totally agreed with the idea that people with disabilities would prefer to practice

physical activities/sports with people who face the same problem. Subscale 1 (which was the subscale that most closely reflected the *raison d'être* of our intervention, whose fundamental objective was to achieve certain recognition for the capacity of people with disabilities and also to change the stereotyped vision that makes us see limitations rather than possibilities) was in turn divided into two segments, one more general and the other specifically relating to physical activity: the average score in its segment A, "Assessment of capacities and limitations", was 3.1 and item number 3 ("People with disability can do many things as well as anyone else") came out on top (3.4). Some 84.14% of students rated the item positively (giving it a score of 3 or 4 points).

In segment B, "Assessment of physical/sporting capability" the average score was 3 and item number 5 ("Deaf people cannot lead a normal lifestyle in physical/sporting terms") scored the highest (3.3). 79.26% of the students said they disagreed with the statement. This data confirms the results of aforementioned study carried out by Felipe Rello (2009). It seems clear that both groups of students think that people with hearing disabilities are more able to lead a normal lifestyle in a physical/sporting sense.

Subscale 2 (items 4, 10, 14, 15 and 16) scored an average of 3.3 points, the second highest subscale. This subscale underlines the understanding students have of the circumstances faced by people with disabilities and that they are therefore able to recognise the rights of this collective. Items 15 and 16 gained an average score of 3.7 and 3.8 respectively, the two highest average marks in the entire questionnaire. Some 82.9% of students completely agreed (score of 4) with item 15 ("people with disabilities should have the same opportunity to practice physical activities/sports as any other person"). In item 16 ("people with disability should be able to practice physical activities/sports if they want to", 87.8% of students registered total agreement (score of 4).

We arrived at an average item score in the pre-test assessment of 2.9, in other words our research started out with students displaying clearly positive attitudes towards disability. Even so, this is slightly less than the average score of 3.1 recorded by Felipe Rello's study (2009).

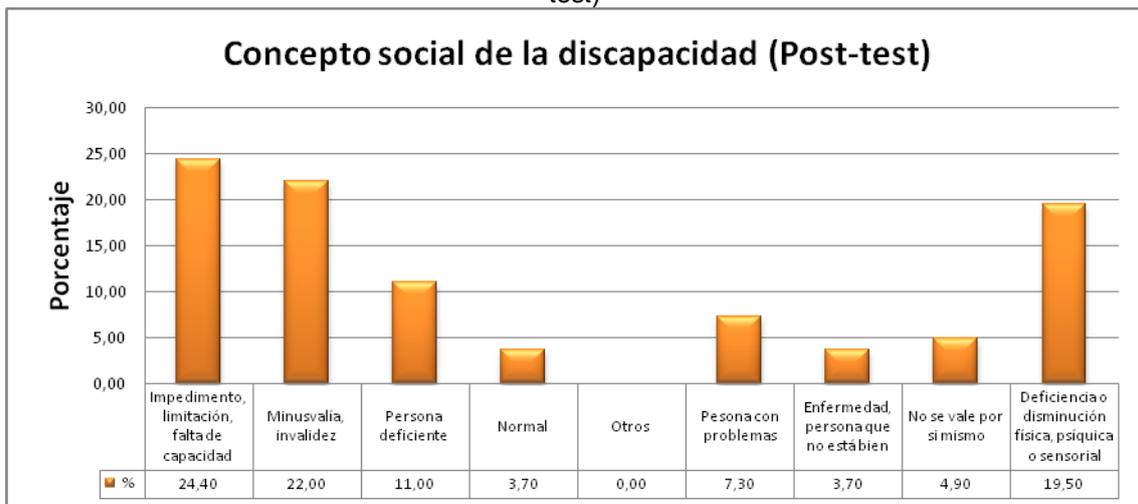
- POST-TEST
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- 1. Social concept of disability

Significant changes could be seen in responses to three of the statements after the intervention program had taken place. The percentage of students who perceive disability as an impediment or limitation reduced from 32.9% to 24.4%, and those who saw it as a handicap or invalidity from 25.6% to 22%. However the most notable change was witnessed in the idea that people with disabilities could not look after themselves, which went down from 12.2% to 4.9% (graph 2). These are of course concepts that were amply demonstrated throughout the

sessions, partly through what students learnt first hand from people with disabilities and partly through their own experience.

The chi-squared calculation of the age-based analysis showed that 19 of the 20 items in the questionnaire had a higher numeric value than 0.05. The only item to score less was item 16, "people with disabilities should be able to practice physical activities/sports if they want to" ($p=0.004$), which the vast majority of 14-year-olds totally agreed with (93% of students of that age). As far as the 19 remaining items are concerned, the null hypothesis is not rejected, and it is thus accepted that no correlation exists between the assessment of attitudes towards disability and the age criterion. In item 7, "the majority of people with disabilities would prefer to practice physical activities/sports with people who face the same problem" ($p=0.064$), some differences can be discerned that could be deemed significant in the age variable, in that some 85.71% of students aged 16 or above totally agreed with the statement. The same occurs with item 14, "people with disabilities should live with people who face the same problem" ($p=0.085$), where 100% of students aged 16 or above selected the option completely disagree.

Graph 2: society's perception of disability (post-test)



x-axis reads (from left to right): impediment, limitation, incapacity / handicap, invalidity / person with deficiency / normal / other / people with problems / illness, person who is unwell / not able to take care of themselves / physical, psychic or sensorial deficiency or impairment.
y-axis reflects percentage points.

3. Prevailing social attitude towards people with disability.

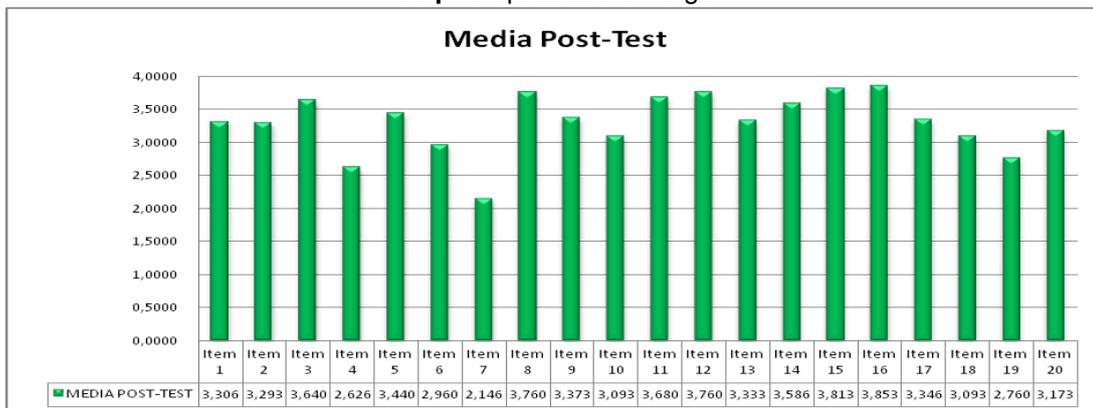
Response frequency was distributed evenly in terms of gender and no trends could be discerned (in all 20 items, $P>0.05$).

This data reinforces the findings of Felipe Rello's study (2009), which did not detect significant variations per gender either, and the conclusions of Moreno *et al.* (2006) where no significant differences were discerned per gender in attitudes towards people with disabilities in spite of the fact that the sample

included a larger number of women than men (due to the type of qualification the population was enrolled on). However, in Escandell and García's study, which also contained a female majority in the sample (78.7%), they found that significant differences did exist in 14 of the 36 items included in the questionnaire (Verdugo and Jenaro, 1992): 13 trends were detected towards women and one towards men. That study concluded that: "the gender variable provides the most information about attitudes towards disability, as women demonstrate greater tolerance and recognition for that type of subject" (Escandell and García, 1998:312).

We are presenting the post-test results in graphic format first here (graph 3) and then comparing them with pre-test results (graph 4). Although the average item score in pre-test assessments was 2.9144, post-test scores rose to an average of 3.302, which denotes a percentage increase of 13.3%. Of all the items, number 7 ("the majority of people with disabilities would prefer to practice physical activities/sports with people who face the same problem") scored lowest in both pre-test and post-test results. This is clearly not a coincidence and perhaps this type of question is harder for the students to respond to, as it forces them to take a specific stance and imagine themselves definitively in the shoes of that person.

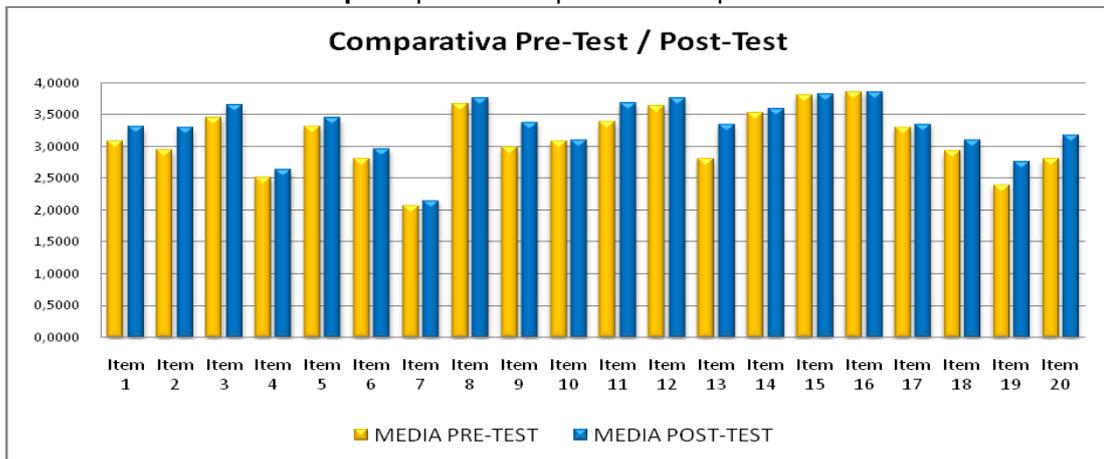
Graph 3: post-test average



The only item that scored a lower average in the pre-test compared to post-test assessment, albeit almost negligible, was number 16 ("people with disabilities should be able to practice physical activities/sports if they want to"), which fell – 0.01. It is worth highlighting the fact that this item started with the highest initial score of all items, awarded 3.8 out of 4.

A marked improvement was detected in attitudes towards people with disabilities in all of the subscales; the increase ranged from an average score of 3.0 in pre-test assessment to 3.3 in the post-test, a variation of 9.01%.

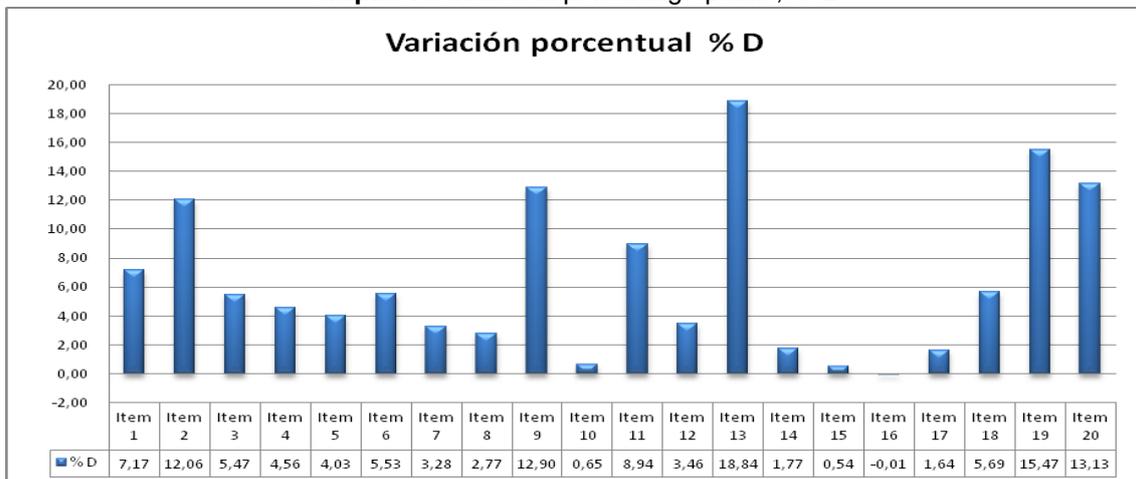
Graph 4: pre-test vs. post-test comparison



Subscale 1, “Capability assessment”:

As we have previously explained, this subscale was in turn divided into two parts, to reflect the physical/sporting capabilities we specifically asked students to comment on in the questionnaire, and which were directly related to our intervention program. The differences found between the various items can be seen in percentage terms in graph 5.

Graph 5: variation in percentage points, % D



Section A, "Assessment of capabilities and limitations" (items 3, 6, 11 and 18), scored an average of 3.3 points – one per cent higher than the pre-test result of 6.47%. This time, item 11 (“People with disabilities are often less intelligent than other people”) showed the largest increase, going from 3.3 points to 3.6, an increase of some 8.94%. 77.3% of students completely disagreed with this statement (4 points).

Only one item still scored less than 3, namely item 6 ("In educational establishments, people with disabilities make themselves understood with other people without any difficulties"), which rose from 2.8 to 2.96% (an increase of 5.53%). It is reasonable to assume that the first session in the intervention program (when the short film "The Butterfly Circus" was shown) and the presence and presentation made by the Boccia sportsman had a significant part to play in the increase seen in this subscale. The items listed therein are easy to understand and their meaning is not open to dispute.

Section B, "Assessment of physical/sporting capability" (covering items 2, 5, 9 and 13) scored 3.36 on average, an increase of 11.66%. Although the students received no classes that explicitly addressed the subject of psychic disability, it seems that they were able to extrapolate their experience and sensations because this was one of the items that showed the sharpest increase, some 12.6%. Items 9 and 13 scored the highest (relating to people who are blind and suffer from physical disability), which correlates directly to the type of disability the people who took part in the intervention sessions, or who starred in the videos, had. In summary, a definite change was witnessed in the perception students had of people with disabilities' capability to carry out physical activities/sports as a result of this intervention program.

Subscale 2, "Recognition/denial of rights" (items 4, 10, 14, 15 and 16):

This subscale registered less increase when compared to pre-test results (1.24%). This could be due to the fact that items 15 and 16 scored the highest initial score of all the questionnaire items (3.79 and 3.85 respectively), which meant that it was hard for the subscale to register a significant increase in percentage terms. This hypothesis is borne out by post-test results, where item 16 is the only item that registers a decrease in percentage terms (-0.01%).

Subscale 4. "Overall rating" (items 7 and 19):

This subscale registered an increase of 10.23%. Item 7 ("The majority of people with disabilities prefer to practice physical activities/sports with people who face the same problem") scored the lowest of all questionnaire items, both in pre-test and post-test results (2.06 and 2.1).

To imbue these findings with statistical significance (or not as the case may be), we carried out the Wilcoxon signed-rank test. The result revealed a probability of 0.00, which is less than 0.05 and therefore indicates that a significant statistical difference was detected between pre-test and post-test assessments. In other words, attitudes towards disability were more positive after the intervention program had taken place (in the post-test) than beforehand (in the pre-test).

CONCLUSIONS

- Direct or indirect contact with people with disabilities has a deep impact on students.
- After the intervention program, the percentage of students who consider disability to be an impediment or handicap fell.
- An increase of between 0.65% and 18.84% was found in the scores of 19 out of 20 questionnaire items, which reflects a clear change of attitudes towards people with disabilities.
- A significant statistical difference testified to the change in attitudes towards people with disabilities after the intervention program.
- A significant attitude change was witnessed in subscale 1, section B, "Assessment of physical/sporting capability", which was particularly relevant to our intervention program.

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