



*Accessible Learning design, implementation and accreditation*

## **R2.2: Supporting students with disability in HE and VET: a needs analysis**

**WP2: Needs assessment, ECVET strategy and VLE  
specifications**

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Erasmus+ Programme  
of the European Union





ALdia  
Accessible Learning Design,  
implementation and accreditation

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## 2. List of abbreviations

ALdia	Accessible Learning Design, implementation and accreditation
ASD	Autism Spectrum Disorder
AT	Assistive Technologies
DM	Design meeting
SD	Students with disabilities
EP	Education professionals
EVS	European Voluntary Service
FG	Focus group
HE	Higher education
HEI	Higher education institute
MOOC	Massive Open Online Course
ICF	International Classification of Functioning, Disability and Health
ICT	Information and communication technology
SW	Software
TTS	Text-to-Speech
VET	Vocational education and training



### 3. Executive Summary

This report presents and analyses the findings of the needs assessment activities that were carried out in the three countries participating in the project, in order to determine the current situation and the needs of the project's target groups. The two methods that were used for this process were surveys administered to students with disabilities, VET trainers, HE professors and conduction of design meetings with the project's Focus Groups. In total, 583 questionnaires were completed in Spain, Italy and Greece from June to July 2016 that provided the main source of raw data for this report. From the other side, the design meetings provided the chance to have an open dialogue and interaction between ALdia's target groups, thus drawing valuable open-ended responses and recommendations for a range of issues pertaining to the project. More specifically, the main issues covered by the surveys and the design meetings include among others:

- Accessible learning for students with disabilities
- Training needs of education professionals in relation to their teaching students with disabilities
- Use of assistive technologies to enhance the learning process and make it more accessible to students with disabilities.
- Improving the support structures for students with disabilities and education professionals in Universities and VET providers
- Identification of challenges and obstacles faced by students with disabilities and education professionals.

In the first part of the report there is a brief description of the needs assessment methods that have been used and an overview of the data collected through the surveys. This is followed by three needs analyses one for each consortium country. They include an overview and analysis of the results of the surveys for students with disabilities, another one for the education professionals and they are concluded by the presenting the finding of the design meetings organized in every country. The next part of the report has a selection of the input of the survey participants. The final part of the report presents the conclusions and recommendations of the preceding analyses and the relevant annexes. The conclusions and recommendations can be summarized as follows:

- There is an existing organizational and institutional framework to support the learning needs of students with disabilities but it has to be improved.
- Most educational professionals have experience from teaching students with disabilities but few have received training on how to do it.
- Online training for this purpose is not very common but is needed.
- Education professionals want to be trained and become more aware of the learning needs of students with disabilities. From their side, students identify the lack of training as one of the main obstacles.



- Professors and VET trainers have to be trained in being able to adapt learning to the individual needs of each student with disability. Accessible learning should ensure the compatibility between the learning content and the student with disability.
- A key component of training is the use of assistive technologies.
- Training should be regular and continuously evolving so that it does not become obsolete.
- All relevant resources should be collected and made available in platform. A forum in the form of a platform could be created so that exchange of good practices takes place.
- There should be continuous communication and coordination between education professionals and students with disabilities / education professionals and educational institutions and between students with disabilities and educational institutions. Universities and VET providers should play a key role in this by enhancing the effectiveness of the relevant support structures.

**Please note that this is a short version of the ALdia Needs Analysis report. The full version can be downloaded [here](#).**



## 4. Project Description

Developing an inclusive education system is not only a matter of equal rights. Access to education can put persons with disabilities on equal footing with non-disabled persons, promotes diversity within the educational environment and creates social bonds between persons with and without disabilities. It is also a means for promoting education systems with an emphasis on achieving a common learning environment guaranteeing the presence, participation and achievement of equal outcomes for all learners. Moreover, equal access to inclusive education in the mainstream improves the employment and work prospects of persons with disabilities.

The ALdia project aims to create an innovative, comprehensive and sustainable framework that will promote the equal access of students with disabilities and trainees to University education and vocational training. This framework will:

- a) Define student needs in both higher education and VET sectors,
- b) Develop and implement a flexible, massive open online course (MOOC) for higher education and VET education professionals and
- c) Validate the acquired expertise through certification that will be based on the ECVET principles, thus facilitating its use across Europe.

ALdia aims to provide open, practical and sharable material for institutions to develop and deliver quality equal learning opportunities. We are also working to create synergies and encourage cooperation between education providers at all levels, in order to have a multiplier effect in Europe and beyond. Finally, it will provide evidence for policy-making that supports the development of learning environments that foster equity and inclusion. It will thus promote the aims of the European Disability Strategy 2010-2020 and the Education and Training 2020 programme (ET2020).

ALdia is expected to a) generate genuine and sustainable improvements in the education and training system and policies and b) improve the situation of young people with disabilities, regarding attainment, social inclusion and well-being.



## 5. General overview

The purpose of this report is to organize and coherently present the findings of the needs assessment activities that took place in the framework of the project from May to July 2016. ALdia needs assessment investigated the current situation of the challenges faced by both the Higher Education and VET sectors, in preparing and delivering accessible lectures and educational material. In addition, there was an investigation of the needs of the students with disabilities in HE and VET as well as the potential of using assistive technology in the learning process. The current situation investigation of the needs of the project's target groups was conducted using two main methods: administration of questionnaires and organization of design meetings with each participant country's focus groups.

### 5.1 Design meetings

A total of four design meetings were held in all consortium countries, one in Spain, one in Italy and two in Greece. We conducted two meetings in Greece because they were complementary to each other, as the first design meeting did not include VET trainers and the second one did not include students with disabilities. In addition, although not required by the project plan, some partners carried out a number of individual interviews to reinforce the evidence base of the project. The design meetings and individual interviews, were a platform for the end-users (HE and VET educators) and students with disabilities to discuss with each other and define the training needs from their perspective.

The meetings had an approximate run time of ninety minutes and were coordinated by one or more facilitators who were responsible for conducting the dialogue among the participants through various project related questions. The findings of the meeting were kept using notes and/or audio and video recording, after receiving the participants' consent. All participants were physically present with the exception of one professor who participated through Skype as he worked in a different city from the one where the design meeting took place. The whole process was closely supervised and organized by CESIE, who provided detailed guidelines on how to conduct the design meetings as well as a reporting template that can be found at the end of the full report.

The participants of the needs assessment Design Meetings (DM), are members of each country's focus group that will be actively involved in other parts of the projects as well. The three Focus Groups (FGs) (one for Spain, one for Italy and one for Greece) are composed of persons designated by the partners and carefully selected so as to be representative of the project's end users namely:

- 1) Students with disabilities and their family
- 2) VET / HE professionals working with students with disabilities



### 3) Civil society organisations working with students with disabilities

In total the design meetings were attended by twenty-three members of the target groups, eight in Spain, eight in Italy and seven in Greece. In addition, five more members of the target groups provided their feedback through individual interviews. The findings of these meetings are presented in detail below in order to be evaluated and categorised, so that they can be used for the training programmes and platform specifications.

## 5.2 Needs Analysis survey

Four Elements prepared two questionnaire templates; one for students with disabilities and one for academic/VET staff. The questionnaires were prepared in English, with input from all partners and then translated in all three consortium languages. The aim of the questionnaires was to reveal the setbacks that hinder equal access to HE and VET learning and the assistive technology tools that are most popular in the two education settings. In this way the Questionnaires results are meant to act as a basis for the development of the training curriculum and the ALdia platform specifications. The project target was to administer at least a hundred questionnaires in all countries and target groups but there was no maximum threshold set. The templates of the questionnaires are annexed at the end of the full report (Annexes 11.2 & 11.3).

In total 583 questionnaires were administered to students with disabilities and education professionals from 7/6/2016 to 4/7/2016 in all participating countries. The grant total greatly surpassed the minimum objective of a 100 questionnaires almost six-fold, which adds significant credibility and validity to the sample and therefore to the conclusions that can be drawn from it. All responses to the questionnaires are freely accessible in the following links and a breakdown of the numbers of completed questionnaires per country / per target group and per subgroups is provided on Annex 11.1:

ES	SD	<a href="https://goo.gl/PrkjVn">https://goo.gl/PrkjVn</a>
	EP	<a href="https://goo.gl/EZuqCe">https://goo.gl/EZuqCe</a>
GR	SD	<a href="https://goo.gl/C7kn0H">https://goo.gl/C7kn0H</a>
	EP	<a href="https://goo.gl/wnpTB4">https://goo.gl/wnpTB4</a>
IT	SD	<a href="https://goo.gl/Ygxnhf">https://goo.gl/Ygxnhf</a>
	EP	<a href="https://goo.gl/uysk5x">https://goo.gl/uysk5x</a>

At the same time, although all participating countries achieved their respective minimum objectives, the response in Spain was much greater as 511 or 88% of all questionnaires were completed there, as shown in Chart 1 below. This could be considered a relative limitation of the needs assessment process as the sample is imbalanced towards the needs of the target groups in Spain rather than being equally representative of all countries. One way to



overcome this limitation was to conduct country by country specific analysis of the questionnaire results.

### 1. Completed questionnaires per country

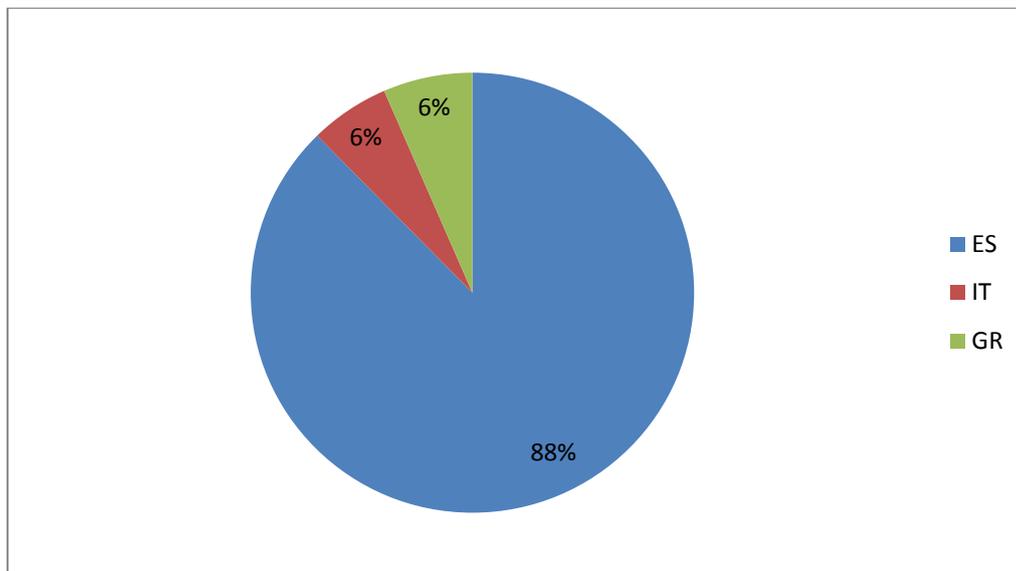
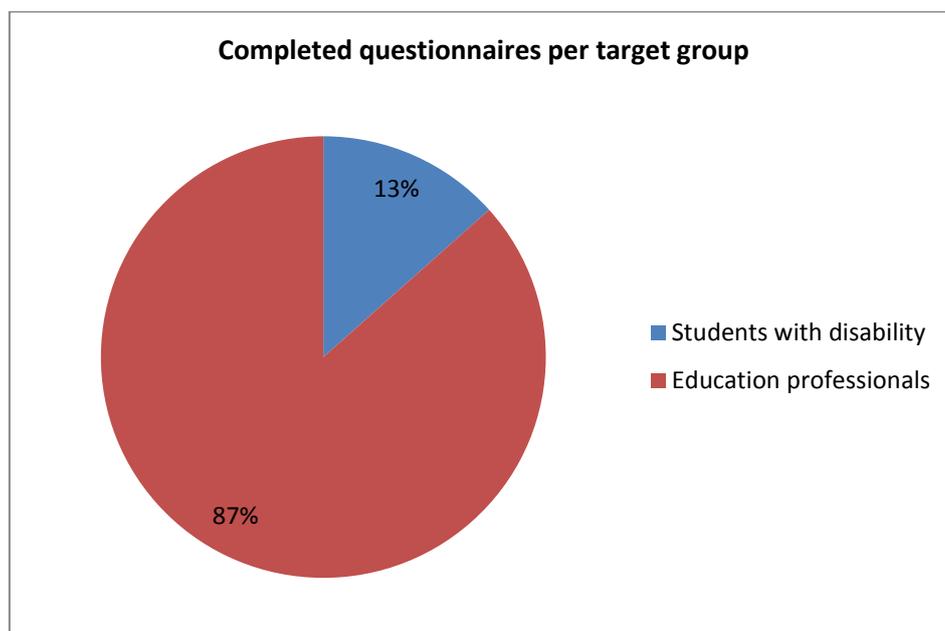


Chart 2 below, shows how the project's two main target groups are being represented in the sample. 78 were filled in by students with disabilities and 505 by education professionals. In some cases, questionnaires had to be administered in person in groups of students with disabilities like in the case of 12 VET students with mental and physical disabilities in Greece and then filled-in online by the partners' personnel.

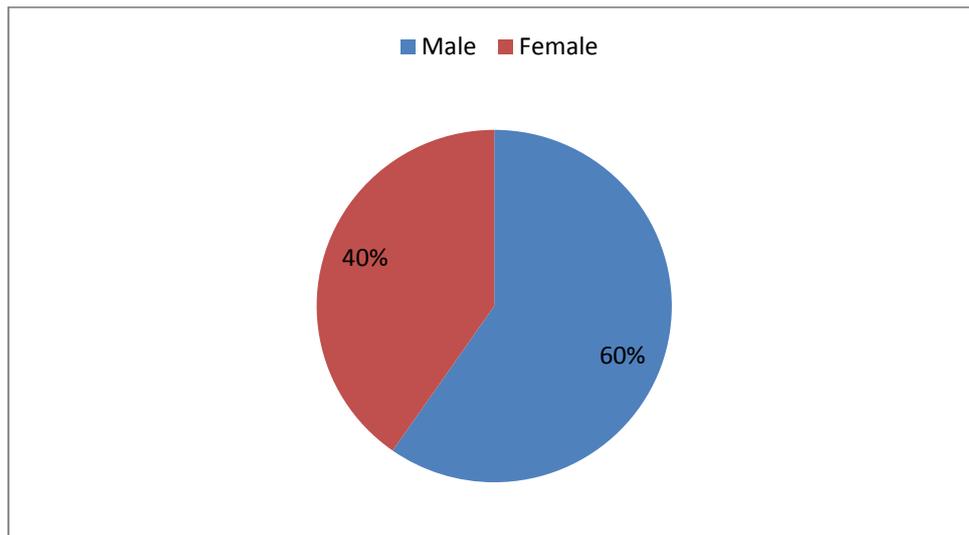
### 2. Completed questionnaires per target group





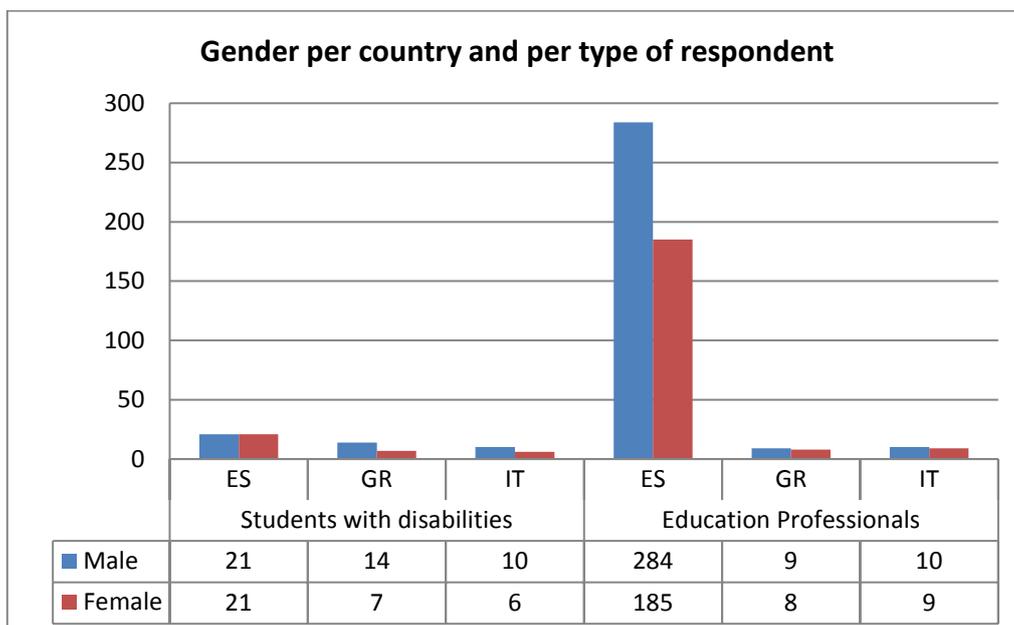
Pie chart 3 below, reflects the relative balance between male and female respondents. More specifically there were 348 or 60% male participants and 235 or 40% female ones.

### 3. Gender distribution



There are small variations in gender balance between the different target groups in each country. Graph 4 below, shows that the gender balance is around 50/50 for SD in Spain and EP in Greece and Italy. EP respondents in Spain are around 40% female and 60% male as is the overall sample average. The biggest differences in gender balance can be noticed in SD in Greece and Italy where there is approximately 1 female respondent for every 2 male ones.

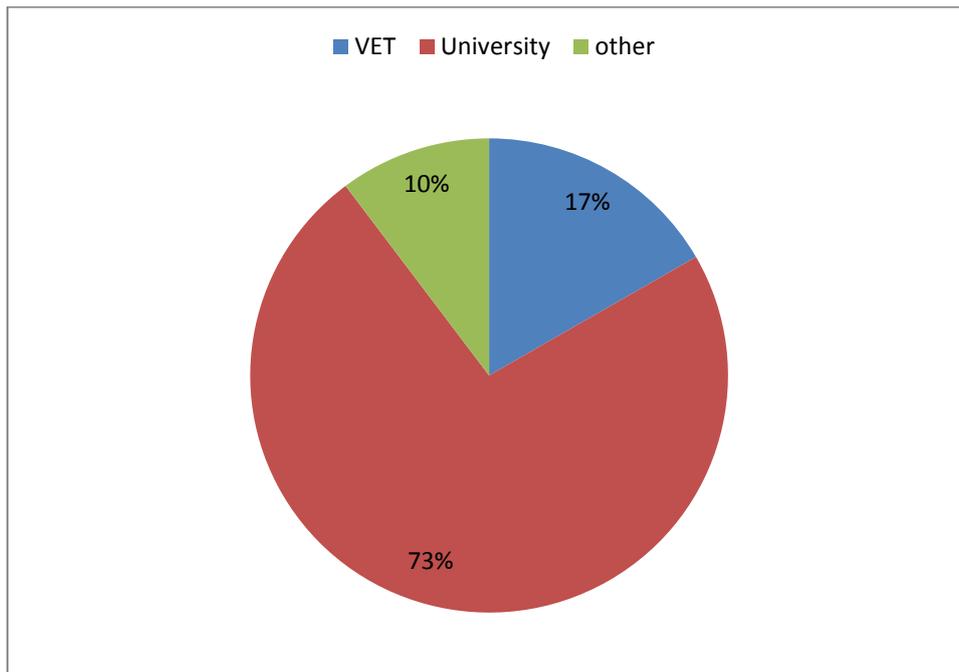
### 4. Gender per country and per target group





As demonstrated by Chart 5 below, from a total of 78 students with disabilities that participated in the questionnaire process, 13 (17%) originated from the VET sector, 57 (73%) from universities and 8 (10%) from other categories, like being former VET or university students who recently completed their studies or training.

#### 5. Students with disabilities per educational sector



Graph 6 demonstrates that when it comes to individual countries, university students are the largest sub-group in all countries with the exception of Greece where VET students are more.

#### 6. Students with disabilities per educational sector/ per country

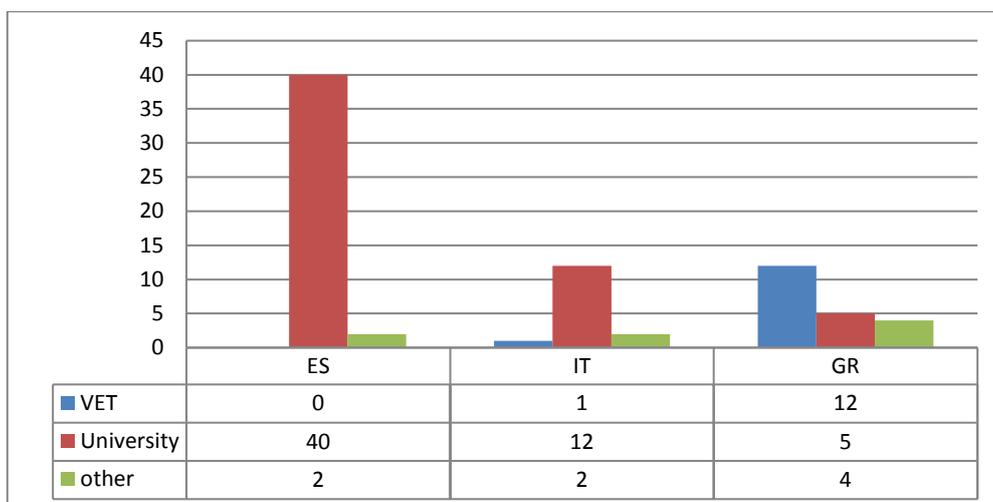
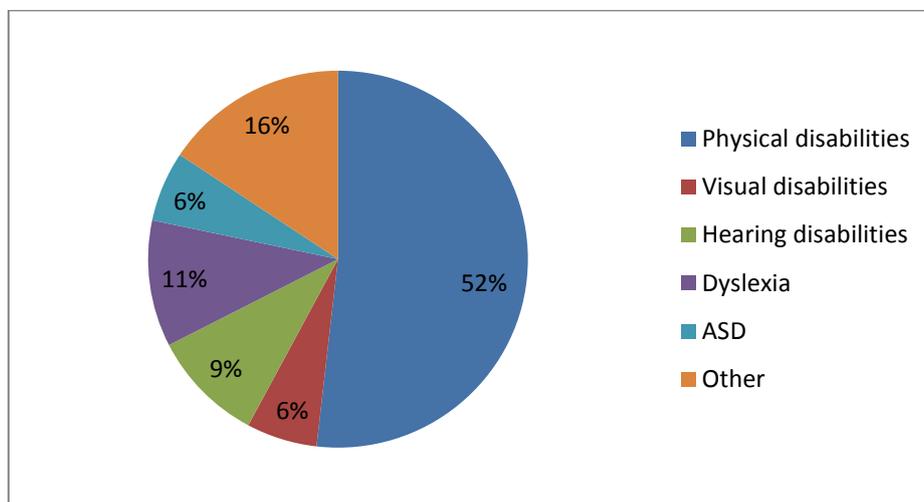




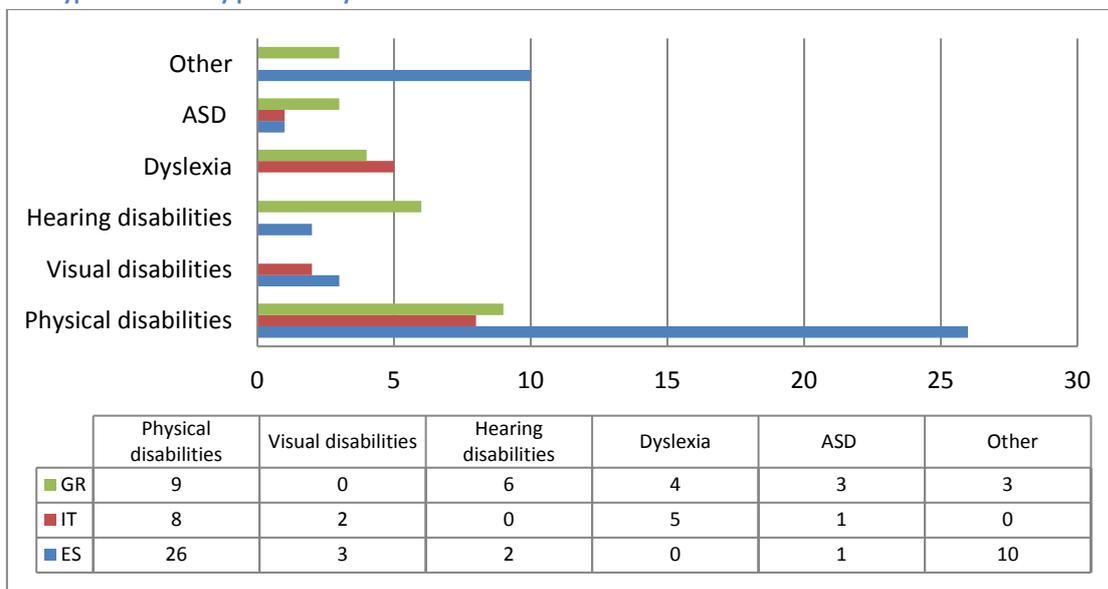
Chart 7 shows that students exhibited a large variety of disability profiles with the most prevalent being by far physical ones with 43 cases and 52%. The remaining types of disabilities, namely visual, hearing, dyslexia, ASD and others were relatively equally dispersed and represented around 48% of the sample. There were several respondents who stated more than one disability with the most common combination being physical disabilities with ASD. It would have been interesting to compare these figures with corresponding data at European level and determine how close (or not) they are. However it was not possible to find this type of data.

### 7. Types of disabilities total



The numbers of respondents in every country per type of disability is demonstrated in Graph 8 below. The other category in both Chart 7 and Graph 8, includes disabilities like down syndrome, borderline personality disorder, panic disorder and intellectual disability.

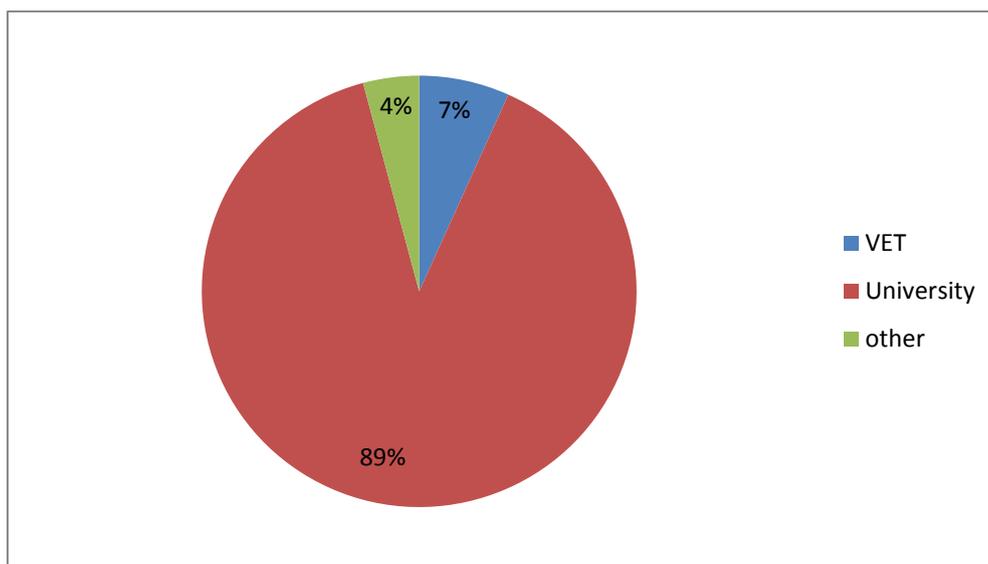
### 8. Types of disability per country





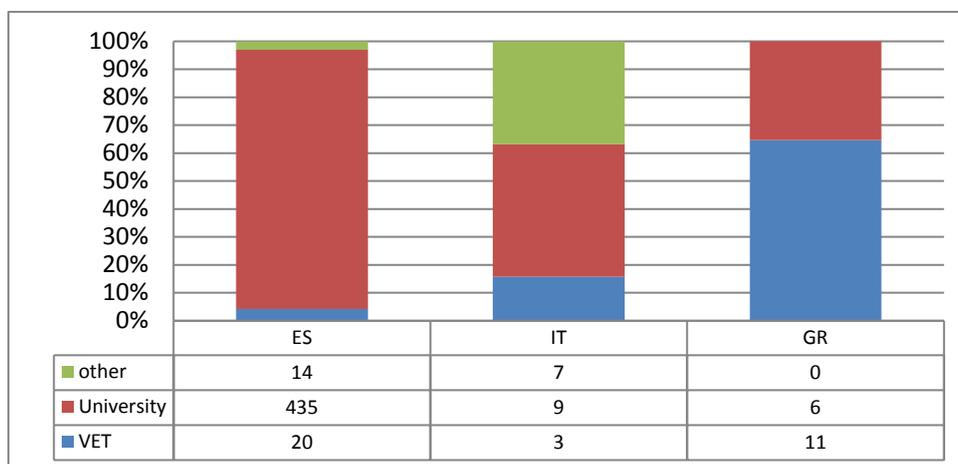
As shown in chart 9 below, the next target group that participated in the completion of questionnaires are education professionals from HE, VET and other sectors. Of the 505 EP that responded 450 or 89%, are from HE, 34 from VET and 21 from other education levels (secondary and primary education etc.).

9. Total EP respondents per educational sector



Graph 10 shows that in Greece and Italy (where the sample was admittedly much smaller) HE professionals were not represented at the same extent as in Spain where almost 97% were academics. In Greece there were more VET trainers (11) than university professors (6) and in Italy respondents from other educational –primary, secondary - sectors (7) were marginally less than HE professionals (9). These differences in the percentages between education professionals from VET and HE could be taken into account when designing the training programme in WP3 of the project, so as to make it more tailor made to the needs of the end users, in each project country .

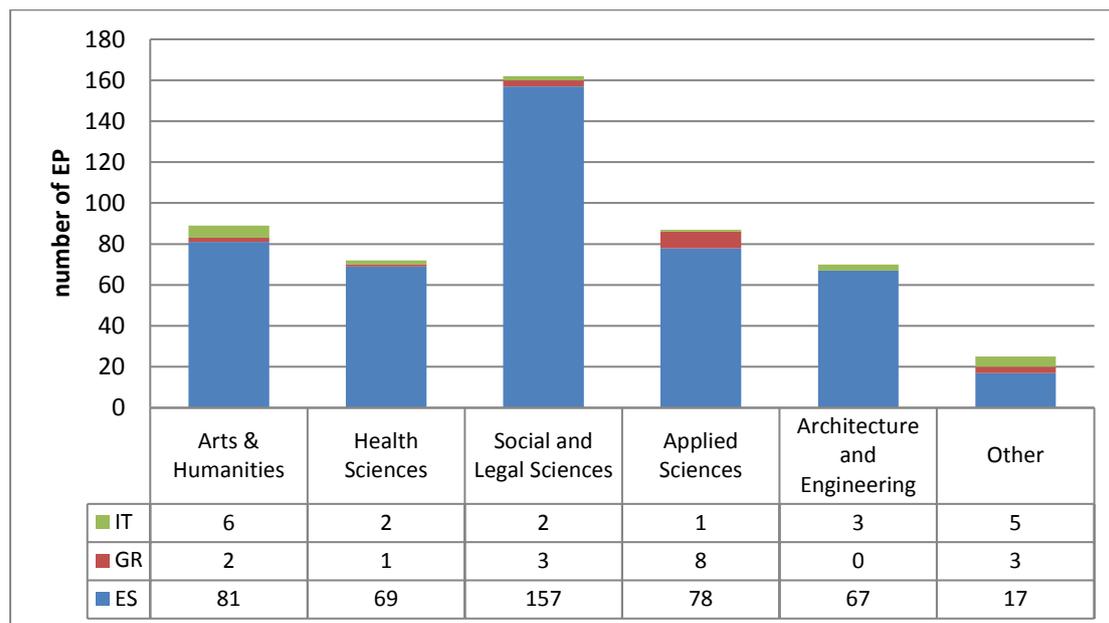
10. Education sector per country





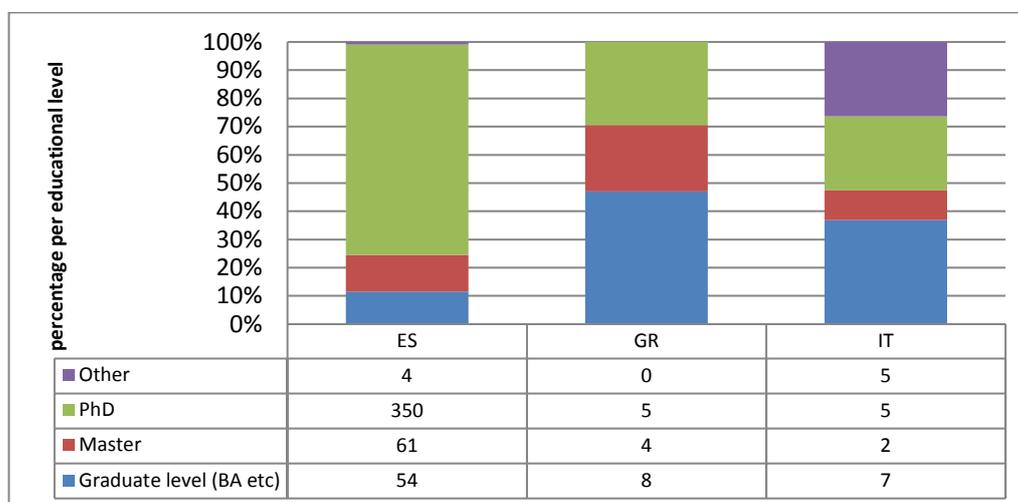
Graph 11 shows that the knowledge area in which most EP are active are the Social and Legal Sciences with 162 respondents and 32% of the total EP sample with a relatively balanced allocation in the remaining knowledge areas. The balanced participation of numerous EP from many different knowledge and scientific areas should be highlighted as it further strengthens the validity of the surveys' results and the conclusions that could be drawn from them.

#### 11. Education professionals per knowledge area



The educational level of EP as it appears in Graph 12, is also worthy of notice, as 360 out of 505 respondents (71%) are PhD holders a trend that is more pronounced in Spain. In Italy and Greece educational levels are more balanced with BA holders being the slightly more dominant sample group.

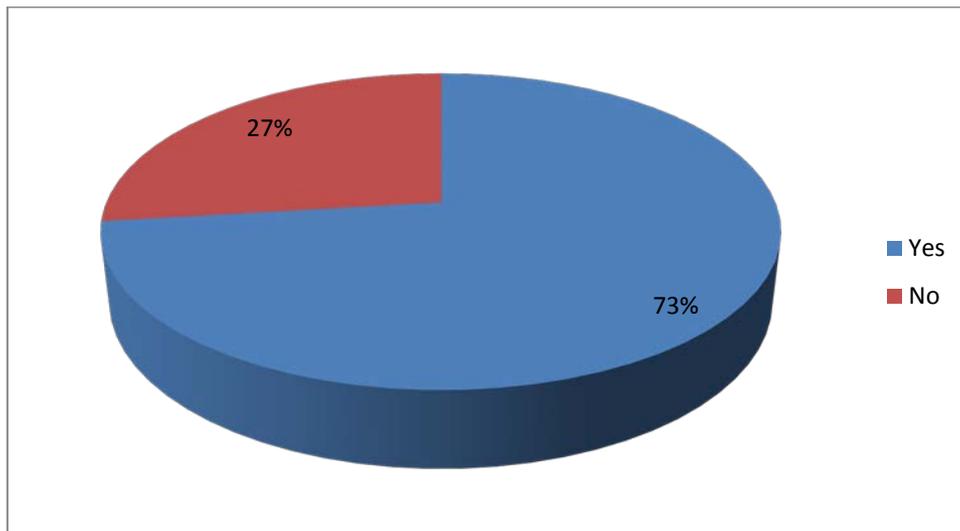
#### 12. Educational level





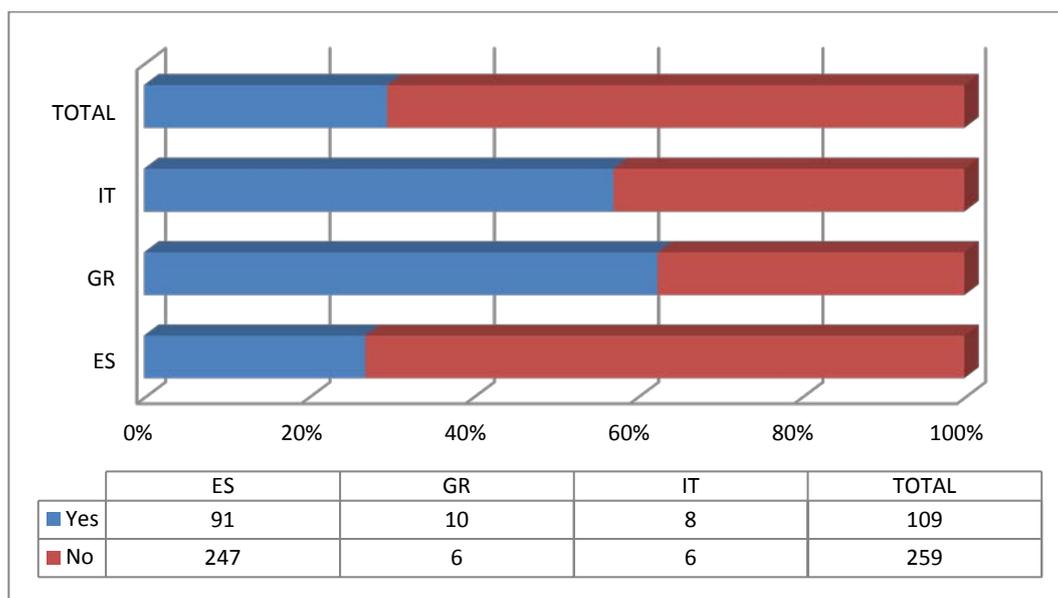
Another important result of the analysis of the questionnaires, shown in Chart 13, is that almost 75% or 369 out of 505 of EP respondents have some experience in teaching SD during their career. This shows that 3 out of 4 EP are likely to teach SD at some point of their career.

**13. Percentage of respondents who have taught students with disabilities in their career**



Nevertheless, as evidenced in Graph 14 below, only 109 of those 369 (29%) have received some kind of specific training in teaching SD. The remaining 259 had to find their own way to accommodate the needs of SD in the learning process. The proportion of EP who have received training varies greatly between the three countries as it 57% in Italy, 62.5% in Greece and 27% in Spain.

**14. Training on teaching students with disabilities**

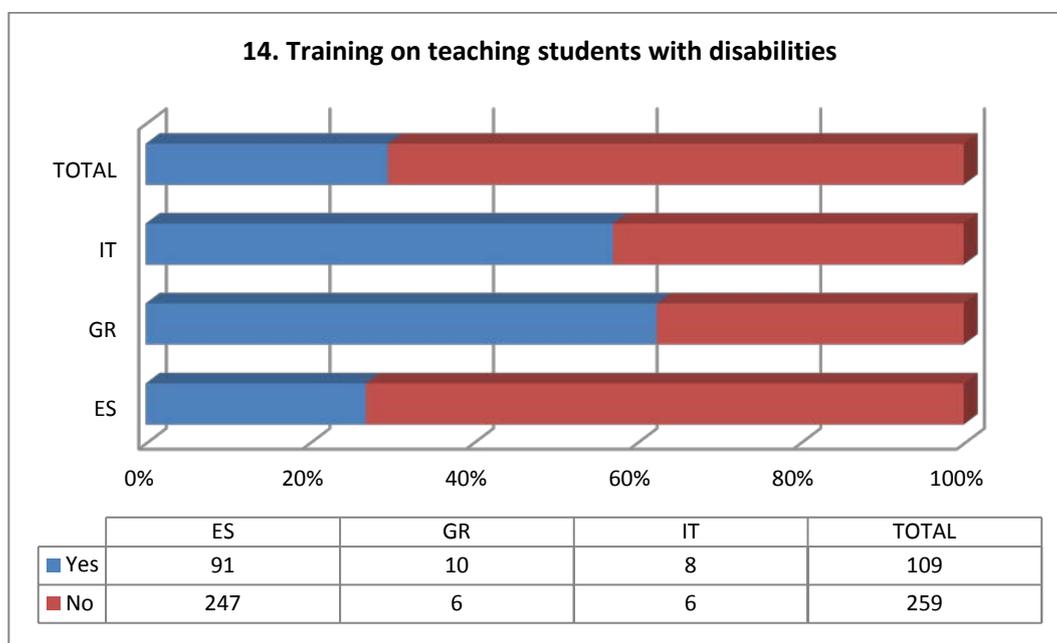




## 6. Conclusions and Recommendations

Research showed that there is an existing organizational and institutional framework that has been set up explicitly to support the learning process of SD. This means that there are rules and regulations to cover this process and teachers are aware of the principles of accessibility and universal design as well as of inclusive education. In most cases there exist students support infrastructures in HEI and VET providers like special Units of Accessibility, student support services etc. However, the responses of the target groups in the surveys and the DM demonstrate that this framework and processes very often seem to be functioning only on the surface and do not go in depth to cater for the everyday learning needs of SD and the EPs who are there to teach them.

One of the most important findings reflected in Graph 14 below, is that although around ¼ of EP in all countries have taught SD and many of them do so on a regular basis, the vast majority (around 70%) have not received any specialized training. Therefore, a key conclusion that can be drawn is the need to increase the percentage of education professionals who receive specialized training for teaching to SD. This is because trained EP are better equipped to teach to SD and address their diverse learning needs in an effective way. The ALdia project aims to address this issue directly.



Of those EP that have received training, only 20% have done it online through the use of e-learning, MOOC or VLE. This includes only EP in Spain as those who participated in the Greek or Italian surveys, had not received any online training. This is another need that will be addressed by ALdia through the creation of a MOOC. The ALdia VLE will create an accessible Massive Open Online Course (MOOC) that will contain the teaching and assessment material



for accessible learning. It will also contain a Virtual Community space and access to assistive technology freeware tools, categorized per disability. This is also echoed by the open feedback provided by some professors and trainers who stated that online training could provide additional flexibility. Moreover, more than a few participants emphasized the need for a common repository of knowledge and tools that would also act as a forum where education professionals teaching to SD could exchange work experience, good practices and advise one another.

The need for education professionals to receive specialized training and become more aware of the specific difficulties that SD face, was shared by most participants and across all countries. This after all, was also identified as one of the main obstacles that SD have to cope with in their studies and/or training i.e. teachers and trainers who are not adequately trained and prepared in working with students with disabilities. When it comes to specifics of what this training should entail and how it will enhance accessible learning, the needs analysis activities resulted in many useful insights and recommendations.

A recurring theme was that teachers should be trained in being able to adapt learning to the individual needs of each disabled student and not only use a generic framework that will simply change according to the type of disability. In other words, attention to students with disabilities has to be personalized and tailor made. This is a process that ideally has to start from the moment the student begins his/her studies and/or training and be continuously monitored. One disabled student from Spain made the interesting suggestion that this could be a continuous process that will be interlinked at all educational levels (primary to secondary to HE etc.). In this way, students with disabilities could have a common tailor made plan throughout their whole education, that will follow them from primary to secondary education and then from secondary to higher education.

Closely connected with the above issue is that EP will have to learn how to deal with students with disabilities from a psychological point of view and not only on a strictly educational basis. An experienced adult learners' trainer from Greece, suggested that a common training framework could be developed based on communication, acceptance and mutual respect. The same expert mentioned multidimensional training for students with disabilities as an example of such a training framework.

In addition, the surveys' results showed that EP should take into account the different learning paces of SD and adapt to them. Assessment and examination material should be tailor made to SD needs. Accessible learning should ensure the compatibility between the learning content and the disabled student/user. This was succinctly put by one of the professors who attended the design meetings:

*“Filtering the learning material used by students, it should be adaptable to the individual needs of the students, students receive and become aware of learning information in different ways and that is even truer for students with disabilities. Teaching methods are adapted depending*



*on the circumstances: Different techniques should be applied in big lecture amphitheatres where there are few students with disabilities attending and different in VET classrooms that could be addressed only to students with disabilities.”*

During another design meeting it was stressed that many academics and trainers do not have the necessary pedagogic habits nor culture of diversifying their teaching methodology. Teaching methods can very often be characterized by their rigidity and inability to adapt. This culture and pedagogy referred to here can be nurtured through proper training. Towards this direction it was suggested that the application of Universal Design for Learning (UDL) could help. Learning should be supported via multiple ways of representation, implementation and expression of the information.

A key component of training is the use of assistive technologies. Survey results showed that availability is not so much an issue as much as the ability of professors and trainers to use them and incorporate them in the learning process. More specifically it was argued that accessible diagrams and tables, training on AT will complement teaching methods. Assistive technology should be more widely used: e.g. use of subtitling in the classroom for a better learning experience for students with hearing disabilities. Another suggestion of a focus group member was to make use of the daisy protocol, which is a kind of an electronic reader that increases text accessibility. ICT was universally accepted as an important element of teaching material and learning process. However a useful point was made when it was stated that in order for teachers/ trainers to be able to use curriculum materials appropriate for SD , they need to be continuously supported by relevant professionals such as archivists, graphic designers, etc. Needs assessment activities also demonstrated that there might be a need for student to be trained in using AT.

There were several recommendations made regarding the format of training and what it could or should include. However, a common theme that connected all of them was that training should be:

- Regular and not one off. This means that EP should be trained at regular intervals for example every six months. This will ensure that their knowledge and skills do not become obsolete.
- Appropriate training for both SD and education professionals should be a continuous process: Training needs must be recorded, covered and addressed all the time through new methods. Then these methods can be tested, tried, certified and the whole process can be repeated from the start.
- Make the existing resources visible as much as possible. It is not possible to train about everything, but it is reassuring to know the existing resources and where to go in case



you need them. Good experiences should be collected in a platform and serve as examples, as good teaching practices.

Finally the role of the educational institutions in supporting this process was stressed. There should be continuous communication and coordination between EP and SD / EP and HE-VET / SD and HE-VET. A view that was shared by many respondents and FG members is that there should be a central reference point: student support centres from where all SD and EP can communicate, coordinate and plan the learning process. As already stated above, this is very often the case on paper but it does not always function like that in reality. Student support centres and other similar structures are used in most cases, but they have to be improved so as to act as a focal point for all matters relating to accessibility and learning needs of SD and how EP will address them in their teaching. Another useful suggestion was the further mainstreaming of the use of Special Advisor Professors and/or Trainers, i.e. EP with significant experience of teaching SD who are appointed to support their peers. Such persons could also play an active role in the training process.