ISOLEARN
Innovation and Social Learning in Higher Education Institutions

Co-funded by the
Erasmus+ Programme
of the European Union

ISOLearn

Full project name: Innovation and Social Learning in HEI

Project number: 2014-1-PT01-KA203-001087

Gaps and Needs Analysis:

European Report and Roadmap

Final report

Prepared by:
University of Ljubljana, Slovenia and Universidade Aberta, Portugal,
with the support of:
ACAPO – Associação dos Cegos e Amblíopes de Portugal, Portugal
APS – Associação Portuguesa de Surdos, Portugal
Effebi Association, Italy
Università Telematica Internazionale Uninettuno, Italy
Folkenstaten Universitetet, Sweden

November 2015

ISOLEARN
Innovation and Social Learning in Higher Education Institutions

Co-funded by the
Erasmus+ Programme
of the European Union

Coordinated by: Bárbara Brëcko and Vesna Dolničar, University of Ljubljana, Slovenia and José António Porfírio, Universidade Aberta, Portugal

Authors:

Alessandro Caforio, Università Telematica Internazionale Uninettuno

Ali Rashidi, Folkenstaten Universitetet

Ana Maria Cotovanu, Effebi Association

Barbara Brëcko, University of Lubjliana

Francisco Palmares, Fundação Calouste Gulbenkian

Graça Gerardo, ACAPO

Helena Vaz da Silva, Fundação Calouste Gulbenkian

Joaquim Gronita, Universidade Aberta; Escola Superior de Saúde, IPS

José António Porfírio, Universidade Aberta

Luisa Valle, Fundação Calouste Gulbenkian

Mariana Martins, Associação Portuguesa de Surdos

Mario Spatafora, Effebi Association

Paula Estanqueiro, Associação Portuguesa de Surdos

Rosário Cunha, ACAPO

Tiago Carrilho, Universidade Aberta

Yevgenyia Averhed, Folkenstaten Universitetet

Vesna Dolnicar, University of Lubjliana

ISBN: 978-972-674-778-9

Table of contents

EXECUTIVE SUMMARY

Desk research

- All participating countries – Italy, Portugal, Slovenia and Sweden – conducted desk research.
- The primary aim of the desk research has been to identify the main needs and gaps in the field of education of visually or hearing impaired persons and to compile existing knowledge and strategies in the field.
- Number of students with hearing or visual impairment is difficult to obtain in all participating countries. There is some data, but it is not aggregated in any of the countries. Usually universities have the information on the number of students with specific disabilities (including visually or hearing impaired) but there is no such data on the system aggregated level.
- The integration of students with special needs is not questionable in any of the countries and it is regulated by law, at least until some levels of study. In the law and regulations there are listed adaptations of the lectures, assessments, technical and personal aids that can be used for better integration of disabled students.
- In many cases these adaptations are general and often allowing certain adjustments or help – for instance interpreters, but financing of this is not always defined. For instance, sign language interpreters are expected for deaf students but in Slovenia and Portugal the financing on the HE level is not systemic. In Italy in law 104 there is an article (13) saying: The Minister of Education will appoint professionals for the roles of translators in order to facilitate attendance for hearing impaired students.
- Financing for disabled students is not well regulated in Slovenia – the universities do not have special funds for disabled students, while this seems much better in Sweden since even private educational institutions, who are authorized to issue the qualifications announced by the Agency in specific regulations, can receive funds from Stockholm University disposal as special

funds for disabled students. Funding is also better in Italy – there are special organizations offering funds for aids for disabled students.

- Types of study adjustments are similar across countries, and include issues such as:
    - The use of specific tools (recorders, speech recognition software, computers…).
    - The adaptations of exams (e.g., exams outside the enrollment deadlines, exams only in oral or written form, an extension of the time of writing examinations, adjustments of exams, etc.).
    - Adaptations of materials.
    - Psychological support was explicitly mentioned but only in Italy and Portugal. Go back to index

On-line survey among students

- Four countries participated in the survey. Target population were visually or hearing impaired students.
- The purposive sampling technique was used as the target population was very specific and hard to reach. The total sample was 98 students, 41% with visual impairment and 59% with hearing impairment.
- The **majority** of respondents (76,8%) is studying in the field of **social sciences.**
- Among deaf and hard of hearing there are more students studying natural science compared to visually impaired students, where the majority is enrolled into social science programs.
- It is very positive, that students mostly selected their study according to their **interest** (82,9%), while 41,4% selected the study because they are good at it, and 24,3% because it enables employability. Still, 10% of respondents selected the study **because they couldn't select anything else because of the impairment** and 13% feel it is the **only one they feel capable to do**.

- Around 15% of respondents said they do not need any **adaptations** of the **learning materials**, but all others need at least some adaptations.
- **All students** with visual impairment need at least some adaptations of learning materials, among **hard of hearing** there are **77%** and **76%** among **deaf**, who need at least some adaptations of learning materials
- Depending on the impairments, there are differences between two groups of students. 82,1% **of visually impaired** students need **ICT based didactic content**, while among hearing impaired 40,6% of respondents selected that answer. In both groups the majority of students said they need **previous handling of study material** (75% among visually impaired and 68,8% among hearing impaired).
- Around **one quarter** of respondents do not need any adaptations of the lectures.
- Adaptations of the lectures are according to two groups: **Visually impaired**: 78% - previous handling of study material; 72**%** - **more ICT based learning material,** 39% - note taking by another student. Among **hearing impaired** more **ICT based learning material** is relevant to **43%** of respondents in that group. For hearing impaired the most important adaptation is sign language interpretation (63%), followed by previous handling of study material (57%) and note taking by professional (51%)
- In general students are **not very satisfied** with the factors related to the study, i.e. help from student association, teaching methods/tools, programs and exams appropriate to their needs, special resources for deaf/blind students, help of counselor/disabled student services, adjustment/adaptation of study materials, inclusion of students with impairment into the study process...
- Students are not very satisfied with the adaptations received. All adaptations were rated between 2,11 and 3,5. In general, partly sighted students rated their satisfaction lower when compared to blind students. Hearing impaired respondents, rated their satisfaction levels with adaptations lower than hearing impaired. Their average rates were between 2,5 and 3.

- Students with hearing disabilities are not very satisfied with adaptations: all services were rated below 3. In both groups lowest rating was obtained for the availability of sign language interpreter (2,5).
- Students feel they are not receiving enough support from classmates, academic staff neither support staff, as their average ratings were between 3,2 and 3,5.

  Students proposed different recommendations about improvement of learning experience, but the most obvious was the need to support from qualified experts (like interpreters, tutors, university staff) and services for disabled students, carried out by competent persons, with specific knowledge and competences. Go back to index

In-depth interviews

- All countries reported the results of in-depth interviews.
- In all countries the services and adaptations for visual and hearing impaired students are quite similar. Nevertheless, we can see that in Portugal, **Italy** and **Slovenia,** there is no centralized system of action, whereas each faculty functions a little bit differently, while in **Sweden** every institution interviewed listed exactly the same measures and adaptations implemented to support students with special needs.
- **Major obstacles on the institutional level:**
  - Italy: the challenge of employment after the studies; if the number of disabled student increases additional financial resources will be needed.
  - Slovenia: there is no systemic financing for students with special needs.
  - Sweden: no major obstacles, institutions feel they have good knowledge and they are constantly in contact with the coordinator in Stockholm.
  - Portugal: no special financial resources dedicated to HEI to support these students; no law existing to regulate the support these students require on their Higher Education; diversity of answers and

organizational structures to answer students' special needs. Go back to index

INTRODUCTION

"*Disability has become a central issue in educational policy and practice around the world. There are moral and practical grounds for this attention. Moral grounds that everyone, irrespective of their circumstances should be able to develop their capabilities to the fullest extent possible, and practical grounds, that all citizens should be encouraged to lead productive and fulfilling lives*." (Cumming, 2012: 1)

As data shows, the number of students with different impairments deciding to take up studies is increasing. Although the data about students with specific impairments is not always transparent – as our study showed, there is a lack of transparent data in all participating countries – students with disabilities are a growing minority who needs our attention.

In ISOLEARN project we are focusing on students with visual or hearing impairment – two target groups with different needs. The consequences of lack of sight or hearing are experienced by blind and deaf people both in everyday life – in getting about, interacting with others, etc. – and in the case of typically academic activities – such as participation in lectures and classes, access to textbooks and teaching materials, etc.

Use of ICT in education is a priority on European policy agenda and there are numerous strategies adopted by European Commission promoting and encouraging the use of ICT to improve learning and teaching experience (EC 2009, 2010, 2012, 2013). In order to enable equal possibilities for visually and hearing impaired students, ICT is a tool from which disabled students can benefit greatly.

Technology plays a vital role in enabling personalized learning by enabling flexible curriculum development and assisting students with disabilities to participate in the learning experiences as equals through the use of accessible ICTs. It is important that the use of technology for learning does not in any way contributes to replicating any form of stigmatization and labeling that may be found elsewhere in society. Accessible ICTs for education include:

- Mainstream technologies, such as computers, web browsers, word processors, whiteboards and mobile phones that contain in-built accessibility features;
- Assistive Technologies, such as hearing aids, screen readers, adaptive keyboards, augmentative communication devices etc.; and
- Accessible media and formats, such as accessible HTML (Hypertext Markup Language), videos with captioning, DAISY (Digital Accessible Information System) books, etc. (UNESCO, 2011)

The use of ICT on its own does not solve all the problems disabled students might face during the study process. For that reasons several adaptations of lectures, assessment and other processes should be done and used by the students. Although adaptations are usually formally stated in official rules and regulations (of the state, university, faculty…), students may still face difficulties, as higher education institutions (HEI) are not aware enough of their specific needs. In order to gain better understanding of needs in the process of study at HEI, a needs and gaps analyses was conducted in four participating countries: Italy, Portugal, Slovenia and Sweden.

The needs analysis is the process of identifying and evaluating needs in a community or other defined population of people. The identification of needs is a process of describing "problems" of a target population and possible solutions to these problems. A need has been described as:

• A gap between "*what is*" and "*what should be*". (Witkin et al., 1995: 5)

• "*A gap between real and ideal that is both acknowledged by community values and potentially amenable to change*". (Reviere et al., 1996: 5)

• May be different from such related concepts as wants ("*something people are willing to pay for*") or demands ("*something people are willing to march for*"). (McKillip, 1987: 16)

Considering the objective of the ISOLEARN project (i.e., to promote the inclusion of visual or hearing impaired students in Higher Education) and the characteristics of

researched target population (students), we have decided to follow in this report the discrepancy model of needs assessment, which is the most widely used approach to needs analysis (McKillip 1987). For that purpose, several steps were taken. First a desk research was conducted in order to get better understanding of the situation in participating countries. One of the main goals of this desk research was to capture the general situation in HEI regarding the enrollment of hearing or visually impaired students, the possibilities they have for success, and the existing regulations for this specific type of students in the four participating countries. Secondly an online survey was conducted. With the survey we tried to collect information from primary sources, about the needs, the obstacles, the adaptations offered and needed, and the experiences lived by the ultimate beneficiaries of our project: the visual or hearing impaired students. So, the target population were students enrolled in HE. Third step was conducting in–depth interviews with HEI to obtain the information on how education providers see needs and obstacles felt through their experiences and practices. The report follows the structure of the study. In the first part the situation in four countries is presented, and we can find certain similarities in this domain– the most significant one is, the limited information on number of disabled students, or even the inexistence of systematic registers on the number of students with a specific disability. Secondly we present the results from the on-line surveys conducted in the four countries involved: Portugal, Italy, Sweden and Slovenia. Due to the existence of some small samples, we opted to present the aggregated results for all participating students. This may be considered one of the limitations of the present study: the population is small and due to the existent data protection, difficult to reach. Nevertheless, the purpose of the on-line survey is not a comparison between countries but finding different needs, obstacles and experiences from the students that we consider to be similar in the different countries analyzed, and much near to the overall European situation. The third part of the study are in-depth interviews conducted in the four countries, where we investigated how institutions are solving the problems, fulfilling the needs and challenge the obstacles they face when educating students with special needs.

All templates and questionnaires as well as some of the information not included in the report can be found in the appendixes to this report. Go back to index

DESK RESEARCH

The desk research consisted on a preliminary work of the partners to evaluate the state-of-the-art regarding the education of visually or hearing impaired persons, mainly based on the existing legislation. It was also our main purpose to identify existing knowledge from previous works conducted on these fields – based on published documents, strategies, and existing questionnaires - that would support the partners in developing our proper questionnaire. Sources used were basically the internet, on-line databases, government statistics, articles, and books published on these matters.

Below we present the main results of the desk research conducted on each country. Go back to index

1.1 Italy

General situation of HE enrolment of visually or hearing impaired in Italy (short description)

The characterization of visually or hearing impaired HE students in Italy is not an easy task, due to the difficulty to obtain statistics on their figures which is explained by two main reasons: 1. Many of them – being disabled when adult – still have personal problems in declaring their physical deficit; 2. The statistic department of the Italian Ministry of Education does not reveal data on disabled students.

Nevertheless, through the information on the exemption from taxes granted to students with disabilities - *general disability*, not specifically visual or hearing impairment - we could *approximately* infer the number of these type of students enrolled in HE.

According to the latest statistical data, referred to the academic year 2012/13, there are 15.691 students with this type of disabilities, being: 13.068 with disability level over 66% and 2.623 with disability level under 66%[1]

From the academic year 2008-09 to the academic year 2012-13, this number of disabled students in Italy has constantly grown, from 14.595 to 15.691.

Considering the type of disability, students with motor disabilities represented the largest percentage (27,5%) of the enrolled disabled students – for the academic year 2012-13 – followed by minor cases of students with mental difficulties (3,5%) and dyslexia (0,9%) (MIUR-CINECA, 2013)[2]. Is not possible to detect the percentage for the specific disabilities of visual / hearing impairment.

[1] A certification of disability is issued by a medical/legal board at the local health authority to establish that a student has an eligible disability under Italian law and regulations based on the assessment of a team of professionals from various disciplines. This makes the student eligible and entitled to receive an individually determined program and services in school. The definition of “disabled person” includes, among others, deaf or hearing impaired and blind or visually impaired

The most attended courses by this type of students are Liberal-Arts (19,11%) and Law (17,15%), followed by Economics (9,10%), Education (8,57%), Mathematics, Physical and Natural Sciences (8,35%), and finally Political Science (7,98%).

The right to education of disabled people[3] is guaranteed by the Law n.104/1992 - later integrated with law n.17/1999 - ensuring their social integration and highlighting their right to be informed and educated. The same law guarantees the provision of didactical and technical material, programs and specialized languages of adequately qualified staff (teaching or not).

The **art. 16** of the above mentioned Law foresees a support for HE students in passing exams, including through agreements with the teacher of the subject and, if necessary, with the Faculty Council. In particular:

- Specific methods and specific technical tools will allow the student to take exams according to the personalized study plan. (art. 16)
- Universities must appoint a teacher, designated by the dean, with functions of coordination, monitoring and support of all the activities related to the inclusion of disabled students within the university. (art 16)

The guarantee of integration for these students is granted by art. 13 paragraph 1 of Law 104:

- Schools and Universities must be provided with the necessary technical equipment, teaching aid and technical aid of any kind; universities must carry out appropriate interventions that adapt both to the needs of the disabled student and to the individual study plan. The Minister of Education will appoint professionals for the roles of translators in order to facilitate attendance for hearing impaired students. (art.13)
- Specific technical and teaching aid are granted to students enrolled in universities, as well as support from services such as specialized tutors. (art.13)

Furthermore, according to the **art.8** and **art.12**:

- Social inclusion and integration shall be pursued with actions that will render effective the right to information and the right to education for the disabled person; with adaptation of equipment and personnel; measures aimed at enhancing full integration in the labor market. (art. 8)
- The exercise of the right to education cannot be prevented by learning difficulties or other difficulties connected with the handicap; parents of the student, together with social and health operators and school staff must define a personalized study plan; the study plan is monitored and updated throughout the permanence of the student in the education system. (art. 12)

To monitor the application of these regulations within the Ministry of Education an Observatory – the **Observatory H** – has been established: it must indicate the strategies and the most effective paths for a real integration of students with disabilities. Its main purposes are focused on achieving the indications contained in the framework Law 104/92, but also on developing recommendations aimed at the strengthening of curricular and extracurricular activities, the provision of suitable technological and didactical materials diversified according to the type of disability, the activation of specific transport services and, finally, the increasing of funds for each Institute to adequately address the needs of disabled students.

The Decree of the President of the Council of Ministers 30 April 1997 - *Uniform treatment regarding the right to higher education according to the art. 4 of Law December 2nd, 1991, n. 390* - sets the minimum useful standards to access to services addressed to university students.

It requires each university must to create a special department - *Servizi Disabilità Di Ateneo, SDDA* – in charge of all services for disabled students. Among several issues, it must include:

- A specialized tutor whose job involves accompany the student to the activities connected with their study course; specific personal support for taking exams or writing the final dissertation thesis; support for communication. This requires a highly specialized member of the tutoring staff.

- Assistance for mobility if the student needs help move in spaces of the university and to access to classes and other activities
- Teaching material and technological support that the SDDA must make available for the student. This aspect requires awareness and training for the teaching staff as well.
- Special tools and procedures for taking exams, which requires an individual plan for the disabled student.
- Support for international mobility, which will need a broader development in the future, through *better communication and more widespread information, specific aid tools and strategies, awareness of fellow students and teachers, proper organization within universities*.
- All public universities must exempt from the enrollment fee students with disability up to or exceeding 66%, unless they risk financial losses. In this case they could establish partial exemptions only for the best or neediest students. Furthermore, the amount of scholarship for this target of students is higher in order to allow them the use of prostheses and tools as well as of all interventions to facilitate the attending of courses.

The tools that disabled students are allowed to use are, for example:

1. Digital recorder;
2. PC with spell checker;
3. E-books;
4. Speech recognition software;
5. Tutor as reader;
6. Calculator;
7. Other technological tools that facilitate the learning process.

Other facilitating measures that can be taken are, for example:

1. Dividing exams into several partial tests;

2. Preferring oral examinations rather than written ones (considering the individual profile of the student);

3. Reduction (quantitative, not qualitative) of the written test or extension of time available;

4. Considering contents instead of form and orthography when marking tests.

In concrete, the services/initiatives offered by Italian universities are very similar, but there are differences related to the territorial situation and the economic possibility of each institute.

For example, in the case of University *Roma Tre* a "listening psychological" service is provided, offering psychological support on issues related to the educational path. In addition, on the university website it is available the list of all the existing architectural barriers in the several faculties.

The University *La Sapienza in Rome* offers an open competitive exam (Master and Phd) for thesis on handicap: the aim is to raise awareness within university community on the topic and to acquire research material. The University also offers its students funding to be used to attend studies abroad.

The *University of Milano*, in addition to the 'traditional' services, allows students with disabilities to do sports' activities within the university improving their physic-psychological wellbeing. It also provides a Healthcare Unit with appropriate staff responsible for diagnostic - therapeutic interventions. Since 1993 a voluntary service offers accompaniment/assistance in educational activities and carrying out of some bureaucratic tasks.

The university organizes courses for blind students helping them in recognizing the environments of the faculties and become self-sufficient in the movements; and ICT courses on how to use hardware and software they could need.

The *University of Padova* offers its students in deficit situation mostly innovative didactical materials: the texts can be read by computer and/or listened via audio

cassettes; for deaf students it is possible to attend lessons simultaneously transcribed by an operator and displayed on a monitor. Moreover, exams are customized for each student and internships for graduate are organized to facilitate their work placement.

Existing strategies in Italy dealing with accessibility of higher education for hearing or visually impaired persons

Name of the strategy	Source (link)	Short summary – important message, points
Law 104/1992 'Law for the assistance, the social inclusion and the rights of disabled people'	http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2010;107	Framework for aid, social inclusion and rights of handicapped people. Sets out 'principles of human rights, social integration and care'. It deals with diagnosis and prevention, treatment and rehabilitation, services and support, and social exclusion.
Law 162/98 'Modifications of the law 5 February 1992, n.104, concerning support measures towards people with grave handicap' (published in G:U: 29 of May 1998, n.123)	http://www.parlamento.it/parlam/leggi/98162l.htm	Seeks to 'guarantee the right to independent living for people with learning disability and severe restriction of personal autonomy in the conduct of one or more essential functions of life, not overcome with technical aids'. This includes provision to assist people with high severity of through home care and personal assistance
Law n.17/199 "Integrazione e modifica della legge-quadro 5 febbraio 1992, n. 104, per l'assistenza, l'integrazione sociale e i diritti delle persone handicappate" ("Integration and modification of the Framework Law of 5 February 1992 n. 104, for the assistance, social integration and rights of disabled people")	http://www.parlamento.it/parlam/leggi/99017l.htm	1. Handicapped students enrolled at the university are guaranteed technical aids and specific teaching as well as support of special services specialized tutoring, set up by the universities within the limits of its budget 2. The university, with its provisions, establish a professor delegated by the rector for coordinating, monitoring and support of all the initiatives for inclusion of disabled people within the university

Italian law on Hearing impairment 381/1970	http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:1970-05-26;381	Law regarding the increasing of ordinary public grant for the National authority for the protection and the assistance of deaf people
Italian law /2006	http://www.camera.it/parlam/leggi/06095l.htm	On new provisions in favor of the hearing impaired
D.P.R. June 6, 2001, n. 380, art. 82	http://www.parlamento.it/parlam/leggi/deleghe/01378dla.htm	Elimination or overcoming of architectural barriers in public and private buildings open to the public (universities included)
Law n.4/2004 (also known as "Stanca Law" from the name of the Minister for Innovation and Technologies),	http://www.camera.it/parlam/leggi/04004l.htm	Provisions for facilitating the access to ICT tools. The law defines the terms "Accessibility" and "Assistive technologies", and establishes the obligation for Public Administration to provide ICT services accessible for disabled people. Also Public Universities must be compliant to the Stanca Law.
Ministerial Decree 8 July 2005; Ministerial Decree 20 march 2013 ("Technical requirements and different levels of accessibility of ICT tools")	http://www.lavoro.gov.it/Strumenti/normativa/Documents/2013/20130320_DI.pdf	It's the technical annex to Stanca Law, and provides Guidelines for Public Administration ICT tools and services. A specific section is about Websites. Guidelines for websites are partially based on WCAG 1.0 Guidelines (the International W3C standard for Accessibility of Websites).
Law n. 107/2010	http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:2010;107	Provisions for the recognition of visually and hearing impaired people
University *Roma Tre:* Initiatives for disabled students	http://host.uniroma3.it/uffici/accoglienzadisabili/	Provision of “listening psychological" service.

University *La Sapienza,* Rome: University Of Milano: Initiatives for disabled students.	http://www.disp.uniroma1.it/node/7088	• Publication of an open competitive exam (Master and Phd) for thesis on handicap. • Funding for students' mobility
University Of Milano: Initiatives for disabled students	http://www.unimib.it/upload/pag/47038/i./i.f.s.9b.pdf	• Sport activities for the physic physical wellbeing; • Healthcare Unit for diagnostic therapeutic interventions; • Voluntary service of accompaniment/assistance
L'empowerment personale e professionale attraverso la lingua inglese nelle persone "diversamente abili"	http://www.labeleuropeolingue.it/it_dbprogetti_scheda.asp?cod=19/08	Personal and professional empowerment through the English language in disabled people
EAL TOI – Deaf People in Europe Acquiring Languages Through e-Learning - Transfer Of Innovation (Country, IT)	http://ec.europa.eu/education/language/label/label_public/index.cfm?fuseaction=project_award&award_id=9070	The EU project created a digital learning environment specifically conceived for deaf learners and 6 different foreign language courses (3 target languages with the supports in 3 different sign languages) to promote this key competence in deaf people.
La Scuola dei Segni	http://www.labeleuropeolingue.it/schede_progetti/Pages%20from%202010_12_progetti-7.pdf	Project aimed at teaching LIS (Italian Sign Language)
VET4VIP	http://www.vet4vip.org/index.php?cat=The%20Project	Vocational English Teaching for Visually Impaired People

Go back to index

1.2 Portugal

General situation of the enrolment of visually or hearing impaired Higher Education students in Portugal (short description)

In Portugal there are difficulties to obtain statistics that clearly identify visually or hearing impaired students due to the use of Functionalities' International Classification, which do not distinguish the essential types of impairments.

In spite of these difficulties, estimations point to the existence in 2013/2014 of around 30.000 Portuguese Sign Language users, but just around 150 hearing impaired HE students. In terms of visual-impaired persons, estimations point the existence of about 160.000 visual-impaired persons in Portugal, of which 20.000 are blind. Of these, according to GTAEDES, just about 235 are Higher Education students (in 2014).

Both visually and hearing impaired HEI's students refer the positive aspects of physical accessibility but, on the other hand, they emphasize the negative elements of 'soft accessibility' namely regarding individual support and 'mind openness' of Universities' Top Boards, teachers and administrative staff toward their specific needs.

Visually impaired HEI' students report difficulties regarding teachers' authorization to class recording and the complete or almost absence of audio classes. In this context, the importance of mutual support among HEI' impaired students is also reinforced.

Since Deaf Bilingual education means having Portuguese as a second language, the Portuguese exam is adapted accordingly. The greatest difficulties for the deaf begins after entering the desired course. Although bilingual education implies that for these students, classes are to be taught using Portuguese Sign Language, namely with interpreters as a resource, this is not continued as a practice in higher education. Thus, deaf students take on themselves the payment of interpreters, as well as the job of raising awareness about their needs to professors.

Candidates with physical and sensorial impairments have an annual special quota to access higher education (Regulations of the National Competition for Access and Entry into higher Public Education Article 15o annex II 1st series, no 133 in 14/07/2014, by the Minister of Science and Higher Education).

In the absence of a specific national legislation for higher education regarding the rights of individuals with special needs, the references are the Basic Law of the Education System and the Basic Law of Prevention, Rehabilitation and Integration of Impaired People which are reflected in the articles covered by specific regulations approved by higher education institutions.

According the Basic Law Bases of the Education System impaired people have the following rights:

- Didactical materials necessary for study, namely braille transcriptions and audio recordings
- Individual adaptions of support equipment
- Psychologist and pedagogical counseling
- Curricula adapted to specific impairment
- Special Regime of Education to adapt learning conditions to the specific needs of impaired people, compensation special equipment, special conditions to attend curricular units, special conditions for assessment (according to the type of exam, type of assessment instrument, oral or written, exam duration and exam location), reinforced pedagogical support (complementary individual support and number of hours well defined)
- Individual classes
- Special classes (for example, with less students or by type of impairment)

The Basic Law of Prevention, Rehabilitation and Integration of Impaired People state the following rights:

- Attend the specific needs of impaired people regardless of type and degree of impairment, geographic origin and social and economic situation
- Inform the impaired people of her/his rights through an adequate local administrative support

- Special Education through alternative curricula, technical support and specialized teachers

Existing strategies in Portugal dealing with accessibility of hearing or visually impaired persons to Higher Education

Name of the strategy	Source (link)	Short summary – important message, points
National Strategy for Impairment (2011-2013)	http://www.inr.pt/content/ /14 02/estrategia-nacional para-deficiencia-endef	This National Strategy was preceded by the First Action Plan for the Integration of Impaired People (2006-2009) and by the ratification of the Convention on the Rights of Impaired People in 2009. This strategy supported the policy of rights promotion of impaired people. The measures cover several government ministries, in order to develop actions in five areas: 1 - Impairment and multidiscrimination 2 - Justice and exercise of rights 3 - Autonomy and quality of life 4 - Accessibility and design for all 5 - Administrative modernization and information systems.

These five areas corresponded to 133 measures of which only 4 relate to HEI:

- Measure 16 (area 1) – to develop and promote thematic sessions regarding impairment directed to HEI students
- Measure 36 (area 2) – to publish a law regarding specific supports for HEI impaired students
- Measure 61 (area 3) – to elaborate a recommendation guide to include the question 'universal design' in HEI curricula

- Measure 62 (area 3) – to develop and promote thematic sessions regarding impaired people rights directed to teachers and administrative staff of HEI

In spite of its coverage, this strategy lacks a clear focus both on Education and especially on Higher Education since just 3% of these measures relate to these subjects. Moreover, monitoring reports available do not report nothing regarding the accomplishment of these 4 measures.

Both the Ministers' Council Resolution that defines this strategy, and the related Monitoring Reports rarely mention the words 'education' or even 'higher education' which constitutes a serious limitation since it is recognized that education is an essential basis for employment and social integration of impaired people.

Besides, strategy implementation has had limitations namely derived from an apparent lack of articulation between the various institutions involved to implement it. Go back to index

1.3 Slovenia

General situation enrolment of visually or hearing impaired persons in Higher Education in Slovenia (short description)

Status of disabled students in Slovenia is not regulated by law; moreover, there is no exact data on the number of all students with disabilities or students with special needs. The fact is that the number of students with disabilities is increasing, and studying for them is becoming more and more accessible.

Table 1.1: Children and youth with special needs in institution care according to the disability

	2012	2013	Yearly change
	number		%
total	**1.308**	**1.332**	**1,8**
With moderate, severe or severe intellectual disabilities	445	427	-4,0
With mild or moderate intellectual disabilities	201	216	7,5
Visually impaired	17	18	5,9
Deaf and hard of hearing	49	45	-8,2
Physically disabled	199	216	8,5
The emotional and behavioral disorders	397	410	3,3

Source: SURS

At Universities the status of disabled students is not regulated uniformly.

There are some formal obstacles:

- no uniform terminology, which causes ambiguity in the area of defining of students with special needs
- Procedures for obtaining the status (of student with special needs) are not uniformly regulated

System obstacles:

- inadequate architectural adjustments
- inadequate adaptation of the organization of study and evaluation
- inadequate qualifications of trainers

- ignoring the needs of students with special needs when preparing study programs
- inadequate funding.

The area of disabled students each university in Slovenia is regulated with statute, faculties has data only for their students with disabilities. As a result, there are some differences between universities.

Studying is becoming more accessible for the disabled by the year. A wide variety of obstacles, whether architectural, communication, or any other, are already fully or at least largely removed. So we can discuss some really good practices where studying actually becomes friendly for students with disabilities. Of course, there are many cases where faculty remains only partially adjusted or even unadjusted. Accessibility and a decision to study per se are very much affected by the attitude of the staff, especially coordinators and other employees of the faculty. It is very often, that a faculty whit great number of students with disabilities, provide good support for the disabled, while other faculties have fewer experiences with the disabled and consequently there is no one who would deal with the issue.

Despite the many changes, the biggest problems still remain in the area of physical accessibility of faculties, public transportation, e-teaching materials and technical or communication devices. The state directly does not help a lot, so the faculty and other public institutions are often dependent on their own ingenuity and attention. Furthermore, one of the largest, if not the biggest problem of people with disabilities in general, not just students with disabilities, is personal assistance. This includes assistance with the most basic and daily needs of individuals with severe disabilities. Many students with disabilities are dependent on foreign assistance. Currently few disability organizations provide this sort of assistance; however, the area of personal assistance is still not regulated by law.

Universities and faculties with special policies regulate the status as well as the rights and adaptations for students with disabilities. These rights are slightly different from university to university, but there are some common points. Adjustments are dependent on the type of disability and even more on the needs of the individual.

Basic rights are governed by the university statutes. Thus, for example, by the Statute of the University of Ljubljana, students with disabilities have the right to additional exam periods, they can progress to the higher study year exceptionally, even if not all progression requirements are fulfilled. Similarly, these rights are governed by the statutes of other universities. The status of a disabled student, the process for acquiring the status of a special needs student, the students' rights, and adjustments which can be made to the study process are governed by regulations of students with disabilities, adopted by either the university or individual faculty. As an example we can cite a few types of adjustments:

- exams outside the enrollment deadlines,
- exams only in oral or written form,
- an extension of the time of writing examinations,
- adjustments of exams,
- the use of special tools,
- preparation of electronic materials
- and the presence of a sign language interpreter.

Each category of people with disabilities has certain problems and it is difficult to compare these barriers among them. Indeed, in a very difficult position are certainly deaf and hard of hearing students, which due to their disability have difficulties following the lecture. Unfortunately, system of financing sign language interpreters for deaf students is not yet fully established. The faculty is legally required to provide an interpreter, but in practice this often does not happen. Also, many problems encounter students with harder physical disability, since their personal assistance is only taken care of in the context of different societies' programs. This kind of assistance is provided in a limited extent and with a limited number of personal assistants.

The Use of Slovenian Sign Language (hereinafter: ZUSZJ), adopted in 2002, provides the right of deaf people to use Slovene sign language for deaf people, to have access to information using techniques adapted to their needs and the scope and manner of exercising the right to a sign language interpreter or other forms of communication

in public services and in all other life situations in where deafness is an obstacle in meeting the needs (see letter from the Ministry of Higher Education, Science and Technology). Public and higher education institutions with concession should provide a sign language interpreter for deaf students or enable them to communicate in a different manner, which are acceptable for a deaf person, based on an individualized plan. (http://www.fs.uni-mb.si/podrocje.aspx?id=54)

The University of Ljubljana has in 2014 adopted special guidelines regarding university procedures and the study process itself to ensure special needs students have equal rights and access to public information. The Statute of the University of Ljubljana specifies criteria for acquiring the status of a special needs student, the students' rights, and adjustments which can be made to the study process. The adjustments are based on the individual's needs and the nature of the study program.

It is important to quote a message from the project StuDis:

“In the future, in the Republic of Slovenia it is essential that in all areas the reaction in response to the needs of disabled people is redirected to long-term systemic creation of opportunities for their equal participation in society. This is particularly important in the field of higher education, which is completely unregulated in this regard. It is absolutely necessary to develop curricula and teaching methods system in such a way that they are accessible for students with disabilities, the need for the necessary adjustments to the individual needs of these students should be as small as possible.”

Existing strategies in country dealing with accessibility of higher education to hearing and visually impaired persons

Name of the strategy	Source (link)	Short summary – important message, points
Action program for disabled (Akcijski program za invalide	http://www.mddsz.gov.si/fileadmin/mddsz.gov.si/pageuploads/dokumenti__pdf/api_07_13.pdf	The program has several objectives and one of the objectives relates to education: 4. OBJECTIVE: on the basis of equal opportunities without discrimination and ensuring an inclusive education system at all levels and lifelong learning In the document actions to reach the goal are described
Law on the Placement of Children with Special Needs (Zakon o usmerjanju otrok s posebnimi potrebami)	http://www.uradni-list.si/1/objava.jsp?urlid=201158&stevilka=2714	The law addresses children with special needs in all level of education – from pre-school to higher education. The law determines the methods, forms and adaptations of education.
Regulation of the learning process for students with disabilities at the University of Maribor (Pravilnik o študijskem procesu študentov invalidov Univerze v Mariboru)	http://www.fg.um.si/studenti/navodila-in-pravilniki/studenti-s-posebnimi-potrebami/Documents/Pravilnik o študijskem procesu študentov invalidov UM.doc	The Regulation governs the adaptation of the study process of students with disabilities at the University of Maribor. Adjusting refers to the accessibility of the built environment, communication accessibility adaptations of lectures and exercises, and other forms of the study process, adjustments to academic requirements and the availability of and adaptation to study literature. With the document the study process is regulated and adapted at the study programs of 1st, 2nd and 3rd level of study and the current study programs and advanced study programs

Regulations on the adaptation of study for students with special needs –school centre Kranj (Pravilnik o prilagajanju študija študentom s posebnimi potrebami – Šolski center Kranj)	http://www.sckr.si/tsc/vss/documents/2014/35/Pravilnik_o_PSS_s_posebnimi_potrebami.pdf	The document regulates the following procedures for students with special needs: • obtaining status • specific adaptations study • monitoring and support, • rights and duties of students, • record-keeping and documentation
Regulations for students with special needs (Pravilnik o študentih s posebnimi potrebami)	http://www.uni-lj.si/o_univerzi_v_ljubljani/organizacija__pravilniki_in_porocila/predpisi_statut_ul_in_pravilniki/20141401712292151/	New document – from 2014. Before 2014 there was no written regulations for students with special needs at UL (Only the law on placement of children with special needs). The document defines special needs and defines special adjustments of the environment and pedagogical work for students with special needs.
Recommendations for adaptation of study process, Association for disabled students (Priporočila za prilagoditev študijskega procesa)	http://www.dsis-drustvo.si/studis/dsis.pdf	Developed in the StuDis project The handbook describes different forms of disability, it also provides guidance to prepare accessible courses and information for disabled students. It is practical handbook with recommendations for pedagogical staff. It also includes recommendations for developing curricula, accessible for students with disabilities

Go back to index

1.4 Sweden

General situation of visually or hearing impaired persons enrolment in HE in Sweden (short description)

According to Equal Treatment of Students in Universities Act, no student at university or other institution of higher education in Sweden should be discriminated or differently treated on grounds of origins, sex, sexual orientation, or disability. This covers all levels of the studies: admission, study environment, teaching, and examination. The above-mentioned act enjoins all universities annually to draw up plans of action covering measures necessary to encourage and strengthen the students‘ equal rights regardless of ethnicity, sex, sexual orientation, and disability.

Disabled people in Sweden are able to get different types of support for higher education. Swedish National Agency for Higher Education reports that most colleges take great responsibility for their students with disabilities. Full participation and equality for students with disabilities are highlighted as a goal. Swedish National Agency for Higher Education believes that the responsibility that universities have regarding students with disabilities concludes in achieving full participation and equality in accordance with UN Standard Rules. In fact, the Agency introduced a special provision that clarifies universities' responsibility for students with disabilities.

Furthermore, Swedish National Agency for Higher Education made possible that even private educational institutions, who are authorized to issue the qualifications the Agency announced in regulations, can receive funds from Stockholm University disposal as special funds for disabled students. This of course assumes that the private higher education institutions, like universities of the public domain, must set aside 0,15 per cent of their funds from the state to provide assistance where needed for students with disabilities. The Stockholm University must also report the total number of students with disabilities at universities with breakdown by college and disability.

In order to be admitted to HEI, the applicant must submit all certificates, proving the medical reasons for being admitted on basis of disability.

Needs and gaps in the field

Nevertheless, many students don't consider information about the support to be easily accessible. They indicate that HEI should do more in this respect. Additional measures desired by students are improved forms of support, more information about the support and better awareness level of the teaching staff regarding disabilities.

It is to mention, that there is a number of psychological issues that describe the necessities of disabled at Swedish universities and colleges, such as:

- Many students say that their study choices are affected by the disability.
- Many disabled students feel that the disability affects adversely their studies. The most common description of this is that disability means that the studies will be much more time consuming and effort demanding.
- There seems to be a widespread dissatisfaction with their own learning outcomes among students with disabilities.

The research shows that there is a lot of work that needs to be undertaken in order to reach this goal, including the following:

- Higher education institutions should review their definitions of disabilities, so that they conform to the definitions in the UN Standard Rules.
- A lot of work to get the universities premises physically accessible remains although many Universities are currently working on this and progress.
- HEIs information on opportunities for students with disabilities to study at the university exists, but must be reaching the target audience better than it does today. Another issue is that higher education institutions sometimes have trouble deciding which department of the college shall be responsible for working with disabled, and what exactly falls under the other organizer's responsibility. Educating disabled is a complex work. The staff dealing with

disability issues at universities often work in a special counselor department. It is important that colleges ensure that work with disability issues is given enough attention.

- Higher education institutions must work to raise teachers' awareness and understanding of issues of disabilities. They should also actively promote cooperation with international partners in this area.

Existing strategies in country dealing with accessibility of higher education to hearing and visually impaired persons

Name of the strategy	Source (link)	Existing in English (yes/no) – link to English source	Short summary – important message, points
The non-discrimination laws ("Regeringsformen", The Discrimination Act and The Law of the European Convention on Human Rights and Fundamental Freedoms)	http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Kungorelse-1974152-om-beslu_sfs-1974-152/ http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Diskrimineringslag-2008567_sfs-2008-567/ http://www.echr.coe.int/Documents/Convention_ENG.pdf	No. Yes. http://www.regeringen.se/content/1/c6/11/59/03/0e63b92f.pdf Yes. http://www.echr.coe.int/Documents/Convention_ENG.pdf	Regulate prohibition against discrimination at institutions of higher education, including an obligation to take reasonable measures of accommodation
The Education Act (Skollagen SFS2010:800)	http://www.riksdagen.se/sv/Dokument-Lagar/Lagar/Svenskforfattningssamling/Skollag-2010800_sfs-2010-800/	No.	The principle guideline is that the state provides education for all young people at all levels
Equal Treatment of Students at Universities Act	http://ec.europa.eu/ewsi/UDRW/images/items/docl_19543_362758320.pdf	Yes. http://www.equalrightstrust.org/ertdocumentbank/Microsoft%20Word	No student at university or other institution of higher education in Sweden should be discriminated

		%20-%20Equal_Treatment_of_Students_at_Universities_Act.pdf	
Mapping the implementation of policy for inclusive education (MIPIE) / EU-project	http://www.european-agency.org/agency-projects/mapping-the-implementation-of-policy-for-inclusive-education	Yes. http://www.european-agency.org/agency-projects/mapping-the-implementation-of-policy-for-inclusive-education	Recommendations in the form of an outline agenda for future national and European level data collection to be used for mapping the implementation of policy for inclusive education.
Raising Achievement for all Learners / EU-project	http://www.butiken.spsm.se/produkt/katalog_filer/Nr%2000611.pdf	http://www.butiken.spsm.se/produkt/katalog_filer/Nr%2000611.pdf	European project in the sphere of quality in inclusive education.

Go back to index

1.5 Conclusion

Summing up the findings of the desk research, it is hard to establish the exact number of students with visual and hearing disabilities in partner countries, since data is not aggregated. All countries have, at least to some extent, regulations which determine the rights of disabled students. Nevertheless, Italy is the only country with specific national legislation regarding rights of students with special needs in HE. In all countries, disabled students have right to use aids and lectures' adaptations for better integration in the study course. However, funding is not always well defined. Go back to index

ON-LINE SURVEY AMONG HEARING AND VISUALLY IMPAIRED STUDENTS

2.1 Introduction

Four countries participated in the survey, where target population were visually and hearing impaired students. The data collection took place between April and August 2015. Data was collected with on-line questionnaire in 1KA software, on the basis of a questionnaire, properly developed by the partners of the project. This questionnaire was developed in English and each of the participating countries then translated it into its national language. The questionnaire is part of this report in Annex I.

In order to prepare for the survey of this special population and questionnaire development, an extensive desk research was conducted in all participating countries (see previous chapter) and experts were consulted to validate all these outputs. Inputs and comments from the associations for blind and deaf persons were particularly valuable and welcome.

As the population of hearing and visually impaired students is small and there are no, or there are very limited, statistics on number of these students, we couldn't use a probability sampling. Based on the desk research of each country a minimum number of students included in the survey was set for each country, as follows:

- Italy: 20-30 students
- Portugal: 15-20 students
- Sweden: 15 – 20 students
- Slovenia: 5 -10 students

Fieldwork developed by each partner in its country was done with the nonprobability sampling method in order to reach the pre-defined minimum number of observations. The purposive sampling technique was used as the target population was very specific - students with visual or hearing impairment.

Due to personal data protection students could not be contacted directly by the partners of the project. This was one of the obstacles and difficulties in reaching the target population. To overcome this obstacle, and to reach the target group, higher education institutions were contacted directly by partners, and were requested to invite students to participate in the survey. Also student associations and associations for hearing and visually impaired were contacted and asked for help to reach the target number of the respondents. Simultaneously, we've used the snowball sampling, where students who participated in the survey were asked to invite other students to participate in the survey.

Survey was built to take about 10 minutes on average to be filled in. In spite of this, we've noticed that many of the respondents entered the first page of the questionnaire, but didn't continue to fill-it in. It is also worth mentioning that the drop out in the middle of the questionnaire and item non-response was relatively high, which could be due to the length of the questionnaire.

Considering the relative low number of responses obtained (98), results are mainly presented for all countries together. However, we've decided to present them separately in the case of observations for hearing and visual impaired students. Go back to index

2.2 Participation – general information

In total 98 respondents participated in the survey. Table 2.1, below, presents the results by country.

Table 2.1: Participation – by country

country	no. of respondents
Italy	30
Portugal	49
Slovenia	6
Sweden	13
Total	98

All countries managed to have more than the lower defined limit of participation and in the case of Italy and Portugal, it was even possible to obtain more observations than the maximum required.

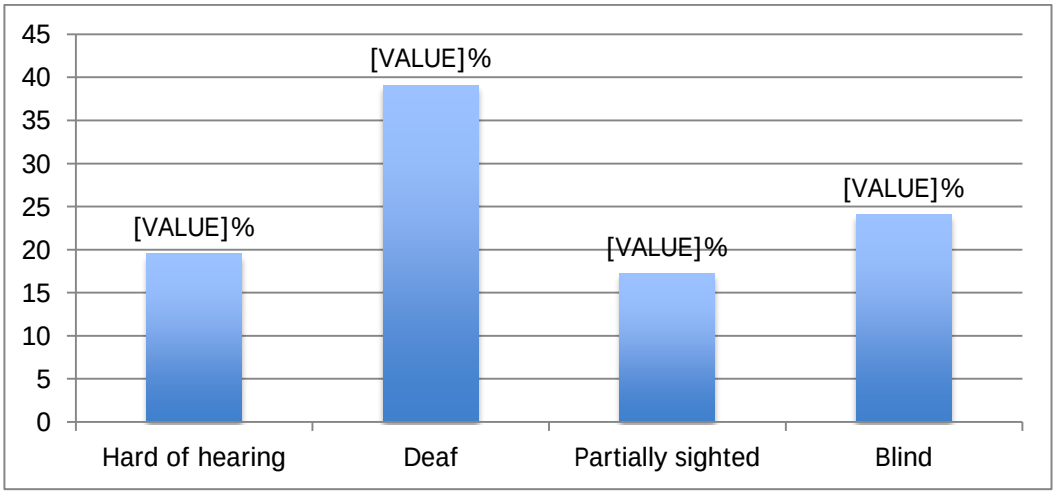
Considering drop out and non-responses' level for some questions, the number of respondents compared to total responses obtained differ from question to question in each country.

Table 2.2: Participation – gender by country

	Gender			
	male		female	
Country	n	%	n	%
Italy	11	39,3%	17	60,7%
Portugal	15	42,9%	20	57,1%
Slovenia	2	33,3%	4	66,7%
Sweden	6	46,2%	7	53,8%

Results show that in the survey there were 34 male respondents and 48 females. 16 respondents didn't answer this question. As seen from the Table 2.2 in all participating countries there are more female than male respondents – in Italy there is 17 (60,7%), in Portugal 20 (57,1%), in Slovenia 4 (66,7%) and in Sweden 7 (53,8%) female respondents.

Figure 2.1: Respondents by impairment



On general there are a more students with hearing impairment (58,6%). As seen from the figure 2.1 there are 39,1% respondents who are deaf, 19,5% who are hard of hearing, 17,2% partially sighted and 24,1% who are blind.

Distribution by impairment per country is presented in the Table 2.3 – as the numbers are low and the sampling was not random, the percentages have only informative nature and we cannot conclude from the data about the general situation in each of the countries.

Table 2.3: Respondents by impairment by country

	What kind/degree of impairment do you have?							
	Hard of hearing		Deaf		Partially sighted		Blind	
Country	n	%	n	%	n	%	n	%
Italy	4	14,3%	8	28,6%	7	25,0%	9	32,1%
Portugal	5	11,9%	22	52,4%	6	14,3%	9	21,4%
Slovenia	1	16,7%	2	33,3%	1	16,7%	2	33,3%
Sweden	7	63,6%	2	18,2%	1	9,1%	1	9,1%

For the majority of respondents their impairment is present since birth (57,1%). Go back to index

2.3 Schooling

Part of the questionnaire covered questions about the schooling, as we were interested in what kind of schools the respondents were enrolled before entering higher education.

Pre-school education

Table 2.4: Pre-school education

	n	%
Mainstream	55	67,1%
School for deaf/blind	23	28,0%
Other	4	4,9%
	82	100,0%

Majority of respondents were enrolled in mainstream pre-school (67,1%) and only 28% into special pre-school for deaf or blind.

Regarding data for enrollment into lower primary school – grade 1 to 4, there are 64,2% respondents who were enrolled into mainstream school, and 30,9% who were enrolled into a special school for deaf or blind. 4 respondents were enrolled into other forms of education between school years 1 and 4.

Table 2.5: 1st to 4th grade

	n	%
Mainstream	52	64,2%
School for deaf/blind	25	30,9%
Other	4	4,9%
	81	100,0%

In lower secondary education (from grade 5th until 9th), as per table 2.6 below, the situation is very similar: 64,3% of respondents were enrolled into a so-called mainstream school and 29,8% were enrolled into special schools for deaf or blind students.

Table 2.6: 5th to 9th grade

	n	%
Mainstream	54	64,3%
School for deaf/blind	25	29,8%
Other	5	6,0%
	84	100,0%

In the next level of education, the percentages slightly change in favor of mainstream school (table 2.7). There are 71,1% of respondents who were enrolled into mainstream school from grade 10 to 13 (upper secondary school and 24,1% who were enrolled into school for deaf or blind.

Table 2.7: 10th to 13th grade

	n	%
Mainstream	59	71,1%
School for deaf/blind	20	24,1%
Other	4	4,8%
	83	100,0%

For all participating countries, higher education is only available as mainstream education. In HE we were mainly interested to know about these students' field of study. Results showed that, as expected, the majority of students (76,8%) is studying in the field of Social Sciences.

Table 2.8: HE – field of study

	n	%
Natural sciences (STEM - Technology, Engineering, Mathematics, Physics...)	16	23,2%
Social Sciences (Sociology, Languages, Arts, Education...)	53	76,8%
Total	69	100,0%

It can be seen (Table 2.9) that among deaf and hard of hearing there are more students studying Natural Sciences compared to visually impaired students, where the majority is enrolled into social science programs.

Table 2.9: HE field of study by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	%	n	%	n	%	n	%
Natural Science (STEM - Technology, Engineering, Mathematics, Physics...)	5	38,5%	7	25,9%	1	7,1%	3	20,0%
Social Science (Sociology, Languages, Arts, Education...)	8	61,5%	20	74,1%	13	92,9%	12	80,0%

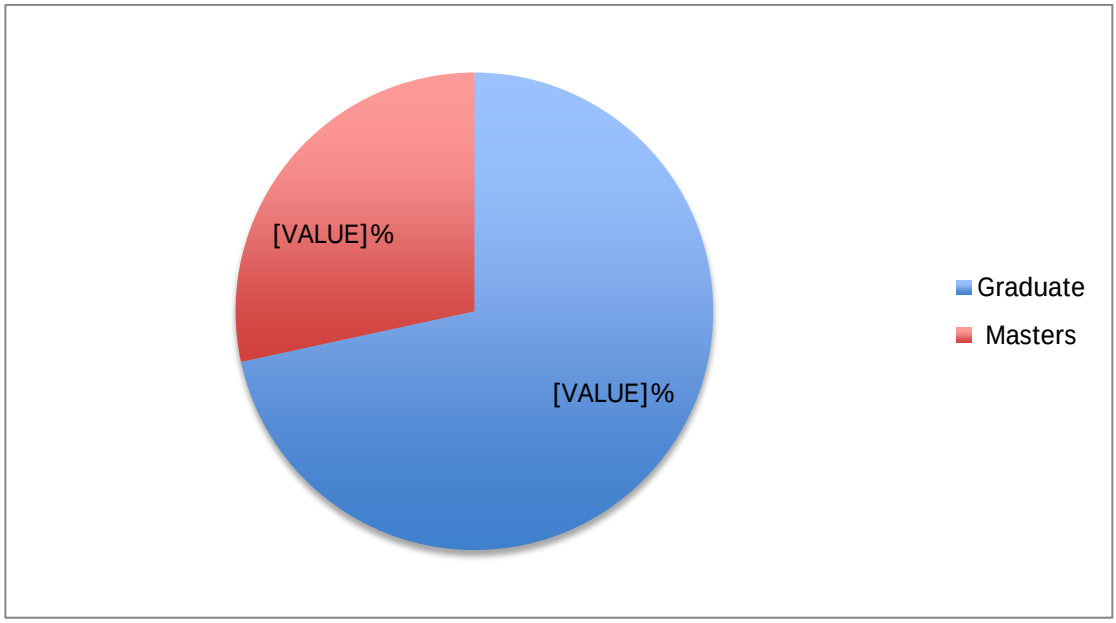
They were also asked about their study course and their answers are listed below:

Table 2.10: Study course

	n	%
Sociology and other social sciences	10	15,4%
(Sign) language and/or literature	9	13,8%
Education	8	12,3%
Management, administration and/or economics	8	12,3%
Literature	6	9,2%
Psychology	5	7,7%
Law	3	4,6%
Medicine	2	3,1%
Mathematics	2	3,1%
Architecture	2	3,1%
Other	10	15,4%

Majority of respondents is in graduate level (71,6%) and there were no respondents at PhD level.

Figure 2.2: Level of study



Respondents were asked for the reason why they've selected the current domain of study[2]. It is interesting to mention that the largest number of respondents have selected their domain of study because it is a field of their interest (82,9%), 41,4% because they feel they are, or can be, good at it, and 24,3% because they believe it enables employability. Apparently, limitations derived from the need to displacement, or even the proper disability, is not taken into consideration when deciding to choose a domain of study. Only one respondent selected his course because it was the only course available in his/her place of living. 10% of respondents said they couldn't choose anything else because of the impairment, while 8,6% choose the study because it is related to their impairment.

[2] Since there was the chance to select more than one answer, the sum of all obtained answers is greater than 100%.

Table 2.11: Why did you choose this study?

	n	%
It is a field of my interest.	58	82,9%
I am good at it.	29	41,4%
It enables employability.	17	24,3%
It is the only one I feel capable to do.	9	12,9%
I couldn`t choose anything else because of my impairment.	7	10,0%
It is related to my impairment.	6	8,6%
Other:	6	8,6%
It is easy.	2	2,9%
It is the only one available where I live.	1	1,4%
	135	192,9%

According to the respective impairment, the reasons for selecting a domain of study are presented below (see table 2.12)[3].

[3] Because of the low cell values the table is only informative in nature and we do not draw conclusions from the results.

Table 2.12: Reasons for selecting the study by impairment

		What kind/degree of impairment do you have?				Total
		Hard of hearing	Deaf	Partially sighted	Blind	
I couldn`t choose anything else because of my impairment.	n	0	4	1	2	7
	%	0,0%	57,1%	14,3%	28,6%	
It is a field of my interest.	n	12	22	12	12	58
	%	20,7%	37,9%	20,7%	20,7%	
I am good at it.	n	6	14	6	3	29
	%	20,7%	48,3%	20,7%	10,3%	
It is related to my impairment.	n	0	4	2	0	6
	%	0,0%	66,7%	33,3%	0,0%	
It enables employability.	n	4	8	1	4	17
	%	23,5%	47,1%	5,9%	23,5%	
It is easy.	n	0	1	0	1	2
	%	0,0%	50,0%	0,0%	50,0%	
It is the only one I feel capable to do.	n	0	7	0	2	9
	%	0,0%	77,8%	0,0%	22,2%	
It is the only one available where I live.	n	0	1	0	0	1
	%	0,0%	100,0%	0,0%	0,0%	
Other:	n	1	3	0	2	6
	%	16,7%	50,0%	0,0%	33,3%	

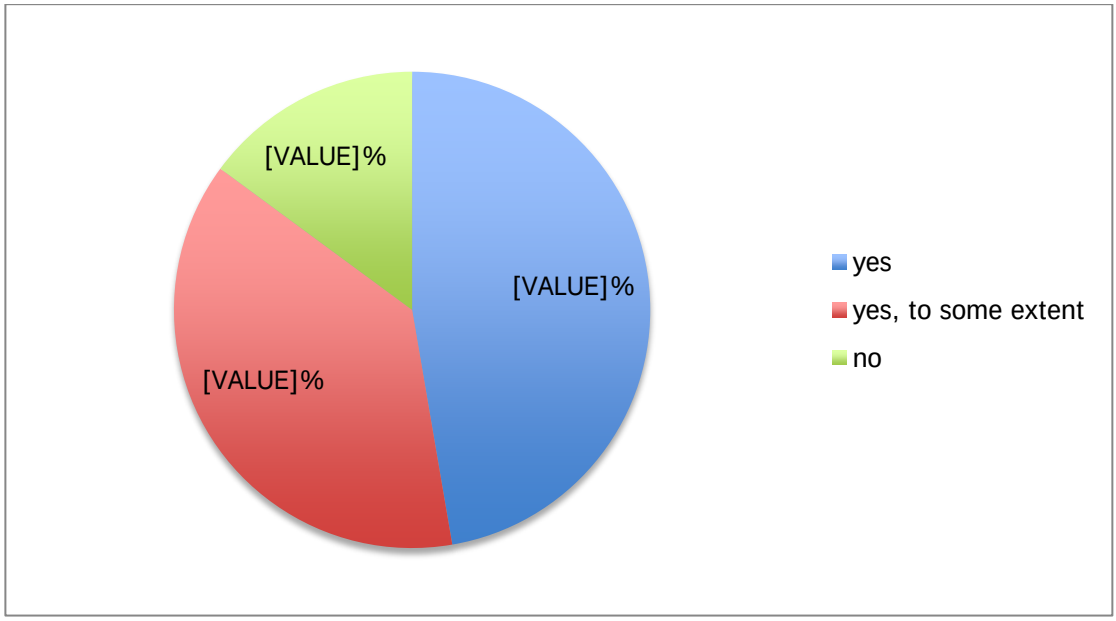
Go back to index

2.4 Adaptations of study materials and lectures

Respondents were asked about possible adaptations they need regarding study materials and lectures. This subchapter presents results obtained for these issues.

Curiously, around 15% of respondents said they do not need any adaptations of the learning materials. However, it is important to notice that close to 50% consider they need in fact such adaptations.

Figure 2.3: Do you need for successful following of the study course any adaptations of the learning materials?



According to the type of impairment we can see that among respondents those who are partially sighted or blind state that they need more adaptations of the learning materials, when compared to respondents with hearing disabilities.

Table 2.13: Adaptations needed to the learning materials by impairment

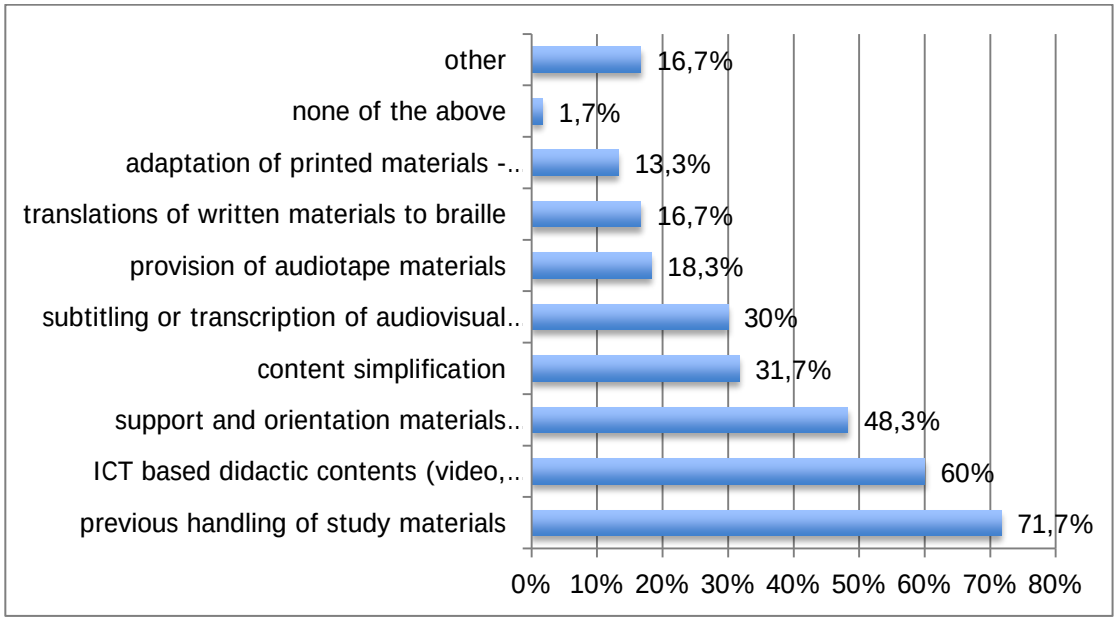
	Hard of hearing		Deaf		Partially sighted		Blind	
	n	%	n	%	n	%	n	%
yes	4	30,8%	11	37,9%	10	71,4%	8	53,3%
yes, to some extent	6	46,2%	11	37,9%	4	28,6%	7	46,7%
no	3	23,1%	7	24,1%	0	0,0%	0	0,0%

All blind or partially sighted (all of the visually impaired) respondents need the adaptation of learning materials at least to some extent, while among deaf and hard of hearing there is close to quarter of such respondents (10 altogether) that declare do not need such adaptations. More than 70% of respondents among partially sighted, and more than 50% among blind, need adaptation of learning materials for successful following up the study course while among hard of hearing there are

31%, and 38% among deaf, who need at least some kind of adaptation of learning materials.

Respondents who answered they need adaptations of learning materials were asked what kind of adaptations they need[4].

Figure 2.4: Needed adaptations of learning materials



Majority of respondents (71,7%) said, they need previous handling of study materials, 60% selected ICT based didactic content and around half of respondents (48,3%) considered to need the adaptation of "support and orientation materials".

Depending on the impairment we can observe differences between two groups of students. 82,1% of visually impaired students said they would need ICT based didactic content, while among hearing impaired, just 40,6% of respondents selected that answer. In both groups the majority of students said they need previous handling of study materials (75% among visually impaired and 68,8% among hearing impaired). Most of the hearing impaired students that have answered our questionnaire (62,5%) consider that they need adaptations to the support and orientation materials. We've also noticed that there are some adaptations that are

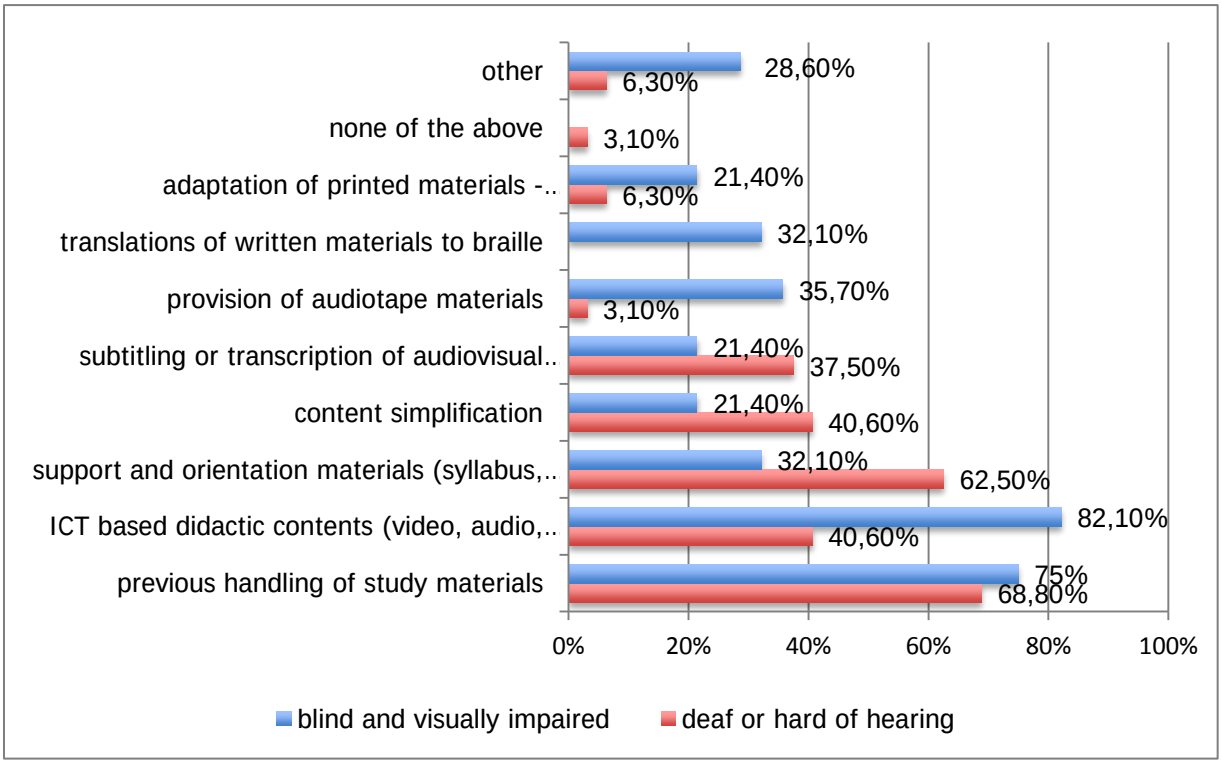
[4] As the respondents could select more than one answer the sum is greater than 100%.

more specific for visually impaired students, namely: provision of audiotape materials (35,7%), and translations of written materials to braille (32,1%).

Besides the pre-defined answers, respondents were also given the chance to answer, through an open answer form, stating the adaptations they needed. Results obtained pointed to the following needs:

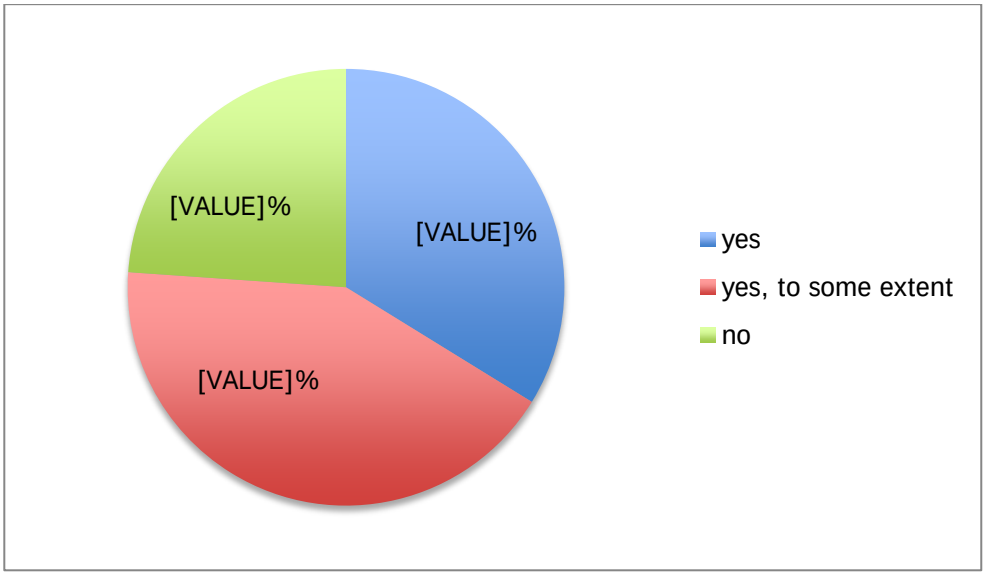
- translation of texts
- to provide slides and notes of the lessons in colors with high contrast
- sign language interpreting
- professors' notes recorded on ICT devices

Figure 2.5: Adaptations of learning material by impairment



Similar question was asked but now regarding the adaptations needed on the lectures. Figure 2.6 (n=60) shows that there are around one third (33,8%) of respondents who consider to need adaptations of the lectures for successful following of the studies, while almost half of the respondents need adaptations of study materials (Figure 2.3) and 42,3% reported they need adaptations to some extent. Just around one quarter (23,9%) does not need any adaptations.

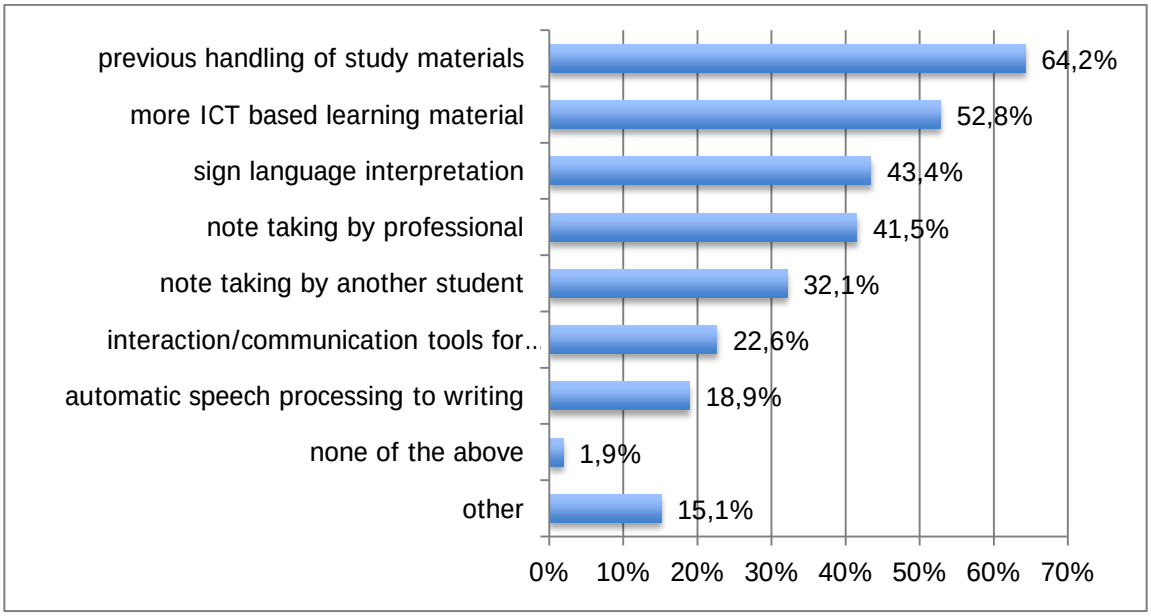
Figure 2.6: Do you need any adaptations of the lectures for successful following of your studies?



Those respondents who said they need adaptations at least to some extent were further asked what kind of specific lectures' adaptations they needed[5].

[5] Respondents could select more than one answer therefore the sum of all answers is greater than 100%.

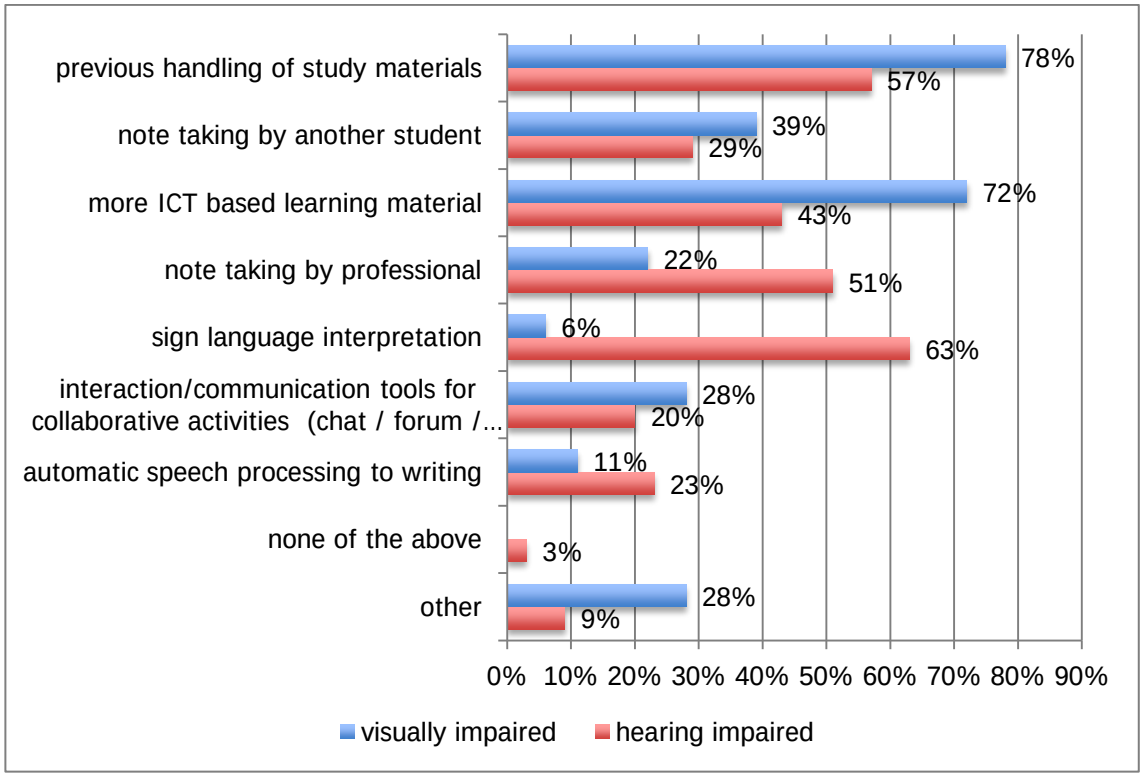
Figure 2.7: Adaptations of the lectures



Majority of respondents (64,2%) said they need previous handling of study materials, which is followed by “more ICT based learning material” (52,8%). Also often mentioned were the following adaptations: sign language interpretation (43,3%), note taking by professional (41,5%) and note taking by another student (32,1%).

Figure 2.8 presents the adaptations of the lectures by impairment. As expected there can be seen many differences between the two main groups of disabilities.

Figure 2.8: Adaptations of the lectures by impairment



For both groups previous handling of study materials is very important – among visually impaired 78% selected that response and among hearing impaired 57%. The second most important adaptation for visually impaired is more ICT based learning material (72%), followed by note taking by another student (39%). Among hearing impaired more ICT based learning material is relevant to 43% of respondents in that group being the most important adaptation sign language interpretation (63%), followed by previous handling of study materials (57%) and note taking by professional (51%). Go back to index

2.5 Satisfaction

In the last part of the questionnaire students were asked how satisfied they are with specific indicated factors related to the studies, with the services of the faculty, and which are the barriers they are facing.

We start by presenting results about how the respondents rate their view on the faculty in relation to their impairment.

Figure 2.9: View on the faculty in relation to impairment

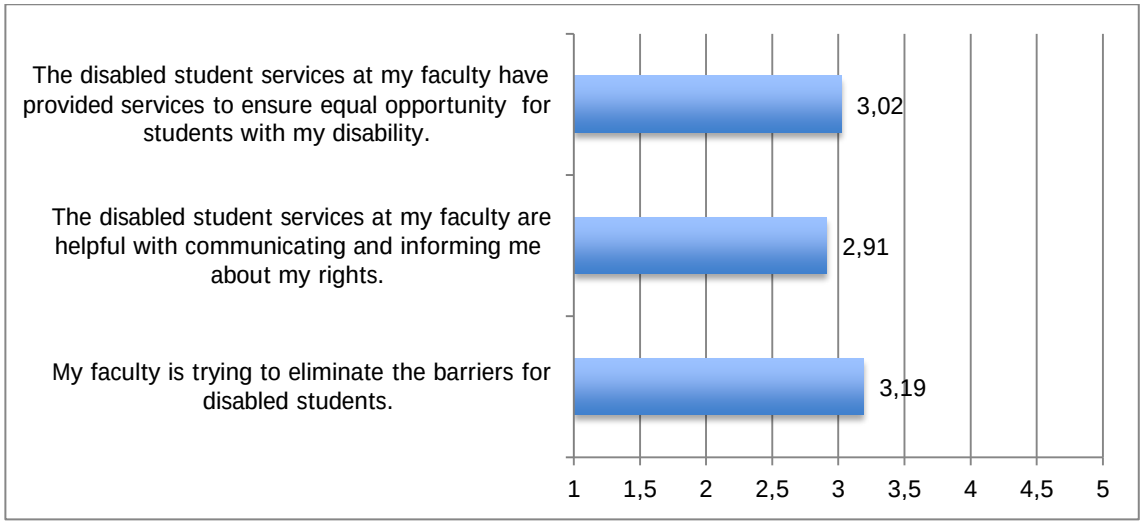


Table 2.14: View on the faculty in relation to impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	Mean	n	Mean	n	Mean	n	Mean
My faculty is trying to eliminate the barriers for disabled students.	17	3,18	34	3,19	15	3,31	21	3,08
The disabled student services at my faculty are helpful with communicating and informing me about my rights.	17	3,33	34	2,50	15	3,38	21	2,69
The disabled student services at my faculty have provided services to ensure equal opportunity for students with my disability.	17	3,08	34	2,85	15	3,31	21	2,92

First set of questions related to the satisfaction related to the study. The question asked was: "*How would you rate the following factors relating to your study and your university*? On the scale from 1 to 5, where 1 means "not satisfied at all" and 5 "very satisfied" rate how satisfied are you with the following:"

Table 2.15: Satisfaction with factors relating to the study

	n	Mean
attitude of other students	98	3,54
attitude of other faculty staff	98	3,54
attitude of professors	98	3,34
help from other students	98	3,13
adjustments of exams	98	2,97
inclusion of students with impairment into the study process	98	2,84
adjustment/adaptation of study materials	98	2,82
help of counselor/disabled student services	98	2,77
special resources for deaf/blind students	98	2,51
teaching methods/tools, programmes and exams appropriate to the needs	98	2,5
help from student association	98	2,42

On general we can say that students are not very satisfied with none of the listed factors – all the factors were rated below 4 more than half of them even below 3, which is a bit worrying. Issues worst classified were the following: help from student association (2,42), teaching methods/tools, programs and exams appropriate to the needs (2,5), special resources for deaf/blind students (2,5). In spite of the low level, questions that were better rated were those related to the attitude: attitude of other students (3,5) attitude of other faculty staff (3,5) and attitude of professors (3,3).

Further we analyze satisfaction with the factors relating to the study according to the impairment.

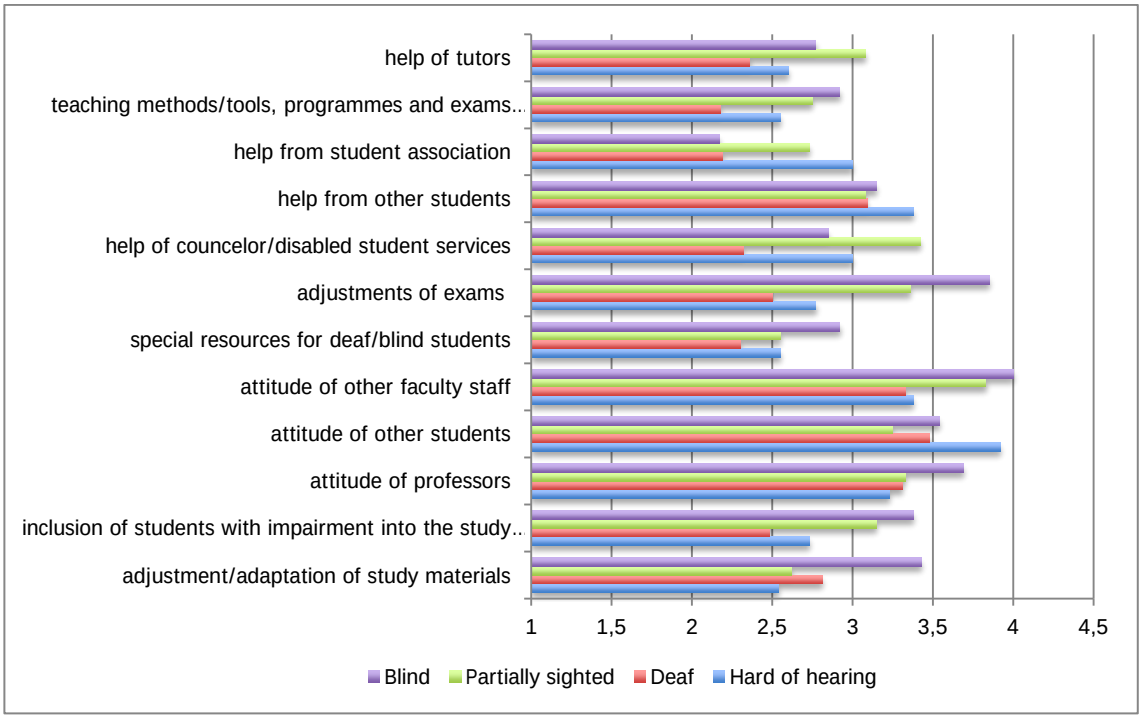
Table 2.16: Satisfaction with factors relating to the study by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	Mean	n	Mean	n	Mean	n	Mean
adjustment/adaptation of study materials	17	2,54	34	2,81	15	2,62	21	3,43
inclusion of students with impairment into the study process	17	2,73	34	2,48	15	3,15	21	3,38
attitude of professors	17	3,23	34	3,31	15	3,33	21	3,69
attitude of other students	17	3,92	34	3,48	15	3,25	21	3,54
attitude of other faculty staff	17	3,38	34	3,33	15	3,83	21	4,00
special resources for deaf/blind students	17	2,55	34	2,30	15	2,55	21	2,92
adjustments of exams	17	2,77	34	2,50	15	3,36	21	3,85
help of counselor/disabled student services	17	3,00	34	2,32	15	3,42	21	2,85
help from other students	17	3,38	34	3,09	15	3,08	21	3,15
help from student association	17	3,00	34	2,19	15	2,73	21	2,17
teaching methods/tools, programs and exams appropriate to the needs	17	2,55	34	2,18	15	2,75	21	2,92
help of tutors	17	2,60	34	2,36	15	3,08	21	2,77

There are differences between respondents according to their disability – on general we can see from the Table 2.16 that blind students are more satisfied than others with the following factors relating to the adaptation of study: adjustment/adaptation of study materials (3,4), inclusion of students with impairment into the study process (3,4), adjustments of the exams (3,9). Less satisfied are deaf students – they rated those factors lower: adjustment/adaptation of study materials (2,8), inclusion of students with impairment into the study process (2,5), adjustments of exams (2,5).

For easier reading of the results we present the same data also in a graph.

Figure 2.10: Satisfaction with factors relating to the study by impairment



Go back to index

2.6 Barriers

In order to evaluate main barriers, and their influence on study, respondents were asked to rate how much they agree with a series of issues affecting their scholar pathway.

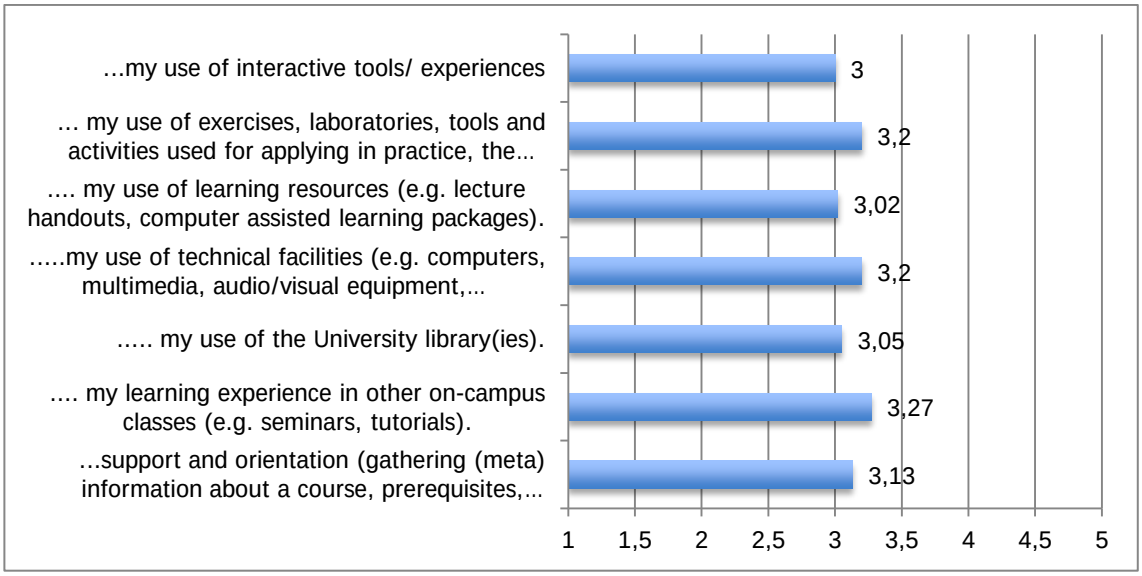
Concerning main barriers faced, we've asked; "During the study I have faced disability related barriers, which have impacted on...

- *...support and orientation (gathering (meta) information about a course, prerequisites, structure, professors, description of the assignments, etc.)*
- *...my learning experience in other on-campus classes (e.g. seminars, tutorials).*
- *...my use of the University library(ies).*
- *...my use of technical facilities (e.g. computers, multimedia, audio/visual equipment, photocopying).*

- *…my use of learning resources (e.g. lecture handouts, computer assisted learning packages).*
- *…my use of exercises, laboratories, tools and activities used for applying in practice, the theoretical knowledge acquired by lecturers and contents*
- *…my use of interactive tools/ experiences (in the case of an on-line university, the communication tools and environments providing collaborative learning experiences, such as chat, forums, wikis, virtual classrooms, etc)*"

Respondents were asked to rate these statements on the scale from 1 to 5, 1 meaning "strongly disagree" and 5 "strongly agree". Results are showed in fig. 2.11.

Figure 2.11: Barriers



Almost all issues received ratings around 3, meaning they neither agree neither disagree with the statements about barriers which impacted their study experiences.

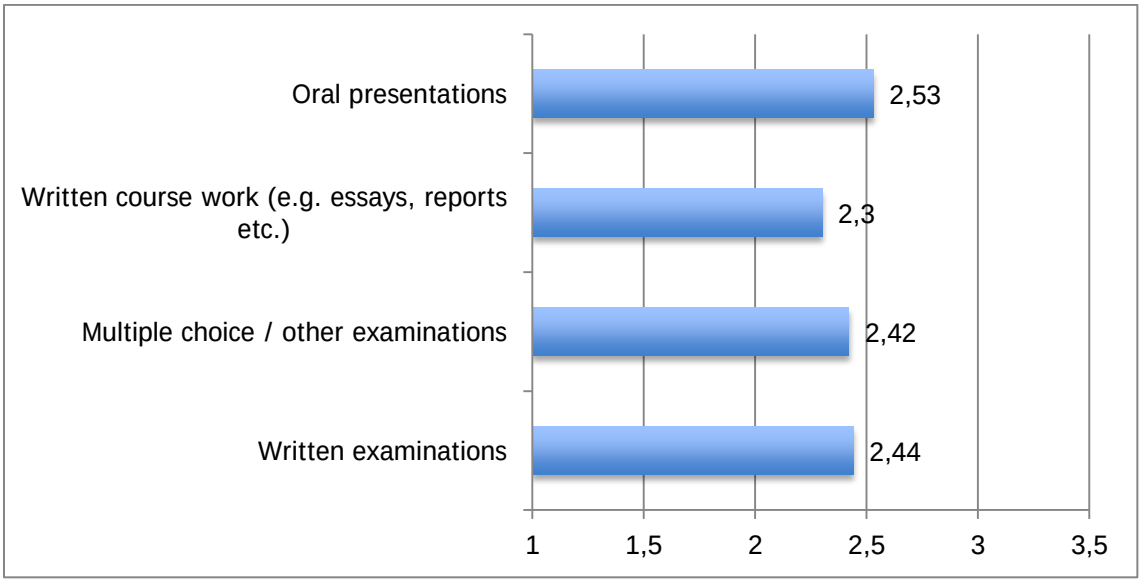
Table 2.17: Barriers by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	N	Mean	N	Mean	N	Mean	N	Mean
...support and orientation (gathering (meta) information about a course, prerequisites, structure, professors, description of the assignments, etc.)	17	2,92	34	3,45	15	2,92	21	3,00
.... my learning experience in other on-campus classes (e.g. seminars, tutorials).	17	3,58	34	3,40	15	3,08	21	2,90
..... my use of the University library(ies).	17	2,83	34	3,37	15	2,92	21	2,92
.....my use of technical facilities (e.g. computers, multimedia, audio/visual equipment, photocopying).	17	2,91	34	3,35	15	3,38	21	3,00
.... my use of learning resources (e.g. lecture handouts, computer assisted learning packages).	17	3,40	34	3,21	15	2,85	21	2,55
... my use of exercises, laboratories, tools and activities used for applying in practice, the theoretical knowledge acquired by lecturers and contents	17	3,00	34	3,12	15	3,18	21	3,50
...my use of interactive tools/ experiences	17	3,27	34	3,00	15	2,63	21	3,00

When comparing responses according to the groups of students by type of impairment, we observe that there are some differences among, although we note that generally, deaf respondents, compared to other groups, agree more with the statements about disability related barriers which have impacted their study experience.

Students were also asked about how the barriers, related to their impairment, faced on the assessment, have affected their study experience. Again they answered on the scale from 1 to 5, 1 meaning “strongly disagree” and 5 “strongly agree”. Results obtained are as follows (fig. 2.12):

Figure 2.12: Barriers related to the assessment



Results obtained are mainly below 3, showing that respondents consider that these barriers are not as significant for their scholar success as we could expect. The least barriers faced concern written course works (2,3).

According to the specific disabilities we can see there are some differences between students, although they are relatively small. The exception is “oral presentations”, where deaf reported more difficulties (3,05) compared to other groups especially blind (1,69).

Table 2.18: Barriers related to the assessment by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	Mean	n	Mean	n	Mean	n	Mean
Written examinations	17	2,33	34	2,55	15	2,67	21	2,25
Multiple choice / other examinations	17	2,08	34	2,50	15	2,75	21	2,42
Written course work (e.g. essays, reports etc.)	17	2,33	34	2,50	15	2,23	21	2,08
Oral presentations	17	2,58	34	3,05	15	2,62	21	1,69

Students were also asked how satisfied they were with some specific adaptations. They rated the services on the scale from 1 to 5 (1 meaning "not satisfied at all" and 5 "very satisfied"). As seen from the table 2.19, students with hearing disabilities are not satisfied with adaptations, as they rated all services below value 3. In both groups (hard of hearing and deaf) the lowest was rated availability of a sign language interpreter (2,50 and 2,60 respectively).

Table 2.19: Satisfaction with adaptations for hard of hearing and deaf

	Hard of hearing		Deaf	
	n	Mean	n	Mean
Availability of sign language interpreter	17	2,50	34	2,60
Classroom note taking	17	2,67	34	3,00
Permission to use speech to text devices	17	2,50	34	2,75

Table 2.20: Satisfaction with adaptations for partially sighted and blind

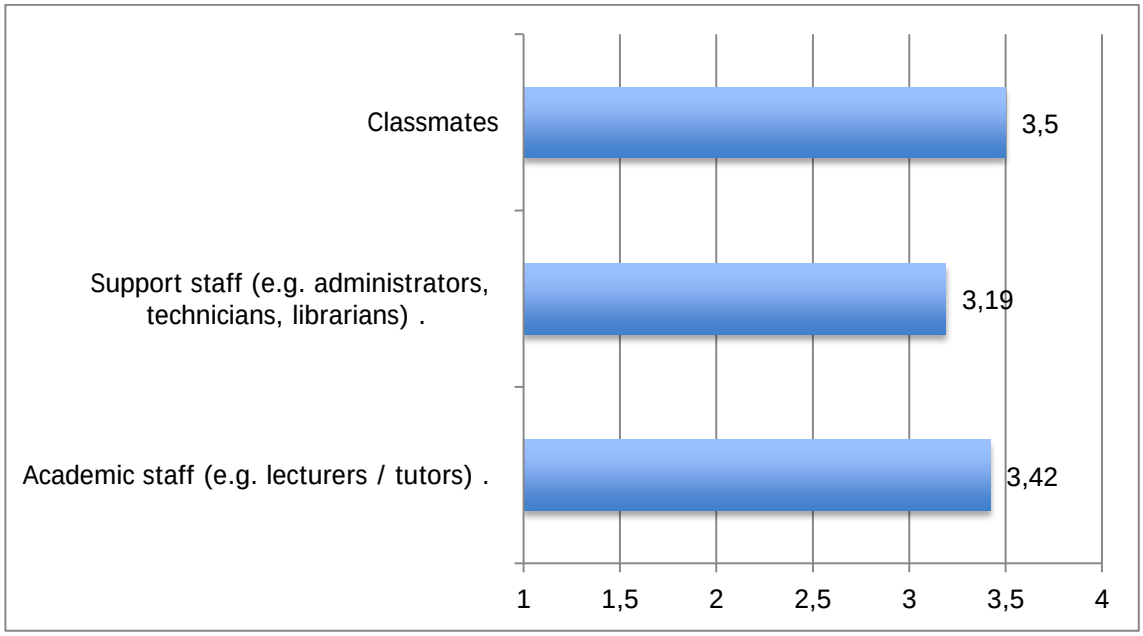
	Partially sighted		Blind	
	n	Mean	n	Mean
Writer for test/quizzes	15	3,00	21	2,83
Orientation to campus/faculty	15	3,08	21	3,00
Availability of large print materials	15	2,33	21	2,25
Classroom note taking	15	2,33	21	2,92
Braille material	15	2,40	21	3,25
Audio material	15	2,11	21	3,17
Other digital material	15	2,67	21	3,50

As observed in the case of students with hearing disabilities, satisfaction with adaptations is also low among visually impaired students. These groups of students also rated services below 3. The ratings were slightly better (but still not good) in the sub-group of blind students, who on average rated the satisfaction with other digital materials with average score of 3,5, braille materials with 3,25, and audio materials with 3,17.

Students were also asked to rate the support and help they received from the university's staff and classmates. They rated how much they agree (1 "strongly disagree and 5 "strongly agree") with the following statement: "*When I have*

approached university staff with concerns about disability related barriers I have experienced support and help from…."

Figure 2.13: Support from university's staff



As presented in the Figure 2.13, students feel they are not receiving enough support neither from classmates, the academic staff, or even the support staff. Their average ratings were between 3,19 and 3,42, respectively for support staff and academic staff from the universities, being the maximum rating obtained however for the support they consider to have received from classmates (3,5).

Table 2.21 presents how students find the support form university staff and classmates, according to their disability.

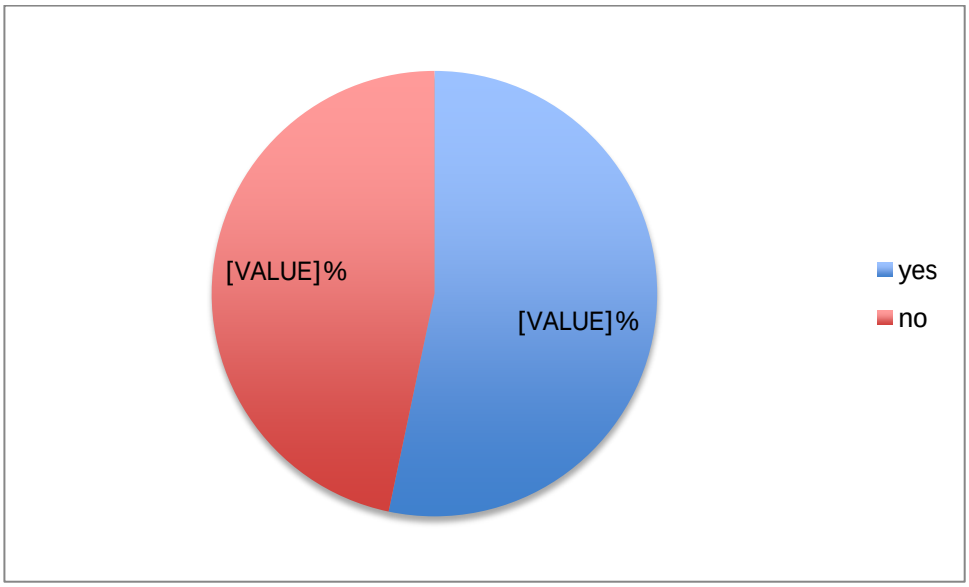
Table 2.21: Support received from university staff and classmates by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	Mean	n	Mean	n	Mean	n	Mean
Academic staff	17	3,33	34	3,24	15	3,15	21	4,08
Support staff	17	3,08	34	2,65	15	3,46	21	3,92
Classmates	17	3,83	34	3,25	15	3,38	21	3,69

On general we can see that blind students are more satisfied than others and the least satisfied are deaf students. Blind students rated their satisfaction with academic staff with average value 4,08, while partially sighted rated academic staff with average value 3,15. Blind students are also relatively satisfied with the support staff – they rated the statement concerning support staff with average value 3,92. with the support staff are the least satisfied students who are hard of hearing (3,08). When compared between groups, deaf students are the least satisfied with the support staff (2,65). These results are critical, namely considering the fact that while we may say that visual-impaired students probably need more technical support, hearing-impaired students clearly seem to need, in general, more “human” support.

Around one half or respondents has already consulted one of the university support services about disability related issues affecting teaching, learning and assessment.

Figure 2.14: Have you ever consulted one of the University support services about disability-related issues affecting teaching, learning and assessment?



n=60

Table 2.22: Requested support from university staff, by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	%	n	%	n	%	n	%
yes	3	25,0%	14	63,6%	7	53,8%	8	61,5%
no	9	75,0%	8	36,4%	6	46,2%	5	38,5%

Considering the lower response level, as we approach the last questions of the survey, results presented must just be considered as informative and we do not draw conclusions from Table 2.22. However, as the table reveals, there are more deaf, blind and partially sighted students who seek help from university staff. Among hard of hearing there are just 25% of students who ask for support, while among other groups there are more than half of those who ask for support.

Inclusion in education is also about the feeling of not being hindered by his impairment, and have the same chance as any other person within his academic pathway. In order to evaluate this, we've asked students:

"*Do you think that because of the impairment you are less, equally or more successful to meet the academic achievement compared to students without these impairments?*"

Answers are presented in table 2.23 below.

Table 2.23: Perception of success by impairment

	Hard of hearing		Deaf		Partially sighted		Blind	
	n	%	n	%	n	%	n	%
less successful	6	50,0%	11	50,0%	6	46,2%	5	38,5%
equally successful	5	41,7%	9	40,9%	5	38,5%	7	53,8%
more successful	1	8,3%	2	9,1%	2	15,4%	1	7,7%

Although, as previously referred, the low number of responses doesn't allow us to draw definitive conclusions, results obtained don't allow us to draw definitive

conclusions. However, general impression is that only few students think they are more successful compared to the students without impairment. Among deaf and hard of hearing there are half of the students who think they are less successful because of their impairment. Nevertheless, among blind and partially sighted there are more than half of students who think they are equally or more successful as their colleagues without impairment. Go back to index

Open ended questions

At the end of the survey, there were three open questions, where students could freely write their responses[6].

First, students were asked about the main obstacles they consider to be facing during lectures. Answers to this subject are summarized in table 2.24 below.

Table 2.24: The main obstacles during lectures

The lectures are too fast, I cannot write down all the material from the projector/whiteboard
Lecturer speaks too fast
No availability of lessons in audio version for visually impaired students.
The speaking language, since I am deaf
It is not easy attending lessons when professors use slides. I need to have slides before lessons, otherwise I have difficulties in understand and taking notes. Same problem when professors write on the blackboard.
Slide, notes on the blackboard etc.
The transfer between places / classrooms.

[6] The open ended answers were provided by Italian, Slovenian and Swedish partners.

Materials used during the lessons are showed on the blackboards and I cannot see them. Several times I've asked to have the materials before; but normally my requests are not satisfied.
No possibility to read the slide showed during the lessons;
Some professors' incapability in understanding the difficulties of being disabled;
Visual comparison (on books / blackboards) of what the professors explain during the lessons.

Professors that write on the blackboard without talking / reading what they write. Not accessible slides and e-learning.
When professors speak with hands covering their mouth, I cannot read the labial; or when they speak in the dark or speaking moving; video without subtitles.
Sitting down quite close the professors; taking notes during the lessons;
Taking notes
Find a seat in the classroom
The lack of support during the communication: a qualified LIS interpreter that knows the subject of the course; an expert person that takes notes during the lessons and then summarize the content clearly.
To prepare the books; to understand tables and graphs.
Being visually impaired student, I do not see what is written on the blackboard by professors; I have problems in listening and taking notes at the same time.
Not understanding the questions
Each lecture with new speakers is a new challenge

Another open question was related to the exams: "What are the main obstacles you are facing during exams?".

Table 2.25: The main obstacles during exams

Not to have all materials
Not to use any tool
Lack of time
Keep in mind that I do not have time in time.
My stress.
The speaking language, since I am deaf
Most of the problems are related to the impossibility of promptly finding digital books. As a consequence I need more time to prepare my exams; usually for me is not possible to do them during the first date/sessions foreseen.
In the exams with multiple choice, when there is not the Braille transcription or in the digital version
Not always they provide me enlarged photocopies. If the typeface is too small, I cannot see it, not even with glasses.
Reading the text of the exam;
Some professors' incapability in understanding the difficulties of being disabled;
No possibility to have by the University the text of the exam in Braille
To explain and let the other understand that the request of doing exams in oral form is not a tantrum for a disabled students, but just a need.
To adapt myself to the velocity of the professors' exposition/questions; environmental sounds.
To explain my problems and needs to have the necessary support.
The main obstacles are the oral expositions. Not always I can understand the professors' questions; not everybody is able to understand deaf people's difficulties during the communication. Not everybody knows how to approach. Furthermore,

without a qualified support, expert in the scientific subjects, the LIS translation could be depleted. Would be better to have written exams with multiple choice, except for the thesis (final exam) to be discussed orally, if the candidate is able.
To find every time an appropriate solution with professors.
To read the tests
Not enough time
Not enough notes, consultations with professors or exchange of information with other students
Sometimes the form of the test – if I need to connect answers in two columns

At the end of the questionnaire there was the following question: "*What would be your suggestions for improvement of your learning experience?*"

Table 2.24: suggestions for improvement of learning experience

To foresee an info point / help desk for disabled people
LIS Interpreter; lessons with subtitles; professional notes of lessons provided in advance; support services in peer to peer learning and in training activities.
I would like to have notes and slides available before the lessons. It would be also important to have books in digital version available before the courses starting in order to have equal opportunity and the same possibility of my colleagues.
Suggest to train the academic and administrative staff about disability, in particular in visual and hearing impairment, through the organization of workshops, for example. Establishment of accessible digital library. Direct involvement in the academic world and activities of Associations of disabled people or staff/operators specialized in visual and hearing impairment.
Prepare and provide materials in advance (before the lessons)

To force professors to find a way / approach to make me attending lessons and give me exam tests adapted to my specific needs.
1) Provide books for the exams, synthesis/notes and exams tests in digital version (doc; pdf) or in Braille; 2) Expert tutors in support of disables students for accessing exams and contents of lessons; 3) Academic and administrative staff more aware and prepared about problems related to visual impairment.
Professors more aware and open to the disability. More accessible and adapted material and exercises. Publisher more available to offer books in digital version.
Provide more services according to the individual person's need. In my case, the possibility to have a LIS interpreter / qualified person (having scientific knowledge of the subjects of my course) that takes notes during the lessons and is able to translate the concepts not always clear through the LIS translation. This allow me also to attend conferences with a simultaneous translation.
For person with visual/hearing impairment is necessary to create specific environment, without giving a perception of isolation.
Services for disabled carried out by competent persons, with specific knowledge and competences. This is the key to provide efficient and effective services and to plan with students' individual solutions and paths. For blind students the website in not accessible.
Qualified interpreter graduate in same course of study /Faculty;
Qualified person, from the same Faculty, that take notes during the lessons;
Simplified and clear synthesis;
In the workshops and interactions, it is relevant, in my case, to be supported by an expert - former student by the same faculty;
To implement awareness courses about LIS within universities to break down the barriers of communication and to become more aware of the real difficulties that a deaf student faces in the academic path. It is necessary to understand that the

abilities of hearing impaired students are not inferior: since they receive the word with eyes, rather than ears, and being foreigner to the “voice world”, every speech is lost. Integration can be only, if the society will be integrate with disabled persons, whoever they are.
Professors should send notes of the lessons via mail; the need of ICT blackboard in order to memorize the notes and send them via mail. Should be need more contact with professor that does not know about my disabilities and speak very fast. Work in team should be more promoted. Schools and University are not aware about disability and, in my specific case, staff have not idea of what being visual impaired means: they treat me as not a disabled just because I am not completely blind.
A little more experience from the university
Not so many exams at the same time
Strengthen the tutoring
Clear rules of communication
Clear rules of the study process
More help from the state – financing
In advance agreement with professors

Go back to index

SEMI-STRUCTURED INTERVIEWS

3.1 Introduction

Results obtained by desk research and the survey among students were further developed during the third part of the "Gaps and needs analyses" work package. In this stage we've conducted a set of semi structured interviews with HE institutions in all participating countries. Targeted respondents for these semi-structured interviews were the representatives of the office for disabled students from faculties or universities or other relevant institutions, or the management teams of the universities, where applicable.

For that purpose a specific equal questionnaire[7] for all partners was developed. Depending on the size of the country, number of HEI, and the partners involved, there were different number of interviews conducted per country, as showed in table 3.1 below.

Table 3.1: Number of interviews per country

	No. of interviews
Italy	5
Portugal	23
Slovenia	6
Sweden	9

Interviews were conducted between April and September 2015 using several methods: face-to-face, e-mail or via telephone. Each of the countries prepared a report based on the template and in this part we present the summary of findings. Go back to index

[7] The questionnaire is in Appendix II

3.2 Results of the interviews

As partners were using the same questionnaire for the interviews, we here present the summary of the results, the report for each country separately is also available. Due to privacy and confidentiality issues the names of the institutions are not disclosed in this report.

Description of the HE system in four countries:

ITALY

The Higher Education System in Italy is composed by the following typologies of Universities:

- PUBLIC - 68
- Recognized by the Ministry of Education as Universities with their own Statute:
  - PRIVATE - 18
  - On line Private - 11
  - Institutes of Higher Education - 3
  - Institutes of Higher Phd Education (for post graduate students) - 3

Considering that there are no compulsory registers on disabled students enrolled and neither regarding the typology of their disability it is not possible to provide specific data on these issues for the Italian University system.

PORTUGAL

Higher Education system in Portugal is composed by two higher education systems: universities and polytechnic Institutions. In both systems there are public and private institutions.

SLOVENIA

Higher Education system in Slovenia is composed by:

a) three public universities:

- University of Ljubljana: the members are 3 academies and 23 faculties
- University of Maribor: the members are 16 faculties
- University of Primorska: the members are 5 faculties, 1 high school

b) One private university:

- University of Nova Gorica: the members are 5 faculties and 1 high school

c) One international university

- Alma Meter Europaea

d) 30 Independent HEI: 15 faculties and 15 high schools

All in all, in school year 2015/16 there were around 80.000 students in Slovenia, but the number of students with special needs on the country level it is difficult to obtain, as there are no such registers. Nevertheless, there is an estimation that in study year 2015/16 there are around 400 disabled students, which represents 0,5% of the student population. The estimation comes from Association of disabled students of Slovenia. There is no data on specific disability.

SWEDEN

In Sweden there are 34 institutions of higher education run by government through the Ministry of Education and Research, plus 19 private institutions of higher education that are partly run by the government.

Although on general there are no registers available about student impairment, faculties and universities have evidence about the numbers and on general in participating countries those students represent a minority among students with different impairments. Go back to index

Services and adaptations provided for visual and hearing impaired students

In all countries we can see, that the services and adaptations for visual and hearing impaired students are quite similar. Nevertheless, we can see that in Portugal, **Italy** and **Slovenia** there is no centralized system of action, so each faculty functions a little bit differently. The situation is different in **Sweden** where every institution questioned listed exactly the same measures and adaptations used to deal with people with students with special needs. The reason for that is that these measures/adaptations exist in a form of a common policy, which all universities in the country must adhere to. Stockholm University is the university responsible for the communication of this policy and the whole coordination of Swedish universities regarding the services to provide to students with special needs.

Considering that services and adaptations are usually based on the requests and needs of students, we present in the following section what kind of adaptations are provided in each country, findings are based on the interviews. Go back to index

Italy

The institutions do not have written statements about adaptations, but there are many adaptations possible and used. Some of the services are based on voluntary work of other students.

Universities offer the following adaptations and services to visually and hearing impaired students:

- personalized exams,
- extended time for the exam,
- specific didactical support,
- transcription of books in audio version
- LIS - Italian Language of Signs interpreting services
- the possibility to use technical equipment and adapted ICT devices during the study course

- tutoring, guidance and psychological support
- speech therapy
- transport services

Technology – lessons and teaching materials using technological devices such as:

- screen magnifier,
- digitization of images and digital books,
- tablets,
- multimedia classrooms for streaming,
- voice synthesizer (voice-box),
- braille printers,
- live scribe pens
- ICT devices (PCs with voice synthesize programs, scanners texts etc.) that are provided on extended loan for use to students who need this equipment at their own homes

Tutors – voluntary, offered by tutor students:

- tutoring and guidance,
- tutor notes
- accompaniment at lessons by a tutor who also takes notes,
- a specialized tutor for helping in study
- the tutoring service delivered by voluntary students
- To hearing impaired students are guaranteed the LIS interpreting services; accompaniment and support services during the lessons and the exams by trainee students.

Tutoring, guidance and psychological support are the assistance services most frequently required by visually and hearing impaired students.

Online university:

1. Contents and features of the e-learning platform: Online accessible didactic contents with texts in various formats (PDF, e-book, html) are offered;

2. Lessons: Video lectures are recorded using a simultaneous sign language interpreter and transcript on text. Software (screen readers) and hardware (braille printers) for visually impaired people are delivered;

3. Exams: Students living far from the University have the possibility to have tutoring support and final exams via videoconference through the Technological Poles Network;

4. Interaction with other students, professors and tutors: Web space to support social interaction within the students' community are established (chat, forum, students' community as a "peer-to-peer" helping service); Specific services to facilitate the interaction students/professors (phone calls, Skype sessions, face-to-face meetings) are also provided. Go back to index

Slovenia

In Slovenia the awareness and the number of disabled students is increasing. The Universities (Ljubljana, Maribor, Primorska) are active in providing support, organizing lectures, workshops, for staff and tutors dealing with students with special needs. Universities have written statements about students with special needs, where adaptations and regulations and processed are defined, and some faculties have additionally some internal documents regulating this field. For that reason, there are minor differences among faculties, but all involved stated they work and adapt to the needs of the individual student. Faculties provide the following adaptations:

- Adaptations of the lectures – tailored schedule (not so many obligations in the sense of presence)
- Adapted form of exams (written/oral/divided in several parts)
- Advance publication of study materials that students receive on lectures and exercises (eg. For visually impaired students to follow a lecture or for those students who cannot take notes);

- Advance publication of study materials to be used in the course (teaching units) that can be adjusted in the electronic or audio form or increased appropriately;
- Recording of lectures and tutorials;
- Use of special devices such as computer, electronic increase, magnifying glass and similar;
- Possibility of transferring written articles in electronic form;
- Carry out certain academic requirements paired with students who do not have a status of student with special needs;
- The possibility of carrying out specific tasks and exercises at home (partial form of e-learning);
- Tutors (voluntary students) – help in note taking, accompaniment at lectures
- Sign language interpreter – the state pays a voucher for 100 hours of interpreter per student. (if more hours needed they need to be paid by the faculty or the student)
- exceptional enrollment in the next year, without the required obligations (usually students have to have at least 50% of obligations)
- exceptional extension of student status. Go back to index

Sweden

Working with special needs appeared to involve various forms of actions and measures to eliminate, compensate or overcome obstacles that may arise in the study situation. As it was mentioned before, all institutions in Sweden have the same system and a joint program. They provide:

- Tailored examination: alternative form of examination (such as single exam at the computer, oral instead of written exam and vice versa, extended time periods for examination)
- Tailored schedule (such as part-time studies instead of full-time studies)
- Notes support
- Special computer
- Mentor

- Additional guidance
- Language support: advice on writing through self-help
- Sign language interpretation
- Writing interpretation

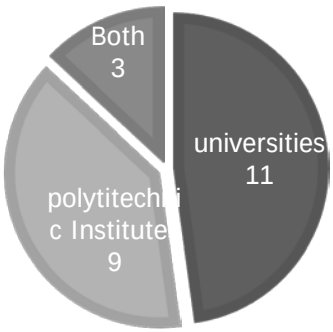
There are also two centers that take care of the technical assistance funds for those in need; they are 2 offices of an organization called Vision Centre. Go back to index

Portugal

Data for Portugal regarding the interviews results cannot be directly compared with the previous information on each country. Giving the higher number of partners for Portugal, Portuguese partners were able to perform 23 interviews to Higher Education Institutions (HEI) in continental Portugal and the Autonomous Regions of Azores and Madeira. Interviews were conducted with the support of the Portuguese Association of the Blind and Partially Sighted (ACAPO) and of the Portuguese Association of the Deaf (APS). The interviewed institutions covered thirteen districts (of a total of 18 in continental Portugal) and one institution in the autonomous region of Madeira. One of the interviewed HEI caters for students at a national level.

The study includes 11 interviews to universities, 9 to polytechnic institutes and 3 to institutions comprising both universities and polytechnic Institutes.

Figure 3.1: Interviews to HEI



All the HEI interviewed have students with SEN (Special Educational Needs), even though the data related to those students is not always available or organized. Ten HEI do not have blind or partially sighted students and three HEI do not have deaf or partially deaf students; two of the referred HEI do not have students with hearing or sight disabilities.

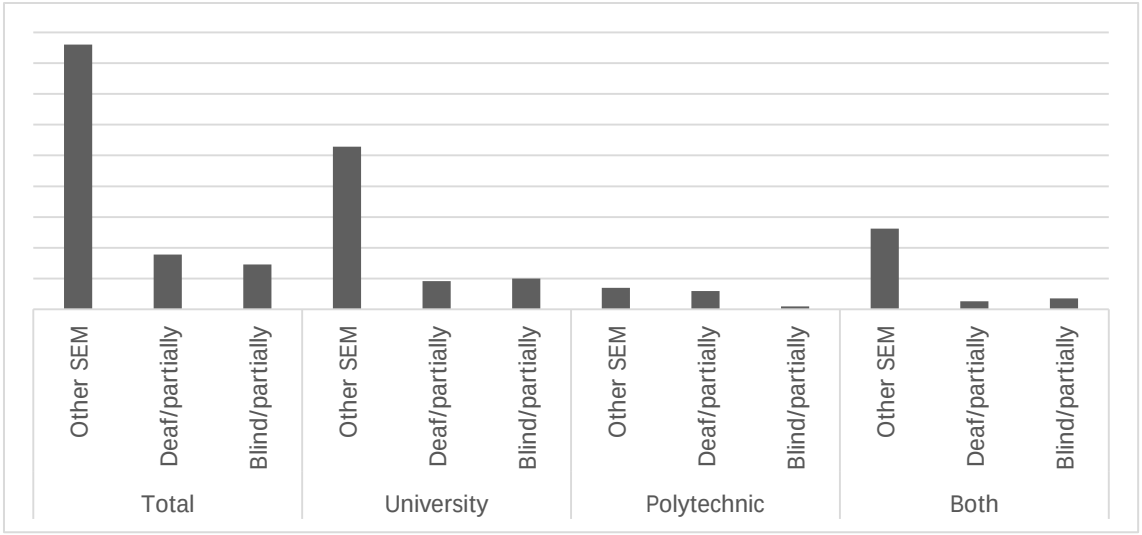
The total number of students with disabilities has not been nominated in six interviews, because not all HEI had this information organized or because respondents were not aware of that number. The HEI indicated a total of 592 students with disabilities, 73 were blind or partially sighted and 89 were deaf or partially deaf.

The respondents representing public universities identified 360 students with disabilities, of which 50 were blind or partially sighted and 46 were deaf or partially deaf.

The respondents representing the public polytechnic Institutions identified a total of 70 students with disabilities, of which 5 were blind or partially sighted and 30 deaf or partially deaf.

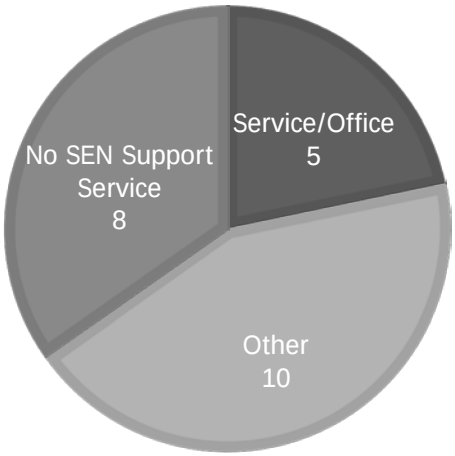
The three respondents representing HEI with organic units of both subsystems (universities and polytechnic Institutes), identified 162 students with disabilities, of which 18 were blind or partially sighted and 13 were deaf or partially deaf.

Figure 3.2: Number of students with SEN



The interviews revealed that there are different approaches to support students with disabilities. Some HEI do not offer a special service or office responsible for supporting students with SEN and some HEI show another type of organization. Only five respondents reported that their HEI have a special service or office to support these students. Ten HEI reported that this type of special support is integrated into other structures of support to students in general and eight HEI do not have this type of structure for SEN students. When there is a service or office responsible for supporting students with SEN, these can be integrated in other services, such as the Social Services Office or the Student Support Service (serving all students).

Figure 3.3: Offer of support structures to students with special needs



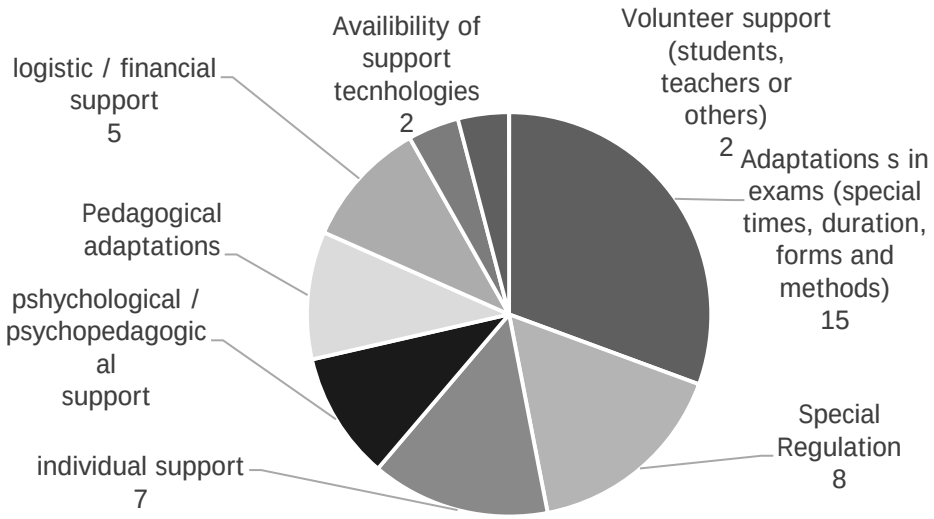
Most respondents indicate that they pass on verbal information about the needs of the students rather than written guidance or reports. According to the respondents, there are services responsible for supporting students with disabilities that report not having "*much contact with teachers*."

The variation of procedures seems to be associated with the recognition of a special status for students with Special Educational Needs. When there is the recognition of the referred status, there is also a regulation for the support of these students. This organizational diversity seems to be due to different stages of awareness of the Portuguese HEI on this matter, but generally they seem to be evolving into more inclusive approaches. Eight HEI have created specific regulations to guide their own

practices and social support with the creation of manuals which include the needs of disabled students.

The resources, support and adaptations for these students are not the same in all HEI, due to the absence of guidelines and national funding for this purpose. The acquisition or development of new resources or regulations has been implemented according to the needs expressed by specific students with SEN attending each institution or identified by the HEI themselves.

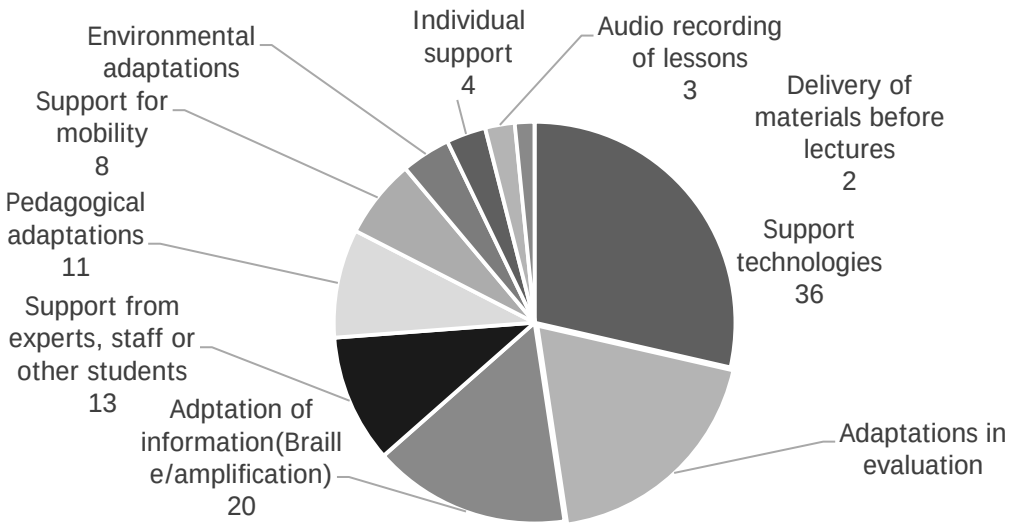
Figure 3.4: Services and adaptations for students with SEN



Besides the support and adaptations that are common to all students with disabilities, according to the goals of the ISOLearn project, some respondents focused their answers only on the two types of disabilities being studied.

Other individualized and specialized practices aimed at these two types of disabilities were identified, such as “equipment/resources for blind students”, “human resources for deaf students”, “adaptation of learning materials" and “individual support”.

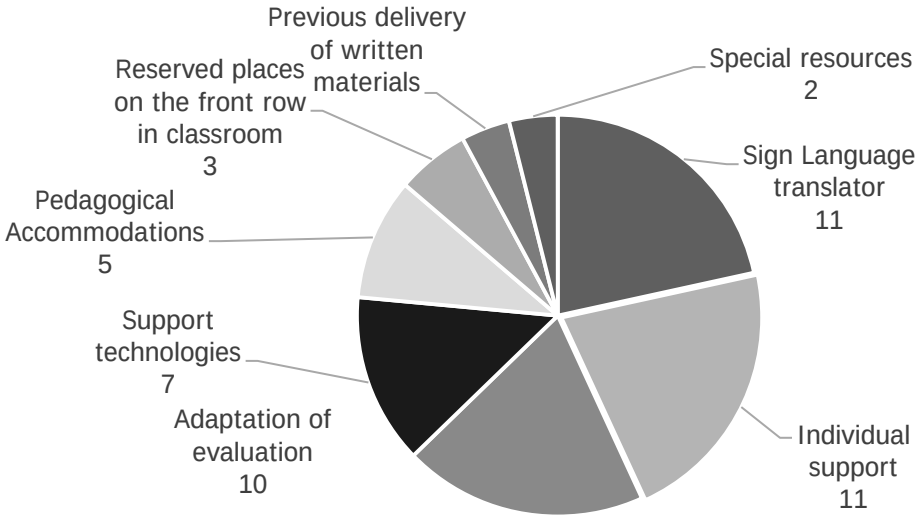
Figure 3.5: Services and adaptations for visually impaired students



Assistive technologies for visually impaired students are essentially the following:

- Specific software (ReadSpeaker, EN Joe, Magic, Text Zoom, Magnifier Reader, Jaws, Windows-Eyes, NVDA, WinBraille)
- Keyboard (focus 40 Braille line) and Braille printer
- Relief Printer
- TV Magnifier Magnifying Glass
- Digital recorder.

Figure 3.6: Services and accommodations for deaf and partially deaf students



Assistive technologies for deaf students include the following:

- Video projector,
- Video camera,
- Multimedia Software
- Automatic subtitling Software
- FM systems.

As a conclusion, we can assume that higher education lecturers in Portugal do not have specialized knowledge and that, with some exceptions, the support that they receive is insufficient. At the present moment all they have is some information and, occasionally, specialized support in adapting their pedagogical practices.

Open University (distance learning)

Universidade Aberta, the Portuguese Open University (POU) identified 49 students with disabilities, of which 10 are blind or partially sighted and 4 are deaf or partially deaf. The POU has a specific working group for support of students with SEN,

responsible for the written recommendations on the needs and adaptations for disabled students.

The generalized offer of Services and planned adaptations for blind or partially sighted students and deaf or partially deaf students by many of the Portuguese HEI usually:

- Promotes accessibility to the interfaces and software materials for studying and exams or other type of assessment.
- Grants financial /social support.
- Prepares exams and assessments suitable to the students' needs (e.g. software used, layout).
- Ensures individual (or in a small group) support for exams (e.g. reading the questions).
- Provides support to reading, in cooperation with the National Library.
- Provides laptop computers and other equipment specially adapted or with specific programs for the blind.
- Provides an E-learning platform or ICT based materials for these students. Go back to index

Obstacles and changes

Italy

According to the disabled students' services of the Institution interviewed, no specific and particular obstacles have been expressed by the disabled students during their study courses.

Some challenges, indeed, can emerge after University career, for the integration of visually and hearing-impaired students into the labor market. For this reason, one of the interviewed Italian institutions provide a service placement support requested normally by 46% of disabled students; and another cooperates with Jobmetoo Organisation, an online agency to foster the disabled people's job inclusion.

Another obstacle faced by visual and hearing impaired students are mainly related to the social integration into University, especially for no-resident students.

Currently the number of students with visual and hearing impairment within the Institutions interviewed is moderate, and the actions undertaken allow to have a sufficient impact on each individual and specific case. In case the number will increase, Institutions will need additional financial resources to maintain the same standard of quality for all. Go back to index

Slovenia

The biggest obstacle seen is that the universities do not have a special funding for disabled students. They provide counseling, organize workshops, lectures, but cannot financially help – for instance pay for the sign language interpreter or the equipment.

The faculties and students have to deal with the financial issues themselves. The faculties see that as a major obstacle: there is no systemic financing for students with special needs.

Until 7 years ago, at the University of Ljubljana, there was no policy document on students for special needs, which represented a problem for faculties and academies.

There was only general document: Law on the Placement of Children with Special Needs.

Institution interviewed agree that the changes needed would be mainly in more systemic financing or more financial resources especially dedicated just for students with special needs. Go back to index

Sweden

According to some institutions interviewed, in Sweden one of the problems that visually and hearing impaired people face is excessive attention. Since the topic of helping disabled people is one of quite discoursed in Sweden, many interested people (such as students) want to interview people with special needs. Nevertheless, only few of those interviewers actually help disabled people. This created a situation of feeling 'overinterviewed' among people with special needs.

Overall, the institutions feel they have good knowledge and they are constantly in contact with the coordinator in Stockholm; different institutions also collaborate with local authorities in order to improve their capabilities in offering better assistance to those in need. Go back to index

Portugal

Almost all the expressed views of respondents' are in line with the rights of persons with disabilities, advocating an inclusive approach for their HEI.

Others expressed a less inclusive perspective, focusing their views on the difficulties that they have to face to answer to those needs, and supporting that the main responsibility for the necessary adaptations relies solely on the students.

With the interviews we have gathered evidence of different attitudes, practices and approaches to the subject in study which leads to very different perceptions of the existing adversities by teachers and students.

In general, teachers feel much difficulty in adjusting their pedagogical practices to the specific needs of SEN students.

On the other hand, the visually impaired students seem to have difficulties in terms of access to information and support technologies, complaining of lack of awareness of teachers and the lack of structural preparation of the HEI in matters such as mobility.

For the deaf, the main obstacles are focused on access to communication and information.

The solutions which are implemented also seem to differ, depending on the existing resources and the attitudes and culture within each educational community, and HEI. Many times we observed that the dynamic is much dependent on the capacity and personality of the responsible persons for these services, and not so much on the level of the institutions' policies towards these issues.

The main solution pointed out to these obstacles is to reinforce the support to faculty, by helping them to improve their practices and to adapt the materials which are made available to disabled students.

The respondents recognize the need for teacher training in order to ensure more quality in higher education for this population.

For the Open University interviewed, the main identified obstacle that teachers face is the lack of specific training, relying only on their common sense.

The main obstacle faced by students is that everything is designed, created, structured and scheduled for people without disabilities. The students do not have a consolidated system of support, the only support they have is some adaptations for the final exams.

The immediate identified solutions by the Open University, to address these obstacles are:

- Adaptation of exams.

- Adaptation of some learning materials.
- Adaptation of specific learning materials, by some teachers.

Overall the suggestions obtained pointed out for change focus on more support for teachers, on improving the infrastructures, on more technical and specialized human resources in HEI, on improving awareness of HEI and their communities and on sharing experiences and resources among HEI.

This study has allowed us to realize that there is a process of implementation of a change in the Portuguese HEI, in line with the commitment taken on at an international level when Portugal signed the UN Convention on the Rights of Persons with Disabilities. The academic community is motivated to implement the recommendations contained in the Convention by outlining short and medium term goals, in spite of the constraints that HEI continue to face on a daily basis.

The hangs needed to ensure a successful experience for SEN students (according to the Open University of Portugal) are the following:

- Creation of a more consolidated structure and regulation to deal with this population, becoming a reference HEI in this area.
- Development of networks and partnerships with organizations and institutions specialized in these disabilities to assert the needs of these SEN students.
- Provide continuous training of teachers for support, teaching, research, knowledge and development of materials. Go back to index

3.3 Conclusion

In all countries, the services and adaptations for visual and hearing impaired students are similar:

- personalized exams,
- tailored schedule,
- extended time for the exams and adapted form of the exams,
- didactical support,

- transcription of books in audio version,
- transcription of written articles in electronic form,
- advance publication of materials,
- sign language interpreters,
- use of technical equipment,
- use of adapted ICT during study course...

Moreover, students can use technical devices, such as multimedia software, screen magnifier, digitalization of images and digital books, tablets... and get voluntary help from tutors which takes the form of tutoring and guidance, taking notes, accompaniment at lessons, helping in study... Nevertheless, only Sweden has centralized system of actions regarding measure and adaptions to support student with special needs. Major obstacles on institutional level vary across the countries. Go back to index

COMPARATIVE ANALYSIS

Desk research and semi-structured interviews[8] revealed the state of the higher education for students with visual and hearing impairments in participating countries, and unveiled the issues those students are coping with. Key components of the higher education system in Italy, Portugal, Slovenia and Sweden are presented in the Table 4.1.

Table 4.1: Key components of higher education systems regarding hearing and visual impaired students.

	Italy	Portugal	Slovenia	Sweden
Known exact official number of hearing and visually impaired students	No	No	No	No
Specific national legislation regarding rights of individuals with special needs in HE	Yes	No	No	No
Allowance to use assistive tools	Yes	Yes	Yes	Yes
Other facilitating measures (exams adaptations etc.)	Yes	Yes	Yes	Yes
Regulated area of sign language interpreters	Yes	No	No	Yes
Systematic financing on the HE level	Yes	No	No	Yes
Centralized system of actions	No	No	No	Yes

The characterization of visually or hearing impaired HE students in **Italy** is difficult, since many of disabled people have difficulties in declaring that, and since there is no exact data on disabled students. The right to education and integration for this students is guaranteed by law, as well as the provision of materials, programs and specialized languages. Each university must create a special department in charge of all services for disabled students. Students with disability up to or exceeding 66% must be exempted from the enrollment fee in all public universities. The institutions do not have written statements about adaptations, but there are many of them

[8] Survey results are excluded from the comparative analysis, since the sample of the survey was too small and the number of the units was too low for statistically significant differences.

possible and used. Tutoring, guidance and psychological support are the assistance services most frequently required by visually and hearing impaired students. Disabled students do not express specific and particular obstacles during their study course. Some challenges can emerge after university career while integrating into the labor market. Other obstacles are mainly related to the social integration into university.

In **Portugal**, there are difficulties to obtain statistics on visually and hearing impaired students due to the use of Functionalities' International Classification, which do not distinguish the essential types of impairments. Higher education for deaf is bilingual, what means having Portuguese as a second language. Students pay interpreters by themselves. There is still no specific national legislation for higher education regarding individuals with special needs. Some of higher education institutions do not offer a special service or office responsible for supporting disabled students and some have another type of organization. Resources, support and adaptations for disabled students are not the same in all HEI, due to the absence of guidelines and national funding for this purpose. Teachers feel much difficulty in adjusting their pedagogical practices to the specific needs of disabled students. The visually impaired students seem to have difficulties in terms of access to information and support technologies, whereas the main obstacles for the deaf are focused on access to communication and information.

Status of disabled students in **Slovenia** is not regulated by law; moreover, there is no exact data on the number of all students with disabilities or students with special needs. At universities, the status of disabled students is not regulated uniformly. Nevertheless, study is becoming more accessible, whereas the biggest problems remain in the area of physical accessibility of faculties, public transportation, e-teaching materials and technical or communication devices. Area of personal assistance is not regulated. The Use of Slovenian Sign Language, provides the right of deaf people to use Slovene sign language for deaf people. However, its financing is not systematic. Slovenian universities are active in providing support, organizing

lectures, workshops, for staff and tutors dealing with students with special needs. They have written statements regarding students with special needs which are not unified. The biggest obstacle seen is that universities do not have special funding for disabled students and that there is no systemic financing for students with special needs.

Disabled people in **Sweden** are able to get different types of support for higher education. Full participation and equality for students are highlighted as a goal of Swedish National Agency for Higher Education. Even private educational institutions can receive funds for disabled students. Nevertheless, many students don't consider information about the support to be easily accessible. They indicate that HEI should do more in this respect. There is still some work that needs to be done: HEI should review disabilities definitions; physical accessibility of the universities should be improved; information on opportunities for disabled students should be reaching them better; teachers' awareness and understanding of disabilities must be raised. All Swedish institutions have the same system and a joint program regarding services and adaptations provided for visual and hearing impaired students. The problem that visually and hearing impaired people face is excessive attention. Institutions feel they have good knowledge and they are constantly in contact with the coordinator in Stockholm. Go back to index

CONCLUDING REMARKS AND ROAD MAP

Needs assessment analysis within the ISOLEARN project focused on under-researched topic of needs in education process of visually and hearing impaired students in HE in Europe. Applying a mixed-method design with desk research, a web survey with students and in-depth interviews with representatives of higher education institutions revealed valuable feedback for increasing the understanding on needs of this vulnerable group.

The major conclusion is that these two groups need different adaptations as they have different needs. Also we can say they are not satisfied with current adaptations and there is a lot of room for improvement. From the interviews and also desk research we can conclude, that the institutions are trying to help students on their way to academic success, but results of the survey shows, that they (institutions) are successful only to a certain extent.

Both groups of students are facing barriers related to lectures and examinations. Despite the adaptations they are facing difficulties with:

- Written examinations
- Multiple choice / other examinations
- Written course work (e.g. essays, reports etc.)
- Oral presentations

It is not enough they have longer time for writing, also the form of the exam should be better adapted, especially written and multiple choice examinations for visually impaired.

The improvement is especially needed in the following areas:

- adjustments of exams
- inclusion of students with impairment into the study process
- adjustment/adaptation of study materials
- help of counselor/disabled student services
- special resources for deaf/blind students
- teaching methods/tools, programs and exams appropriate to the needs
- help from student association

When it comes to adaptations of learning materials the needs of hearing and visually impaired are different:

Visually impaired	**Hearing impaired**
ICT based didactic contents	Previously handling of study materials
Previously handling of study materials	Support of orientation materials
Provision of audiotape materials	ICT based didactic contents
Translations of written material to braille	Content simplification

The needs for adaptations are also different when it comes to lectures:

Visually impaired	**Hearing impaired**
Previously handling of study materials ICT based didactic contents	Sign language interpretation Previously handling of study materials
Note taking by another student	Note taking by professional
Note taking by professional	ICT based didactic contents

In order to achieve the improvement, there is a need for competent staff – including teachers and support staff, who would have deeper knowledge about the needs of these groups of students. This is also most often recommendation from the students, qualified personnel and services run by competent person or as one of the students pointed: "... train the academic and administrative staff about disability, in particular in visual and hearing impairment..."

Finally, but also crucial, is the need to a common European framework of action on these issues, from which should derive specific national legislations that should contribute to a better coordination of services offered to these students, and the providing of resources to face the challenges ahead at these levels. Go back to index

REFERENCES

Cumming, Joy. 2012. *Valuing Students with Impairment. International comparisons of practice in educational accountability*. Springer.

European Commission. 2010. *An agenda for new skills and jobs: a European contribution towards full employment /*COM/2010/682 final/http://eur-lex.europa.eu/legal-content/SL/TXT/HTML/?uri=CELEX:52010DC0682&from=EN*

———. 2012. *Rethinking Education: investing in skills for better socio-economic outcomes /* COM/2012/0669 final */*. http://eur-lex.europa.eu/legal-content/SL/TXT/HTML/?uri=CELEX:52012DC0669&qid=1435594902607&from=EN.

———. 2013. *Opening up Education: Innovative Teaching and Learning for All through New Technologies and Open Educational Resources [COM(2013) 654 Final].* http://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1435850575030&uri=CELEX:52013AE6185.

European Union. 2009. *The strategic framework for European cooperation in education and training 2020.* Official Gazette European Union 2009 / C119 / 02.

McKillip, J. (1987). *Need Analysis: Tools for the Human Service and Education*. Applied Social Research Methods Series, Volume 10. Sage Publications: Thousand Oaks, CA.

Reviere, R., Berkowitz, S., Carter, C.C., Gergusan, C.G. (Eds) (1996). *Needs Assessment: A Creative and Practical Guide for Social Scientists.* Taylor and Francis: Washington, DC.

UNESCO 2011. *Consultative Expert Meeting Report Accessible ICTs and Personalized Learning for Students with Disabilities: A Dialogue among Educators, Industry, Government and Civil Society* http://unesdoc.unesco.org/images/0021/002198/219827e.pdf

Witkin, B. R. and Altschuld, J. W. (1995). *Planning and Conducting Needs Assessments: A Practical Guide.* Sage Publications: Thousand Oaks, CA.

APPENDIX I – online questionnaire

ISOLearn

Q2 - Gender

male
female
undefined

Q3 - Year of birth

Q4 - Where do you live?

In a community with fewer than 3,000 people
In a town with at least 3,000 but less than 15,000 people.
In a town with at least 15,000 but less than 100,000 people
In a city with at least 100,000 but less than 1,000,000 people
In a city with 1,000,000 or more people

Q5 - Did you have to change the place of living for the purpose of studying?

yes
no

IF (1) Q5 = [1]
Q6 - How far did you have to move for the study: (express in km)

km

Q7 - What kind/degree of impairment do you have?

Hard of hearing
Deaf
Partially sighted
Blind

Q8 - Your impairment:

is since birth

came later in life. Please state the age:

Q9 - School background.Which schools did you attend?
In each row select the answer accordingly.

	Mainstream	School for deaf/blind	Other
pre-school			
1st to 4th grade			
5th to 9th grade			
10th to 13th grade			

Q10 - What is your current status?
More answers possible.

employed
unemployed

Q11 - What is your field of study?

natural science (STEM - technology, engineering, mathematics, physics...)
social science (sociology, languages, arts, education...)

Q12 - Please state the study course you are taking:

Q13 - In which level of university study are you?

	yes	no	Year of first enrolment	Current or last grade
Graduate				
Masters				
Phd				

Q14 - Which levels of university study have you finished?

	yes	no	Number of years to complete the studies	Total years of the course/study
Graduate				
Masters				
Phd				

Q15 - Can you explain why did you choose this study?I choose the field of study because of:
More answers possible.

I couldn't choose anything else because of my impairment.
It is a field of my interest.
I am good at it.
It is related to my impairment.
It enables employability.
It is easy.
It is the only one I feel capable to do.
It is the only one available where I live.
Other:

Q16 - Do you need for successful following of the study course any adaptations of the learning materials?

yes
yes, to some extent
no

IF (2) Q16 = [1, 2]
Q17 - What kind of adaptations of the learning materials do you need for successful following the course ?

More answers possible.

previous handling of study materials
adaptation of printed materials - enlargement
translations of written materials to braille
support and orientation materials (syllabus, concept maps, etc.)
content simplification
ICT based didactic contents (video, audio, text, etc.)
subtitling or transcription of audiovisual material
provision of audiotape materials
nothing from the above
Other:

Q18 - Do you need any adaptations of the lectures for successful following of your studies?

yes
yes, to some extent
no

IF (3) Q18 = [1, 2]
Q19 - What kind of adaptations of the lectures do you need for successful following of your studies?
Multiple answers are possible

previous handling of study materials
note taking by another student
more ICT based learning material
note taking by professional
sign language interpretation
interaction/communication tools for collaborative activities (chat / forum / virtual classrooms / audio/video conferences tools)
automatic speech processing to writing
nothing from the above
Other:

Q20 - How would you rate the following factors relating to your study and your university . On the scale from 1 to 5, where 1 means "not satisfied at all" and 5 "very satisfied" rate how satisfied are you with the following:

	1 not satisfied at all	2	3	4	5 very satisfied
adjustment/adaptation of study materials					
inclusion of students with impairment into the study process					
attitude of professors					
attitude of other students					
attitude of other faculty staff					
special resources for deaf/blind students					
adjustments of exams					
help of counselor/disabled student services					
help from other students					
help from student association					

	1 not satisfied at all	2	3	4	5 very satisfied
Teaching methods/tools, programs and exams appropriate to the needs					
help of tutors					

Q21 - How do you agree with the following statements? Rate them on a scale from 1 to 5, 1 meaning "strongly disagree" and 5 "strongly agree".

	1 strongly disagree	2	3	4	5 strongly agree
My faculty is trying to eliminate the barriers for disabled students.					
The disabled student services at my faculty are helpful with communicating and informing me about my rights.					
The disabled student services at my faculty have provided services to ensure equal opportunity for students with my disability.					

Q22 – Barriers

How much do you agree with the following statements? Rate them on a scale form 1 to 5, 1 meaning "strongly disagree" and 5 "strongly agree". During the study I have faced disability related barriers which have impacted on...:

	1 strongly disagree	2	3	4	5 strongly agree	Not available
...support and orientation (gathering (meta) information about a course, prerequisites, structure, professors, description of the assignments, etc.)						
.... my learning experience in other on-campus classes (e.g. seminars, tutorials).						

	1 strongly disagree	2	3	4	5 strongly agree	Not available
..... my use of the University library(ies).						
.....my use of technical facilities (e.g. computers, multimedia, audio/visual equipment, photocopying).						
.... my use of learning resources (e.g. lecture handouts, computer assisted learning packages).						
... my use of exercises, laboratories, tools and activities used for applying in practice, the theoretical knowledge acquired by lecturers and contents						
...my use of interactive tools/ experiences (in the case of an on-line university, the communication tools and environments providing collaborative learning experiences, such as chat, forums, wikis, virtual classrooms, etc)						

Q23 - I have faced barriers related to my impairment which have affected my experience of the following types of assessment: Rate them on a scale form 1 to 5, 1 meaning "strongly disagree" and 5 "strongly agree".

	1 strongly disagree	2	3	4	5 strongly agree
Written examinations					
Multiple choice / other examinations					

	1 strongly disagree	2	3	4	5 strongly agree
Written course work (e.g. essays, reports etc.)					
Oral presentations					

IF (4) Q7 = [3, 4]
Q24 - How satisfied are you with the services adapted to your needs at your faculty ? Rate them on a scale form 1 to 5, 1 meaning "not satisfied at all" and 5 "very satisfied".

	1 not satisfied at all	2	3	4	5 very satisfied	Service is not available
Writer for test/quizzes						
Orientation to campus/faculty						
Availability of large print materials						
Classroom note taking						
Braille material						
Audio material						
Other digital material						

IF (5) Q7 = [1, 2]
Q25 - How satisfied are you with the services adapted to your needs at your faculty ? Rate them on a scale form 1 to 5, 1 meaning "not satisfied at all" and 5 "very satisfied".

	1 not satisfied at all	2	3	4	5 very satisfied	Service is not available
Availability of sign language interpreter						
Classroom note taking						
Permission to use speech to text devices						

Q26 - rate how much you agree with the ... When I have approached university staff with concerns about disability related barriers I have experienced support and help from:

	1 strongly disagree	2	3	4	5 strongly agree
Academic staff (e.g. lecturers / tutors) .					
Support staff (e.g. administrators, technicians, librarians) .					
Classmates					

Q27 - Do you think that because of the impairment you are less, equally or more successful to meet the academic achievement compared to students without these impairments.

less successful
equally successful
more successful

Q28 - Have you ever consulted one of the University support services (e.g. disability advisor, counselor, Student's Union, student services) about disability-related issues affecting teaching, learning and assessment?

yes
no

Q29 - What are the main obstacles you are facing during lectures?

Q30 - What are the main obstacles you are facing during exams?

Q31 - What would be your suggestions for improvement of your learning experience?

APPENDIX II - Semi structured interviews questionnaire

Questionnaire for institutions

The questionnaire is prepared for HE institutions, the proposal is to interview the office (person responsible) for disabled students.

As qualitative information is important to gain deeper insight into the topic the proposal is to conduct semi structured face to face interviews.

QUESTIONS

How many disabled students are enrolled at your institution?

How many of them are blind and partially sighted?

How many are deaf and hard of hearing?

What kind of help/service do you offer to v/h impaired students? (we should provide 3-4 examples)

What kind of assistance do visually/hearing impaired students seek? (we should provide 3-4 examples)

What kind of adaptations are offered at your institution to visually/hearing impaired students?

Do you have enough knowledge/resources to help them?

Do you cooperate with any other institution/association to help these students?

What do you think are the main obstacles during the course of study for these students? (both categories)

How do you solve them?

Are there any specific resources at your institution for visually/hearing impaired?

Do you help these students by adapting learning material?

Can you (the institution) offer specialized materials, equipment and technology to impaired students?

What about lecturers?

Do lecturers have enough knowledge/resources to help impaired students?

Do lecturers seek help/information/instructions from your organization to help v/h impaired students?

What kind of help do you offer to lecturers (if any?)

What do you think are the main challenges faced by lecturers/tutors who teach v/h impaired students?

What changes would you propose to provide a more successful experience for v/h impaired students at the faculty?

Innovative and Social Learning for HEI
Project Number:
2014-1-PT01-KA203-001087 ERASMUS+ PROJECT
http://www.isolearn.net

Co-funded by the
Erasmus+ Programme
of the European Union (Flag of European Union)