



## Enabling disability in higher education: A literature review

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### ABSTRACT

The participation of persons with disabilities to higher education institutions has started to be investigated more thoroughly in recent years, in various countries, particularly from the West. Studies and realities from the world are showing that the access and participation of students with disabilities as adult learners are increasing. The recent international documents like the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) of 2006 or the European Disability Strategy 2010-2020 adopted by the European have enhanced their right for the equal opportunities in all educational levels. The present paper presents a review of the legislation adopted by different countries to comply with the prerequisites of integration of students with disabilities in Higher Education as well as the variety of support provided by universities to students with disabilities.

*Keywords: Accessibility, disability, higher education, support*

### INTRODUCTION

The inclusion of students with disabilities into public schools has been emerged as a key topic of most educational systems in the world since the early years of the 18th century making it a concern for educational politics in many countries. From that period on, legislators in many countries adopted the concept of full inclusion which means creating an educational system that services equally all the students regardless of their differences (Onaga & Martoccio, 2008). The newest trend wished to be adapted from many countries, including Greece, is based on the holistic approach or the school that does not exclude any student. In general, many educators strongly support the deletion of the dual educational systems (special vs general education) and instead of that integrate the disabled into one educational system that meets all students' needs. Schools have been requested to carefully reconsider the education of students with disabilities into regular classrooms instead of placing them in a more restrictive environment (Jenkins, Plous, & Jewell, 1990; Schmidt & Cagan, 2008).

Although there are arguments for and against the inclusion of all people with disabilities into mainstreaming education system, for inclusion to be successful, schools and universities should accept innovation and diversity. The educational staff should be supported and the educational practices should be flexible concerning the outcomes, constructive education, assessments and evaluation (Alqaryouti, 2010).

Concerning higher education access can often be life-changing for individuals, and the skills that students gain from their higher education experience can leave an indelible positive impression and impact. When it comes to universities, students are involved in an ongoing process of choosing the right institution to further their education. Yet making these decisions is often difficult for most of them, which eventually affects their future life path (Veloutsou, Lewis, & Paton, 2004). Three contributing factors are reported to shape university choice decisions for the majority of students: course, location, and reputation (Moogan, Baron, & Harris, 1999; Price, Matzdorf, Smith, & Agahi, 2003). However, when students with disabilities are about to choose, the priorities may be different. Massie, Chair of the Disability Rights Commission (DRC), argues that students with disabilities have to find a university that can meet their needs, and then determine if there is an appropriate course available. Consequently, students with disabilities are presented with fewer choices as they need to discover where they will be best supported (Parker, 2003).

In order to get a clear picture on how people with disabilities around the world are been integrated into higher education, two objectives of the literature review study were established: to explore the legislation adopted by European, American, African and Asian countries in order to comply - at the institutional level - with the prerequisites of integration of students with disabilities and to investigate what kind of support individuals with disabilities get in order to complete university training.

### 1. TOWARDS INCLUSIVE HIGHER EDUCATION

The disability rights movements across the world have challenged condescending, discriminatory and stereotypical portrayals of people with disabilities. Through activism and

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formulation of the social model of disability, disability can no longer be perceived as a tragic personal state that warrants exclusive medical control, social stigma, welfare, pity and benevolence. Increasing opportunities for students with disabilities requires a society to consider the social model of disability. When barriers are removed, people with disabilities can be independent and equal in society, with choice and control over their own lives. The Social Model of Disability as a theoretical framework proposes that disability is a social construct meaning derived from people who do not have disabilities. Society is seen as creating labels for intellectual performance and/or behaviours that are not considered normal. This model questions what is thought to be "normal" and focuses the responsible for "fixing" on society which reinforces that disability does not result from impairments but from a social construct (Gallaghera, Connorb, & Ferric, 2014).

Various factors have affected the development of education of people with disabilities such as the mandatory nature of education at the beginning of the 20th century, the recognition of Human Rights since 1950, the introduction of special education and the development of humanistic philosophy focusing on "inclusion" and "integration". Despite the fact that many countries, have signed and ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) of 2006, most of them, have failed in their obligations to conceptualize and implement the right to education for students with disabilities as envisaged by the international conceptual approaches and legal standards of inclusive standard in the UNCRPD.

Article 28 of the United Nations Convention on the Rights of the Child also guarantees the right to free primary education (OHCHR 2016). Furthermore, article 24 of the UNCRPD stipulates that all member states shall ensure that people with disabilities should be given equal opportunities to follow tertiary education (UNCRPD 2006). Because of political or social reasons, some countries are even more affected than others, in terms of equal rights and opportunities, with adverse affects education.

In line with the guidelines of the United Nations as well as a move forward to equalities legislation at the beginning of the 20th century lead universities in the UK to adopt policies enabling the enrollment of students with disabilities. For example, Part 4 of the Disability Discrimination Act (DDA), implemented in 2002, requires institutions to avoid discriminatory practices, and the Disability Equality Duty, which came into effect in December 2006 under the terms of the Disability Act, requires institutions to publish disability equality schemes which chart progress over time (Fuller, 2008).

While complying with legal mandates to provide reasonable accommodations, higher education administrators may also need to assist students with disabilities in the development of their independence and self-determination skills (Brinckerhoff et al., 2002). Students are expected to manage how their disability will affect them in college, including new types of testing situations and classroom instruction, social interactions,

and the need to organize thoughts, information, and tasks. These adaptations may be more challenging for students with disabilities, who often have difficulty knowing how their disability will affect them in college, including new types of testing situations and classroom instruction, social interactions, and the need to organize thoughts, information, and tasks (Milsom & Hartley, 2005).

## 2. FOUNDATION OF SUPPORT IN HIGHER EDUCATION

Internationally, universities report great increases in the number as well in the variety of requests for supporting services by students with disabilities. The range of requests has broadened, ranging from disabilities that are apparent to those that are invisible, and from disabilities that are physical in nature to those related to mental health or psychological dysfunction. Many of the latter are particularly challenging in terms of accommodating needs, because they tend to be situational, intermittent or recurrent, requiring different strategies at different phases as the student moves through his or her program of study (Rose, 2010).

At the same time, the legislation has intensified requiring that institutions respond specifically and appropriately to individual requests for academic accommodation by students with disabilities. In Canada, the collective responsibility of universities for meeting the needs of staff, faculty and students with disabilities are encoded in legislation such as the Accessibility for Ontarians with Disabilities Act (AODA), which was passed into law in 2005.

Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (1990) and the subsequent Amendments Act (2008) are the guiding documents that lead the work of disability service professionals in higher education in the United States. These are civil rights laws that require colleges and universities to provide accommodations to qualified students with disabilities so they have equal access to educational, social, athletic, and cultural programming hosted by the university. According to this it is the student's responsibility to initiate requests for services in the postsecondary environment. When students make the transition to higher education, they are expected to contact the Office for Students with Disabilities (OSD), self-identify as a student with a disability, provide documentation of their disability and the accommodations needed which is not originally accessible to a student with a disability, self-advocate to their instructors, and participate in the services that will support their academic progress (Hadley, 2011). Such services are sometimes called generic (Brinckerhoff, McGuire, & Shaw, 2002) and are made available to all students with disabilities without any additional fees (Madaus, 2005). However, there are key differences in laws that establish the obligations of precollege and post secondary institutions to support students with disabilities. Adjustments for students with learning disabilities may include, but are not limited to, extra time on tests, note takers, alternative assignments and test formats, materials in alternate (e.g., electronic) formats, and assistive technology (DO-IT, 2012a). "

The South African higher education system provides support for students with disabilities within the diversity rights framework based on which national anti-discrimination legislation generates the formulation of specific policies that protect students with disabilities. The normative standards underlying this framework are human rights, respect for diversity, equal opportunity and fair advantage for people who qualify for higher education courses and programs. Institutions of higher education are expected to implement the policy of supporting students with disabilities and, if disputes arise, they should be resolved within the framework of human rights rather than based on entitlement (Matshediso, 2007).

The provision of special education for students with disabilities has seemingly improved in African countries during the past decade and more options for studies are being offered. The adoption of the UNESCO, Salamanca Framework and the Dakar Framework for Action at the two World Conferences in 1994 and 2000 respectively, affirmed the notion of Inclusive Education as one fundamental key strategy to address issues of support, provisions marginalization and exclusion in education (UNESCO, 1997). Both these Frameworks brought challenges on higher education, in particular, in terms of strategic planning to ensure compliance, as well as redefining how provisions may be organized to better meet the needs of students and simultaneously questioning the support and service provision for students with disabilities (Phiri, 2013). Although a number of students with disabilities enrol in universities, there seems to be a lack of appropriate action in providing equal opportunities for them. In general, higher educational institutions are not well prepared to accommodate students with disabilities, although there are exceptions (Matshediso, 2007).

In the United Kingdom, Part 4 of the Disability Discrimination Act (DDA), implemented in 2002, requires institutions to avoid discriminatory practices, and the Disability Equality Duty, which came into effect in December 2006 under the terms of the Disability Act, requires institutions to publish disability equality schemes which chart progress over time. The DDA has a lot of implications in terms of its requirement for reasonable adjustments made to the curriculum, pedagogy and assessment, but many uncertainties remain as to what counts as a 'reasonable' adjustment. There are also uncertainties about who is covered by the DDA and how severe the condition has to be before the person receives legislative protection. It is clear, therefore, that whilst there are significant new requirements on universities to demonstrate fair treatment of students with disabilities, there continues to be much room for institutional discretion and the likelihood of variation in practice (Fuller, 2008).

In Spain, Legislative Royal Decree 1/2013 of 29 November, approving the Revised Text of the General Law on the rights of persons with disabilities and their social inclusion, also includes the right of all people to quality education and the need to adopt the principles of Universal Design and accessibility. Before that, Organic Law 4/2007 on universities had already referred to the inclusion of persons with disabilities at universities. It also

included the obligation for university environments (buildings, facilities and dependencies) to be accessible, and inclusion of the principles of universal accessibility and respect for all in plans of study (Björnsdóttir, 2017).

Regarding the provision for students with disabilities in Cyprus' higher education, the Cypriot Parliament approved the [113(1)99] Special Education Law in 1999, which stresses, among other things, the responsibility of the state to provide the least restricted environment possible for individuals with special educational needs. In July 2001, the Regulations of the Law were also ratified by the Cyprus Parliament, addressing issues related to the attendance of the students with special needs in postsecondary institutions, placing a provision in a legislative context. Specifically, the Law and its Regulations address issues regarding support services offered to students with disabilities including individual educational plans, resources available in the form of assistive technology, exam modifications, physical modifications of buildings and part-time enrollment (Hadjikakou & Hartas, 2008).

Although in Greece the first legislation of special education goes back to 1937 (453/1937), long time has passed until the adjustment of the basic principles of integration policies on a legislative basis. For benevolence, disability rights and the social model of disability have intersected in the thinking on support services for people with disabilities. Several legislations acts that have followed in 1981 (1143/1981), then law 1566/1985 according to which Special Education is integrated into primary and secondary education represented an attempt to alter that thinking. Subsequent pieces of legislation (2817/2000 & 3699/2008) denote the state's effort to align with the international principles of educational integration of people with disabilities. It is worth noticing, however, any modification of educational legislation in Greece in respect to people with disabilities usually does not come about after an appropriate assessment of special education principles and their adaptation in real life but rather is the result of interventions based on economical criteria on a cost-benefit basis (Papanikolaou, 2014). However, legislation alone is not enough to bring about change towards equality among citizens. The lack of adequate access to buildings and services across almost every higher education institution in Greece is apparent to all. After decades of planning, designing and implementation of projects that do not follow the international standards of accessibility it is of great importance to revise the philosophy pertaining to the provision of services to students with disabilities taking into account their special needs.

The Greek Constitution foresees equal treatment of individuals with disabilities. It consolidates the principle of equity (Article 4), which is the cornerstone of the regulatory framework for people with disabilities and their treatment by the State, while Article 22 establishes the rights of people with disabilities at work and the protection of their work. Under these provisions, the Greek Constitution is in line with the most progressive constitutions in other countries, adopting the social model of disability. The law gives the Higher Education

institutions the flexibility to decide and give any kind of support. It does not clearly identify policies but rather gives general guidelines. These guidelines are always mentioned in the rules of procedure of each institution. Specifically, the legal basis for support across several areas is in two main areas: Accessibility in the built environment - according to the law 2831/2000 all public buildings must follow the guidelines for accessibility; Study Support -Law 3549/2007 specifies there must be support and counselling services for all students.

### 3. ACCOMMODATING THE NEEDS OF STUDENTS WITH DISABILITIES

Having reviewed the worldwide literature on obstacles and facilitators encountered by students with disabilities in postsecondary education it was apparent that there has been a range of difficulties to the adaptation of equal opportunities practice related to higher education. While all students face challenges as they move from secondary to higher education, students with disabilities face particular challenges as a result of:

- diminished support systems after high school;
- little access to successful role models;
- inadequate self-advocacy skills;
- lack of or ineffective accommodations;
- low expectations on the part of people with whom they interact; and
- lack of access to mainstream and assistive technology (Burgstahler, 2012).

Hodges and Keller (1999) have identified problems associated with transport and socializing with peers, the absence of counselling services, few Braille printed books, lack of visual readers, adjustment with the university life, teachers' neglect of their special needs, participating in exams, using the library. Other obstacles indicated were teachers' method of delivering lectures, as well as difficulty in participating in the discussions, not been able to an alternative lecture provision such as taping the lectures, and a lack of suitable computer programs (Fuller, 2008). As stated by Masaedeh (2001), the most obvious problems were those which were related to the services whereas, Alhamad (2001) highlighted problems facing physically students with disabilities which include the feeling of loneliness, improper habilitation, and lack of environmental adjustments which would facilitate their movements.

Most higher education institutions do offer support for students with disabilities. This is reported in Canada (Reed, Lund-Lucas, & O'Rourke, 2003), England and Scotland (Tinklin, Riddell, & Wilson, 2004), and in the United States (Raue & Lewis, 2011). The literature reveals, however, conspicuous variability in the range and quality of provision for students with disabilities attending those institutions (Reed et al., 2003) as well as institutions' real will to make the appropriate adaptations (Garrison-Wade, 2012). Most institutions adopt a minimalist approach instead of developing resources for wide-ranging services (Tagayuna, Stodden, Chang, Zeleznik, & Whelley, 2005). At a very minimum,

support relates to testing adjustments, availability of note-takers, personal counselling, and advocacy assistance.

In Mauritius, only the University of Mauritius has produced formal regulations concerning the facilities that are available to students with disabilities (University of Mauritius 2016). The other universities, colleges and schools provide tailored support on a case-by-case basis. In the past few years, the Ministry of Education (MoEHRTESR 2016) has been giving scholarships to students with disabilities who wish to study at a local public university.

As reported in Pudaruth, Gunpath and Singh (2017) the support provided by the University of Mauritius for students with disabilities, as perceived by non students with disabilities in terms of IT, library facilities, general accessibility, sports and recreational facilities and departmental facilities was consistently rated by as either 'poor' or 'very poor'. General accessibility was ranked the highest with 45 (36.9%) respondents rating these facilities as satisfactory. Although specific IT facilities were not investigated, general IT support 6 (4.9%) topped the 'good to very good' category. Although the few students with disabilities were unaware of any disability advisor, their experience concerning the support they obtained from their lecturers was very positive, as the majority of them were very satisfied with their lecturers' role in their studies. Support staff was equally helpful, as indicated by 4 (66.7%) respondents.

Kurth and Mellard (2006) explored students' perceptions of supportive services in the United States higher education. According to the respondents, services like using of note-takers, extended time on tests, adaptive technology, moving to a different location in the classroom, and public transportation were assessed as effective at 80-88%. A slightly lower percentage (64-78%) of the students who had used tutors, tape recorders, alternative test locations, taped texts and notes, and mental health counselling services perceived them as effective.

Rigler (2013) examined the retention of students with disabilities attending public four-year universities in the Southeast region of the United States. The information gathered suggested an association of personal qualities program development and resource allocation to the retention of college students with disabilities. Through a balance of these three aspects, students with disabilities may persevere through their college career and earn a degree.

Richardson (2010) explored the relationship between the use of academic accommodations and successful program completion of students with disabilities enrolled in two campuses of a community college located in the southeastern United States. Interestingly enough frequent users and students who never used academic accommodations tended to successfully complete their programs at the same rate. Additionally, students with medical and physical disabilities were less likely to access accommodations than those with other disabilities, more likely to never access and less likely to use accommodations frequently.

Aiming at identifying variables that facilitate the academic success of college students with learning disabilities, Skinner (2004) interviewed twenty graduates from the southeastern US. All students indicated that they were eligible for and had participated in various accommodations such as extended time for testing, separate testing facility, alternate testing format (e.g., oral versus written), books on tape, note-taker – reader, “other” and course alternatives to the mathematics and foreign language requirements. Most of the participants had at least one-course alternative and all had received accommodations. The finding indicated that without exception, comments from participants indicated the critical importance of these academic adjustments to their success in college.

In another study, the "willingness" of college faculty to provide instructional and examination accommodations to students with learning disabilities, and the level of faculty agreement with the policy of providing mathematics and foreign language course alternatives to students with documented disabilities in language and mathematics related areas were studied. Overall, responses indicated a willingness to provide accommodations involving tape recorders, note-takers, laptop computers, and early syllabi. Conversely, responses indicated an unwillingness to provide extra credit. Finally, faculty expressed neutral perceptions of the use of instructor notes, extended deadlines, and alternative assignments as well as providing alternative courses (Skinner, 2007). Similarly, Garrison-Wade (2012) suggested factors that may enhance postsecondary outcomes for students with disabilities such as a framework that emphasized self-determination skills and coordinating, implementation of formalized planning processes and improving postsecondary support.

Exploring the experiences of first-year college students with disabilities, Whitaker (2018) revealed that parent involvement, accommodations from specialized disability programs, and specialized disability program participation acted as supports for students. Utilizing accommodations such as priority registration, extra time, and note-taking in specialized programs supported student academic experiences.

Drawing on the findings of an ESRC-funded research project, Tinklin et al. (2007) conducted a survey of higher education institutions, in Scotland and England. They concluded that, while there were definite signs of progress in the development of provision for students with disabilities, many areas needed much further attention. A particular area of concern was teaching and learning and if improvements in provision for students with disabilities in this area were to be made it would mean improvements for all students. Aligned with that, Harrison, Hemingway, Sheldon, Pawson, and Barnes (2009) reported that depending on their particular impairment, most of the students experienced barriers to accessing their education relating to the physical environment or teaching and learning at some point during their studies. In addition, the institution and course choice of some students was affected by physical access issues. Some students found that adjustments to teaching practices were difficult to obtain. Even where students had received formal agreements to provide 'reasonable adjustments' (as required by law), such as handouts in advance of lectures, they often found themselves in the difficult position of repeatedly having to ask for these, to no avail. Some lecturers,

particularly in older universities, felt that adjustments to teaching practices would lower standards and give an unfair advantage to students with disabilities. In all institutions, academic staff felt they were under pressure and were unable to devote as much time as they would like to individual students.

The status of support provisions for students with disabilities in South Africa higher education institutions were assessed via national survey. There are historically advantaged institutions (HAI) and historically disadvantaged institutions (HDI). The former benefited from apartheid policies and legislation, whereas the latter was exclusively non-white and negatively discriminated against during the period of apartheid. In terms of support structures, the survey indicated two different types. One is a separate disability unit, which functions independently of Student Services. The other operates within Student Services, Student Counseling or Student Affairs as part of general student support. A high percentage of institutions (83%) reported that they offered support services for students with disabilities, whereas only 17% said that they did not provide such support. Furthermore, 60% of the HDI said that they provided support and all HAI provided support. Of the four HDI institutions that said that they did not provide support services for students with disabilities, three said that they intended to establish such services in future. However, even though a high number of institutions do provide support services for students with disabilities the range of disability support services is limited to three disabilities, namely blindness, deafness and physical impairments (Matshediso, 2007).

Phiri (2013) explored aspects of contributions of students with disabilities in a higher education institution in Zimbabwe regarding issues of provision and support for inclusion. The findings seemed to indicate that attempts at inclusion in higher education in Zimbabwe are not supported by appropriate attitudes, motivation and adequacy of services and provisions which policy and legislation should undergird. Furthermore, the disabled participant was motivated by personal interests and by the socio-economic situation of their families to succeed in their studies. They are also motivated by role models of other people with disabilities who have attained successes by accessing higher education. In terms of coping strategies in a higher education institutions environment, students with disabilities depended on other non-students with disabilities for the success that they achieve. In all instances, students with disabilities cannot succeed without peer support.

One particular group with special needs is the one comprised of students with visual impairment. There is an obvious need for universities and training institutions to offer much more support and accommodations to these students if they are to reach their potential. Capella-McDonnall (2005) has suggested that the completion of a higher education program is the best predictor of employment for students with visual impairment. Representation of support services for students with visual impairment through online publicity materials in the six Singaporean Universities were investigated by Wong (2014). The aim of the study was to discover what sort of information prospective students with visual impairment find when looking online for the universities' disability services. From the six universities, four provide some support and accommodation for students with disabilities. However, the depth of information is highly variable. Except for Nanyang Technological University (which offers relatively more information), details are generally

scarce. Information on living accommodation and building accessibility are the most available, followed by information on support for examinations.

In Cyprus, Hadjikakou and Hartas (2008) investigated issues related to the identification and provision of students with disabilities in private higher education institutions. The results suggested that provision for students with disabilities was restricted into exam/assignment concessions and building adaptations with other forms of differentiation (e.g., teaching modification and removing obstacles to learning) being neglected. Teaching modification in terms of re-thinking and adapting the learning goals and the curriculum did not take place in any of the colleges interviewed. According to the Heads in these colleges, any form of differentiation or departure from the official requirements of the academic programs would have jeopardized students' chances of getting a certified degree.

A study on students with visual impairments in Greek Higher Education Institutes investigated the difficulties that seventeen (17) students face during their studies. The study concluded that there was a lack of important infrastructure that could facilitate mobility and limited support whilst in the process of studying. Most students reported problems that led them to re-consider their continuing study participation and partial satisfaction with the quality of education provided. The main gaps in provision cited by students focused on technical and practical issues, that is, provision of books and hand-outs in a suitable form and the access to information related to their studies; better cooperation with their tutors has also to do with practical issues (e.g., permission to audiotape the lectures, handouts in suitable formats); lack of awareness of the teaching staff on the particular needs of students with visual impairment (Koutsoklenis, Papadopoulos, Papakonstantinou, & Koustriava, 2009). Similarly, Vlachou and Papananou (2018) explored the experiences and perspectives of thirty-two (32) students with disabilities higher education institutions in Greece. Findings revealed multifaceted version on specific issues, such as physical access and access to academic knowledge, quality of available support, interactions with tutors and fellow students.

Although not many, during the last two decades there are some examples of good practice related to accessibility for students with disabilities. For instance, the National and Kapodestrian University of Athens has established the "Accessibility Unit for Students with Disabilities" – ACCESS to facilitate equal access for students with disabilities to academic studies. Its mission is to actively realize coequal access to academic studies for students with different abilities through (a) environmental modifications, (b) assistive technologies, and (c) access services. The Unit deals with matters of environmental and building adjustment and offers assistive technology and access services.

Similar services are offered to university students with disabilities by "PROSVASIS" unit at the University of Thessalia. The University of Macedonia operates an eLearning platform – CoMPUs – that aims to provide flexibility to academic staff supporting all students during their courses with online exercises, powerpoint presentations and information. The platform includes modules to support usability, for example, high-resolution graphics; text magnification and audio. The University library provides full support to students with visual impairment, with a focus on two elements: firstly, the digitization of books and conversion into audio-books and,

secondly, the provision of a dedicated technical unit on the library premises that can be used by students with visual disabilities. This includes hardware with Braille keyboards and high magnification text scanners.

Concerning the visually impaired students and generally those who because of some disability are unable to read a printed document, the Hellenic Academic Libraries Link (HEAL) has developed the Accessible Multi-modal Electronic Library (AMELib). For someone to use its services proper documentation of disability should be provided. Eligible students are registered with the service and are entitled to have access to the digital book collection as well as have their module books and written documents modified in an alternative format.

## CONCLUSION

Until the Amsterdam Treaty of 1996, the European Union's approach to disability was based on a 'medical' understanding according to which disability was the result of physical or mental impairments that affect the individual. The 1996 treaty publicly highlighted how the sustained predominance of the 'medical model' had contributed to the labelling, institutionalization and, ultimately, discrimination, of people with disabilities, since it suggested that the 'cause' – and the fault – of disability somehow lay with individuals themselves. At the same time, it offered an alternative perspective on disability – the 'social model' – that incorporated effects of the environment, culture and surroundings.

Within European Union, the legal and policy background regarding disability is shaped by the European Disability Action Plan 2003-2010 aimed at mainstreaming disability issues as well as the new European Union Disability Strategy 2010-2020 which emphasizes equal access to quality education and lifelong learning as key factors in enabling full participation in society. This Plan echoes the key principles of the United Nations Convention on the Rights of Persons with Disabilities (CRPD), which highlights the importance of education. Article 4(i) on general obligations provides that the Parties to the Convention shall undertake: 'To promote the training of professionals and staff working with persons with disabilities in the rights recognized in the present Convention to better provide the assistance and service guaranteed by those rights'. Article 5 on equality and non-discrimination establishes a clear link between promoting equality, eliminating discrimination and the necessity to 'ensure that reasonable accommodation is provided'. Article 8b (Awareness Raising) requires Parties to encourage 'an attitude of respect for the rights of persons with disabilities' at all levels of the education system. Article 24 then deals with the issue of Education in detail. It requires Parties to 'ensure an inclusive education system at all levels and lifelong learning directed to: The full development of human potential and sense of dignity and self-worth, and the strengthening of respect for human rights, fundamental freedoms and human diversity; The development by persons with disabilities of their personality, talents and creativity, as well as their mental and physical abilities, to their fullest potential; Enabling persons with disabilities to participate effectively in a free society' (Arcola Research LLP., 2011).

Against this background, accessibility of education of persons with disabilities is gradually becoming a more prominent issue for both the European Union and non-European

Union policymakers. Legislation such as the Accessibility for Ontarians with Disabilities Act (AODA) of 2005, Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990, part 4 of the Disability Discrimination Act (DDA) implemented in the United Kingdom in 2002, Spanish Legislative Royal Decree 1/2013, Special Education Law [113(1)99] approved by the Cypriot Parliament in 1999, Greek law 3699/2008 are all aiming at a broad range of measures to modernize the content and practices of higher education and support increased standardization and benchmarking in relation to legislation, policies and practices covering disability in higher education. However, based on the diversity and uniformity of the support there is a great need for further education and training related to disabilities in higher education institution since there is still a belief that providing accommodations for students with disabilities presents unfair advantages (Riddell & Weedon, 2014).

Within the European Union (EU) where education systems are subject to the particular legal norms and practices of member states, rather than dictated by trans-national institutions, support for students with disabilities varies significantly. Some countries implement preferential enrolment procedures (e.g. Portugal, Germany, and Greece). Similarly, the provision of support to students with disabilities, once they have enrolled, varies from country to country. Broadly, the typical support provided is of two main types: technical and pedagogic. This usually covers things like photocopies of selected course materials, tape recordings and transcriptions or Braille documents and special examination arrangements.

The Greek educational system to align with the European standards in equal opportunities for people with disabilities reserves 5% of all places higher education institutions for students with disabilities. Still, few of them are enrolled and when they do they have to face barriers to accessibility in buildings, services and teaching process. The efforts of institutions that are willing to support their disabled student are fragmentary and incomplete because of limited funding, lack of knowledgeable personnel and absence of well-defined policies.

Moreover, in many higher education institutions worldwide disability is still seen as a fairly distinct policy area, mainly addressed by student support services. Alternatively, for achieving the full integration of the students with disabilities, significant progress can only be made if the disability is embedded into all institutional policies and procedures. Starting from a different perspective based on the 'social model' of disability which incorporates effects of environment, culture and surroundings, curricular and instructional adjustments as a result of appropriate training of university personnel may enhance retention of students with disabilities in higher education and at the same time have the potential to benefit all students.

Still, relocation of policies, particularly in the area of teaching and learning, will demand a significant commitment on the part of all institutions. There is a great need for a culture change within higher education, with a shift towards more universal approaches for all students which fosters solutions that address the limitations of the learning environment rather than the limitations of the student, while making the student less of a problem, and more a part of diversity within the course. The advantage of such universal solutions is that, as with such approaches in built environments, they are very likely to be

useful for many individuals; built once, applied many times (Rose et al, 2006). Enabling legislation can introduce policies towards such universal design encouraging and supporting the foundation of a truly inclusive environment.

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