

AN INCLUSIVE WORKPLACE ACCOMMODATION EVALUATION FOR  
EMPLOYEES WITH DISABILITIES

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## **ABSTRACT**

### **AN INCLUSIVE WORKPLACE ACCOMMODATION EVALUATION FOR EMPLOYEES WITH DISABILITIES**

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The status of the people with disabilities can be summarized as marginalisation and exclusion from the mainstream of the society. It is accepted that the process of exclusion of people with disabilities is grounded in time and history. Demographic, economic, legislative data, humanistic reasons and historical evaluation of disability indicate that employment is the most vital item for the participation of people with disabilities in social life. The status of people with disabilities related with employment can be summarized with the terms; unemployment or underemployment, discrimination, lack of satisfaction and advancement in work, loss of job and time pressure at work etc.

Intensified competition and flexibility in labour market, lack of physical access, lack of information in an accessible format about job, inadequate training, incompetent personal qualifications and work experience, insufficient benefit and support of welfare systems, employers' unwillingness to hire people with disabilities and to make adaptations, type and severity of disability, relatively low educational level of people with disabilities etc can be indicated as reasons for unemployment or

underemployment of people with disabilities. Beside these, problems of employment have a close connection to the problems of workplace accommodations. Varieties of barriers in built and workplace environment increase the exclusion of persons with disabilities in the social employment environment.

Space as an instrument for reproducing and sustaining social practices must not be perceived only with technical specifications. Space becomes the means of social mechanisms while keeping people with disabilities either ‘in’ or ‘out’ of the society. In other words, workplaces play an important role while maintaining either spatial isolation / marginalisation or inclusion of people with disabilities in the labour market.

Although many people with disabilities share a common experience in relation to the labour market people with disabilities are very heterogeneous. Their experiences of employment are variable and exhibit a wide range of different skills, aptitudes and aspirations as with the remainder of the population. An inclusive society deserves an inclusive workplace accommodation which has been vital not only for people with disabilities but also for “all people”.

An investigation on Universal Design Principles will provide a background in the evaluation of the thesis. “Universal design” that is also known as “inclusive design” and “design for all”, has become a widely accepted design approach which considers to make the built environment, products, and communications equally accessible, usable and understandable for everyone. The study aims to emphasize the significance of the consciousness that is acquired by exposing different aspects of workplace accommodation for the built environment and design process, and evaluate workplace accommodation in frame of the universal design.

Keywords: disability, employees with disabilities, workplace accommodation, universal/inclusive design.

## ÖZ

### ENGELLİ ÇALIŞANLAR İÇİN KAPSAYICI BİR İŞYERİ DÜZENLEMESİ DEĞERLENDİRMESİ

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Engelli bireylerin toplumsal konumları marjinalleşme ve toplumun ana kesiminden dışlanma olarak özetlenebilir. Kabul edilmektedir ki engelli bireylerin dışlanma sürecinin kökleri zamana ve tarihe dayanmaktadır. Demografik, ekonomik, yasal veriler, insani sebepler ve engelliliğin tarihsel gelişimi göstermektedir ki istihdam engelli bireylerin toplumsal hayata katılmasında en hayati öğedir. Engelli bireylerin istihdamla ilgili konumu; işsizlik veya eksik (yetersiz) istihdam, ayrımcılık, işte tatmin ve ilerleme yokluğu, iş kaybı ve işte zaman baskısı vb. terimlerle özetlenebilir.

İşgücü piyasasının yarışmacı ve değişken iş şartları, fiziksel engeller, iş hakkında ulaşılabilir formatta bilgi eksikliği, yetersiz mesleki eğitim, kifayetsiz kişisel nitelikler ve iş deneyimi, sosyal güvenlik sistemlerinin yetersiz parasal yardım ve desteği, işverenlerin engellileri işe almak ve düzenlemeleri yapmak konusunda isteksizlikleri, engelin türü ve derecesi, nispeten düşük eğitim seviyesi vb. engelli bireylerin işsizlik veya eksik istihdamını sebepleri olarak gösterilebilir. Bu sebeplerin

yanında, engelli bireylerin istihdamı ile işyeri düzenlenmesinde karşılaşılan problemler bağlantılıdır. Yapılı çevredeki ve işyerindeki engel çeşitliliği ve çokluğu engelli bireylerin istihdamdan dışlanmasını artırmaktadır.

Sosyal pratikleri yeniden üretme ve sürdürmede aygıt olarak mekan sadece teknik ayrıntılara indirgenemez. Engelli bireyleri toplumun gerek “içinde” gerekse “dışında” tutarak, mekan sosyal mekanizmaların aracı olmaktadır. Diğre bir deyişle, işyerleri engelli bireylerin mekansal olarak gerek tecritinde/marjinalleşmesinde gerekse emek piyasasına katılımında önemli bir rol oynamaktadır.

Her ne kadar bir çok engelli istihdam konusunda benzer deneyimleri paylaşırsada, engelli kişiler heterojen bir yapıya sahiptir. Toplumun kalanı gibi, işle ilgili deneyimleri değişken ve çok geniş bir alanda farklı beceri, yetenek ve özlemleri sergilemektedir. Katılımcı bir toplum sadece engelli bireyler için değil herkes için hayati olan katılımcı bir işyeri düzenlemesini de gerektirmektedir.

Evrensel Tasarım Prensipleri üzerine bir inceleme tezin evrilmesinin arka planını oluşturacaktır. “Evrensel tasarım” aynı zamanda “kapsayıcı tasarım” ve “herkes için tasarım” olarak da bilinmekte ve yaygın oarak kabul gören bir tasarım anlayışı olup yapılı çevreyi, ürünleri ve iletişimi herkes için eşit şekilde ulaşılabilir, kullanılabilir ve anlaşılabilir kılmayı amaçlamaktadır. Araştırma, işyeri düzenlemesinin farklı boyutlarının ortaya konarak elde edilen bilincin yapıl çevreler ve tasarım süreci için önemini vurgulayarak, işyeri düzenlemesinin evrensel tasarım çerçevesinde değerlendirilmesini amaçlamaktadır.

Anahtar kelimeler: özürlü, engelli çalışanlar, işyeri düzenlemesi, evrensel tasarım, kapsayıcı tasarım.

To My Patient Wife and Daughter



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## CHAPTER I

### INTRODUCTION

#### 1.1. Definition of the Problem

United Nations (UN) estimates of the proportions of persons with disabilities<sup>1</sup> in the world are between 235,393,690 and 549,183,690 (Metts, 2000, p.6), which mean that nearly 10% percent of world population<sup>2</sup> have some type of disability and two thirds of this population live in developing countries (UN, 1998, p.1; Karçkay 2000, p.1; Quinn et al., 2002, p.1). Not only with the growth of the world population but with the factors like war, terrorism and other forms of violence, inadequate medical care, aging populations, natural and other disasters, the number<sup>3</sup> of the persons with disabilities increases. Including the families of the persons with disabilities approximately 50 percent of the general population of the world is closely concerned with the issue of disability in their lives (UN, 1998, p.1; Karçkay, 2000,

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<sup>1</sup> Contrary to the many disability rights advocates considering that “the disabled” should be used as indicating the disability as a “social construct” (Coleman, 2001, p.4.2; Quinn et al., 2002, p.15), in this thesis the use of the “person with disability” will be preferred to the traditional noun/adjective phrasing like “the disabled” as a current understanding in phraseology related with disability, (Burgdorf, 1991, p.414).

<sup>2</sup> Foucault defines the population as a form of power related with the knowledge. Beginning with the late eighteenth century with the first demographers, by using the measurements such as the ratio of births to deaths, the rate of reproduction and the fertility of the population, demography became a form of power; bio-power, bio-politics. In the process of seeking to control the economic and social problems, demography as a first object of knowledge, became a form of power (Foucault, 2003, p.238–63; cited in Tremain, 2005, p.4)

<sup>3</sup> According to Coleman (2001), the number of people registered as “disabled” does not give a true indication of the number whose lives are affected. Because official measures vary from country to country and these measures are used to determine qualifying for welfare and other benefits (Coleman, 2001, p.4.10).



p.1). According to European Labour Force Survey, which was made in 2002, some 44.6 million people aged between 16 and 64 consider themselves to have a longstanding health problem or disability, representing around 16% of the overall EU working age population (EU, 2005a, p.4).

According to Turkey Disability Survey (2002), the total disability portion in the overall population is 12.29%. The portion of persons with orthopaedic, seeing, hearing, speaking and mental disabilities is 2.58 % and the portion of people having chronic illnesses is 9.70 % as well. While illiteracy level of the total population is 12.94 %, the illiteracy rate of persons with orthopaedic, seeing, hearing, speaking and mental disabilities that are six years of age and over is 36.33 %, this rate for having chronic illnesses is 24.81 %. As an indicator of participation to the society, marital status of persons with orthopaedic, seeing, hearing, speaking and mental disabilities; the proportion of never-married is with 34.41 %, more than the rate 26.28 % for total population. As another sign of participation, while 47.55 % of persons with orthopaedic, seeing, hearing, speaking and mental disabilities have social security, on the other hand the proportion for people having chronic illnesses is 63.67 % (SIS, 2004, pp.5, 8, 12, 16).

Throughout the world, it seems that disability is linked to poverty and social exclusion directly and strongly (Burgdorf, 1991, p.415; Quinn et al., 2002, p.1). A UNESCO (United Nations Educational, Scientific and Cultural Organization) study has shown that, worldwide, the most common form of employment for individuals with a disability is begging (Helander, 1993; cited in Sandhu, 2001, p.3.8). There is a high correlation of disability with poverty, joblessness, lack of education and failure to participate in social life<sup>4</sup>, shopping and recreation (Burgdorf, 1991, p.415). In most of the countries, welfare systems can not supply sufficient income support and also they have no guiding and encouraging programs in the state of disability (Yılmaz, 2004a, pp.2-3). Also according to Turkey Disability Survey (2002), the main expectation of the persons with disabilities is financial support assistance (61.22 %)

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<sup>4</sup> Burgdorf (1991) samples the participation of persons with disabilities as; “Nearly two thirds of all Americans with disabilities did not go to a single movie in the past year; three-fourths of all persons with disabilities did not see live theatre or a live music performance in the past year; two thirds of all persons with disabilities never went to a sports event in the past year; seventeen percent of people with disabilities never eat in restaurants; and thirteen percent of persons with disabilities never shop in grocery stores” (Burgdorf, 1991, p.423).

(SIS, 2004, p.30).

The changes in the quality of the lives of persons with disabilities depend on the development of sensitive attitudes established not only in medical services provided efficiently for persons with disabilities, but also in the appropriation of the social, economic and environmental conditions which provide alternative independent<sup>5</sup> living facilities for those people. Historically there is a tendency for isolating and segregating persons with disabilities, it continues to be a serious and pervasive social problem. In some critical areas discrimination is permanent; education, employment, institutionalization, medical treatment, involuntary sterilization, architectural barriers, and transportation (Burgdorf, 1991, p.417). Unfortunately, there are many factors that hinder persons with disabilities from being active in the social life; like inadequate education and health, unemployment, prejudices, insufficient welfare systems, inappropriate means of access etc, another is the insufficient (inappropriate) working physical conditions that prevent those people from being socially active enough in the social and economic life.

Demographic, economic, legislative data, humanistic reasons and historical evaluation of disability indicate that employment is the most vital item for the participation of persons with disabilities in social life. Employment has an important role in quality of life, social interaction and economic confidence of the persons with disabilities (Özmen, 1996, p.3). As a human right “to work”<sup>6</sup> has signification further than earning material gains or surviving life. Employment is primary in belonging to

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<sup>5</sup> Barnes (1999) specifies that historically meaning of independence has been linked to perceptions of “normality” and “dependence” with “abnormality”, accredited impairment and “disability”. According to him modern society is increasingly geared to the presumed needs of a mythical “able bodied/minded” majority and those unable to conform are penalized accordingly, both economically and socially. Persons with disabilities also have the same needs as everyone else in terms of health care, education, housing and so on. He points out that because of the necessity all human beings are “interdependent”. Barnes remarks that, wealthy persons also depend on others to perform many of the basic tasks of everyday life, but they seem as “independent”, because they have the control of the resources. So Barnes argues that struggle for “independent” living is in the control of resources (Barnes, 1999, p.10).

<sup>6</sup> According to Barnes (1999) in much of Western society since eighteenth century, the meaning of work has been organized around a particular set of values and principles; like the pursuit and maximization of profit, waged labour and competition between individual workers. For Barnes, these values effectively disadvantage or disable people with any form of perceived physical, sensory or intellectual functional limitation or impairment. He argues that work can be organized with different principles such as social necessity, obligation and interdependence, as in the Second World War. During the war nearly half a million workers with disabilities were drafted into the labour force at various levels in aid of the war effort. He thinks that the meaning and organization of work is a social

a group, socialization, maturation of dignity and confidence of the self (Altan, 1976, p.227). According to Barnes (1991), people are categorized according through work in terms of class, status and influence. Further from income, work provides a sense of identity and self-esteem opportunities for social contacts outside the family home, skill development and creativity, as well as a sense of time, obligation and control (Barnes, 1991; cited in Karçkay, 2001, p.3).

Mueller (2001, p.45.1) emphasizes the significance of work<sup>7</sup> by the question, “What do you do for a living?” that is asked first when people meet. In his article on office and workplace design, he stresses that one’s personal identity depends on heavily on what he or she does for a living.

### **1.1.1. Employment of persons with disabilities**

The status of persons with disabilities related with employment can be summarized as such:

- **Unemployment;** Unemployment amongst the persons with disabilities is higher than the average (Burgdorf, 1991, p.416; Inge et. al., 1998, p.141; Trupin and Yelin, 1999, p.1; Inge et. al., 2000, p.175; Karçkay 2000, p.3; Unger, 2002, p.1; Simkins and Kaplan, 1991; cited in Hechter, 2003, p.1). By the severity of the impairment, the unemployment rate increases (Arthur and Zarb, 1995, p.3; Trupin and Yelin, 1999, p.3). While employing persons with disabilities, employers prefer to employ persons with less severe disabilities (Altan, 1976, p.121). Among women<sup>8</sup> with disabilities inequity and lack of opportunity is prevalent, almost 80% of all women with disabilities are unemployed (Thornburgh, 1991; cited in Hechter, 2003, p.1). On the other hand many studies signify that a majority of unemployed persons with disabilities indicate a desire to work (Burgdorf, 1991, p.421; NOD, 1994; cited in Trupin & Yelin, 1999, p.1; Inge et. al., 2000, p.175; Unger, 2002, p.2;

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creation and like all social considerations it is subject to change (Barnes, 1999, p.8).

<sup>7</sup> Wilton assesses that attaining work such a more value puts people with disabilities are in a precarious position in employment; “*Emphasis on paid work as grounds for valued citizenship, coupled with the fact that ‘disability’ remains equated with non-productivity, places disabled people seeking income and meaning through employment in a precarious position*” (Wilton, 2004, p.430).

<sup>8</sup> Women with disabilities are associated with double discrimination (Quinn et. al., 2002, p.23)

Hechter, 2003, p.1; Dixon et. al., 2003, p.9).

- **Underemployment;** In spite of the high levels of unemployment and inactivity, employees with disabilities are more likely than employees without disabilities to be in low paid, low status jobs with poor working conditions. (Trupin and Yelin, 1999, p.3; Barnes, 1999, p.16; Yılmaz, 2004a, p.6). Employees with disabilities in managerial or professional work are between 32 and 50 per cent lower than the likelihood of employees without disabilities working at this level (Arthur and Zarb, 1995, p.3). Also a greater likelihood of part-time working and unskilled manual job is seen (EU, 2001c, p.10). Among employed persons, people with functional disabilities are more likely to be self-employed than those without. Working fewer hours and inability to find full-time work can be causes of self-employment. Depending on the severity of disability, the freedom to decide how to do their work decreases (Trupin & Yelin, 1999, p.3). Persons with disabilities earn less than those without at the same levels of education, after adjusting for age, gender and occupation (Burgdorf, 1991, p.421; Trupin & Yelin, 1999, p.13, EU, 2001c, p.10).
- **Discrimination;** Because of disability, a kind of discrimination can be observed in finding work, as thinking that disability affects all the abilities including the ability to be productive<sup>9</sup> and independent<sup>10</sup>. On the other hand, discrimination because of the disability is the major cause of the disadvantaged position and exclusion<sup>11</sup> from the labour market (Burgdorf, 1991, p.415; Arthur and Zarb, 1995, p.4; Inge et. al., 1998, p.149; Karçkay,

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<sup>9</sup> According to Barnes from a social model or materialist perspective, perceptions of impairment and disability are inextricably linked to the “mode of production” or the social organization of work (Barnes, 1999, p.7).

<sup>10</sup> *Our society tends to place a high value on freedom, independence and vigorous self-sufficiency. Any sort of helplessness is viewed with pity or scorn. But I discovered that one can define dependency less pejoratively and renegotiate the meaning of disability by redefining the loss of certain options as the acquisition of others* (Lifchez, 1987, p.15).

<sup>11</sup> Teymur (1996) reveals exclusion in the form of otherness that begins in language initially. In a way “Either/Or” state of mind proves the otherness and prevents the other alternatives like “both/and” modes of thinking. Society generates its others, with this “either/or” mind set which implies “constitutive paradigms, discourses, religions, disciplines, institutions and with all the sophistication of aestheticised self-interest, constitutionalised private ownership and normalized violence”. So otherness generates not in vacuum, but in houses and homes like “the Houses of Learning, the Home Offices, the Houses of Parliament, the Houses of God, Slaughterhouses and also Our Houses and Your

2001, p.4; EU, 2001c, p.11).

- **Lack of satisfaction and advancement in work;** Persons with a lot of limitation in physical functioning indicate less satisfaction with their current job and they are less optimistic about their future prospects than those with a little or no limitation (Trupin & Yelin, 1999, p.3). There are few opportunities for advancement in employment for persons with disabilities (Barnes, 1999, p.16).
- **Loss of job;** Among persons in the labour force, loss of a job is more common for persons with physical functional limitation than those without. Nearly three-quarters of persons with a lot of functional limitation report that job loss causes a major problem in their life, compared to less than half of those with little or no limitation (Trupin & Yelin, 1999, p.3).
- **Time pressure or speed in work;** Inadequate time to complete work tasks increases with increasing levels of functional limitation, this causes a sense of time pressure on persons with disabilities (Trupin & Yelin, 1999, p.3, Wilton, 2004, p.426). Wilton (2004) report that *“the implementation of speed-up to cut labour costs held negative implications for all workers in terms of additional workload and increased potential for injury”* (Wilton, 2004, p.427)

Absence of persons with disabilities in the employment is based on the assumption that persons with disabilities had virtually no role to play in the open labour market. So they were channelled into segregated and expensive work environments. Quinn and colleagues indicates that employment prospects for persons with disabilities throughout the world are still dismal; to some extent reflecting low levels of educational attainment and to some extent unwillingness to ensure that labour markets respond appropriately and positively to the difference of disability. They argue that because of the invisibility of persons with disabilities in employment, including the taxpayer everybody loses (Quinn et. al., 2002, p.25).

### ***Causes of unemployment and underemployment of persons with disabilities***

Unemployment or underemployment problem of persons with disabilities depend on many factors that can be summarized as such;

- **Competition, flexible work and multi-tasking;** Keeping a job becomes a problem, with the overall trend in the labour market towards intensified competition and flexible work, through the use of multi-tasking, temporary contracts and irregular hours (Employment Gazette, 1995; cited in Arthur and Zarb, 1995, p.6; Trupin & Yelin, 1999, p.10, Wilton, 2004, p.423).
- **Environment;** In and outside the workplace also there are some major societal and environmental barriers like; lack of access to public transport<sup>12</sup> and to the built environment and inappropriate social services provision, which make both getting and retaining a job more difficult for persons with disabilities (Burgdorf, 1991, p.421; Arthur and Zarb, 1995, p.6; Inge et. al., 1998, p.141; Dixon et. al., 2003, p.7; Uşan, 2003, parag.30).
- **Information on job;** Because of the lack of physical access, lack of information in an accessible format or no interpreters or facilitators at the interview, candidates with disabilities are unable or not invited to attend a job interview, so they can not demonstrate their suitability for a job (Arthur and Zarb, 1995, p.8; Dixon et. al., 2003, p.7; Uşan, 2003, parag.30).
- **Training;** Training centres or work placements may not be physically accessible to those with sensory impairments, and training courses may not recognise the need for flexibility in hours and/or other arrangements (Arthur and Zarb, 1995, p.8).
- **Personal qualifications;** Also persons with disabilities prior to entering the labour market can experience additional barriers in schooling, careers' advice, lack of qualifications and work experience (Arthur and Zarb, 1995, p.5; Dixon et. al., 2003, p.7; Uşan, 2003, parag.30). Employers expect for emotional, aesthetic labour, always looking active worker; worker's body is

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<sup>12</sup> "... The spatial manifestations of inaccessible public transport reproduces unemployment and underemployment amongst disabled people, and restricts their social activities. This, in turn, restricts the ability to earn, and thus confines them to poor, cheap and inadequate housing and welfarist

used to influence customers as in banking sector relating with appearance, bodily hygiene and dress (Wilton, 2004, p.428).

- **Welfare systems;** Social security system is indicated as another problem in entering the work. When an employee with a disability obtains a work, the benefits of social security stop, but mostly the wage that persons with disabilities would receive in a job is not much higher or even lower than the level of benefit they receive (Arthur and Zarb, 1995, p.11; Inge et. al., 2000, p.175; Quinn et. al., 2002, p.18; Dixon et. al., 2003, p.7).
- **Employer' attitudes;** Employers' unwillingness to hire persons with disabilities and to make adaptations<sup>13</sup> in workplaces and working arrangements is being identified as a key cause of bad experiences at work (Burgdorf, 1991, p.421; Thomas, 1992; cited in Arthur and Zarb, 1995, p.5; Inge et. al., 1998, p.141; Unger, 2002, p.2; Dixon et. al., 2003, p.7; Uşan, 2003, parag.30; Yılmaz, 2004a, p.7).
- **Type and severity of disability;** Employers express grater concerns over employing persons with mental and emotional disabilities than employing persons with physical disabilities (Unger, 2002, p.8).
- **Low educational level;** Persons with disabilities have a relatively low educational level compared with persons without disabilities (EU, 2001c, p.9; Uşan, 2003, parag.28)

Quinn and colleagues mention that social protection systems compensate for the loss of a right of persons with disabilities that most take for granted; the right to participate and play a responsible and productive role in society. But social protection systems usually are not designed to help persons with disabilities to lead active lives. However, the extra cost associated with disability under social protection systems generally disappears once the person enters the labour market

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*lifestyles...(Kitchin, 1998, p.349).*

<sup>13</sup> Karçkay (2001) argues that, in her study on employment policies and their implications for disabled population in Turkey, persons with disabilities experience both direct and indirect discrimination. Direct discrimination is experienced by denying access to training or employment because of the disability. Indirect discrimination is less obvious but experienced more frequently, by denying access to training or employment because of regarding a particular criterion like educational level or previous experience. As a third type of discrimination, it is observed by non-existence of reasonable

(Quinn et. al., 2002, p.26).

According to Quinn and colleagues (2002), persons with disabilities were often virtually invisible citizens of many societies in the past. Because of this invisibility, there has been a tendency to disregard the normal legal protections for the advancement of human freedom that are taken for granted. So existing legal protections are either not applied or are applied with much less rigour in the case of persons with disabilities. Quinn and colleagues (2002) mention that societies should be made aware of the contradiction between non-application and misapplication of values in the context of disability (Quinn et. al., 2002, p.23).

Most of the countries' education system is planned and practiced for the majority of the society and this causes the inequality<sup>14</sup> initially. Yılmaz (2004a), in her research on the barriers faced by persons with disabilities during their work life, claims that inadequate vocational education and inconvenient physical environment are factors of unemployment of persons with disabilities. She points out that as a result of widespread unemployment in many of the countries and Turkey, persons with disabilities can not participate in the society (Yılmaz, 2004a, pp.1-3). Quinn and colleagues (2002) indicate exclusion of children with disabilities from the ordinary education system and the benefits of vocational education and guidance. The resources admitted to these children were often insufficient to ensure meaningful enjoyment of the right to education. Insurmountable obstacles are still faced for third-level education (Quinn et. al., 2002, p.25).

Removing and preventing unnecessary barriers in built environment is significant for increasing the inclusion of persons with disabilities in the employment. Problems of employment have a close connection to the problems of workplace accommodations. Because of the architectural and design barriers, persons with disabilities can not use the built environment effectively.

A lawyer with a disability that uses an assistive device, because of lack of an elevator or an unsuitable elevator, can not use the court building and because of this

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accommodation (Karçkay, 2001, p.128).

<sup>14</sup> According to Burgdorf (1991), the history of society's formal methods for dealing with disability can be summarized in two words; segregation and inequality. He claims that there is an almost universal conspiracy to shunt them aside from the mainstream of the society and deny them an equal share of benefits and opportunities available to others (Burgdorf, 1991, p.418).



cannot take part in the trial. Also a member of parliament with a disability can not use the Parliamentary Building of Turkey independently, however with the help of others he can use the building (Taşlı, 1993, p.15). An investigation in Turkey on the problems of persons with disabilities in the working areas, made by Taşlı (1993), determined that the design of working areas, tables and chairs were not ergonomic for the employee with disabilities. He also emphasizes the relationship between fatigue and insufficient design of environment (Taşlı, 1993, p.36).

Consequently it seems that problems related with employment of persons with disabilities seem to depend on three related factors.

- First one is the insufficient application of the legislations, laws, welfare systems that provide -on paper- the equality for all people including the persons with disabilities in all sector of life.
- The second one is the insufficiencies of the education<sup>15</sup> systems that can support an inclusive model of equity in employment system (Karataş, 2002; cited in Yılmaz, 2004a, p.4).
- The third one is the provision of proper workplace accommodation<sup>16</sup> for an inclusive society that consider the requirements of the persons with disabilities.

### **1.1.2. Problems related with workplace accommodation**

As a determinant of employment, insufficient application of legislation and insufficiencies of education system is significant but proper workplace accommodation investigation is the main theme of this thesis. From now on as an

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<sup>15</sup> Gündüz (1996) indicates insufficiencies of the education system as; *“Although the number of disabled children attending school in cities is much higher than those in rural areas, it can also be said that there are many families who do not send their children to school because of ill-suited transportation and the poor quality of school buildings. Another point worth mentioning is that because “ a disabled life is a costly one”, the number of uneducated disabled children is rather high. The education of disabled children in developing countries is a primordial problem. Qualified schools are indeed scarce, and it cannot be said that the number of qualified teacher is sufficient. The absence of equal education opportunities prevailing in capitalist countries is mostly manifested in the training of disabled children* (Gündüz, 1996, p.321).

<sup>16</sup> According to Oliver (1996), persons with disabilities not only excluded and marginalised from workplace, but also often segregated within schooling, unable to find suitable housing, and have

interdisciplinary study between architecture and employment, the theme “workplace accommodation” will be mainly focused.

Dixon et al (2003, p.2) mention that majority of employers assert that their workplaces are accessible to persons with disabilities. Employers have some prejudices like discomfort or unfamiliarity with workers with disabilities, believe that the nature of the work they do is such that it cannot be performed effectively by persons with disabilities and they have a fear of the cost of accommodation. Majority (73%) of employers report their worker with disabilities did not require<sup>17</sup> accommodation. Firms which hire workers with disabilities consider that workplace accommodation is costly.

Problems related with the workplace accommodation for persons with disabilities seem to depend on three related factors;

- First one is absence or lack of a consciousness and awareness on the problems of workplace accommodation.
- Second one is wrong or non-functional application of workplace accommodation.
- Third one is compatible application with the standards and regulations, but not effective, fruitful and widespread.

In general, as it is seen in every problem of persons with disabilities, in workplace accommodation also absence or lack of a consciousness, not to take into consideration, to be unconscious of the problem or to ignore the problem’s existence, case is apparent. Tappuni (2001, p.63.2) explains lack of awareness and comprehension of issues related with disability in developing countries by the following misconceptions:

- The technical requirements are beyond the technical capabilities of a developing economy.

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restricted access to public transport (Oliver, 1996; cited in Kitchin, 1998, p.343).

<sup>17</sup> In many of the countries that guarantee workplace accommodation with legal measurements, laws necessitate the requirement of people with disabilities for workplace accommodation.

- A building or a city that provides for accessibility is too costly and economically unjustifiable.
- The contributions of persons with disabilities to development are less than those of others, and their well-being is dependent on the welfare system.
- The population group addressed by this is not large or significant enough to justify the expense or effort for a total or wide application.

Employees with disabilities, who can be productive<sup>18</sup> during the business life, are compelled to meet the basic needs. Physical barriers in built environment of workplaces bring the preference of the employment of persons with light disabilities or elimination of employment. According to the research of Yılmaz (2004a), the number of both persons with high degree of disability and people using assistive equipment are very low (33.4 %) in employment (Yılmaz, 2004a, p.77). A large part of workplace discrimination arises from the fact that work premises and jobs are designed in such a way that persons with disabilities are effectively excluded. Accessibility in workplace means physical access to all work premises, including other work or training sites and access to equipment and to organisational information, but employers are often unwilling to make necessary adaptations (Arthur and Zarb, 1995, p.9).

In spite of the many samples in international arena, in Turkey there is not much research, study, application, standard or regulation on workplace accommodation. Consequently wrong or non-functional application of workplace accommodation is widespread. Yılmaz (2004a, pp.100-101) emphasizes that there is a lack of policies and regulations for the working life of employees with disabilities and that persons with disabilities are not conscious about their needs regarding their working life in Turkey. In parallel with the evolution of policies related with persons with disabilities, some adaptations for persons with disabilities in workplaces are seen in Turkey. But most of these workplace accommodations are wrongly or non-functionally applied, because of the lack of a control and evaluation mechanism.

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<sup>18</sup> Barnes (1999) argues that expecting persons with “severe” or multiple and complex impairments to be as “productive” as non-disabled peers is one of the most oppressive aspects of modern society (Barnes, 1999, p.18).

Apart from meeting the accommodation need in workplaces, wrong or non-functional applications worsen the existing situation, bring loss of source and time, and sometimes threaten the health and security of the employees.

Another type of application is accommodations compatible with the standards and regulations. But these types of accommodations are not also effective and fruitful, because of their cost, quality and not being prevalent. However the standards, regulations and guides mostly determines the minimum, applications can not overreach the minimum, mostly minimum is perceived as the upper limit that should be complied. Existing standards provide only minimum requirements to accommodate persons with disabilities and fall substantially short of ideal conditions (Story, 2001, p10.4). Many architects consider the requirements a needless complication, to meet the needs of a limited number of people. But requirements can be assessed as opportunities to increase and usability of a building and going beyond the minimum standards to a more universal design (Ostroff, 2001b, p.43.10).

Even the accommodations compatible with the standards and regulations, not only because of the wrong management but also being not sensible solutions, can not attain the intended effect. Accommodations compatible with a specified disability can not sometimes fit the persons with other types of disabilities, also sometimes complicates others life. Wheelchair symbolizes disability but in reality only a minority of persons with disability use wheelchairs; so a wheelchair-friendly world does not mean a disability-friendly world (Coleman, 2001, p.4.2). When the person with the specified disability quits the employment or transfers to another department, incurred applications bring loss of source and time.

### ***Policy documents related with workplace accommodation***

Some International documents refer the problems that are closely related to the physical conditions of the workplace accommodations of persons with disabilities, like; World Program of Action Concerning Disabled Persons (UN, 1982), Standard Rules on the Equalization of Opportunities for Persons with Disabilities (UN, 1993c), Vocational Rehabilitation (Disabled) Recommendation (ILO, 1955), Vocational Rehabilitation and Employment (Disabled Persons) Convention of International Labour Organisation (ILO, 1983), Code of Practice on

Managing Disability in the Workplace (ILO, 2002), Recommendation on a Coherent Policy for People with Disabilities (EC, 1992a), Resolution ResAP(2001)3 Towards Full Citizenship of Persons with Disabilities Through Inclusive New Technologies (EC, 2001b), Recommendation on the Employment of Disabled People in the Community (EU, 1986), Resolution on Equal Employment Opportunities for People with Disabilities (EU, 1999), Directive Establishing a General Framework for Equal Treatment in Employment and Occupation (EU, 2000c), etc.

Workplace accommodations are closely related with entering the employment and sustaining the existing employment of persons with disabilities. From this aspect investigating the appropriateness of the workplaces for the persons with disabilities is necessary for the achievement of a social and spatial program that applied. However, in Rule 7 of Standard Rules on the Equalization of Opportunities for Persons with Disabilities, making workplaces accessible for different disabilities is emphasized and including measures to design and adapt workplaces and work premises in States' action programs is mentioned. Support of States for the use and development of the assistive devices, tools and equipment for gaining and maintaining employment is also considered in the same rule (UN, 1993; Sará-Serrano et al, 2001, pp.11.6-11.7).

Also at the Second Council of the Persons with Disabilities, which was held in 2005 in Turkey, the Commission on Participation to the Employment specified the lack of “space, equipment and consultation” in the vocational education and inconvenient accommodation of the workplaces for the persons with disabilities and mentioned as a purpose equipping the accommodation of workplaces and considered monitoring mechanisms for reasonable accommodation (ÖZİ, 2005b, p.5, article 9).

### ***Literature related with workplace accommodation***

Both in international and national agenda, there exists many studies (Trupin & Yelin, 1999; Baldrige, 2001; Unger, 2001; Unger, 2002; Dixon et al., 2003; Hechter, 2003; Flynn-Somerville, 2005), regulations and guides (ILO, 2002) that consider the problem of employment of persons with disabilities. In Turkey, there are many valuable studies that considers the employment of persons with disabilities (Altan, 1976; Yılmaz, 2004a) in the field of demography (Karçkay, 2001), legal

regulations (Caniklioğlu, 1991; Uşan, 1997), economics (Şişman, 1995), design (Gökçen, 1999; Utkan, 2003), education (Özmen, 1996), sociology (Koca, 2003) and rehabilitation (Taşlı, 1993; Özkeskin 2000). It is difficult to say that most of the above studies directly concerned with the spatial problems of workspace organization.

Consequently, there is a need of conceptual comprehension in workplace accommodation, further than the standards, regulations. Instead of solutions that are temporary, immediate, spot, and specific for a person or a disability and away from the essence of the subject, more comprehensive apprehensions that inherit the social side of the subject should be investigated. As Eren (2004) mentioned, there is a crucial need for the equally accessible, adjustable and adaptable built environments for all people in Turkey and in the world. It is significant to provide equal access for everyone and respond to diverse needs related to the built environment. By taking everybody into consideration and avoiding any kind of segregation<sup>19</sup> of groups with in the population, designers, architects, planners and social scientists should consider and develop design solutions (Eren, 2004, p.2). This necessitates a different design and planning apprehension not only in workplace but also in all built environment. According to Metts (2000), the seven principles of Universal Design can provide a framework for cost-effective policies and strategies to increase physical accessibility for persons with disabilities; flexibility in use, simple and intuitive use, perceptible information, tolerance of error, low physical effort, and size and space for approach and use (Metts, 2000, p.29).

### **1.1.3. Universal Design**

Beginning with the rehabilitation efforts after the world wars in some countries in Europe and United States, removal of barriers and accommodation of people with disabilities began to be discussed. For removing the barriers in the built environment for people with disabilities in late 1950s the initial concept was “barrier-free design” Barrier-free design term has been used till now, but especially in United States the

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<sup>19</sup> Imrie (1996) argues that segregation whilst promoted as ways to help assimilate disabled people in society through empowerment and independence, perpetuates disability by labelling disabled people as different, as needing specialised and segregated facilities. Segregation thus propagates and reproduces the position and status of disabled people. As such popular misconceptions concerning

term signifies negatively as a feature prescribed only for the usage of people with disabilities (Ostroff, 2001a, p.1.5). After the barrier-free design the term accessible design in 1970s began to be used widely especially in United States as a more positive term than barrier-free design, but it has been used related with the legislated requirements. Ostroff (Ostroff, 2001a, p.1.5) specifies that accessibility has a different meaning in United States and in Europe. In Europe accessibility is used as an umbrella issue for all parameters that influence human functioning as an environmental quality.

In the barrier-free design and also in accessible design approaches, mainly the problems of people with disabilities was focused with specialized design solutions. Beyond needs of the people with disabilities as a specialized group, universal design aims to enclose the needs of all people regardless of their age, ability and size.

Although the obstacles met by persons with disabilities in some affairs like education, means of access, employment, sheltering is the same, the problems of persons with disabilities in the world varies. In spite of the several studies on workplace accommodation, application of these standards and guides are not possible by disregarding the regional conditions and issues. It is considered that by the outputs of this study; a contribution on constituting comprehensive approaches on the inclusion of persons with disabilities in employment in Turkey can be made.

## **1.2. Aim and Structure of the study**

Considering the difficulties of the spatial requirements of the persons with different kinds of disabilities (physical, sensory, etc.), it is aimed in this study to concentrate on basic/general principles of workplace accommodation by setting principles of Universal Design approach as a background in the evaluation of the thesis.

The primary purposes of the study can be summarized as follows:

- a. Starting with an exploration on disability and employment of persons with disabilities and considering with the historical evolution of disability

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disabled people are reproduced (Imrie, 1996; cited in Kitchin, 1998, p.347).

and employment in the world and in Turkey.

- b. Discussion on the national and international legislations, laws, regulations that control employment policies related with the workplace accommodation,
- c. Introduction and discussion of the principles of Universal Design and relating these principles to the existing physical rules and standards of disabilities,
- d. Evaluation of the study referring to Universal Design Principles and organize a set of strategy that can be used in the organization of workplace accommodations of persons with disabilities.

### **1.3. Validity of the study**

Because of the varying levels of strength, coordination, elasticity and sensation-perception losses of the persons with disabilities, endurance and functional capacity reduces and over energy consumption in the activities of daily living performance causes exhaustion. So removing the access and architectural problems which causes an obstacle for the persons with disabilities, designing accessible workplaces is important.

For overcoming the predicted shortage of labour in the future in many countries because of the aging in population, accommodating workplaces will be significant. Employers will seek to return employees who are injured or had disability while employing back to work, with the predicted shortage of labour and the economic reasons. By accommodating workplaces, barriers of productive and satisfying employment can be eliminated for employees with disabilities and they can be more competitive in employment and advancement opportunities.

Such a study is important for sustaining the existing employment and defining the physical features of the workplace as barrier for employment of the persons with disabilities and analysis of the situation. After an evaluation, it can be possible to solve the problems in the practice of employment and to make studies about this subject. On the other hand, by determining the appropriateness of the workplaces, not only for the employees with disabilities but also for the employers suitable approaches can be developed and suitable workplace accommodations can



be increased. From the social viewpoint, this study is expected to facilitate for the development and application of the programs, laws, regulations, standards and guides those are suitable with the necessities of the persons with disabilities and constitute more effective policy implications.

## **CHAPTER II**

### **HISTORICAL AND THEORETICAL BACKGROUND**

#### **2.1 Disability in general**

Sürmen (1996, p.301) mentions the constant increase in disability in our current age. According to Sürmen, the burdens of excessive urbanisation, mechanisation and communication threaten the human body as well as the mind. As an example he gives sport that has ceased to be a healthy activity but turned into a competitive effort, a quest for superiority or merely a way of attaining an attractive physical appearance, which leads us to put more strain on our bodies, and increases the rate of accidents. As another factor the rapid growth and declining quality of urban life that endangering our lives is mentioned. Because of the life style that obsessed with making more money by using less material and less space; our homes and buildings are full of architectural traps which may disable us at any minute. Also the life at work, with its constant stress and race against time also makes us extremely accident prone. Our environment is more polluted and became more dangerous as we use more machinery and consume more energy in urban life. Sürmen adds that as our social structure has disintegrated and people have lost their solidarity, we are forced to face life alone if we are ever disabled and the only help we can seek is that of certain social organisations. *So* the problems of the disabled should be handled on sociological grounds in our present age when urban life has almost become the key to existence. According to Sürmen a firmly established urban sociology may help facilitate the lives of different social groups.

Moore (2001, p.2.7) blames the life style of western world that distinguishes

itself in terms of discrimination on the basis of age and ability. She goes on as follows:

*Our advertisements depict the superior qualities of youth and fitness. Our heroes are often those from the realms of entertainment, fashion and sports. The average person is left to evaluate himself or herself on the standard of the fashion magazine cover girl, or the leading man in the latest action thriller.*

Report of United Nations (1975) charges the physical and social barriers that the society has created as the reason of limited lives of people with disabilities;

*Despite everything we can do, or hope to do, to assist each physically or mentally disabled person achieve his or her maximum potential in life, our efforts will not succeed until we have found the way to remove the obstacles to this goal directed by human society--the physical barriers we have created in public buildings, housing, transportation, houses of worship, centres of social life, and other community facilities--the social barriers we have evolved and accepted against those who vary more than a certain degree from what we have been conditioned to regard as normal. More people are forced into limited lives and made to suffer by these man-made obstacles than by any specific physical or mental disability.*

Away from the physical barriers in the built environment Afflerbach, (n.d., p.6) primarily accuses the attitudinal barriers that still remain to be one of the biggest obstacles to equal opportunities for and full participation of people with disabilities.

*They may even be harder to eliminate than architectural barriers or obstacles linked to inadequate product or service design. Consequently, awareness of the specific requirements of people with disabilities must be raised at all levels as early as possible. The education and training of professionals is one important step in that direction; it should be complemented by general awareness rising of a wider public.*

Burgdorf (1991, p.426) summarizes the status of persons with disabilities as;

- Individuals with disabilities have been subjected to widespread and severe discrimination
- Persons with disabilities are an extremely disadvantaged and underprivileged segment of society
- The resulting economic dependency of such individuals is costing the nation tremendous sums in support expenditures.

In ADA, (1990, sec. 2, article 7) in findings and purposes persons with disabilities are defined as a minority;

*“...individuals with disabilities are a discrete and insular minority who have been faced with restrictions and limitations, subjected to a history of purposeful unequal treatment, and relegated to a position of political powerlessness in our society, based on characteristics that are beyond the control of such individuals and resulting from stereotypic assumptions not truly indicative of the individual ability of such individuals to participate in, and contribute to, society;...”*

Quinn and colleagues (2002, p.23).summarizes the status of persons with disabilities as;

*“They have been marginalized in nearly all cultures throughout history. A common reaction (on the part of both the general public and policy-makers) was either pity or revulsion. There was a tendency to take the relative (or sometimes absolute) invisibility of persons with disabilities for granted or to accept it as "natural". The difference of disability was perceived as a ground for exclusion<sup>20</sup> rather than a cause for celebration of the diversity of the human family. The greater the tendency to construct everyday life with only the able-bodied in mind and the greater the lack of a physical presence of disabled persons in the mainstream, the more "natural" this assumption appeared to be. Much of the exclusion was funded by welfare programmes that were more conducive to entrapment than to liberation”*

Even in EU and all over the world persons with disabilities have a relatively low educational level compared with persons without disabilities. The relationship between disability and educational level may be emanated from the persons with lower educational levels entering jobs with a higher risk of having disability. From another opinion the correlation between disability and educational level might also be caused by the effect of disability on educational level; persons with certain types of disability having fewer educational opportunities (EU, 2001c, p.9).

Gündüz (1996, pp.322-3) in her presentation “The Perspective of the

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<sup>20</sup> Persons with disabilities are considered as part of the “other”. There is neither a beginning nor an end for the creation of otherness for society. Teymur (1996) clarifies the mechanism of exclusion, in his article “Housing as The Other”; as intelligent beings we notice the differences in others, then we choose those differences which would prove our judgement, then we point them out. After that we dump selected differences together into a stereotype or category, name the category and claim hegemony over categories. By the time we establish hierarchies and downgrade those that are different. Now it is time to separate them in name, select them socially and for limiting them in space, we build them what they deserve. Then we establish boundaries in language, society and territory and establish control over boundaries. Excluding the bounded ones socially, economically, spatially comes then and we advance the thesis that they are of lower order. Before formalizing their separation we think that they are dispensable, undesirable and dangerous. So we make the movement one way and access restricted. Then we hit them on the head if the object, then isolate them, then put them aside, away and down. At the last stage we deny that they exist, erase their traces and finally we get rid of

Disabled: Their Living Conditions and Housing problems in Turkey” in the International Symposium on the “Housing Question of the Others” summarizes the situation in Turkey and she proposes the provision of self-dependent living standards as the primary essential for the integration of people with disabilities with the society. She also suggests the creation of equal opportunities and the assurance of disability rights as essential. For the integration of people with disabilities she proposes the provision of equal chances of education, employment, income, social security and the right to take part in cultural/religious/sport activities. She continues as follows;

*Social segregation must be abolished and the notion of an integrated society should be established through practices worthy of the 20<sup>th</sup> century. For instance, we must put an end to the discrimination in the most inherently human issues such as sexuality, marriage and the right to start a family. If societies can abolish their differentiating attitudes and to learn to live and share together, the world will become a better place to live in for the disabled.*

Story and colleagues (1998, pp.11-12) mention that the commonality and pervasiveness of disability as a condition than many people realize. They also characterize disability as a common and natural part of life. Especially with the age disability increases for natural reasons and as a result of external causes. As Story and colleagues mentioned “many people, especially older adults deny having a disability because of the perceived social stigma identified with being disabled”.

## 2.2 Diversity of Disabilities

Mueller (1992; cited in Mueller, 2001, p.45.8) identifies the diversity of disabilities as follows;

- **Difficulty in Processing Information**  
*The characteristic is defined as an impaired ability to receive, interpret, remember, or act on information (learning disabilities, mental retardation, or senility).*
- **Limitation of Sight**  
*This characteristic is defined as a difficulty in reading newsprint-size copy, with or without corrective lenses, and extends to “legal blindness” (but not total blindness) (glaucoma, cataracts, or other eye disorders).*
- **Total Blindness**  
*Total blindness is the complete inability to receive visual signals.*

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them (Teymur, 1996, p.11).

- **Limitation of Hearing**  
*Limitation of hearing is defined as a difficulty in understanding normal speech (but not total deafness).*
- **Total Deafness**  
*Total deafness is the complete inability to receive auditory signals.*
- **Limitation of Stamina**  
*Limitation of stamina is defined as fatigue, shortness of breath and/or abnormal elevation of blood pressure due to mild exercise or sensitivity to chemicals (heart disease, emphysema, or other respiratory or circulatory conditions).*
- **Difficulty in Lifting, Reaching, Carrying**  
*This characteristic is defined as impaired mobility, range of motion, and/or strength of one's upper extremities (arthritis, bursitis, tendonitis, loss/paralysis/deformity of extremities, back impairment, hernia, or quadriplegia, paraplegia, or hemiplegia).*
- **Difficulty in Manipulating**  
*Difficulty in manipulating means impaired hand or finger mobility, range of motion, and/or strength (arthritis, carpal tunnel syndrome, cerebral palsy, or multiple sclerosis).*
- **Difficulty to Use Upper Extremities**  
*This characteristic is defined as complete paralysis, severe incoordination, and bilateral absence of upper extremities (multiple sclerosis, spinal cord injury, or cerebral palsy, as well as those without arms as a result of amputation or congenital loss).*
- **Limitation of Speech**  
*This characteristic is defined as a capability of only slow or indistinct speech, or non-verbal communication (cerebral palsy, a distinct speech impairment, or total deafness).*
- **Susceptibility to Fainting, Dizziness, Seizures**  
*This characteristic may be spontaneous or inducible by environmental factors such as sudden sounds or flashing lights, resulting in loss of consciousness, balance or involuntary muscle control (epilepsy, diabetes or cerebrovascular disease).*
- **Incoordination**  
*Incoordination is defined as limited control in placing or directing extremities, including spasticity (multiple sclerosis, cerebral palsy, Parkinson's disease, quadriplegia, paraplegia, or hemiplegia).*
- **Limitation of Head Movement**  
*This characteristic is defined as a difficulty in looking up, down, and/or to the side (curvature of the spine or intervertebral disc disorders).*
- **Limitation of Sensation**  
*Limitation of sensation means an impaired ability to detect heat, pain, and/or pressure (diabetes, multiple sclerosis, or full or partial paralysis).*
- **Difficulty in Sitting**  
*Difficulty in sitting is defined as excessive pain, limited strength, range of motion, and/or control in turning, bending, or balance while seated (curvature of the spine, deformity or impairment of the back, intervertebral disc disorders, complete or partial paralysis, or quadriplegia, paraplegia, or hemiplegia).*
- **Difficulty in Using Lower Extremities**  
*This characteristic is defined as slowness of gait, difficulty in kneeling, sitting down, rising, standing, walking, and/or climbing stairs or ladders (cerebral palsy, multiple sclerosis, deformity/absence/impairment of one or both lower extremities, or quadriplegia, paraplegia, or hemiplegia).*
- **Limitation of Balance**  
*Limitation of balance means a difficulty in maintaining balance while standing or moving (cerebral palsy, cerebrovascular disease, complete or partial paralysis, or Parkinson's disease) (Mueller, 1992; cited Mueller, 2001, p.45.8).*

For assessing the severity of impairments, Zwerling and colleagues (2003, p.519) illustrate two measures of severity that are reported in the literature;

- The first measure, constructed by Kasper and colleagues (Kasper et al, 1999; cited in Zwerling et al., 2003) groups functional limitations into four “domains.” In this measure for estimate the severity of the functional limitation, affected number of domains is used. These domains consist of;
  - difficulties in the upper extremities,
  - mobility or exercise tolerance,
  - higher functioning, and
  - basic self-care
- The second measure, constructed by Loprest, Rupp, and Sandell (1995; cited in Zwerling et al., 2003), uses a seven-point scale to represent the degree of difficulty within four categories of functions;
  - basic functions,
  - sedentary work functions,
  - physical work functions, and
  - very physical work functions

Zwerling and colleagues (2003, p.518) in their study “Workplace Accommodations for People with Disabilities: National Health Interview Survey Disability Supplement, 1994–1995” includes the population those who reported a variety of impairments and functional limitations. They classify the disabilities as;

- *difficulty with ADLs<sup>21</sup> (bathing, dressing, eating, getting in or out of bed or chair, or using the toilet),*
- *difficulty with IADLs<sup>22</sup> (preparing own meals, shopping for personal items, using telephone, doing heavy work around the house, or doing light work around the house),*
- *functional limitations (lifting 10 pounds, walking up 10 steps, walking a quarter mile, standing for 20 minutes, bending down from a standing position, reaching*

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<sup>21</sup> Activities of daily living (Zwerling et al., 2003, p.518).

<sup>22</sup> Instrumental activities of daily living (Zwerling et al., 2003, p.518).

- over the head, using the fingers to grasp or handle something, or holding a pen or pencil),*
- difficulty seeing (even with their glasses),*
- difficulty hearing (even with a hearing aid),*
- reported mental health or cognitive diagnoses (Down's Syndrome, mental retardation, schizophrenia, delusional disorders, bipolar disorder, major depression, severe personality disorder, alcohol abuse, drug abuse, other mental or emotional conditions),*
- reported the use of a cane, crutches, walker, wheelchair, or scooter to get around*

In Job Accommodation Network (JAN, n.d.) in the part “Accommodation Information by Disability” diversity of disabilities is given in a list as follows;

- Addison's Disease*
- AIDS/HIV*
- Alcoholism*
- Allergies*
- Amputation*
- Amyotrophic Lateral Sclerosis (ALS)/Lou Gehrig's Disease*
- Anxiety Disorders*
- Arthritis*
- Ataxia*
- Attention Deficit Disorder*
- Back Impairments*
- Bipolar Disorder*
- Bladder Impairments (Interstitial Cystitis)*
- Bleeding Disorders*
- Body Odor*
- Brain Injuries*
- Burn Injuries*
- Cancer*
- Cerebral Palsy*
- Charcot-Marie-Tooth*
- Chemical Sensitivity or Environmental Illness*
- Chronic Fatigue Syndrome*
- Chronic Pain*
- Cognitive Impairment*
- Color Vision Deficiency (Color Blind)*
- Complex Regional Pain Syndrome*
- Cumulative Trauma Disorders*
- Depression*
- Developmental Disabilities*
- Diabetes*
- Drug Addiction*
- Dystonia*
- Epilepsy*
- Fibromyalgia*
- Fragrance Sensitivity*
- Gastrointestinal Disorders*
- Graves' Disease*
- Heart Conditions*
- Hearing Impairments*



- *Hepatitis*
- *Herpes Zoster (Shingles)*
- *HIV/AIDS*
- *Huntington's Disease*
- *Kidney Disease*
- *Latex Allergies*
- *Learning Disabilities*
- *Leg Impairment*
- *Lyme Disease*
- *Little Person*
- *Liver Diseases*
- *Lupus*
- *Marfan Syndrome*
- *Mental Illness*
- *Mental Retardation*
- *Migraine Headaches*
- *Multiple Chemical Sensitivity or Environmental Illness*
- *Multiple Sclerosis*
- *Muscular Dystrophy*
- *Myasthenia Gravis*
- *Obesity*
- *One Hand Use*
- *Paraplegia*
- *Parkinson's Disease*
- *Post-Polio Syndrome*
- *Post-Traumatic Stress Disorder*
- *Pregnancy*
- *Psychiatric Impairments*
- *Quadriplegia*
- *Reflex Sympathetic Dystrophy (RSD)*
- *Renal Disease*
- *Respiratory Disorders*
- *Sarcoidosis*
- *Seasonal Affective Disorder*
- *Shingles*
- *Sleep Disorders*
- *Speech-Language Impairments*
- *Spina Bifida*
- *Spinal Cord Injury*
- *Stomach Ulcers and Reflux Disease*
- *Stroke*
- *Stutter*
- *Thyroid Disorders*
- *Vertigo*
- *Vision Impairments*
- *Wheelchair Use*

## 2.3 Terms and Definitions

### 2.3.1 Meaning of disability

The built environment and the language in which a group is defined are the most powerful tools for shaping attitudes and emotions towards a cultural group. The terminology for describing the groups changes according to the national trends and prescriptions. Persons with disabilities' community get its share from these terms. Some of these terms may have been commonly used in the past but they are clearly unacceptable today. On the other hand, new terms get into use regularly. But even within the disability community there is not an agreement about semantics.

UN's World Programme of Action Concerning Disabled Persons (UN, 1982) cites the definitions of World Health Organization that made the following distinction in the context of health experience, between impairment, disability and handicap:

***"Impairment:** Any loss or abnormality of psychological, physiological, or anatomical structure or function.*

***Disability:** Any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.*

***Handicap:** A disadvantage for a given individual, resulting from an impairment or disability, that limits or prevents the fulfilment of a role that is normal, depending on age, sex, social and cultural factors, for that individual" (UN, 1982, p.1, definition).*

In the Vocational Rehabilitation and Employment (Disabled Persons) Convention (ILO, 1983, article 1), ILO (International Labour Organization) defines "disabled person" as;

*For the purposes of this Convention, the term **disabled person** means an individual whose prospects of securing, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognised physical or mental impairment.*

United Nations (UN, 1993c, article 17) in Standard Rules on the Equalization of Opportunities for Persons with Disabilities defines the term "disability" as follows;

*The term "disability" summarizes a great number of different functional limitations occurring in any population in any country of the world. People may be disabled by physical, intellectual or sensory impairment, medical conditions or mental illness. Such impairments, conditions or illnesses may be permanent or transitory in nature*

In Standard Rules (UN, 1993c, article 18) the term “handicap” is defined as follows;

*The term "handicap" means the loss or limitation of opportunities to take part in the life of the community on an equal level with others. It describes the encounter between the person with a disability and the environment. The purpose of this term is to emphasize the focus on the shortcomings in the environment and in many organized activities in society, for example, information, communication and education, which prevent persons with disabilities from participating on equal terms*

In Americans with Disabilities Act (ADA, 1990, sec.3, article 2) disability is defined with respect to an individual as;

- *a physical or mental impairment that substantially limits one or more of the major life activities of such individual;*
- *a record of such an impairment; or*
- *being regarded as having such an impairment.*

After defining the term disability, Section 511 of the ADA specifies the term disability does not include;

- a) Homosexuality and Bisexuality.--For purposes of the definition of "disability" in section 3(2), homosexuality and bisexuality are not impairments and as such are not disabilities under this Act.*
  - b) Certain Conditions.--Under this Act, the term "disability" shall not include*
    - 1) transvestism, transsexualism, pedophilia, exhibitionism, voyeurism, gender identity disorders not resulting from physical impairments, or other sexual behavior disorders;*
    - 2) compulsive gambling, kleptomania, or pyromania; or*
    - 3) psychoactive substance use disorders resulting from current illegal use of drugs*
- (ADA, 1990, sec.511)*

### **2.3.2 Meaning of disability in Turkey**

The terms related with disability are generally seen in legal legislation and mostly definition depends on the purpose of the document. In Turkish mostly the terms “sakat, özürlü, malul, engelli, etc” is used for defining persons with disabilities synonymous with the terms “disabled, handicapped, etc”, but it is hard to translate

exactly which terms correspond each other. As in international literature there is also a discussion on the terms related with disability in Turkey. Mostly in the legislative documents the term “sakat” was used; in recent amendments the term “özürlü” has been preferred but the term “engelli” also has began to be used<sup>23</sup> and in much literature they are translated as “disabled”, rarely “handicapped” is used. In the frame of the thesis discussion on the terms will not be carried on, only some sample definitions will be given. In Turkish “disabled”<sup>24</sup> is associated with the meanings like; low and worthless part of a thing, bad and useless thing, erroneous, whose one part of ill or missing, impure or wrong Synonymous with disability<sup>25</sup> in Turkish, the terms “with handicap, disabled, impaired, crippled, handicapped, fragile (in military), etc is used (Altan, 1976, p.5).

In Turkey Disability Survey (2002, p.X) for each group of disability, definitions were identified separately as; chronic illnesses, orthopedical, hearing, language and speech, visual, mental disability definitions, and “disabled person” is defined as;

*Person unable to ensure by himself or herself, wholly or partly, the necessities of a normal individual and/or social life, as a result of deficiency, either congenital or not, in his or her physical capabilities.*

Law on Disabled People and on Making Amendments in Some Laws and Decree Laws (LDP, 2005, article 3) defines the “disabled” as follows;

*Disabled is the person who has difficulties in adapting to the social life and in meeting daily needs due to the loss of physical, mental, psychological, sensory and social capabilities at various levels by birth or by any reason thereafter and who therefore need protection, care, rehabilitation, consultancy and support services.*

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<sup>23</sup> *Türk Hukukunda özürlüyü karşılamak açısından sakat, engelli ve malul gibi kullanımlara yer verilmektedir. Geçen yıllara kadar yerleşmiş terim, sakat idi. Buna karşın yakın tarihte çıkarılan kanun hükmünde kararnamelerde ve mevzuattaki değişikliklerde özürlü kavramı tercih edilmiştir. ...Bu arada engelli tabirinin de uygulamada kullanılmaya başlandığını da söylemeliyiz (Uşan, 2003, footnote 1).*

<sup>24</sup> “Sakat” sözcüğü dilimizde; Bir şeyin düşük ve işe yaramaz kısmı, fena ve faydasız şey, yanlış, bir tarafı hasta veya eksik olan (alıl), bozuk veya yanlış anlamlarında kullanılmaktadır (Altan, 1976, p.5).

<sup>25</sup> Dilimizde sakatlar için yakın ve eş anlamlarda, hendikaplı (ingilizce kökenli), malul, alil, kusurlu, arızalı (arapça kökenli), özürlü, çürük (askerlik dilinde) sözcüklerini de kullanmaktayız (Altan, 1976, p.5).

In Regulation on Disability Measures, Classification and Medical Committee Report for Disabled (Özürlülük Ölçütü, Sınıflandırması Ve Özürlülere Verilecek Sağlık Kurulu Raporları Hakkında Yönetmelik) (ÖÖS, 2006, article 4) disability defined in two phase as “disabled” and “seriously disabled”. In the mentioned Regulation “Disabled” is defined as: Person who has difficulties in accommodating social life and daily necessities and who need care and rehabilitation by reason of losing congenital or acquired physical, cognitive, mental, sensational and social abilities in diverse degrees. In the Regulation “seriously disabled” is defined as; persons as disabled who have total function lose rate more than 50 % depending on disability case, that are determined medically that they have difficulties or defect in executing self care abilities like feeding, dressing, bathing and grooming, self-help moving or communicating and they can not perform these abilities without taking care.

#### **2.4 Disability in the history**

Industrial revolution is known as a landmark in the historical process of disability. By the industrial revolution many changes had emerged in the lives of persons with disabilities. Before the industrial revolution and urbanization people were living in the form of big families and supplying with agriculture<sup>26</sup>, livestock, fishing etc. In the pre-industrial type of production, maintenance of family members with disabilities was not matter. With the existence of the religions, in addition to the family members and charitable persons, ecclesiastics were interested and protected the persons with disabilities. With the religion, disability was seen in the comprehension of charity. Especially in West Europe in middle ages protection of persons with disabilities became a duty of the church. In the meantime governments

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<sup>26</sup> UN's World Programme of Action (UN, 1982, parag. 70) illustrates the transition of society from agricultural society to industrial society that still goes on in many countries as follows; *Many disabled persons, particularly in the developing countries, live in rural areas. When the family economy is based on agriculture or other rural occupations and when the traditional extended family exists, it may be possible for most disabled persons to be given some useful tasks to perform. As more families move from rural areas to urban centres, as agriculture becomes more mechanized and commercialized, as money transactions replace barter systems and as the institution of the extended family disintegrates, the vocational plight of disabled persons becomes more severe. For those living in urban slums, competition for employment is heavy and other economically productive activity is scarce. Many disabled persons in such areas suffer from enforced inactivity and become dependent; others must resort to begging.*

did not constitute an apprehension related with disability. In spite of the goodwill, these services were made far from the organization and coordination. By the renaissance the political sovereignty of the church displaced with that of the government. By the sixteen century instead of protecting persons with disabilities by receiving benefits, concept of protecting by treatment, rehabilitation, training and employment began to be discussed. Work houses depending on manual labour were the initial examples of the employment of persons with disabilities (Altan, 1976, pp.137-149).

Kitchin (1998, p.348) narrates the separation of persons with disabilities from the rest of the society referring to the Neo-Marxist thinkers, such as Hahn, Oliver, and Gleeson with arguing that it is the direct result of the shift from feudal to industrial capital relations. He continues as follows;

*...Where as in feudal times all members of the community had a role to play in sustaining life within the home (severely disabled people rarely lived to adulthood), with the onset of industrialisation and the regulation of individual and collective labour, disabled people were labelled as under- or non-productive. Unemployed disabled people, excluded from the workplace, provided no income and became family burdens. The poor house quickly became disabled 'asylums', predominantly occupied by children, the 'insane', the 'defective' and the 'infirm' (elderly). The advent of consumerism, rather than self-sufficiency, and associated advertising helped to place an emphasis upon health and the body beautiful, further stigmatising and perpetuating discrimination against disabled people.*

Transition from manual labour to manufacturing by the industrial revolution brought a different type of employment and mode of life. In this mode of life many, different necessities like education, transportation, entertainment, etc. emerged, thus for allowing these expenses every individual of the family required to work. In such an economic and social mechanism, because of their disabilities persons with disabilities became a factor that not only imbalances the economy of the family by not participating the production process but also by distracting another family member. Transformation from large families to nuclear families also influenced the status of the persons with disabilities. By the industrial revolution the type of economy transformed from mercantilism (commercial capitalism), the economic system which bases on the fertility of the government, to industrial capitalism. Industrial capitalism brought liberal economic thoughts and practices that assert the minimum intervention of government to the economic and social life. The state of

the persons with disabilities thought in the scope of a natural rule inherited in the social life, so it would be solved by itself. Because of the liberal policies and practices persons with disabilities were exposed to the dangers of laissez-faire economy by lacking the protection of their families, religious associations and lastly the government. Classical economical policies brought more poverty for persons with disabilities (Altan, 1976, pp.149- 152).

Kitchin (1998, p.348) mentions the role of eugenics that used statistical measurements to categorise persons with the aim of normalising those who deviated from the average. During this period a whole set of professions grew up to manage disabled people unable to earn a wage. For protecting the general public from the abnormal, that means segregation that those beyond normalisation were prevented from socialisation and reproduction serving to eliminate 'defectives' from future populations. Kitchin (1998) interprets shift toward deinstitutionalisation and care in the community not as a way of improving the care and lives of those in need, but rather as a way to save the State capital. He argues that this movement disrupted and fragmented formal segregated spaces but led to a new set of informal segregated spaces amongst the gutters, sidewalks, hostels and bedsits of cities.

Against the classical economy that survived in the societies with its whole conditions and rules until the 19<sup>th</sup> Century, some suspicions emerged because of the unfavourable effects for the poor, working class, aged and persons with disabilities. So thoughts like intervention of the government to the economic life began to be discussed. By the French Revolution and American Human Rights Declaration, human rights concepts existed and sanctity of "being human" highlighted. But the first concerns emerged by the disability issue of workers because of the bad working and urbanization conditions. Beside the government, voluntary organizations also had been interested in the persons with disabilities. For protecting the poor, governments accepted to interfere to the economic life and had some practices but they were not prevalent and effective. Rehabilitation of persons with disabilities emerged in 20<sup>th</sup> Century by the improvements in medical science. Altan (1976) summarizes the efforts for protecting the persons with disabilities as;

- Grant of money and goods
- Providing treatment and education
- Providing employment and protecting in working life (Altan, 1976, pp.152-156).

First World War means another landmark for the persons with disabilities; because of the war many persons had disability. The rehabilitation services evaluated because of the treatments in military hospitals during and after the war. Some rehabilitation associations opened and employment of persons with disabilities began to be discussed. But 1929 World Economic Crisis interrupted the process and the Second World War exacerbated the existing issues and the necessity of rehabilitation perceived because of the millions of persons with disabilities. After the Second World War, security by the government not only for illness, unemployment, etc. but also for persons with disabilities occurred. While establishing social security for subsequent disabilities, for treatment, education, training and employment of persons with disabilities measures began to be taken by legal arrangements. By the half of the 20<sup>th</sup> Century governments settled soon into shape of social state but only for some countries and in the limits of the social welfare (Altan, 1976, pp.156- 164).

#### **2.4.1 Historical background of disability in Turkey**

##### **2.4.1.1 Disability before the Republic**

In the Ottoman Empire, there was a social protection that covers the poor, needy, widow and orphans as well as for the persons with disabilities. But it is hard to say that it was practiced in a scientific and rational manner, it was practiced in a religious concept by the donations to the charitable foundations. It is known that the initial struggles for the persons with disabilities emerged during the Seljuk Empire. After the Seljuk Empire, during the Ottoman Empire “ahilik” (labour organization) maintained the social system initially in a religious manner but than as a social welfare institution. The initial medical establishment forms like “tumarhane, bimarhane” (mental institutions), “şifahane” (hospital), “darüşşifa, darüssıhha” (cottage hospital), etc. were prevalent. During the middle age, some protection



measures, like monetary or goods contribution, were taken by the trade guilds for the co-workers who became disabled while carrying on the profession (Altan, 1976, pp.167-168).

After the Administrative Reforms (Tanzimat, 1839), as a constitution “Mecelle” which is based on religious rules was valid till the Republic. It is hard to say that it has rules that cover persons with disabilities. So for fulfilment the constitution some regulations (nizamname), especially related with sanitation, existed; Mine Regulation (Maden Nizamnamesi), Regulation Related with Shiftwright (Tersane-i Amiriyeye mensup işçi ve sairenin teakütlükleri Nizamnamesi), etc. Early in the 20<sup>th</sup> Century, with the Act of the Ministry of Health (Sıhhiye Nezareti Teşkilatını düzenleyen ve Meclis-i Ali-i Sıhhi’yi kuran kanun, 1915), some regulations that are related with some food stuff, vaccination, infectious diseases were came into force. These regulations can be assessed with disability prevention policies. Some welfare associations like; Red Crescent Association (Kızılay), Poorhouse (Darülaceze) was founded. Among the aims of these welfare associations, establishing and managing institutions for rehabilitating the persons with disabilities, conserving public health, providing tools and appliances required by persons with disabilities, etc. can be signified (Altan, 1976, pp.168-170).

Altan (1976) emphasizes that subjects like education, rehabilitation and employment of persons with disabilities actually not mentioned till the Republic. The economic and social effects of the Industrial Revolution had not existed, so disabilities caused by industrial process had not emerged yet, they were not multiple and prevalent like the industrialized European countries. Because of the crowded Ottoman type family, relationships in traditional manner, good neighbourhood, relation of freeman, the binding modest religious philosophy, etc, the status of persons with disabilities were not insufferable (Altan, 1976, p.170).

#### **2.4.1.2 Disability after the Republic in Turkey**

After the Republic, some measures taken in the conditions of the period and some regulations inspired from the western countries. Accepting the health and well-being of citizens as the basic wealth begins by the Republic. The “social law state” model materialized by the 1961 Constitution. The initiatory step related with persons

with disabilities was taken by the census of population in 1927. Altan (1976) categorizes the measures taken during the early years of Republic as such;

- The measures taken for preventing disability and that aims to contribution of monetary or goods,
- Measures related with the education of persons with disabilities,
- Measures that aims to employ persons with disabilities with medical and occupational rehabilitation (Altan, 1976, pp.170-171).

***The measures for preventing disability and that aims the contribution of monetary or goods in the early years of Republic in Turkey***

As an initial example of preventive measure, The Ministry of Health (Sihhiye ve Mukaveneti İċtimaiye Vekaleti) Law in 1920 was significant. Than in 1936 The Ministry of Health Law was broaden by taking the social welfare mission and named as The Ministry of Health and Welfare Law (Sağlık ve Sosyal Yardım Bakanlığı Teşkilatı ve Memurin Kanunu). For preventing from the disability not only in the field of health and welfare, also in the field of employment, some legal arrangements made; Ereğli Havza-I Fahmiye Amelesinin Hukuka Müteallik Kanun in 1921, Mine Law, Law of Obligations in 1926, Public Hygiene Law 1930, Law no 3008 on Labour Law. But these legal arrangements were mostly related with public hygiene. By the Law no 1580 on Municipalities government assigned a task to the municipalities related with persons with disabilities for the first time. Not only with the legal arrangements but also by empowering the establishment of voluntary associations,<sup>27</sup> government tried the participation of the society in aiding the persons with disabilities. Characterizing some associations as “beneficial society” (kamuya yararlı dernek), government tried to protect them in a specific way by deductions duties and taxes. After 1945 legislation about insurance intuitions was seen; in 1945 Law no 4772 on Work Accidents, Occupational Disease and Maternity Insurance (İş Kazalarıyla Meslek Hastalıkları ve Analık Sigortası Kanunu), in 1950 Law no 5502

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<sup>27</sup> Till 1938, associations were establishing with the resolution of the Council of Ministers in Turkey (Altan, 1976, p.178).

on Sickness and Maternity Insurance (Hastalık ve Analık Sigortası Kanunu) and in 1950 Old Age Insurance (İhtiyarlık Sigortası) Law. Till 1950, social security against disability was seen in mostly in different labour laws, by the Law no 5434 on Retirement Fund (Emekli Sandığı) disability case was covered for the civil servants (Altan, 1976, pp.170-180).

Altan (1976) indicates that social security systems that were established after the Republic was covering only the working population and developed for persons with subsequent disabilities, however the persons with congenital disabilities and the persons who was not and could not work were not covered by legislative measurements (Altan, 1976, p.180).

#### ***Measures related with the education of persons with disabilities in the early years of Republic in Turkey***

Special education for persons with physical and mental disabilities began by 1950's. The initial special education establishments were introduced for persons with hearing and visual disabilities. The school that established in 1951 in Ankara for persons with visual disabilities and the school that established in 1952 in Ankara, İstanbul and İzmir for persons with hearing disabilities were the initial samples. There was not any educational attitude for the persons with other than the hearing, speaking and visual disabilities (Altan, 1976, pp. 180-181).

#### ***Measures related with employment of persons with disabilities in the early years of Republic in Turkey***

The initial rehabilitation attitudes seen during the First World War like other countries in the world with the workshop that was producing prosthesis for the persons who had disabilities during the war. Later on rehabilitation services were executed by the "Rehabilitation Centres" connected with the health institutions. The initial medical rehabilitation examples were seen in reception institutes that were connected with the Health and Welfare Ministry. The initial attitudes of occupational rehabilitation and employment of persons with disabilities were seen after 1950's. In legislation the initial attitude for the rehabilitation of persons with disabilities seen in the Law no 6900 and dated 1957 on Insurance of Disability, Old Age and Burial

(Maluliyet, İhtiyarlık ve Ölüm Sigortaları Kanunu); the expression that aims the training of the persons with disabilities for re-entering the employment. Also the Regulation on the Training of Disability Insured (Malul Sigortalıların İşe Alıştırılmaları Hakkında Nizamname) that grounds on the mentioned law was the initial example of legislation related with the employment of persons with disabilities (Altan, 1976, pp.181-187).

#### **2.4.1.3 Disability after the 1960 in Turkey**

The Constitution that accepted after the 1960 Revolution in Turkey defined the government as “social state of law” and defined the fundamental rights as employment, fair wages, social security and education of every person that also covers the persons with disabilities (Altan, 1976, p.194).

#### ***The measures for preventing disability and that aims the contribution of monetary or goods after 1960 in Turkey***

Law no 224 dated 1961 on Socialization of Health Services was envisaging the socialization of health services and including the rehabilitation of patients. But it is hard to say that it was fruitful (Altan, 1976, pp.197-198). Law no 1630 dated 1972 on Associations gave the associations a new order by specifying the study area of them and by new necessities that put an end to the activity of some small associations (Altan, 1976, pp.200-201). After 1960 Revolution, Law no 506 dated 1964 on Social Insurance, which was basing on the 48th article of the Constitution, was significant in covering the work accidents, occupational diseases, state of sickness and disability. Law was covering the financial aids and provision of the necessary prosthesis, means and appliances (Altan, 1976, p.205). Law no 1479 on Social Security Organization for Artisans and the Self-Employed was also covering the case of disability and providing financial aid in the case of disability (Altan, 1976, p.205).

The current social security systems do not cover all sectors of the society as generally; they only cover the target part of the society so especially congenital disabilities are not covered. Occupational rehabilitation and training take place in the mentioned laws but social security supports are mostly in the form of financial

aiding. Because of covering different sections of the society, legislation about social security is scattered and complicated (Altan, 1976, p.207-208).

***Measures related with the education of persons with disabilities after 1960 in Turkey***

In 1961 Constitution article 50 was covering the special education and was considering the education of persons with disabilities as a duty. Law no 222 on Primary Instruction and Education was covering the children with disabilities and was envisaging establishment of special institutions for the education of children with disabilities. Grounding on the mentioned Law, Regulation dated 1975 on The Children That Demands Special Education (Özel Eğitime Muhtaç Çocuklar Hakkında Yönetmelik) was covering some disabilities but only primary education (Altan, 1976, p.208-209).

***Measures related with employment of persons with disabilities after 1960 in Turkey***

Law no 657 dated 1965 on Public-sector Employee (Devlet Memurları Kanunu) (CSL, 1965) envisages occupational rehabilitation and training for the employees with disabilities in article 89, on the other hand article 48 was envisages employees with no physical or mental disability (Altan, 1976, p.217-218).

Law no 854 dated 1967 on Maritime Labour Law (Deniz İş Kanunu) in article 13 inherited the employment of persons with disabilities according to the Labour Law and its regulations. In the mentioned Law in article 50 considered a fine for the employers who did not employ persons with disabilities (Altan, 1976, p.274).

Labour Law (İş Kanunu) no 1475 (1967) attracted notice with its article 25 that was envisaging the employment of persons with disabilities and persons convicted previously as a legal duty in some essence and measures. The mentioned Law no 931 could not be applied and cancelled in 1970. The same clauses took place on Law no 1475 dated 1971 on Labour and grounding on the mentioned Law, Regulation on the Employment of Persons with Disabilities and Persons Convicted Previously came into force in 1972 (Altan, 1976, pp.219-223). Labour Law was considering quota in employment of persons with disabilities for the employers, also there was a priority in employment for the persons who had disability in the same

workplace (Altan, 1976, pp.224-275).

According to their working capacity, Labour Law no 1475 was requiring every private and public employer to employ at least 50 employees with disability, so that they represent 3 percent (revised by a regulation enacted in October 1998) of the total number of employees (Article 25A). Also workers are given priority when they are impaired in the work place (Article 25B). With the Law no 1475 Employers not achieving the quota target are obliged to pay Five Hundred Thousand Turkish Lira for each disabled worker, whom he does not employ, as a fine (Article 98), which is revised by a regulation in October 1998 and have become Seventy Million Turkish Lira. By the Act 213 with the application principle of taxation method, the rate of revaluation for that fine was raised every year. Also Labour Law was envisaging the collection of fines in State Employment Agency and usage of this fine in the projects like employment, self employment, educational training and occupational rehabilitation of people with disabilities. By this way it is aimed to provide a significant Money fund for occupational rehabilitation, educational training of people with disabilities who have been neglected for long years in the country. Related with the Labour Law (No. 1475), the responsibility of these legal provisions was given to the State Employment Agency (under the Ministry of Labour and Social Security) (Karçkay, 2001, p.58).

Employment of Disabled and Convicted Persons Regulation (Sakatların ve Eski Hükümlülerin Çalıştırılmaları Hakkında Yönetmelik) that was grounded on Labour Law which was defining the conditions, type of works and ratio, number of employees with disabilities came into force in 1972 (Altan, 1976, p.275). The mentioned regulation was considering the employment of persons with disabilities who had “medical committee report” (sağlık kurulu raporu). According to the regulation disability could not be recognized as a reason for lower remuneration. People with disabilities should enjoy the same benefits provided by the employer on the same base as other employees. The same regulation was considering in a way accommodation of workplaces for the persons with disabilities defined as “suitable and facilitating”. Altan (1976) discloses the accommodation in workplace as; special lighting, arrangement of tables, chairs or workbenches according to persons with disabilities, alteration in the doors, stairs or providing elevator for easing the traffic

of persons with disabilities inside the workplace etc., and Altan (1976) defines application of these arrangements as a profession. Because of lack of clear restrictions in the mentioned regulation for workplace accommodations and lack of sanction, effective and prevalent control, the workplace accommodations could not be practised (Altan, 1976, pp.295-296).

Karçkay (2001, p.59) mention that the Ministry of Labour and Social Security is responsible for employment of employees with disabilities as all employees. General Directorate of the State Employment Agency, subordinate to the Ministry of Labour and Social Security, has overall responsibility for implementation of labour market policy. The Agency is responsible for providing placement services, gathering information concerning the labour market, providing vocational guidance services and vocational training for the unemployed, people with disabilities and ex-convicts, provide vocational rehabilitation services for people with disabilities and paying unemployment benefits.

#### **2.4.1.4 Disability after the 1980 in Turkey**

The 42<sup>nd</sup>, 50<sup>th</sup> and 61<sup>st</sup> articles of the 1982 Constitution (CRT, 1982) that cover the education, employment and social security of people with disabilities, compose the main legal basis of the laws that are related with people with disabilities.

United Nations announced officially 1981 as International Year of Disabled with an emphasis on equalization of opportunities, rehabilitation and prevention of disabilities. In order to provide a time frame during which Governments and organizations could implement the activities recommended in the World Programme of Action, the General Assembly proclaimed 1983-1992 the United Nations Decade of Disabled Persons. Parallel with the objections of the UN, National Coordination Board for Protection of Disabled (SKMKK, 1985) was has been established under the Ministry of Labour and Social Security in 1981. Until the foundation of Administration of Disabled People Decree in 1997 with Law no 571 (KHK 571, 1997) National Coordination Board for Protection of Disabled performed its duty.

***The measures for preventing disability and that aims the contribution of monetary or goods after 1980 in Turkey***

According to Law no 2828 on Social Services and Child Protection (SHECKK, 1983) in 1983, social service programs and rehabilitation services of people with disabilities is implemented by General Directorate of Social Services and Child Protection.

By the Law of Associations<sup>28</sup> came into force in 1983; all the civil initiatives and non governmental organizations working on the four major disabilities had to be a member of federations that is linked to a nationwide umbrella confederation (Turkish Confederation of Disabled Persons).

***Measures related with employment of persons with disabilities after 1980 in Turkey***

A regulation put into effect in 1983 for determining the preconditions to be accepted into official vacancies and types of works<sup>29</sup>. This regulation<sup>30</sup> was envisaging examinations for being accepted for the official posts for people with disabilities that will be synchronized with the general examination. But when there was no need for general examination; they could be made in certain intervals within a year, which are defined as April-May, July-August, and October-November. The agencies and organizations could make exams in one or all periods as long as there are empty vacancies reserved for people with disabilities (Article 8, revised on 9 October 1998 by the Official Gazette numbered 23488). To be accepted into the exams, applicants should provide reduced working capacity of at least 40 percent certificated by medical profession (Article 2, revised on 9 October 1998 by the Official Gazette numbered 23488). Karçkay (2001, p.58) mentions that people with disabilities are employed according to their professional background or in jobs that suit their capabilities. The agencies and organizations are responsible for taking measures to make the working conditions appropriate and to provide the required

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<sup>28</sup> 2908 sayılı Dernekler Kanunu 7 Ekim 1983 gün ve 18184 sayılı Resmi Gazete.

<sup>29</sup> The regulation of the preconditions for disabled people to be accepted into civil servant position (Sakatların Devlet Memurluğuna Alınma Şartları ve Hangi İşlerde Çalıştırılacakları Hakkında Yönetmelik) adopted on 27.07.1983 by Official Gazette numbered 18117.

<sup>30</sup> This regulation extinguished by the regulation “Özürlülerin Devlet Memurluğuna Alınma Şartları İle Yapılacak Yarışma Sınavları Hakkında Yönetmelik” 16/09/2004 tarih ve 25585 sayılı Resmi Gazete.



tools and equipment for the people with disabilities. These measures are enforced by the Presidency of State Personnel established at the end of 1990, is responsible in improving public sector employment. The Presidency of State Personnel is preparing and implementing training programs, collecting statistical information and making labour market analysis for all government- funded agencies and organizations.

As another legal arrangement that covers the private sector, The Regulation of the Employment of Disabled People<sup>31</sup> (SİHT, 1987) predicts the assessment of the Medical Board of Health for reduced working capacity due to disability related with employment reasons and reasons of disability pension. The Board certifies the disability degree of people who are assessed having the working capacity reduced by 40 and over. Persons with disability are registered with the certificate as a disabled job seeker by the Employment Agency and are counted as a candidate for employers who are required to fulfil the quota obligation (Karçkay, 2001, p.60).

The Turkish Government accepted the Human Resources Development Convention of ILO (ILO, 1975) regarding the employment and job training by the Law no 3850<sup>32</sup> in 1992. This agreement secures the equal opportunity of persons with disabilities in economic life specifically for the job trainings (Uşan, 2003, parag. 21).

### ***The measures for accessibility of the built environment after 1980 in Turkey***

Some Turkish Standards accepted in this period on built environment directly related with people with disabilities are;

- TS 7635/November 1989; *Criteria for Pedestrian Crossing in Urban Areas (Şehiriçi Yollar-Yaya Geçitleri Seçim Esasları)*,
- TS 7636/November 1989; *Zebra Pedestrian Crossings in Urban Areas (Şehiriçi Yollar - Zebra Yaya Geçitleri)*,
- TS 7768/January 1990; *Pelican Pedestrian Crossings in Urban Areas (Şehiriçi Yollar-Pelikan Yaya Geçitleri-Yapım ve İşleyiş Kuralları)*,
- TS 7937/February 1990; *Design and Construction Criteria For the Footways On Urban Roads (Şehiriçi Yolları-Yaya Kaldırımı Boyutlandırma ve Yapım Esasları)*,
- TS 8022/February 1990; *Şehir İçi Yollar- Yaya Alt Geçitleri (Subways in Urban*

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<sup>31</sup> By the Cabinet Decision no 2005/8913 this regulation has been invalidated, June 12, 2005 dated, 25843 numbered Official Gazette.

<sup>32</sup> İnsan Hakları Kaynaklarının değerlendirilmesinde Mesleki Eğitim ve Yönlendirmenin yeri hakkında 142 Sayılı ILO Sözleşmesinin onaylanmasının uygun bulunduguna dair Kanun, 12 aralık 1992 tarih ve 21433 sayılı Resmi Gazete.

Areas),

- TS 9111/April 1991; *Specifications for Designing Residential Buildings for the Disabled (Özürlü İnsanların İkamet Edeceği Binaların Düzenlenmesi Kuralları)*,
- TS 10551/December 1992; *Cars-Design Criteria of Auto Parking Facilities in Urban Areas (Şehir İçi Yollar - Otolar İçin Otopark Tasarım Kuralları)*,
- TS 11783/July 1995; *Criteria For Bus Stop Types And Locations On Urban Roads (Şehir İçi Yollar-Otobüs Durakları Yer Seçimi Kuralları)*,
- TS 10155/April 1992; *Urban Roads - Medians and "U" Turn Facilities (Şehir İçi Yollar - Refüjler ve "U" Dönüşü Tesisleri)*

#### 2.4.1.5 Disability after the 1997 in Turkey

Significant amendments have been made after 1997 in Turkey in the field of disability (Uşan, 2003, parag. 3). In 1996 with the Law no 4216<sup>33</sup> authority of enacting decree-law was given to the Council of Ministers for the foundation of Administration for Disabled People. Uşan specifies these amendments as; founding of Administration for Disabled People, Civil Servants Law, Labour Law, Social Services and Child Protection.

Japan International Cooperation Agency Turkey Office's report on "Existing Situation Report on Persons with Disabilities in Turkey" (JICA, n.d.) summarizes the policy framework of the central government in Turkey depending on the 8th Five Year Development Plan<sup>34</sup> that was covering the between 2001-2005 (DPT, 2000) as;

*...a trend toward family oriented social support programs for children with disabilities who need protection, with a view to give opportunity to live and grow up with their families. The plan also stresses policies on leisure time activities, employment and social assistance for persons with disabilities. The significance prevails for the need for rearrangement of the services implemented for persons with disabilities. In this context, the works for legal arrangements executed by the Administration on Persons with Disabilities still continue. In order to enhance social assistance and social services to be provided for children, elderly, disabled, those requiring special care, poor and other groups under risk, a new institutional structure shall be established. This new structure should be responsible of the arrangements, administration, and coordination of all kinds of services and assistance given by the public sector.*

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<sup>33</sup> Özürlüler İdaresi Başkanlığı Kurulmasına ve Özürlülerin Durumları İle İlgili Çeşitli Kanun ve Kanun Hükmünde Kararnamelerde Değişiklik Yapılmasına Dair Yetki Kanunu, 08/12/1996 tarih ve 22841 sayılı Resmi Gazete. Retrieved in January 26, 2007 from <http://www.mevzuat.adalet.gov.tr/html/879.html>

<sup>34</sup> DPT (Devlet Planlama Teşkilatı), (2000), Uzun Vadeli Strateji ve Sekizinci Beş Yıllık Kalkınma Planı 2001-2005. Retrived in January 28, 2007 from <http://ekutup.dpt.gov.tr/plan/viii/taslak.pdf>

***The measures for preventing disability and that aims the contribution of monetary or goods after 1997 in Turkey***

Depending on this authority of enacting, as a milestone for people with disabilities in Turkey, with Decree Law no 571<sup>35</sup> that frames the organization and administrative functions of Administration for Disabled People affiliated to Prime Minister founded; for ensuring the execution of services for persons with disabilities effective and efficiently; supplying coordination and collaboration between national and international associations and establishments, facilitating in constitution of national policy related with people with disabilities, determining the problems of people with disabilities and investigating the solutions of these. The Administration also collects views from the government ministries in disability field and is submitting proposals to the State Planning Department that executes the actual policy-making (KHK 571, 1997 article 1). By the Law no 571, the provision of improvements in employment facilities for disabled individuals; rearranging work environments and redesigning equipments/instruments according to the needs of persons with disabilities and precautions is envisaged.

Law no 5216 on Metropolitan Municipalities<sup>36</sup> in article 7, define responsibilities for municipalities' services for persons with disabilities as providing appropriate services considering the situation of persons with disabilities among other vulnerable groups such as the elderly and poor. In article 18/m it is mentioned that mayors are responsible for and empowered to allocate budget for these services and establish centres for persons with disabilities. As it is specified in article 24/j, social aids for the vulnerable groups including persons with disabilities also lie within the range of their duties. Municipalities are responsible for attaining the essential level of solidarity and participation as well as involvement of volunteers increasing efficiency of municipal services for persons with disabilities (JICA, n.d.).

The new Law on Disabled People (LDP, 2005) has been enacted with a series

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<sup>35</sup> *Madde 1 - Bu Kanun Hükmünde Kararnamenin amacı, özürliilere yönelik hizmetlerin düzenli, etkin ve verimli bir şekilde yürütülmesini temin etmek için; ulusal ve uluslararası kurum ve kuruluşlar arasında işbirliği ve koordinasyonu sağlamak, özürliüler ile ilgili ulusal politikanın oluşmasına yardımcı olmak, özürliülerin problemlerini tespit etmek ve bunların çözüm yollarını araştırmak üzere Başbakanlığa bağlı Özürliüler İdaresi Başkanlığı'nın kurulmasına, teşkilat e görevlerine dair esasları düzenlemektir (KHK 571, 1997 article 1).*

<sup>36</sup> Büyükşehir Belediyesi Kanunu, 23 Temmuz 2004 tarih ve 25531 sayılı Resmi Gazete. Retrieved in

off amendments on the former law on 1 July 2005. The new regulation encompasses the umbrella codes as; to secure the rights of persons with disabilities and to establish coordination of efforts. The new law includes definitions of disability, criteria for disabilities and rehabilitation. In Report of JICA (JICA, n.d.) major accomplishments are outlined as follows;

- *ICF (International Classification of Functioning) system will be applied in stead of the health board reports applied until today,*
- *Care services will be improved under the overall control of SHCEK,*
- *Active participation of persons with disabilities, their families and NGOs will be secured through various means such as improved rehabilitation service s, physical accessibility, support technologies and equipment for sports activities, etc.*
- *Vocational rehabilitation services will be disseminated wide, and municipalities (local authorities) will also deliver these services.*
- *Employment of persons with disabilities will be encouraged through measures against discrimination, improvement of physical accessibility at work places, encouraging protective work places, increased penalty measures, etc.*
- *Supporting and facilitating educational services through financial supports, coordination of support activities for university students, preparation and supply of various education materials.*
- *Providing financial support through increased monthly salaries of the persons with disabilities,*
- *Fostering new preventive measures against disabilities,*
- *Improving local services through establishing special units in municipalities for persons with disabilities*

### ***Measures related with the education of persons with disabilities after 1997 in Turkey***

In order to compensate the experienced problems in the field of special education and to improve the quality of education for individuals with special education needs Act 573<sup>37</sup> was legislated in 1997. "Act of Special Education" describes the implicit and explicit educational services that are to be provided for people with disabilities and also defines programs, schools and institutions that will provide these services. The right of people with disabilities for benefiting from early intervention, preschool, elementary, secondary, and high school education system, mainstreaming was guaranteed by this act. Act 573 brought a new perspective to services in the area of special education (JICA, n.d.)

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January 28, 2007 from <http://rega.basbakanlik.gov.tr/eskiler/2004/07/20040723.htm#1>

<sup>37</sup> 06.06.1997 tarihli mükerrer 23011 sayılı Resmî Gazetede yayımlanan 573 sayılı Özel Eğitim

### ***Measures related with employment of persons with disabilities after 1997 in Turkey***

In 1998 by the second article of the Law no 4382<sup>38</sup>, the quota ratio in Labour Law<sup>39</sup> was revised from 2 percent to 3 percent. By the 3<sup>rd</sup> article of this law, also the penalty for employers in the case of not applying quota was revised as 70 million Turkish Liras for every month. In the same article as an initial example of incentive to the employers; in the case of employing over the quota ratio, half of the insurance premiums, that are paid according to the Law no 506<sup>40</sup>, of the employers with disabilities that are over the quota ratio will be paid by the government. By the same article revision of penalties is predicted according to the Law no 213<sup>41</sup>. Also the same article envisages a special fund that penalties will be collected and used for the projects that aims the rehabilitation, training and setting up their business.

### ***The measures for accessibility of the built environment after 1997 in Turkey***

Some amendments have been made on some law with the Decree Law 572 (KHK 572, 1997); with the 1<sup>st</sup> article of the Decree-Law, an article was added to the Law no 3194 on Building Code as; for ensuring the viability and accessibility of built environment for people with disabilities, complying with the proper standards of Turkish Standards Institution in the zone plans, urban, technical infrastructure areas and buildings is mandatory<sup>42</sup>. By the 2<sup>nd</sup> article of the Decree Law, the duty of making amendments in regulations related with Building Code has been given to the Ministry of Public Works and Settlements<sup>43</sup>. These regulations are;

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Hakkında Kanun Hükmünde Kararname.

<sup>38</sup> İş Kanunu, İş Ve İşçi Bulma Kurumu Kuruluş ve Görevleri Hakkında Kanun ile 572 Sayılı Bazı Kanunlarda Değişiklik Yapılması Hakkında Kanun Hükmünde Kararnamede Değişiklik Yapılması Hakkında Kanun, 24 Ekim 1998 tarih ve 23503 sayılı Resmi Gazete. Retrieved in January 26, 2007 from <http://www.iskur.gov.tr/mydocu/mevzuat/kanun10.htm>

<sup>39</sup> 1475 Sayılı İş Kanunu, 1 Eylül 1971 tarih ve 13943 sayılı Resmi Gazete. Retrieved in January 28, 2007 from [http://www.calisma.gov.tr/mevzuat/1475\\_is\\_kanunu.htm](http://www.calisma.gov.tr/mevzuat/1475_is_kanunu.htm)

<sup>40</sup> 506 Sayılı Sosyal Sigortalar Kanunu, 29, 30, 31/07/1964 - 01/08/1964 tarih ve 11766 – 11779 sayılı Resmi Gazete. Retrived in January 28, 2007 from <http://www.mevzuat.adalet.gov.tr/html/377.html>

<sup>41</sup> 213 Sayılı Vergi Usul Kanunu, 10/01/1961 tarih ve 10703 sayılı Resmi Gazete. Retrived in January 28, 2007 from <http://www.gelirler.gov.tr/gelir2.nsf/vergiusultum?OpenPage>

<sup>42</sup> **Madde 1-** 3/5/1985 tarihli ve 3194 sayılı İmar Kanununa aşağıdaki ek madde eklenmiştir.

“Ek madde 1- Fiziksel çevrenin özürliüler için ulaşılabilir ve yaşanabilir kılınması için, imar planları ile kentsel, sosyal, teknik altyapı alanlarında ve yapılarda, Türk Standartları Enstitüsünün ilgili standardına uyulması zorunludur.” (KHK 572, 1997, article 1).

<sup>43</sup> **Madde 2-** Aynı Kanuna aşağıdaki geçici madde eklenmiştir.

“Geçici Madde 9- Bu Kanunun Ek 1 inci maddesinde öngörülen düzenlemelerin yapılmış ve yapılacak altyapı alanlarında ve yapılarda gerçekleştirilmesi için, imar yönetmelikleri ve kamu binaları ile ilgili

- Standard Building Regulation on Municipalities Uncovered by the Law no 3030<sup>44</sup>,
- Building Regulation of Inside and Outside the Contiguous Non-planned Zones and Municipalities<sup>45</sup>,
- Regulation for the Standards of Planning<sup>46</sup>,
- Application Regulation of Law on Slums Houses<sup>47</sup>,
- Car Park Regulation<sup>48</sup>
- Regulation on Shelters<sup>49</sup>, etc.

Also with the Decree Law 572, some duties are given to the metropolitan municipalities related with the accessibility like; harmonizing public service vehicles for the accessibility and utilization of people with disabilities and not collecting fee from the facilities that have social and cultural purpose, and application of reduced-rate, etc<sup>50</sup>. Moreover by the Decree Law 572 (KHK 572, 1997) some amendments

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*mevzuatta 1/6/1998 tarihine kadar Bayındırlık ve İskan Bakanlığı tarafından gerekli değişiklikler yapılır” (KHK 572, 1997, article 2).*

<sup>44</sup> Bayındırlık ve İskan Bakanlığının: (2.11.1985/18916 sayılı Mükerrer R.G.) 3030 Sayılı Kanun Kapsamı Dışında Kalan Belediyeler Tip İmar Yönetmeliği, Retrieved in January 26, 2007 from <http://www.bayindirlik.gov.tr/turkce/yonetmeliklistesi.php>

<sup>45</sup> 2/11/1985 tarihli ve 18916 Mükerrer sayılı Resmî Gazete’de yayımlanan Belediye ve Mücavir Alan Sınırları İçinde ve Dışında Planı Bulunmayan Alanlarda Uygulanacak İmar Yönetmeliği, Retrieved in January 26, 2007 from <http://www.mevzuat.adalet.gov.tr/html/21300.html>

<sup>46</sup> Plan Yapımına Ait Esaslara Dair Yönetmelik, Bayındırlık ve İskan Bakanlığının: 2.11.1985 tarih ve 18916 sayılı Mükerrer Resmi Gazete, Retrieved in January 26, 2007 from <http://www.bayindirlik.gov.tr/turkce/yonetmeliklistesi.php>

<sup>47</sup> Gecekondu Kanunu Uygulama Yönetmeliği, 17/10/1966 tarih ve 12428 sayılı Resmi Gazete, Retrieved in January 26, 2007 from, <http://www.mevzuat.adalet.gov.tr/html/21403.html>

<sup>48</sup> Otopark Yönetmeliği, Bayındırlık ve İskan Bakanlığının: 01/07/1993 tarih ve 21624 sayılı Resmi Gazete. Retrieved in January 26, 2007 from, <http://www.mevzuat.adalet.gov.tr/html/20365.html>

<sup>49</sup> 3194 Sayılı İmar Kanununa Göre Düzenlenmiş Bulunan İmar Yönetmeliklerine Sığınaklarla İlgili Ek Yönetmelik, Bayındırlık ve İskan Bakanlığının: (25.8.1988/19910 sayılı R.G.), Retrieved in January 26, 2007 from <http://www.bayindirlik.gov.tr/turkce/yonetmeliklistesi.php>

<sup>50</sup> *Madde 3- 27/6/1984 tarihli ve 3030 sayılı Büyükşehir Belediyelerinin Yönetimi Hakkında Kanun Hükmünde Kararnamenin Değiştirilerek Kabulü Hakkında Kanun’ un 6 ncı maddesinin (A) fıkrasına (r) ve (s) bentleri ile aynı maddenin sonuna aşağıdaki fıkra eklenmiştir.*

*“r) İlgili kurum ve kuruluşlarla işbirliği yaparak genç ve yetişkin özürllüler için bölgenin işgücü piyasasına uygun mesleklerde, meslek ve beceri kazandırma kursları, iş eğitim merkezleri ve yaşamevleri açmak,*

*s) Ulaşım araçlarının özürllülerin kullanımına ve ulaşabilirliğine uygun olmasını sağlamak ve özürllüler için, ulaşım ile sosyal ve kültürel amaçlı hizmetlerden ücret almamak veya indirimli tarife uygulamak, büyük şehir belediyelerine ait ve büyük şehir belediyeleri tarafından işletilen veya kiraya verilen büfeler, otoparklar gibi işyerlerinin özürllüler tarafından işletilmesi konusunda kolaylık sağlamak, Bu maddede sayılan görevlerin gerçekleştirilmesi sırasında Türk Standartları Enstitüsünün ilgili*

made in the 15<sup>th</sup> article of Law no 1580 on Municipalities<sup>51</sup> (BK, 1930, article 15/78-81) and some duties related with people with disabilities have been given to the municipalities like; providing accessibility and utilization of all type of buildings and environments, roads, parks, gardens and recreation areas, social and cultural service areas with the public service vehicles, and control; planning and application of development plans and assessing the conformity of buildings in construction and permit phase, monitorisation and take measures for the integrity of the services.

Some Turkish Standards on built environment directly related with people with disabilities are;

- TS 8237 ISO 4190-1/April 2004; Asansörler - Yerleştirme ile ilgili boyutlar - Bölüm 1: Sınıf I, sınıf II, sınıf III ve sınıf VI asansörler (Lift (US: Elevator) installation - Part 1: Class I, II, III and VI lifts),
- TS 8357/January 1999; The Classification and General Rules of Public Lavatories (Halka veya Müşterilere Açık Tuvaletler (WC'ler) - Sınıflandırma ve Genel Kurallar)
- TS 9881/December 1999; The classification construction and management rules of parking places for vehicles (Araç Park Yerleri - Sınıflandırma, Yapım ve İşletme Kuralları),
- TS EN ISO 9999/May 2001; Technical aids for disabled persons - Classification (Engelli Kişiler İçin- Teknik Yardımcılar- Sınıflandırma)
- TS EN ISO 10535/Nisan 1999; Hoists for the transfer of disabled persons- Requirements and test methods (Özürlülerin taşınması için asansörler- özellikler ve deney metodları),
- TS 11899/April 2000; Swimming pool- General rules for preparation of water, technical construction, control, maintenance and management (Yüzme Havuzları - Suyun Hazırlanması, Teknik Yapım, Kontrol, Bakım ve İşletmesi - Genel Kurallar),
- TS 12174/March 1997; Design requirements pedestrian precincts in urban areas (Şehiriçi Yolları-Yaya Yolu ve Yaya Bölgeleri Tasarım Kuralları),
- TS EN 12182/April 2004; Technical aids for disabled persons-general requirements and test methods (Engelli kişiler için teknik yardım malzemeleri – Genel özellikler ve deney metodları),
- TS 12460/April 1998; Rail rapid transit system in urban part 5- design criteria of

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standardına uyulması zorunludur” (KHK 572, 1997, article 3).

<sup>51</sup> 78) (Ek bent: 30/05/1997 - KHK-572/4 md.) Bu maddede sayılan her türlü yapılar ve çevresinin, yolların, park, bahçe ve rekreasyon alanlarının, sosyal ve kültürel hizmet alanları ile ulaşım araçlarının özürlülerin kullanımına ve ulaşılabilirliğine uygun olarak yapılmasını sağlamak ve denetlemek,

79) (Ek bent: 30/05/1997 - KHK-572/4 md.) İmar planlarının yapımı ve uygulanması ile yapıların inşaat ve iskan ruhsatı aşamasında, Türk Standartları Enstitüsünün ilgili standardına uygunluk sağlamak, uygulamaları denetlemek ve bütünlüğü sağlayıcı tedbirleri almak,

80) (Ek bent: 30/05/1997 - KHK-572/4 md.) İlgili kurum ve kuruluşlarla işbirliği yaparak genç ve yetişkin özürlüler için bölgenin işgücü piyasasına uygun mesleklerde, meslek ve beceri kazandırma kursları, iş eğitim merkezleri ve yaşamevleri açmak,

81) (Ek bent: 30/05/1997 - KHK-572/4 md.) Özürlüler için, ulaşım ile sosyal ve kültürel amaçlı hizmetlerden ücret almamak veya indirimli tarife uygulamak, belediyelere ait ve belediyeler tarafından işletilen veya kiraya verilen büfeler, otoparklar gibi işyerlerinin özürlüler tarafından işletilmesi konusunda kolaylık sağlamak,

facilities for handicap and elderly people (Şehir İçi Yollar-Raylı taşıma Sistemleri Bölüm 5: Özürlü ve Yaşlılar İçin Tesislerde Tasarım Kuralları),

- TS 12559/April 2003; The competent services-Technical aids for disables people-Rules (Yetkili Servisler-Engellilerin Kullandığı Teknik Yardım Araçları İçin-Kurallar),
- TS 12576/April 1999; Structural preventive and Sign (Pictograph) design criteria on street boulevard square and roads for handicaps and elderly persons in urban areas (Şehir İçi Yollar- Özürlü ve Yaşlılar İçin Sokak, Cadde, Meydan ve Yollarda Yapısal Önlemler ve İşaretlemelerin Tasarım Kuralları),
- TS 12637/April 2000; Urban roads- Rail transit systems Part 22: Design rules of the travel ticket system (Şehir İçi Yollar- Raylı Toplu Taşıma Sistemleri- Bölüm 22: Biletlendirme Sistemi Tasarım Kuralları),
- TS 12694/January 2004; Railway vehicles- Passenger coaches- Indications for the layout of coaches suitable for conveying disabled passengers in their wheelchairs (Demiryolu Taşıtları- Yolcu Vagonları- Özürlü Yolcuların Tekerlekli Sandalyeleri İle Seyahatine Uygun Vagon Düzenlemeleri)
- TS EN 81-70/A1/September 2005; Safety rules for the construction and installations of lifts - Particular applications for passenger and good passenger lifts - Part 70: Accessibility to lifts for persons including persons with disability (Asansörler-Yapım ve Montaj İçin Güvenlik Kuralları- Yolcu ve Yük Asansörleri için Özel Uygulamalar Bölüm 70: Engelliler Dâhil İnsanların Asansörlere Erişebilirliği) (Direktif : 95/16/EC)



## 2.5 Employment of persons with disabilities

It is clearly seen from the most of the researches on the problems of persons with disabilities that the quality of the life of persons with disabilities depend not only on the medical support that they are provided but also the social and environmental services that they require for the betterment of their daily life. Remembering the diversity of the population with impairments, some persons with disabilities can never engage in paid work or some can combine earnings from part-time work with social assistance income if welfare regulations were less punitive. By recognizing this diversity paid work should not be the only or the most important basis for full citizenship (Wilton, 2004, p.430).

United Nations' World Programme of Action Concerning Disabled Persons (UN, 1982, parag.69) illustrates the status of persons with disabilities with “*denial of employment*” and “*menial and poorly remunerated jobs*”. In the same text it is mentioned that with “*proper assessment, training and placement*” most of the people with disabilities can perform a large range of tasks in accordance with prevailing work norms. Discharging as first and hiring as last of people with disabilities in the times of unemployment and economic distress is also mentioned. It is also emphasized that the rate of job-seeking people with disabilities is *double that of able-bodied applicants for jobs in the crises of economy*. Despite the measures taken in many countries the status of people with disabilities is illustrated as follows;

*...In many countries various programmes have been developed and measures taken to create jobs for disabled persons. These include sheltered and production workshops, sheltered enclaves, designated positions, quota schemes, subsidies for employers who train and subsequently engage disabled workers, cooperatives of and for the disabled, etc. The actual number of disabled workers employed in either regular or special establishments is far below the number of employable disabled workers. The wider application of ergonomic principles leads to adaptation of the workplace, tools, machinery and equipment at relatively little cost and helps widen employment opportunities for the disabled (UN, 1982, parag.69).*

In a Business and Policy Research (EU, 2001c, p.52), on “The Employment Situation of People with Disabilities in the European Union”, within the diversity of disabilities, impossibility of employing all people with disabilities is emphasized as follows;

*Within the category of persons with disabilities, groups may be discerned whose labour market situation differs depending on the type of impairment. Some types of impairment imply such a limitation, that it is not possible to fill a job at all. It is not realistic to imagine that the labour market situation of people with disabilities will ever be equal to the labour market situation of the non-disabled. As a consequence, the labour market policy should not aim for total equality of the participation rates of the disabled and non-disabled persons because participation should necessarily be lower than for the nondisabled persons. However, for many categories of disabled their potential certainly need better chances of being employed.*

European Disability Forum (EDF, 2000, p.17) core policy document on employment “Employing disabled people: Europe’s forgotten workforce” accentuates diversity of people with disabilities not only because of their impairments but other factors like gender, type of impairments, ethnicity, etc. as follows;

*Although many disabled people share a common experience in relation to the labour market, as a group, disabled people are very heterogeneous. As with the remainder of the population, their experiences of employment are very varied, and they exhibit a wide range of different skills, aptitudes, and aspirations. In addition to having different needs as a result of their particular impairment, some people face further discrimination because of their gender, type of impairment, ethnicity etc. For example, women with disabilities are often disadvantaged in relation to both men and women without disabilities, and men with disabilities. The need for all disabled people to be treated as individuals must be built into any measures designed to improve their inclusion in the labour market. And, special attention needs to be made, as appropriate, to the particular needs for access to training programmes, education, and further education for women and other groups who may be doubly discriminated against. Appropriate arrangements also need to be made for those people with complex dependency needs who may not be able to work.*

The same document (EDF, 2000, p.18) stresses the improvement of employment opportunities for people with disabilities and subjects the improvement of employment to the improvements in accessibility and opportunities in a wide range of related areas which often impede rather than encourage their social inclusion. A comprehensive and co-ordinated approach which is adopted alongside specific training and employment measures, in areas such as education, transport, built environment, assistive technology, information society, and other consumer issues is seen as the main way of inclusion.

Sürmen (1996, p.306) also indicates the erroneous of isolating people with disabilities from social life, grouping these people into certain “camps”. He mentions that isolating them “*not only adds to the governments expenses, but also*

*disintegrates social life and corrupts its nature.”* As Sürmen mentions a political perspective which gives the people with disabilities the right to share our lives and environments, should be adopted.

### **2.5.1 Reasons for the employment of persons with disabilities**

Reasons for the employment of persons with disabilities can be categorized in four different headings;

- Demographic reasons,
- Economic reasons,
- Qualitative reasons,
- Humanistic and legislative reasons.

#### **2.5.1.1 Demographic reasons**

In the report on the employment situation of persons with disabilities in the European Union (2001), the participation rate<sup>52</sup> and unemployment rate<sup>53</sup> of persons with disabilities and without disabilities compared. The gap between the rates is seen clearly;

- *as many as 52% of people with disabilities are economically inactive compared with only 28% of non-disabled people;*
- *only 42% of people with disabilities are employed compared with almost 65% of non-disabled people (EU, 2001c, p.9)*

An ageing population also should be acknowledged by enterprises. Because of the changing employment patterns there is an increase in the proportion of older industrial workers (EF, 1999). A research in USA on disability mark that seventy percent of all people with disabilities are not born with disabilities, but develop during the course of their lives (Louis Harris and Associates, 1994; cited in Mueller, 2001, p.45.2), which mean that as more people live longer, the likelihood of

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<sup>52</sup> Participation rate= ((employed + unemployed)/working-age population)\*100.

<sup>53</sup> Unemployment rate= (unemployed / (employed + unemployed) \* 100.

experiencing a disability during their life increases. Because of the medical progress effect on treatment of illness and accidents which were fatal before, people survive after the severe auto accidents, sports injuries, strokes and heart attacks (Mueller, 2001, p.45.2; Story et al., 1998, p.15), but mostly people get disabilities after these accidents.

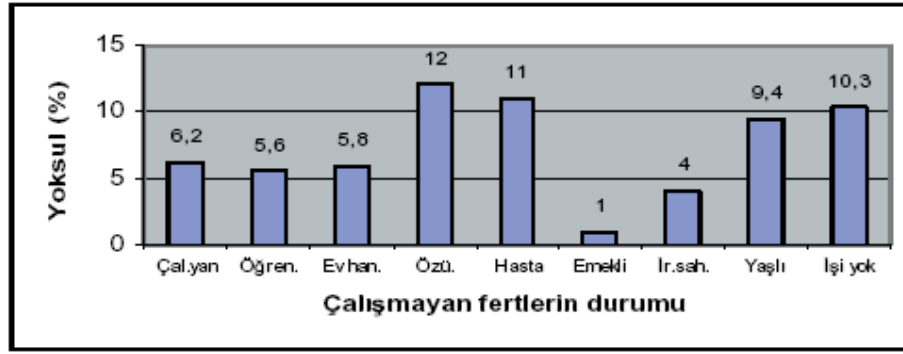
In Turkey, total disability proportion in the overall population is 12.29 % (SIS, 2004, p.5) but the labour force participation rate is 21.71 % among people with physical, seeing, hearing, speaking and mentally disabilities and 22.87% among people having chronic illnesses(SIS, 2004, p.14).

	TOTAL	MALE	FEMALE
Labour force rate	22,19	41,61	7,05
Employed rate	19,60	36,98	6,06
Unemployed rate	2,59	4,64	0,99
Population rate not in labour force	77,81	58,15	92,94

**Figure 2 1:** The proportion of people with disabilities by labour force status (for above 15 years old) (SIS, 2004, p.15)

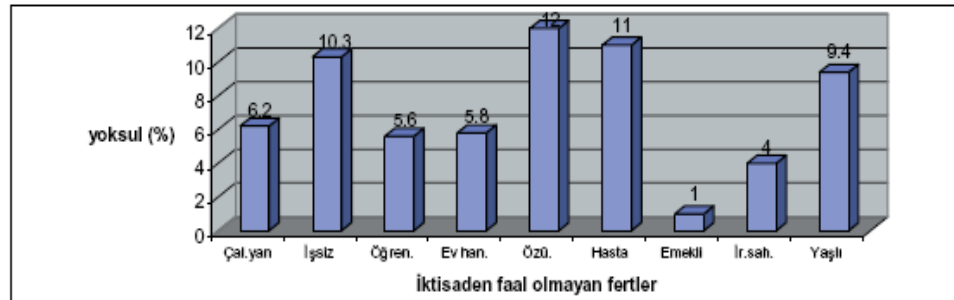
### 2.5.1.2 Economic reasons

As Mueller (2001, p.45.2) mentions, mostly governments and business have been much more willing to pay cash benefits than to provide assistance to help workers with disabilities return to productive employment. But among private business; the total of insurance costs, replacement expenses, and workers compensation and other disability benefit payments due to work disability reached \$160 billion in 1992 in USA.



**Figure 2 2 :** Poverty and unemployed persons in turkey (DPT, 2004, p.64).

Apart from the costs, disability has close relationship with poverty. The charts above show the relation of poverty and disability. The poorest groups are by rate 12 % people with disabilities, by rate 11 % people with illness and by rate 10.3 % unemployed people (DPT, 2004, p.64).



**Figure 2 3:** Poverty and persons who are not economically active in Turkey (DPT, 2004, p.65).

### 2.5.1.3 Qualitative reasons

As Yılmaz (2004b, p.216) mentions work has significant meaning in all societies beyond producing commodities which are necessary for survival, it has a profound influence on human relationships. As she mentions apart from gaining income, work provides a sense of identity and self-esteem, opportunities for social contacts.

#### **2.5.1.4 Humanistic and legislative reasons**

All over the world, many countries, associations, prohibit discrimination based on disability. For example in USA, Americans with Disabilities Act (ADA, 1990) and the before related legislation the Rehabilitation Act of 1973, prohibit employers from discriminating against individuals with disabilities who are qualified and able to perform the essential duties of an available job, with or without reasonable accommodation<sup>54</sup>. The humanistic and legislative reasons will be narrated broadly in the next section of thesis in the policy on employment of persons with disabilities.

#### **2.5.2 Policy on employment of persons with disabilities**

Until the Second World War disability was seen in the state of welfare, therefore persons with disabilities often felt themselves as discriminated. Disability was seen only in medical perspective, which is named as medical<sup>55</sup> model (Yılmaz, 2004a, p.14-15), brought an institutional isolation of persons with disabilities from the society. Quinn and colleagues (2002) portrays medical model as focusing on person's medical traits such as their specific impairments. This means that problem of disability is within the person. According to Quinn and colleagues (2002) medical model abstracts a broader and deeper social understanding as a tendency to problematize the person and view him/her as an object for clinical intervention (Quinn et. al., 2002, p.14).

Not only with the humanist reasons, but also with the demographic and economic reasons, after the Second World War, disability is begun to be considered in the frame of human rights, integration and normalization were introduced. Related

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<sup>54</sup> Mueller (2001, p.45.2) mentions that laws based on discrimination boosted the employment rights of people with disabilities, but have had little effect on the level of unemployment among people with disabilities.

<sup>55</sup> Foucault defines the medical understanding in a different way, by defining it as bio-power. By the eighteenth century, a new type of medicine developed, whose main function was public hygiene, and whose institutions centralized the power of the new medicine, normalized its knowledge, and coordinated the care that is distributed under its protection. There were campaigns to educate the public and medicalize the population. For dealing with accidents, illnesses, and various anomalies, bio-politics established charitable institutions and economically rational mechanisms such as insurance, individual and collective savings and safety measures (Foucault, 2003; cited in Tremain, 2005, pp.4-5)

with the increment of apprehension of disability in the International Institutions, many countries evaluated their disability policy by the time. By the emergence of the disability right movements of the 1960s and 1970s, disability begun to be seen as social construct which was named as social model<sup>56</sup> (Yılmaz, 2004a, pp.15-16). According to the social model of disability, persons with disabilities have been systematically discriminated or excluded on the basis of perceived biological inferiority and this exclusion became systematic following the material and ideological changes associated with capitalist development (Barnes, 2003, p.1). Social model describes disability as a social construct. Social model premises that human difference is not innate but something socially constructed and applied through labels such as “the disabled”. According to social model, social construct of disability is used not only to set people apart but also to keep people apart; all points of access to the structures of everyday life, the world of education, of work, of the family or of social interaction, are established largely by reference to the dominant norm that is known as able-bodied. Derivations and differences from the norm serve as a ground for subtle exclusion (Quinn et. al., 2002, p.15). Barnes argues that the combination of industrialization, urbanization, and associate ideologies including: liberal utilitarianism, Social Darwinism, and Eugenics provided scientific legitimacy to ancient myths, fears and prejudices of every day life (Barnes, 2003, p.1).

The relationship between persons with disabilities and employment has been a central concern of the movement of persons with disabilities and advocates of the social model of disability since 1970's. Social model suggests that unemployment and underemployment among workers with disabilities can not be understood in isolation from other factors such as education, transport, the built environment, access, ideology and culture (Barnes, 1999, pp.3-7). By the help of this evaluation, disability strategies in most high income countries have tended to inclusive approaches. By the time, legislations about disability have been evaluated from the

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<sup>56</sup> In contrast to the earlier more orthodox views, primary cause of disabled people's marginalisation is settled on environmental and cultural factors in the social model (Barnes, 1999, p.2) Social model basis on the social theory of functionalist sociologist Emile Durkheim's distinction between non- or pre- industrial societies and industrial ones. According to Durkheim because of the increasingly specialised and individuated division of labour, industrial societies lost its organic solidarity, so for the good society recognising the diversity is necessary (Abberley, 1999, p.4).

welfare state to the anti-discrimination<sup>57</sup> ground. For example Americans with Disabilities Act in 1990 (ADA, 1990), Disability Act of 1993 in Australia, Disability Discrimination Act of England, etc. are such case. According to Metts (2000), in developed countries; the national and international policy commitments to equalizing opportunities for persons with disabilities and pressure from the organizations of persons with disabilities caused a shift in favour of inclusive policies and strategies, which are designed to remove and prevent environmental barriers and increase access of persons with disabilities to mainstream social services and particularly education. However the developing countries have tended to import disability policy from the developed countries, due to their high costs, such programs have never reached significant proportions of their target populations (Metts, 2000, p.23).

In order to better understand the problems that are closely related to the employment of persons with disabilities it would be helpful to look at historical developments of certain legislative formations that influence some attitudes in the organisation of the environmental conditions of employment in both national and international agenda. Because the norms which are the basic values in the UN charter and national constitutions, create a moral, ethical and legal basis for making and implementing national and international policy (Bringa, 2001, p.29.1).

#### **2.5.2.1 Policy and documents of United Nations on employment of persons with disabilities**

Primarily beginning with the Universal Declaration of Human Rights (1948), United Nations<sup>58</sup> many documents handles disability mainly as a human right<sup>59</sup> issue

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<sup>57</sup> Quinn and colleagues (2002) mentions that insisting on strict equality between persons with disabilities and other persons would bring to ignore real differences. For them a formal anti-discrimination law may proscribe disability discrimination but fail to move beyond the equality as neutrality philosophy and take the further vital step of requiring reasonable accommodation of the difference of disability. Quinn and colleagues (2002) defines this type of equality as plainly hollow, because it confers illusionary benefits and invites cynicism vis-à-vis the law. Endeavouring to accommodate real differences within a theory of equality may result in paradox and pose its set of problems, so it is necessary to make equality meaningful and to produce real change (Quinn et. al., 2002, p.16-7).

<sup>58</sup> Uşan (2003, parag. 14) mentions that UN's attempts related with disability has not been extensive as the fields like religious, sexism or racial discrimination.

<sup>59</sup> Abberley (1999) indicates that for the constitution of a liberative theory of disability, counter to the classical conservative and radical consensus, posing of values like the assertion of the rights of the human "being" against the universalisation of human "doing" is required (Abberley, 1999, p.14).



(Utkan, 2003, p.15). In 1948 by the Universal Declaration of Human Rights<sup>60</sup> of United Nations, the rights of the disabled is also acknowledged in the article 25 as “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control” (UN, 1948)

Quinn and colleagues (2002) summarizes the human rights<sup>61</sup> perspective on disability as viewing persons with disabilities as subjects and not as objects; that entails giving them access to the full benefits of basic freedoms that most people take for granted and doing so in a way that is respectful and accommodating their difference. It means seeing persons with disabilities in terms of their rights, instead of perceiving them as problems (Quinn et al., 2002, p.13).

Disability<sup>62</sup> policy of UN mainly settles on “equalisation<sup>63</sup> of opportunities” for persons with disabilities (Karçkay, 2001, p.3; Quinn et al., 2002, p.30; O’Reilly, 2003, p.21). Quinn and colleagues clarifies “equalization of opportunities” in the context of disability as several forms of governmental action and intervention;

- Tackling structural exclusion in the areas of transport, social amenities, public services and communications. It means structuring social and economic processes more inclusively and opened up to persons with

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<sup>60</sup> United Nations Human Right machinery is in a way a response to the atrocities of Second World War, people with disabilities were one of the main and earliest victims of Nazi concentration camps (Quinn et. al., 2002, p.23).

<sup>61</sup> Quinn and colleagues (2002) associates the human rights with four values; dignity, autonomy, equality and solidarity (Quinn et al., 2002, p.13).

<sup>62</sup> According to Foucault, securing the well-being of the general population has caused the contemporary disability subject to emerge into discourse and social existence. He defines the apparatus of this process as asylums, income support programs, quality of life assessments, workers’ compensation benefits, special education programs, regimes of rehabilitation, parallel transit systems, prostheses, home care services, telethons, sheltered workshops, poster child campaigns and prenatal diagnosis. As a result of these practices, procedures, and policies created classified, codified, managed, and controlled social anomalies through which some people have been divided from others and objectified as physically impaired, insane, handicapped, mentally ill, retarded and deaf (Tremain, 2005, p.5).

<sup>63</sup> Quinn and colleagues (2002) defines three type of equality, first one is in legislative form, second is equality as opportunity and third one is thinking that each person has an equal worth and dignity. They indicate that the most appropriate one in context of disability is the equality of opportunity (Quinn et. al., 2002, pp.16-8).

disabilities on a genuinely equal basis.

- Training persons with disabilities to the very best of their abilities to take up socially responsible and productive roles in civil society. It means putting the education system on a genuinely equal basis.
- Governing clear and easily enforceable anti-discrimination laws that cover the economy, the social sphere, public services and civic obligations; that acknowledge the need for positive accommodation of the difference of disability.
- Tackling deep seated social attitudes to disability, by preparing the ground and educating the public at large (Quinn et. al, 2002, p.17).

The significance and necessity of participation of persons with disabilities into the social life is stressed by the UN documents like; Universal Declaration of Human Rights of United Nations (UN, 1948), International Covenant on Economic, Social and Cultural Rights (UN, 1966), Declaration of the Rights of Mentally Retarded Persons (UN, 1971), United Nations Declaration on the Rights of Disabled Persons (UN, 1975), Resolution on the International Year for Disabled Persons (UN, 1976), World Program of Action Concerning Disabled Persons (UN, 1982), Convention on the Rights of the Child (UN, 1989), Principles for the Protection of Persons with Mental Illness and the Improvement of Mental Health Care (UN, 1991), Towards Full Integration of Persons with Disabilities into Society: A Continuing World Programme of Action (UN, 1992), Vienna Declaration and Programme of Action (UN, 1993a), Resolution on the International Day of Disabled Persons (UN, 1993b), Standard Rules on the Equalization of Opportunities for Persons with Disabilities (UN, 1993c), Copenhagen Declaration on Social Development (UN, 1995a), World Programme of Action for Youth to the Year 2000 and Beyond (UN, 1995b), Declaration of the World Conference against Racism, Racial Discrimination, Xenophobia and Related Intolerance (UN, 2001), etc.

At the First Council of the Persons with Disabilities (ÖZİ, 1999), it is mentioned that 2<sup>nd</sup>, 3<sup>rd</sup>, 16<sup>th</sup>, 22<sup>nd</sup> and especially 25<sup>th</sup> and 26<sup>th</sup> articles of Universal Declaration of Human Rights of United Nations (UN, 1948) of United Nations encloses the persons with disabilities. At the 2<sup>nd</sup> and 3<sup>rd</sup> articles equality of persons,

at the 16<sup>th</sup> article marriage, at the 22<sup>nd</sup> article social security, at the 25<sup>th</sup> article standard of living and at the 26<sup>th</sup> article education are as a right mentioned. The 25<sup>th</sup> article entitles “*motherhood and childhood to special care and assistance*”; it is interesting that people with disabilities are not defined in such a special care and assistance. The 23<sup>rd</sup> article of the declaration covers the employment as a right for everybody;

- (1) Everyone has the right to work, to free choice of employment, to just and favourable conditions of work and to protection against unemployment.*
- (2) Everyone, without any discrimination, has the right to equal pay for equal work.*
- (3) Everyone who works has the right to just and favourable remuneration ensuring for himself and his family an existence worthy of human dignity, and supplemented, if necessary, by other means of social protection.*
- (4) Everyone has the right to form and to join trade unions for the protection of his interests (UN, 1948, article 23).*

In the declaration, people with disabilities are covered by the terms like “*all human beings*”, “*everyone*”. But only the article 25 emphasizes the disability;

*Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control (UN, 1948, article 25).*

### ***Declaration on the Rights of Disabled Persons***

“Disabled person” in the Declaration on the Rights of Disabled Persons (UN, 1975, article 1) defined as;

*“...any person unable to ensure by himself or herself, wholly or partly, the necessities of a normal individual and/or social life, as a result of a deficiency, either congenital or not, in his or her physical or mental capabilities”.*

The article 3 of Declaration on the Rights of Disabled Persons (UN, 1975, article 3) mentions that;

*Disabled persons have the inherent right to respect for their human dignity. Disabled persons, whatever the origin, nature and seriousness of their handicaps and disabilities, have the same fundamental rights as their fellow-citizens of the same age, which implies first and foremost the right to enjoy a decent life, as normal and full as possible.*

The article 6 of Declaration on the Rights of Disabled Persons (UN, 1975, article 6) mentions the treatments for aiding the disabled as right for integration and explains as;

*Disabled persons have the right to medical, psychological and functional treatment, including prosthetic and orthotic appliances, to medical and social rehabilitation, education, vocational training and rehabilitation, aid, counselling, placement services and other services which will enable them to develop their capabilities and skills to the maximum and will hasten the processes of their social integration or reintegration.*

The article 7 of Declaration on the Rights of Disabled Persons (UN, 1975, article 7) emphasises that;

*Disabled persons have the right to economic and social security and to a decent level of living. They have the right, according to their capabilities, to secure and retain employment or to engage in a useful, productive and remunerative occupation to join trade unions (UN, 1975, article 6, 7).*

### ***World Programme of Action concerning Disabled Persons***

World Programme of Action concerning Disabled Persons<sup>64</sup>, in 1982, defined equalisation of opportunities<sup>65</sup> as;

*“Equalization of opportunities means the process through which the general system of society, such as the physical and cultural environment, housing and transportation, social and health services, educational and work opportunities, cultural and social life, including sports and recreational facilities, are made accessible to all” (UN, 1982, parag. 12).*

In World Programme of Action, as indicator of impairment or disability on a person's daily life, environment is pointed and emphasized that;

*“A person is handicapped when he or she is denied the opportunities generally available in the community that are necessary for the fundamental elements of*

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<sup>64</sup> The overall aims of World Programme of Action is threefold; prevention, rehabilitation and equalization of opportunities (Quinn et. al., 2002, p.31).

<sup>65</sup> The philosophy of equality of opportunity depends on the assumption of an ability to function in civil society and the assumption of arbitrary exclusion despite that ability. On the other hand, people who lack this ability totally or to a large extent are neglected in the equal opportunity model. But historically the exclusion of people with ability constituted the main problem (Quinn et. al., 2002, p.18).

*living, including family life, education, employment, housing, financial and personal security, participation in social and political groups, religious activity, intimate and sexual relationships, access to public facilities, freedom of movement and the general style of daily living” (UN, 1982, parag. 21).*

### ***Standard Rules on the Equalization of Opportunities for Persons with Disabilities***

In United Nations Standard Rules on Equalization of Opportunities, “equalization of opportunities” is defined as;

*“24. The term "equalization of opportunities" means the process through which the various systems of society and the environment, such as services, activities, information and documentation, are made available to all, particularly to persons with disabilities.*

*25. The principle of equal rights implies that the needs of each and every individual are of equal importance, that those needs must be made the basis for the planning of societies and that all resources must be employed in such a way as to ensure that every individual has equal opportunity for participation.*

*26. Persons with disabilities are members of society and have the right to remain within their local communities. They should receive the support they need within the ordinary structures of education, health, employment and social services.*

*27. As persons with disabilities achieve equal rights, they should also have equal obligations. As those rights are being achieved, societies should raise their expectations of persons with disabilities. As part of the process of equal opportunities, provision should be made to assist persons with disabilities to assume their full responsibility as members of society” (UN, 1993c, parag. 24-7).*

Standard Rules on the Equalization of Opportunities for Persons with Disabilities of United Nations, the rule 7 about employment emphasised that;

*“States should recognise the principle that persons with disabilities must be empowered to exercise their human rights, particularly in the field of employment. In both rural and urban areas they must have equal opportunities for productive and gainful employment in the labour market”...“Laws and regulations in the employment field must not discriminate against persons with disabilities and must not raise obstacles to their employment” (UN, 1993c, rule 7).*

Also in the same rule what should include action programmes of States is explained as;

*“...measures to design and adapt workplaces and work premises in such a way that they become accessible to persons with different disabilities” and “support for the use of new technologies and the development and production of assistive devices, tools and equipment and measures to facilitate access to such devices and equipment for persons with disabilities to enable them to gain and maintain employment” (UN, 1993c, rule 7).*

Rule 5 of Standard Rules on the Equalization of Opportunities for Persons considers accessibility and recommends that;

*“States should recognize the overall importance of accessibility in the process of the equalization of opportunities in all spheres of society. For persons with disabilities of any kind, States should (a) introduce programmes of action to make the physical environment accessible; and (b) undertake measures to provide access to information and communication” (UN, 1993c, rule 5).*

Also on accessibility of physical environment the same rule commends that;

*“States should initiate measures to remove the obstacles to participation in the physical environment. Such measures should be to develop standards and guidelines and to consider enacting legislation to ensure accessibility to various areas in society, such as housing, buildings, public transport services and other means of transportation, streets and other outdoor environments” (UN, 1993c, rule 5).*

#### **2.5.2.2 Policy and documents of ILO on employment of persons with disabilities**

International Labour Organization<sup>66</sup> (ILO) is an important international organization that organizes various legislations and laws related to the health and employment regulations all over the world. ILO documents like; Employment Service Convention<sup>67</sup> (ILO, 1948), Vocational Rehabilitation (Disabled) Recommendation (ILO, 1955), Employment Policy Recommendation (ILO, 1964), Human Resources Development Convention<sup>68</sup> (ILO, 1975), Vocational Rehabilitation and Employment (Disabled Persons) Convention of International Labour Organisation<sup>69</sup> (ILO, 1983), Employment Promotion and Protection against Unemployment Convention (ILO, 1988), Code of Practice on Managing Disability in the Workplace (ILO, 2002), etc. encourages participation and employment of persons with disabilities.

As Uşan (2003, parag.21) mentions in Employment Service Convention

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<sup>66</sup> Uşan (2003, parag.17) emphasizes that beginning with the founding of ILO in 1919, even in the beginning of the Constitution of ILO, has objectives related with protecting people with disabilities and especially related with anti-discrimination provisions for people with disabilities.

<sup>67</sup> This convention was approved by Law no 5448 in Turkey, 07.12.1949 dated 7373 numbered Official Gazette.

<sup>68</sup> This convention was approved by Law no 3850 in Turkey, 12.12.1992 dated 21433 numbered Official Gazette.

<sup>69</sup> This convention was approved by Law no 4407 in Turkey, 10.07.1991 dated 23751 numbered Official Gazette.

(ILO, 1948), concerning applicants with disabilities at article 6/a/i for ensuring effective recruitment and placement in assisting workers to find suitable employment and assisting employers to find suitable workers it is advised to;

*(i) register applicants for employment, take note of their occupational qualifications, experience and desires, interview them for employment, evaluate if necessary their physical and vocational capacity, and assist them where appropriate to obtain vocational guidance or vocational training or retraining,*

Also at the article 7 of Employment Service Convention (ILO, 1948) it is emphasized that measures shall be taken;

*(b) to meet adequately the needs of particular categories of applicants for employment, such as disabled persons.*

As it is mentioned in the 4<sup>th</sup> article of Vocational Rehabilitation and Employment (Disabled Persons) Convention (ILO, 1983, article 4) ILO policy mainly bases on “*principle of equal opportunity between disabled workers and workers generally.*” While defining the disabled person as “an individual whose prospects of securing, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognised physical or mental impairment” in Vocational Rehabilitation and Employment (Disabled Persons) Convention<sup>70</sup> (ILO, 1983) of International Labour Organisation in 1983 article 7 gives the responsibility to the authorities to

*“...take measures with a view to providing and evaluating vocational guidance, vocational training, placement, employment and other related services to enable disabled persons to secure, retain and advance in employment; existing services for workers generally shall, wherever possible and appropriate, be used with necessary adaptations”*

### **2.5.2.3 Policy and documents of Council of Europe on employment of persons with disabilities**

The Council of Europe, which was founded in 1949, as the Europe’s oldest political organisation, has some documents that constitute the objection and strategy of the Council on the participation of persons with disabilities into the social life. The

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<sup>70</sup> Turkey signed this convention in 8th July 1999 by the Law no 4407 (OZİ, 1999).

Council of Europe's documents like; Rights of People with Disabilities: Fact sheet on Article 15 of the Revised European Social Charter<sup>71</sup> in 1961 (EC, 1961), Recommendation 818 on the Situation of the Mentally Ill (EC, 1977), Resolution AP(77) 8 on Adaptation of Housing and Surrounding Areas to the Needs of Disabled Persons in 1977, Recommendation no R(92)6 on a Coherent Policy for People with Disabilities (EC, 1992a), Recommendation 1185 on Rehabilitation Policies for the Disabled (EC, 1992b), Resolution AP (95) 3 on a Charter on the Vocational Assessment of People with Disabilities (EC, 1995), Resolution (96) 35 on Revising the Partial Agreement in the Social and Public Health Field (EC, 1996), Resolution ResAP(2001)1 on Universal Design (EC, 2001a), Resolution ResAP(2001)3 Towards Full Citizenship of Persons with Disabilities Through Inclusive New Technologies (EC, 2001b), etc. stresses the right to independence, social integration and participation of persons with disabilities in the life of the community.

In Rights of People with Disabilities: Fact sheet on Article 15 of the Revised European Social Charter (EC, 1961, article 15) in 1961, there was a tendency to encourage employers to hire and keep in employment persons with disabilities in the ordinary working environment and to adjust the working conditions to the needs of the disabled or, where this is not possible by reason of the disability, by arranging for or creating sheltered employment according to the level of disability.

Recommendation No R(92)6 on a coherent policy for persons with disabilities (1992) envisaged the training of architects, town planners and engineers on integrated accessibility;

*For the purpose of taking early action to promote a radical and coherent policy for accessibility, the concept of integrated accessibility should be at the roots of the basic training syllabus for architects, town planners and engineers (EC, 1992a, chapter X, paragraph 8.1)*

Recommendation No R(92)6 on a coherent policy for persons with disabilities (1992) had clauses related with the adaptation of work in the section related with employment of persons with disabilities;

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<sup>71</sup> Turkey signed this convention by the Law no 3581, 04.07.1989 dated 20215 numbered Official Gazette.



*The services responsible for the placement of people with disabilities should assist their employment in an ordinary working environment, as far as possible, by individual measures, such as:*

- ensuring that all people with disabilities obtain the highest vocational qualification possible,*
- finding the job best suited to the aptitudes and wishes of the individual, impeded as little as possible by the disability helping to overcome its effects,*
- adapting the workplace to take account of safety or operational requirements resulting from the employee's disability;*
- providing special tools and special or adapted clothing needed because of the nature of the disability;*
- supplementing wages during the period of adaptation to the job needed by reason of the employee's disability;*
- working out a means of evaluating any reduction in output and ensuring that there is compensation for the proportionate wage reduction;*
- measures to offset exceptional expenditure arising from the employee's disability; (EC, 1992a, chapter VII, paragraph 2.2)*
- to encourage employers generally to facilitate the integration of people with disabilities by making suitable work available to them by adapting the work itself, the assignment of tasks and posts, the timetable, tools and equipment, the workplace and other facilities, and by making the place of employment accessible; (EC, 1992a, chapter VII, paragraph 2.4)*

According to Afflerbach, Resolution ResAP(2001)1 on Universal Design aims to improve the accessibility of the built environment by recommending the inclusion of the principles of Universal Design into the curricula and training of all vocations working on built environment, in particular architects, engineers and town planners (Afflerbach, n.d.). In the mentioned resolution (EC, 2001a, item a) as an aim integrating persons with disabilities into the community is stressed;

*b. integrating people with disabilities into the community; defining – and contributing to the implementation at European level – of a model of coherent policy for people with disabilities, which takes account simultaneously of the principles of full citizenship and independent living; contributing to the elimination of barriers to integration, whatever their nature, whether psychological, educational, family-related, cultural, social, professional, financial or architectural*

In Resolution ResAP(2001)3 Towards Full Citizenship of Persons with Disabilities Through Inclusive New Technologies (EC, 2001b, p.22), usage of new technologies to enable persons with disabilities in gaining or maintaining employment and developing a lifetime career is mentioned as;

*New technologies should be systematically applied in the work environment to provide workplace adaptations, access to training, flexible working arrangements (for example telework), appropriate equipment and accessible facilities.*

*In sheltered employment, new technologies should be used for job enrichment and to increase working opportunities for persons with disabilities and to provide the basis for enhancing the transition into the regular labour market.*

*The dissemination of disability-related technologies and relevant know-how about the possibilities of new technologies in the workplace should be a key priority and be combined with awareness-raising campaigns amongst employers.*

According to the Resolution ResAP(2001)3 Towards Full Citizenship of Persons with Disabilities Through Inclusive New Technologies, all products and services for persons with disabilities should take account of the following principles; adaptability, accessibility, affordability, awareness, appropriateness, attractiveness, adaptability, usability and compatibility. The following instruments envisaged to be applied for developing a co-ordinated set of measures; legislation and regulations, Design-for-All, user involvement, standardisation, centres of excellence, public procurement policies, evaluation, international exchange of information and international follow-up. In the Resolution the priority policy areas are defined as: education, vocational training, employment, social integration, environment, prevention, identification and diagnosis, medical rehabilitation and electronic government.

#### **2.5.2.4 Policy and documents of European Union on employment of persons with disabilities**

European Union (EU) promotes rights-based, equal opportunities, anti-discrimination approach to disability (EF, 1999). Parallel with the policy of UN, EU (2005a, p.3) has an objective of equalization of opportunities as a long term strategy on disability, which aims to enable persons with disabilities to enjoy their right to dignity, equal treatment, independent living and participation in society. EU accepted and announced 2003 as European Year of Disabled People. The EU (2005a, p.3) strategy is built on three pillars:

- *EU anti-discrimination legislation and measures, which provide access to individual rights;*
- *eliminating barriers in the environment that prevent disabled people from exercising their abilities, and*
- *mainstreaming disability issues in the broad range of Community policies which facilitate the active inclusion of people with disabilities.*

In order to overcome the differences in policies toward people with disabilities among individual countries, The European Union implement programs aiming to support integration of people with disabilities, coordination and concretization of activities for the benefit of this social group, co-operation and partnership among various initiatives in the area of vocational and social rehabilitation, increasing mutual contacts, and informing public opinion about problems of people with disabilities. For this purpose Helios I (Handicapped people in the European community Living in Open Society), implemented in 1988-1992, and its successor Helios II (1993-1996). Their objective was to promote economic and social integration as well as independent living for people with disabilities. These programs made it possible for many entities operating at local, national, and community levels to share experience and join the discussion on disability in Europe. Also with the Helios programs, changes were made in such programs as: Socrates, Youth for Europe, Leonardo da Vinci, Daphne, Phare, Tacis, etc. The current versions of some of these programs give greater consideration to needs of people with disabilities (Zolkowska et al., 2002, p.4)

Some nongovernmental organizations also handled the problems of people with disabilities. European Social Fund (ESF) is one of the main instruments of the EU social policy. Zolkowska and colleagues (2002, p.5) summarizes the primary tasks concerning people with disabilities which are financed or subsidized by the Fund are as follows:

*...actions aimed at reducing unemployment among people with disabilities (e.g., creating appropriate conditions for taking up a job, in particular for young people with disabilities); vocational training (e.g., regarding the state-of-the-art information and telecommunication technologies for people with disabilities); organizing international education centres with teleconferencing facilities.*

Horizon one of the initiative Of the Community's fourteen initiatives financed by the European Social Fund, that was in particular intending for people with disabilities. Zolkowska and colleagues (2002, p.5) illustrate Horizon as follows;

*Funds available under this initiative were used to finance various programs associated with improving qualifications and education of people with mental disability, to organize conferences, and to pay financial aid to those undertaking*

*business activity. In the years 1994-1999 the budget of the Horizon initiative was 500 million Euros which made it possible to finance 1200 programs. Since 2000 the Horizon initiative has become part of the Equal program under which financing will be provided to all programs for people with disabilities concerning improved opportunities for education and employment.*

European Union documents like; Recommendation on the Employment of Disabled People in the Community (EU, 1986), Resolution Concerning Integration of Children and Young People with Disabilities into Ordinary Systems of Education (EU, 1990), Resolution on the Human Rights of Disabled People (EU, 1995), Resolution on Equality of Opportunity for People with Disabilities (EU, 1996a), Declaration on the Charter of Rights for People with Autism (EU, 1996b), Resolution on Equality of Opportunity for People with Disabilities (EU, 1997), Resolution on Equal Employment Opportunities for People with Disabilities (EU, 1999), Charter of Fundamental Rights (EU, 2000a), Decision on Establishing a Community Action Programme to Combat Discrimination (2001 to 2006) (EU, 2000b), Directive Establishing a General Framework for Equal Treatment in Employment and Occupation (EU, 2000c), Decision on the European Year of People with Disabilities 2003 (EU, 2001a), Towards a Barrier-free Europe for People with Disabilities (EU, 2001b), etc frames the inclusion of persons with disabilities in the social life.

In EU (2005a, p.4) also *“figures indicate a gap between the employment rate of disabled and non-disabled people: in 2003, 40% of people were employed compared to 64.2% for non-disabled. The ratio for people whose relatively light level of disability does limit daily life was 50%. Altogether, less than half of disabled people are employed. This relatively low rate of employment shows that unemployment among disabled people continues to merit serious attention.”*

On the other hand, in the same document (EU, 2005a, p.5), it is mentioned that 43.7% of respondents believe they could work with adequate assistance. The figures vary in member states of European Union, but only 15.9% of disabled people who need assistance to be able to work actually receive it. Related with the aging in Europe, the working-age population as a portion of total population is falling. So it became now more important than ever to make full use of the available working population, including people with disabilities.

### ***EU anti-discrimination legislation***

As a legal framework of equal treatment in employment and occupation, EU anti-discrimination legislation “The Employment Equality Directive” prohibits direct and indirect discrimination as well as harassment and instructions to discriminate on a number of grounds including disability. Also provisions exist to promote equal treatment for people with disabilities. As mentioned in the directive private and public employers and others, whom the Directive applies, such as training providers, must provide reasonable accommodation for people with disabilities. Appropriate measures should be taken to enable disabled people to have access to, participate in or advance in employment, or to undergo training (EU, 2005a, p.6).

The Employment Equality Directive (EU, 2000c) prohibits direct and indirect discrimination as well as harassment and instructions to discriminate on a number of grounds including disability, grounding on the Article 13 of Treaty establishing the European Community. While setting the frame of the directive in item 16 and item 20 measures related with accommodation of workplaces is stressed as;

*(16) The provision of measures to accommodate the needs of disabled people at the workplace plays an important role in combating discrimination on grounds of disability. (EU, 2000c, item 16)*

*(20) Appropriate measures should be provided, i.e. effective and practical measures to adapt the workplace to the disability, for example adapting premises and equipment, patterns of working time, the distribution of tasks or the provision of training or integration resources. (EU, 2000c, item 20)*

As a legal framework EU (2000c, article 1) anti-discrimination legislation provides equal treatment in employment and occupation, it is emphasized in first article as the of purpose of the legislation;

*The purpose of this Directive is to lay down a general framework for combating discrimination on the grounds of religion or belief, disability, age or sexual orientation as regards employment and occupation, with a view to putting into effect in the Member States the principle of equal treatment.*

Anti-discrimination legislation defines the reasonable accommodation as an instrument of equal treatment and the actions “access to, participate in, or advance in

employment, or to undergo training” are stressed. In practice reasonable accommodation includes measures to adapt the workplace to persons with disabilities like, adapting premises and equipment, patterns of working time etc. in order to facilitate their access to employment (EU, 2005b, p.3). In Council Directive Establishing a General Framework for Equal Treatment in Employment and Occupation (EU, 2000c, article 5) reasonable accommodation for people with disabilities is defined in article 5 as follows;

*In order to guarantee compliance with the principle of equal treatment in relation to persons with disabilities, reasonable accommodation shall be provided. This means that employers shall take appropriate measures, where needed in a particular case, to enable a person with a disability to have access to, participate in, or advance in employment, or to undergo training, unless such measures would impose a disproportionate burden on the employer. This burden shall not be disproportionate when it is sufficiently remedied by measures existing within the framework of the disability policy of the Member State concerned.*

According to Whittle (2002), the material scope of the Framework directive does not fully reflect the potential proffered by Article 13 of European Commission Treaty<sup>72</sup>, because it prohibits discrimination limited to the context of employment and occupation only (Whittle, 2002, p.1). The Constitutional Treaty of Europe, which was signed on 29 October 2004 in Rome by European Union Heads of State or Government of the 25 Member States and the 3 candidate countries, also inherits some decisions about the persons with disability. Especially the articles 21<sup>73</sup> and 26<sup>74</sup> of the Constitution, which are in the second part of the constitution which contains “The Charter of Fundamental Rights of the Union”, prohibits discrimination on any ground including the disability and highlights “social and occupational integration and participation” of persons with disabilities in life. At the third part of the

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<sup>72</sup> Treaty of Rome 1957, Single European Act 1986, the Treaty on European Union 1992, the Treaty of Amsterdam 1997 and the Treaty of Nice 2001. Article 13 was included in EC Treaty in Amsterdam.

<sup>73</sup> “Article II-21 Non-discrimination

*Any discrimination based on any ground such as sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or any other opinion, membership of a national minority, property, birth, disability, age or sexual orientation shall be prohibited”* (EU, 2004; cited in EDF, part 2).

<sup>74</sup> “Article II-26

*The Union recognizes and respects the right of persons with disabilities to benefit from measures designed to ensure their independence, social and occupational integration and participation in the life of the community”* (EU, 2004; cited in EDF, part 2).

Constitution about “the Policies and Functioning of the Union” by the articles 118<sup>75</sup> and 124<sup>76</sup>, promotion of equality in all activities is stressed (EU, 2004; cited in EDF, part 2-3).

### ***EU Disability Action Plan***

Walsh (2001, p.33.14) illustrates the reality of Europe before the Disability Action Plan (DAP) far from being ideal with different types of EU legislation which require that buildings and places of work be accessible but they have existed for many years. He mentions a lack of political will on the part of European politicians and controlling authorities at national and local levels that causes countless barriers in the built environment. He continues as follows;

*In particular, the non-existence of comprehensive technical guidance on protection from the fire in buildings has resulted in the creation of a far more pervasive form of barrier to the full inclusion of people with disabilities into the economic, cultural and social life of the general community. As just one example, access to accessible buildings is regularly being refused in Ireland, for reasons of fire safety (Walsh, 2001, p.33.14)*

As an example for increasing the inclusion of persons with disabilities to the employment; European Union Lisbon Strategy that intends to deal with the low productivity and stagnation of economic growth in the EU till 2010, formulates various policy initiatives to be taken by all EU member states by equalizing opportunities. One of the key themes of the revised Lisbon Strategy (EU, 2000d) on employment is to "attract and retain more people in employment, increase labour supply and modernise social protection systems". Raising employment and activity rates of the persons with disabilities is a priority. The first phase of the EU Disability Action Plan (DAP), which covers 2004-2006, focuses on access of the persons with

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<sup>75</sup> “Article III-118

*In defining and implementing the policies and activities referred to in this Part, the Union shall aim to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation”* (EU, 2004; cited in EDF, part 3).

<sup>76</sup> Article III-124 (paragraph 1)

*Without prejudice to the other provisions of the Constitution and within the limits of the powers assigned by it to the Union, a European law or framework law of the Council of Ministers may establish the measures needed to combat discrimination based on sex, racial or ethnic origin, religion or belief, disability, age or sexual orientation. The Council shall act unanimously after obtaining the consent of the European Parliament”* (EU, 2004; cited in EDF, part 3).

disabilities to the labour market and to employability-related measures such as lifelong learning, information technology<sup>77</sup> and access to the built environment. Within the aims of the Lisbon Strategy, the ESF (European Social Fund) has supported the active inclusion of persons with disabilities into society and the labour market. In the next programming round (2007 to 2013), one of the priorities for action proposed by the Commission is “pathways to integration and re-entry into employment for disadvantaged people, e.g. persons with disabilities and people caring for dependent persons” (EU, 2005a, p.9).

### ***EU Adopted Employment Guidelines 2005-2008***

Basing on the revised Lisbon Strategy, the adopted Employment Guidelines identify three core objectives<sup>78</sup>;

- Achieving full employment,
- Improving quality and productivity at work
- Strengthening social and territorial cohesion (EU, 2005b, p.5).

These objectives can be associated with the persons with disabilities, as being much-underused source of labour in Europe, raising employment and participation rates are vital for economic growth and social inclusion. Improving quality and productivity at work includes; satisfaction with pay and working conditions, health and safety at the workplace, the availability of flexible work organisation, working time arrangements and the balance between flexibility and security. In Europe also surveys indicate that workers with disabilities are more likely to be in low paid jobs and are often discriminated against in access to training and career promotion (EU, 2005b, p.5).

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<sup>77</sup> By the Second World War, not only the meaning of the work but also the meaning of the production also evaluated. From “primary production” to “post primary production” economy; agricultural and manufacturing industries have given way to human services as the principal source of economic activity and employment. Information technology brings new forms of production and power. But as in the primary production an “able body” is prerequisite, for the information technology “able mind” is prerequisite. This means the exclusion of persons with learning difficulties and mentally ill (Barnes, 1999, p.9).

<sup>78</sup> Implement employment policies aiming at achieving full employment, improving quality and productivity at work, and strengthening social and territorial cohesion (EU, 2005c, guideline 17).



Three priorities have been identified in the adopted Employment Guidelines, on which action should concentrate in order to address the policy objectives:

- Attract and retain more people in employment, increase labour supply and modernise social protection systems
- Improve adaptability of workers and enterprises
- Increase investment in human capital through better education and skills (EU, 2005c, item 5).

In the scope of improving adaptability of workers and enterprises for employment of persons with disabilities; initiatives at workplace level for flexible, individual based solutions in terms of working hours, work place adaptation and access to technological assistance, etc. can be implied from the guideline 21 and 22 (EU, 2005b, p.11).

*Guideline No 21: Promote flexibility combined with employment security and reduce labour market segmentation, having due regard to the role of the social partners (EU, 2005c, guideline 21).*

*Guideline No 22: Ensure employment-friendly labour cost developments and wage-setting mechanisms (EU, 2005c, guideline 22).*

### 2.5.3 Employment support models

In an extension of ILO the “Vocational Rehabilitation and Employment (Disabled Persons) Convention,” defines the term “disabled person” as “an individual whose prospects of securing, retaining and advancing in suitable employment are substantially reduced as a result of a duly recognised physical or mental impairment” (ILO, 1983, article 1). As determined in the definition of ILO Convention, disability means “reduced” employment chance. So for equalizing the employment opportunity of the persons with disabilities in World, mainly three type of employing support model<sup>79</sup> has been used.

- First one is forced employment that is mostly known as quota system, which bases on of a particular ratio of persons with disabilities (Altan, 1976, p.243; Uşan 1997, pp.98-153; EF, 1999; Metts, 2000, pp.10, 26; Karçkay, 2001, pp.33-35; Uşan, 2003, parag.45; Yılmaz, 2004a, pp.23-24). Quota system is the oldest method that is used in employment of persons with disabilities, especially after the Second World War it has been used widely in Europe and other countries. In Quota Scheme, there is an emphasis on recruitment, rather than retention or quality of working arrangements (Arthur and Zarb, 1995, p.6).
- The second method of employment of persons with disabilities is grounded on the anti-discrimination<sup>80</sup> provisions that prohibit the discrimination based on age, disability, race, etc, by the help of the legislative arrangements. This system is widely used in USA and Canada (Uşan; 1997, pp.154-195; Karçkay, 2001, pp.35-37, Uşan, 2003, parag.57).

Another type of employment model is sheltered employment which basis on the employment of persons with disabilities in a special workplace that is established

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<sup>79</sup> For an extensive knowledge on employment support models, look at Uşan, 1997 pp.98-195.

<sup>80</sup> According to Barnes (1999), by anti-discrimination policies relating to the employment and underemployment of persons with disabilities remain focused almost exclusively on the supply rather than demand side of labour and seek to resolve the stark inequalities of the social organization of work. It means a change in rhetoric but not in policy (Barnes, 1999, p.11).

for them (Uşan; 1997, pp.196-201; EF, 1999; Karçkay, 2001, pp.42-45; Yılmaz, 2004a, pp.26-28). By this method the employment of persons with severe disabilities is aimed; not only the employment but also rehabilitation is also aimed. This model is widely used in Germany, France, United Kingdom, etc (Uşan; 1997, p.197; Uşan, 2003, parag.44).

### **2.5.3.1 Forced employment**

Forced employment can be categorized as such;

- Quota system (Altan, 1976, p.243, EF, 1999; Uşan, 2003, parag.45),
- Reservation of some prevalent works and occupations totally or partly for persons with disabilities like; doorkeeper, car park guard, stewardship, liftman, telephone operator, watchman, ticket man, piano tuner etc. (Altan, 1976, p.243; Uşan, 2003, parag.43).
- Priority for the employment of persons with disabilities by legislative arrangements like; priority in the employment of persons disabilities in the same workplace, priority for the veterans with disabilities, etc. (Altan, 1976, p.244).

In quota system obligation of employment of persons with disabilities is forced by legislative arrangements and a governmental establishment is assigned. Legislative obligation is practised for the public sector, private sector or for two of them (Altan, 1976, p.244). Uşan (2003, parag.45) define quota system in two types as straightforward quota and levy-grant. Straightforward Quota system is practiced in countries like Italy, Spain etc. Levy-grant system is practiced in the case of not complying with the quota as paying the worth of the quota. Levy-grant system is applied in countries like Germany, France and Austria. If the quota system is filled and adequately supervised, can give positive support, but in reality workers with disabilities get low paid, low grade, undemanding work and are prone to employer exemptions (EF, 1999).

European Disability Forum's (EDF, 2000, p.20, 21) core policy document "Employing disabled people: Europe's forgotten workforce, EDF core policy

document on employment” discusses the quota system an opposed system as some regard them as unreasonably limiting their choice of workers. Also many people with disabilities think that they are different from workers without disabilities. Some people with disabilities consider that quota system simply emphasis providing any form of work for them, rather than work which is fully compatible with their skills and aptitudes and in respect of which an employer will value their contribution. The document goes on as follows;

*On the other hand, some quota systems (typically with alternative measures that include a compensatory levy) like in France, Germany and Austria are regarded by many people (including disabled people) as having a positive impact on the promotion and retention of jobs for disabled people. Some employers in these countries may query the level of the quota, choose to pay the levy rather than employ disabled people, or be more impressed with the need to retain disabled employees rather than recruit new ones. However, quota systems do help to raise awareness among employers, and many appear to willingly accept their obligations towards disabled workers (EDF, 2000, p.20-1).*

In reservation of some prevalent works and occupations (guaranteed work), principal industries give contracts to specialised smaller enterprises employing people with disabilities to produce products to open-market quality and price. But in reality smaller companies still need subsidy support (EF, 1999).

### **2.5.3.2 Anti-discrimination provisions**

Uşan (1997, p.154) defines main aim of the anti-discrimination provisions is equalization of treats to the people with disabilities. Uşan associates the equality in anti-discrimination provisions with the equality of Aristotle that envisages treating individuals in the same manner. This type legislation envisages treating the unequal individuals with supporting their abilities. In employment it means equalization of opportunities. Equalization of opportunities means eliminating the advantages or disadvantages that takes roots from natural or social conditions. Providing equal opportunity is not adequate itself, supporting the employees with disabilities and employer with positive actions. Discrimination based legislations mostly associated with Americans with Disabilities Act (ADA) of 1990. Australia, Canada, England and Japan have made some similar legislative adjustments. Different from the other countries England applies the anti discrimination provisions with quota system.

### **2.5.3.3 Sheltered employment**

Sheltered workplaces are mostly established by the public or sometimes by the cooperation of public and private organizations with taking help from the government or the private budget. Mostly all of the workers have disabilities in this type of workplaces. Conditions of the work, accommodation of work, production type etc are arranged for the workers with disabilities. Sheltered workplaces are known as services that base on the rehabilitation of persons with disabilities in adapting the life and having suitable occupations by arranging the workplace environment and providing occupational opportunities for persons with disabilities (Altan, 1976, p.245). Sheltered workshops get sometimes government aid for supporting employees with disabilities but in reality they can cost more than employment and to segregate, isolate, increase visibility and encourage low level, unskilled tasks (EF, 1999).

For persons with serious disabilities another type of employment is working at home (homebound programs). In this type of employment, an organisation is made for distributing and gathering the works from the houses of the persons with disabilities (Altan, 1976, p.246).

### **2.5.3.4 Current employment strategies**

It is difficult to remark that the policies, which have been applied in developed countries for increasing the employment of persons with disabilities, solved the unemployment problem. Unemployment rate of persons with disabilities is still more than the non-disabled. In EU, figures indicate a gap between the employment rate of persons with disabilities and without disabilities: in 2003, 40% of people were employed compared to 64.2% for non-disabled. The ratio for persons with relatively light level of disability does limit daily life was 50%. Altogether, less than half of persons with disabilities are employed in EU (EU, 2005a, p.4). Also in USA according to the Current Population Survey (2001) of Bureau of Labour Statistics 29.4 % of persons with disabilities between the ages 16 and 64 were in labour force, compared with a labour force participation rate of 82.1 % for those without a disability (US, 2001; cited in Dixon, 2003, p.7).

For increasing the inclusion of persons with disabilities to the employment, it seems that three type of disability support system can be used.

- First one is rehabilitation strategies that maximize the functional capacities of persons with disabilities.
- The second one is equalizing opportunities of persons with disabilities in the employment by the help of the legislative efforts.
- The third one is removal and prevention of unnecessary barriers in built environment for increasing the inclusion of persons with disabilities in the employment. Therefore accommodating workplaces for persons with disabilities is significant for increasing the employment of persons with disabilities and equalizing the opportunities in employment.

#### **2.5.4 Employment of persons with disabilities in Turkey**

Gündüz (1996, p.321) summarizes the status of people with disabilities in 1996 as follows which has no much difference than today;

*“...a disabled life is both hard and expensive. The hardship living a disabled life in countries where other sorts of discrimination already exist can hardly be disclaimed. Such detachment is especially confronted when disabled people are denied the right to employment at equal working conditions and salaries as others. The number of disabled employees in developing countries is rather low. While an increasing number of disabled people with university degrees can find jobs, unqualified disabled people are finding it harder to find employment each passing day. Many countries have laws that ensure disabled people find employment, yet even these precautions cannot produce the desired results. For example in Turkey, an item was added to the Labour Act which conditioned that 2 disabled workers were to be employed in every workplace with 100 employees. Yet the law also included an item nothing that in case the work place could not employ any disabled workers, it would have to pay a sum equal to his/her salary to the Ministry of Labour and Social Security. I leave to the reader you to asses how such flexible laws can provide the disabled with any advantages (Gündüz, 1996, p.321).*

According to Turkey Disability Survey (2002), among the persons with orthopaedic, seeing, hearing, speaking and mental disabilities population, the labour force participation rate is 21.71 % and in people having chronic illnesses, the labour force participation rate is 22.87 %. It means that, one of every five persons with disabilities participates in labour force. Labour force participation rate by sex shows an important difference for persons with disabilities. While labour force participation

rate for persons with orthopaedic, seeing, hearing, speaking and mental disabilities is 32.22 % for males and 6.71% for females, this rate is 46.58 % for males and 7.21 % for females in people having chronic illnesses. Unemployment rate<sup>81</sup> is 15.46 % for persons with orthopaedic, seeing, hearing, speaking and mental disabilities and 10.77 % for people having chronic illnesses. The unemployment rate also shows a double disability for women. While unemployment rate for males with orthopaedic, seeing, hearing, speaking and mental disabilities is 14.57 % and 21.54 % for females and this rate is 10.28 % for males and 12.4 % for females in people having chronic illnesses (SIS, 2004, pp.14-16).

An invisibility of persons with disabilities in social life is seen in Turkey. As in the other developing countries in Turkey also disability is a social construct, which severely inhibits the equal participation of certain sections of society in public and private life (Balaram, 2001, p.5.2). The Constitution (CRT, 1982) and the legislation in Turkey envisage a parallel system with the universal principles related with the disability (Koca, 2003, p.7; Utkan, 2003, p.4; Yılmaz, 2004a, p.29). Turkey has some responsibilities according to the international documents that has been signed by Turkey at different times; Universal Declaration of Human Rights of United Nations, United Nations Declaration on the Rights of Disabled Persons, Vocational Rehabilitation and Employment (Disabled Persons) Convention of ILO with number 159, Employment Promotion and Protection against Unemployment Convention of ILO with number 168, Human Resources Development Convention of ILO with number 142, European Social Charter, etc (Yılmaz, 2004a, p.29).

In JICA's report on "Existing Situation Report on Persons with Disabilities in Turkey" (JICA, n.d.), it is mentioned that special emphasis is given to the employment of persons with disabilities in 8<sup>th</sup> Five Year Development Plan that was covering the years between 2001-2005 Necessary legal and institutional arrangements are focused in relation to those groups in working life, which need a special interest, especially to women, children and persons with disabilities. Governments programs also consider persons with disabilities. The most recent 59<sup>th</sup> government program mentions the basic concept of social state and considers persons

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<sup>81</sup> Unemployment rate in Turkey has inconsistency with respect to the labour participation. Unemployment rate depends on the definition (no job, actively seeking work, etc.) of unemployment

with disabilities among all the disadvantaged groups as an important part of the society. Integration of persons with disabilities into the society, providing equal opportunities in social and economic life and securing their right and access to education are considered as the main duties of the 59th government (JICA, n.d.)

In the same report (JICA, n.d) the process of Turkey's integration to the European Union's legislation is narrated with preparation of a National Plan for Adoption of EU Acquis. *This plan includes the required measures and policy changes to fully harmonize its legislation to EU. Regarding the persons with disabilities, the Sub-title (Full Enjoyment of All Fundamental Rights and Freedoms by All Individuals without Discrimination) under the Political Criteria section, mentions persons with disabilities as "Appropriate measures will be taken in line with the ILO Convention No. 159 for the Vocational Rehabilitation and Employment for Disabled Persons". Neither the Chapter 13: Social Policy and Employment or the Chapter 18: Education, Training and Youth have specific items about persons with disabilities, although the issues are elaborated in regular reports.*

There are examples of sheltered employment in Turkey, but mainly quota model has been used for the employment of persons with disabilities (Uşan, 1997, pp.202-310; Karçkay, 2001, pp.55-73; Yılmaz, 2004a, pp.29-52). But the quota system that is forced by the legislations and regulations is not attained the intended achievement in the public and private sector (Koca, 2003, p.15). In spite of the existing legal arrangements about employment of persons with disabilities and standards about the design of the environmental access, the rate of the employment of persons with disabilities is relatively low, in Turkey (Taşlı, 1993, p.2).

Similar to the most of the other developing countries in Turkey also, the international norms and policies are accepted and they have been tried to be applied in principles. However it is difficult to say that an evaluation and control mechanism has been set on these norms from the point of our social values and socio-economic conditions (Metts, 2000, p.23; Utkan, 2003, p.4). National documents like; The Constitution of the Republic of Turkey (CRT, 1982), Civil Servants Law no 657 (CSL, 1965), Labour Law no 4857 (LL, 2003), The Prevention of Terrorism Law no 3713 (PTL, 1991) and the recent adjustments in the legal field by the Law on



Disabled People and on Making Amendments in Some Laws and Decree Laws (LDP, 2005) and the related regulations covers and obligates disability comprehension in Turkey. Like the governments in other developing countries, Turkey is presently preoccupied with political instabilities and essential needs of people such as food, shelter, employment, education, health and so on. But the growing number of people who are aged, disabled, and otherwise disadvantaged is a great consumer force, and also a vote force, and which is significant for democratic governments like Turkey (Balaram, 2001, p.5.13).

#### **2.5.4.1 The Constitution of the Republic of Turkey**

At The Constitution of The Republic of Turkey in the second part at second article, The Republic of Turkey is defined as;

*“...a democratic, secular and social state governed by the rule of law; bearing in mind the concepts of public peace, national solidarity and justice; respecting human rights; loyal to the nationalism of Atatürk, and based on the fundamental tenets set forth in the Preamble” (CRT, 1982, article 2).*

After defining as “social” state The Republic of Turkey, at the article 50 of the Constitution it is stated that “Minors, women and persons with physical or mental disabilities, shall enjoy special protection with regard to working conditions” (CRT, 1982, article 50). In the same Constitution at the part B about the Persons Requiring Special Protection in the Field of Social Security at the article 61, it is emphasised that

*“...the state shall protect the widows and orphans of those killed in war and in the line of duty, together with the disabled and war veterans, and ensure that they enjoy a decent standard of living.”*

Then it is added that *“The state shall take measures to protect the disabled and secure their integration into community life.”* In this article the Constitution considers the disabled as in the family of persons to protect. After the disabled, in the article the aged and the children in need of protection are also indicated. At the last part of the same article while defining responsibility of the state, *“establishing the necessary organisations or facilities, or arranging for their establishment by other*

bodies” is mentioned (CRT, 1982, article 61).

#### 2.5.4.2 Civil Servants Law

By the “Law no 5378 on Disabled People and on Making Amendments in Some Laws and Decree Laws<sup>82</sup>” the articles of Civil Servants Law no 657 (CSL, 1965), which are about the people with disabilities have been changed. The Article 53 of the Civil Servants Law which is about recruiting people with disabilities as civil servants, points out the essentiality of appointing the disabled to the vacancies that suit their professions and supplying the tools and equipment assisting to their performance and execution of their profession, by their organisations (LDP, 2005). Also the same article<sup>83</sup> predicts to compose the cases like; the conditions of appointing and the types of works that civil servants with disabilities can work, the instruments and devices which will be ensured by their establishments that they use during the execution and enforcement of their profession, the types of duties that people with mental disabilities will be excluded in minimum education conditions of the appointment, by a regulation that will be prepared collectively by Ministry of Finance, Ministry of Health, Ministry of Labour and Social Security, Administration of Disabled People and Administration of States Personnel. Also the same revision predicts a monitorisation by Administration of States Personnel (CSL, 1965, article 53).

According to the Civil Servants Law no 657 (CSL, 1965) which put into

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<sup>82</sup> In a study on the policies of members of UN’s Economic and Social Commission for Asia and the Pacific (ESCAP, n.d., p.58) that covers 28 countries, Turkey’s Law on Disabled People is defined as having a legal ground of anti-discrimination.

<sup>83</sup> Madde 53 – (Yeniden düzenleme: 12/2/1982 - 2595/3 md.)

(Değişik birinci fıkra: 1/7/2005-5378/20 md.) Mevzuata uygun olmak kaydıyla; özürlülerin mesleklerine uygun münhal kadrolara atanması, mesleklerini icra veya infaza yardımcı araç ve gerecin kurumlarınca temin edilmesi esastır.

Özürlülerin Devlet memurluğuna alınma şartları ile hangi işlerde çalıştırılacakları, mesleklerini icra ve infazda hangi yardımcı araç ve gereçlerin kurumlarınca temin edileceği, zihinsel özürlülerin hangi görevlere atanmasında asgari eğitim şartından istisna edileceği hususları Maliye Bakanlığı, Sağlık Bakanlığı, Çalışma ve Sosyal Güvenlik Bakanlığı, Özürlüler İdaresi Başkanlığı ve Devlet Personel Başkanlığınca müştereken hazırlanacak yönetmelikle düzenlenir.

(Ek: 30/5/1997 - KHK - 572/15 md.) Kurum ve kuruluşlar bu Kanuna göre çalıştırdıkları personele ait kadrolarda % 3 oranında özürlü çalıştırmak zorundadır. %3’ün hesaplanmasında ilgili kurum veya kuruluşun (taşra teşkilatı dahil) toplam dolu kadro sayısı dikkate alınır.

(Ek: 30/5/1997 - KHK - 572/15 md.) Kurum ve kuruluşlar, çalıştırdıkları ve işten ayrılan özürlü personel sayısını üç ayda bir Devlet Personel Başkanlığına bildirmekle yükümlüdür. Bu Kanun kapsamındaki kurum ve kuruluşlarda, ikinci fıkrafta tespit edilen oranda özürlü personel çalıştırma

effect in 1965, government funded agencies and organisations are obliged to employ workers with disabilities in the ratio of 3 percent of the full vacancy of the agency or organisation. Between the years 1983 and 1999 the ratio was 2 percent and in 1999 the ratio was revised by a regulation<sup>84</sup> put into effect. Also the term “whole vacancies” was revised as “filled vacancies” with the same regulation (Karçkay, 2001, p.57). By the 50<sup>th</sup> article of the act an examination for workers with disabilities is predicted in a different format from the people without disabilities for being accepted to official posts. Also the same article which was revised in 1997, for the examinations predicts the consideration of accessibility and the types of disabilities<sup>85</sup>.

#### **2.5.4.2.1 Regulation on the Conditions to be applied as Civil Servant and Competitive Examination to be delivered for People with Disabilities**

As it is mentioned in the Article 53 of the Civil Servants Law(CSL, 1965, article 53), by Regulation on the Conditions to be applied as Civil Servant and Competitive Examination to be delivered for People with Disabilities (ÖDMAŞ, 2006); determination of the permanent staffs, the basic principles and procedure of examinations, periods of examinations, announcement, the general and special conditions, authorization of conditions, conditions with the practice of examinations, workplace accommodation, types of works, prosecution and auditing have been settled. These measures are enforced by the Presidency of State Personnel, responsible in improving public sector employment.

This regulation envisages examinations for the first time for being accepted for the official posts for people with disabilities that will be made by the government funded bodies and organizations. According to article 7, examinations can be made in certain intervals within a year, which are defined as April-May, July-August, and October-November. To be accepted into the exams, according to the article 4/c of the regulation applicants should provide reduced working capacity of at least 40 percent

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*yükümlülüğünün yerine getirilmesinin takip ve denetiminden Devlet Personel Başkanlığı sorumludur.*

<sup>84</sup> 19.02.1999 by Official Gazette numbered 23616.

<sup>85</sup> *Madde 50 (Değişik: 30/5/1997 - KHK - 572/14 md.) Özürlüler için sınavlar, özürlü kontenjanı açık olan kurum ve kuruluşlarca ilk defa Devlet memuru olarak atanacaklar için açılan sınavla eş zamanlı, böyle bir sınava ihtiyaç duyulmamışsa, özürlü kontenjanı açığı bulunduğu sürece ayrı zamanlı olmak üzere özür grupları ve ulaşılabilirlikleri göz önüne alınarak yapılır.*

*(Ek: 30/5/1997 - KHK - 572/14 md.) Özürlüler için sınavlar, özürlü grupları dikkate alınarak sınav*

certificated by medical health report regulation.<sup>86</sup>

According to the article 24 of the regulation government funded bodies and organizations are responsible for taking measures to make the working conditions appropriate and to provide the required tools and equipment for the people with disabilities. For article 25 of the regulation, people with disabilities should be employed according to their professional background or in jobs that suit their capabilities

While determining the permanent staffs for people with disabilities, 3 percent of filled permanent staffs' number, including the parts of organisation in provinces, is considered. Organisations should set the permanent staffs from different professions. When there is not appropriate vacancy for persons with disabilities, then appropriate permanent staffs are ensured by changing the business title (ÖDMAŞ, 2006, article 5).

#### **2.5.4.3 Labour Law**

According to the article 30 of Labour Law no 4857 (LL, 2003, article 30) at workplaces where 50 or more employees are working, the employers are obliged to employ disabled persons, ex-convicts, the public officials, soldiers or non-commissioned officers who have become disabled and able to work that are defined by the Law no 3713, at the rates which the Council of Ministers will specify every year, in a job that is suitable for their professional, physical and psychological condition. The total rate of persons that will be employed is 6 percent, but rate for the disabled should not be less than the total rate. At the same article Labour Law no 4857 cites that disabled should not be employed at the works which are made under the ground and under the water, while determining the number of the disabled that should be employed, these are not included. Also the same article also points out that whether the employers who employ more than the rate they are obliged to employ disabled persons, ex-convicts, the public officials, soldiers or non-commissioned

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*sorusu hazırlamak ve değerlendirmek üzere özel sınav kurulu teşkil edilerek ayrı yapılır.*

<sup>86</sup> Özürlülük Ölçütü, Sınıflandırması ve Özürlülere Verilecek Sağlık Kurulu Raporları Hakkında Yönetmelik, 16 Temmuz 2006 tarih ve 26230 sayılı Resmi Gazete. Retrieved in January 26, 2007 from <http://www.mevzuat.adalet.gov.tr/html/27100.html>

officers who had disabilities and able to work, or the employers who employ the disabled that lost the ability to work more than 80 percent, pay the 50 percent of the insurance premium that they are obliged to pay according to the Law of Social Insurance.

At the article 101 of Labour Law (LL, 2003, article 101), it is stated that if the employers that are obliged to employ persons with disabilities, ex-convicts, the public officials, soldiers or non-commissioned officers who have had disabilities and able to work, do not employ these persons they should pay one thousand two hundred sixty seven (1267) new Turkish Liras for each person in 2007. The article also makes clear that the public establishments should not exempt from this fine. The Labour Law also mentions the usage of this fine and orders

#### **2.5.4.3.1 Regulation on the Examination to be delivered for Workers in Government Funded Bodies and Organizations for People with Disabilities and Ex-convicts**

Regulation on the Examination to be delivered for Workers in Government Funded Bodies and Organizations for People with Disabilities and Ex-convicts (KKKİSY, 2006, article 1) grounds on Labour Law no 4857 (LL, 2003) and covers the employment of workers with disabilities in government funded bodies and organizations<sup>87</sup>.

As it is mention in Labour Law, this regulation is practiced in workplaces have 50 or more employees. According to the regulation workers with disabilities can not be employed under the ground or water, and while determining the number of the workers with disabilities number of workers under the ground or water are not included (KKKİSY, 2006, article 5). While setting the number of worker, the whole number of workers in the same city employed in the same organisation are

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<sup>87</sup> MADDE 2 - (1) Bu Yönetmelik, merkezi yönetim kapsamındaki kamu idareleri, bunlara bağlı döner sermayeli kuruluşlar, kanunla kurulan fonlar, kefalet sandıkları, sosyal güvenlik kuruluşları, merkezi yönetim bütçesinin transfer tertiplerinden yardım alan kuruluşlar, il özel idareleri ve belediyeler ile belediyelerin Türk Ticaret Kanununa göre kurduğu şirketler hariç, bunların kurdukları birlik, müessese ve işletmeler, özelleştirme programına alınmış kamu payı ağırlıklı kuruluşlar, kamu iktisadi teşebbüsleri ve bağlı ortaklıkları ile müesseseleri, özel kanuna veya özel kanunla verilmiş yetkiye dayanılarak kurulan kamu banka ve kuruluşları ile bunlara bağlı işyerlerinin ve diğer kamu kurum ve kuruluşlarına ilk defa işçi olarak alınacak özürlü ve eski hükümlüleri kapsar.

considered. If the work does not require, discrimination should not be made among the disability groups and the up limit of disability ratio should not be determined.

A general competitive examination depending on the education level of workers with disabilities is predicted by the regulation (article 7). After the general examination, an interview or draw lot is envisaged applicants for more than the quota. Also fine is envisaged for the governmental funded bodies and organizations that do not employ workers with disabilities according to the article 101 of Labour Law no 4857.

#### **2.5.4.3.2 Regulation on the Employment of the Disabled, Ex-convicts and Terror Victims**

By the Regulation on the Employment of the Disabled, Ex-convicts and Terror Victims (ÖHTY, 2004), qualification of the workers, type of works that they could be employed, special attempts for them apart from the general rules in the workplace, training and procedure of employment by the employer are settled according to the Labour Law no 4857. State Employment Agency is responsible for executing this regulation. As it is mention in Labour Law, this regulation is practiced in workplaces have 50 or more employees. While setting the number of worker, the whole number of workers in the same city employed in the same organisation are considered (article 4). Employer can not suggest qualifications over than the work requires (article 7)

According to the 8<sup>th</sup> article of the Regulation, disability can not be reason for the employing with low wage. Workers with disabilities take the same payment of benefits as all workers. Rules to the disadvantage of these workers can not take place in employment agreement and collective agreements. In article 11, it is mentioned that the types of works that workers with disabilities can work are illustrated in the appendix 1 of the regulation. If one of the works from the table cannot be given to the workers with disabilities, then depending on the features of the workplace, any work that is determined by the doctor of the workplace can be given.

According to the 13<sup>th</sup> article of the regulation, depending on the analysis on the acquirements from the employers, State Employment Agency should determine

the types of works that workers with disabilities can make and should apply training and rehabilitation programs by taking into consideration the qualifications for the profession, branch of business. For article 14 of the regulation, employers are responsible for accommodating workplaces in the circumstances of the workplace; like preparing the workplace to ease the study of the workers with disabilities, taking measures for their health, employing in their professions or close professions, enhancing their knowledge and abilities related with their work, rearranging work environments and redesigning equipments/instruments. Also workers with disabilities can not be employed in the works that are destructive of health. Also this article mentions adaptation of working hours depending on the condition of worker with disability. In article 27 of the regulation, a fine is envisaged for the employers that do not employ workers with disabilities according to the article 101 of Labour Law no 4857.

Turkey has an economic potential to take measurements related with the employment of persons with disabilities with reorganisation, planned researches, conscious studies and with some technical measures. As Altan (1976) mentioned inadequacy of services related with persons with disabilities not only related with economic reasons but also related with inadequacy of legal, knowledge, experts, related with organisational and managerial reasons (Altan, 1976, p.324).

## **CHAPTER III**

### **UNIVERSAL DESIGN**

In this chapter, the universal design approach in architecture will be revealed. The issues of utilizing universal design in buildings and at the workplaces will be examined. Beginning from the discussion on the exclusion of people from the space, comprehending space as instrumental for the exclusion and inclusion of the people with disabilities, the discussion continues with the conceptualization of universal design as an instrument for constituting inclusive built environments and workplace accommodations for the extensive spectrum of people with different ages, abilities and sizes.

Initially space as instrumental in the exclusion and inclusion of people with disabilities is brought into discussion. Then universal design as a strategy for the organization of space is familiarized with various comprehensions of universal design in all over the world. After a general explication of universal design different definitions and the common terms that are used to determine the inclusive design understanding are examined. Then, beginning from the barrier-free design, the history of universal design is briefed. In the final section the development of principles of universal design is narrated and the seven principles of universal design are defined and paraphrased with the consideration of utilisation of universal design in architecture and in workplace specifically for this thesis.

The study cares with universal design as a strategy in architecture for achieving inclusive society for all people with and without disabilities. In this study, evaluating with universal design in the built environments is to set a theoretical



framework before analyzing organization of workplaces and constituting the principles of workplaces organization.

### 3.1 Disability and space/place

Kitchin (1998), in his article ‘Out of Place’, ‘Knowing One’s Place’; space, power and the exclusion of disabled people, defines space as instrumental in reproducing and sustaining disabling practices. Disability has distinct spatialities that work to exclude and oppress persons with disabilities. Kitchin (1998) argues that spaces are currently organised to keep persons with disabilities “in their place” and “written” to convey to persons with disabilities that they are “out of place”. Social relations currently work to spatially isolate and marginalise persons with disabilities and their carers; this leads to spatially and as well as socially constructed disability (Kitchin, 1998, p.343). Lifchez (1987, p.20) also stress the role of built environment in the experience of people with physical disabilities as follows:

*The built environment shapes the experience of physically disabled people, our self concepts, the way we relate to others, and our sense of our place in the world. The environment is an arena where social conflicts, often generated by the environment itself, are played out.*

Citing social theorists Giddens, Harvey, Jameson and Soja; Kitchin (1998, p.344) argues that life and society are not solely constituted in time and history but are also situated, contextualised and reproduced in space. He goes on defining space as follows:

*...Within this spatial turn, space is understood as not just a passive container of life, but also as an active constituent of social relations: space is not only given, ‘an absolute container of static, though movable, objects and dynamic flows of behaviour’, absolutely defined and understood with Euclidean geometry, space is also socially produced and constructed, dynamic and ambiguous, claimed and contested. It is recognised that urban and rural landscapes have been sculptured and shaped by people and attributed cultural significance.*

Kitchin (1998, p.345) analyses the disability from the point of social constructivism<sup>88</sup> and political economy<sup>89</sup> and finds them limited and limiting. He

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<sup>88</sup> Kitchin (1998) briefly explains disability from the social constructivist manner as; “...Social constructivism posits that society’s reaction to, and the experiences of, disability is mediated through

argues that the relationships between disability and society cannot be framed within either strict economic or political terms or purely socio-cultural processes so he proposes a mixture of the two. He summarizes the mixture of two approaches as;

*...In a mixed approach, disabled people are excluded not only because of capitalist mode of production, but also because of socially constructed modes of thought and expression enshrined in cultural representations and cultural myths.*

According to Kitchin (1998, pp.345-6), Young's<sup>90</sup> classification of oppression can be used to illustrate the variety of power relations and processes of exclusion in relation to persons with disabilities;

- *In the first instance, disabled people are rendered 'powerless'; power relationships between able-bodied and disabled people are maintained through political means. Disabled people are denied access to important decision-making positions within society.*
- *Secondly, disabled people are marginalised within society and social life; power relationships are maintained through social means. Disabled people 'pushed' into poor housing, denied access to private and public transport, and are ostracised from 'mainstream' social activities such as visiting the pub or cinema through poor provision and weak statutory laws.*
- *Thirdly, disabled people are exploited within the labour market: poor relationships are maintained through material means. Disabled people are often excluded from the labour market through discriminatory practices and poor levels of mobility. Where they do gain access it is usually margin positions undertaking low-paid, low-skilled work often on a part-time basis. Such a situation works to deny disabled people prosperity and wealth and their associated power.*
- *Fourthly, the maintenance of power can be achieved through violent means. People who do not hold the same values or live the same way as the dominant group are represented through physical violence and imprisonment. The systems of asylums and imprisonment have been one particular method used to confine and oppress disabled people.*
- *Lastly, power relationships are maintained through the use of ideology, through a*

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*culture as a social process. It rejects social determinist ideas, that the structures of capitalism dominate hoe disabled people are treated by society. Constructivists are interested in studying the social process, the interactions of actors and institutions, that underpinn the construction of disability (Kitchin, 1998, p.345).*

<sup>89</sup> Kitchin (1998) summarizes the political economists' disability comprehension as; "...Political economists, whilst acknowledging the constructed nature of disability, suggest that disability is constructed to reproduce capitalist relations. They seek to expose the inherit injustices within present social relationships that they argue are the result of the economic bases of capitalism. They argue that all social relationships are constrained within regulating capitalist structures. These structures exist as a means of enforcing and reproducing wealth for a minority of population though the exploitation of labour. Contemporary western society is thus characterised by a capitalist 'mode of production' as the means people employ to sustain themselves. Within this mode there are inherit contradictions that need to be exposed, so that unfair social relationships enshrined in the class system, and also expressed in the exclusion of disabled people can be overthrown (Kitchin, 1998, p.345).

<sup>90</sup> Young, I.M. (1990), Justice and the Politics of Difference (Princeton, Princeton University Press).

*cultural imperialism. The dominant group's cultural practices are promoted as the norm and cultural practices of Others are portrayed as deviant. As such, disabled people are taught to 'know their place', to believe the logic of oppression; that they are unworthy and deserve to be where they are on the social ladder, "fantastically" accepting their exploitation'. They are taught patterns of self-blame, self-shame and self-doubt.*

Kitchin (1998, p.346) argues that forms of oppression are played out within space and are given context by space that is organised and written to perpetuate disabling practices. Kitchin mentions that society is socio-spatially organised to sustain hegemonic power within a nested set of social relationships at varying spatial scales. Understanding disability and the experiences of persons with disabilities, calls for deconstructing the landscapes of power and exclusion, and the geographies of domination and resistance.

Thiberg (1996, p.298) associates the utilization of space with the transformation of space from natural to man made. According to him, space is *"divided and categorized along artificial dimensions as "public", "private" and "function". The right and the possibility to use space is restricted, not only by physical barriers but also by a complex of cultural, social and economic rules"*. Spaces are currently organised to keep people in their place and designed to deliberately segregate and protect the public from persons with disabilities and vice versa like special schools, asylums. Kitchin (1998) samples the spaces that has been explicitly organised to separate persons with mental impairments or people who are mentally ill from the rest of the society. He continues on the apprehension of spaces for persons with mental impairments as follows,

*...These sites not only segregated 'patients' but were thought to offer suitable environments for treatment and recovery. The segregation of mentally impaired people continues today, usually accompanied by treatment aimed at making 'patients' more 'normal', or sedation or sterilisation to protect 'sane' people and themselves from self-harm (Kitchin, 1998, p.347).*

Not only persons with mental disabilities but also persons with physical or sensory impairments have been also encouraged and forced to live in different spatial spheres like segregated schools that are still common place for deaf, blind, physically and hidden impaired children and segregated employment training and day care units, etc. Also in public spaces, persons with disabilities are separated and

marginalised to peripheries. Kitchin (1998) samples segregation as follows;

*...For example where there are disabled accessible public toilets (and these are still uncommon) they are mostly separate from able-bodied toilets, asexual (both sexes share the same space), and usually locked, whereas the able-bodied can visit the toilet at any time, disabled people have to search for the key (sometimes held in an inaccessible part of the building!) (Kitchin, 1998, p.347).*

Kitchin (1998) defines the space which does not exclude the persons with disabilities by citing Napolitano (1995) as follows;

*Good inclusive design will send positive messages to disabled people, messages which tell them: 'you are important'; 'we want you here'; and 'welcome'... if the way that disabled people are expected to get into a building is round the back, past the bins and through the kitchens, what does that message communicate? How will it make a disabled person feel? (Napolitano, 1995; cited in Kitchin, 1998, p.349)*

“Library” as an example of how places reproduce the meanings associated with them in natural, self-evident and common-sense ways. By thinking that it is appropriate to be silent we act silently in library and by being silent we contribute to the continuation of silence in library. Exclusionary practices like inaccessible environments are reproduced in the same manner, as something which is natural and commonsense. It means that the majority of the population are generally unaware of the process of exclusion while being an unconscious part of everyday life. By accepting the able-bodied conceptions of the world unconsciously, socio-spatial system is reproduced with little challenge (Cresswell, 1996; cited in Kitchin, 1998, p.351).

Imrie (1996; cited in Kitchin, 1998, p.346) asserts that space is organised to maintain the dominance of ‘able-bodied’ people. He mentions that environments that exclude disabled people are rarely natural and produced through individual social interactions combined with State policy, building regulations, and architectural and planning practice. Kitchin (1998, p.346) illustrates barriers to inclusion that are implicitly and explicitly designed as; the use of steps with no ramp, cash machines being placed too high, places linked by inaccessible public transport, etc. Kitchin blames current planning practice that underlain by modernist concerns for aesthetic and form over building use with environments and buildings designed as if all people are the same, able-bodied. Referring to Imrie (1996; cited in Kitchin, 1998, p.347),

Kitchen accuses the planners, architects and building control officers;

*...current urban planning is under scribed by a 'design apartheid' whereby planners, architects and building control officers are guilty of constructing spaces which 'lock' disabled people out; which prioritise the dominant values of the 'able-bodied' community. Here, the dominant underlying ethos is one that follows the State's line of integration or assimilation – to bring people back to 'normality'. As such policy is aimed at trying to make disabled people more 'normal' rather than changing the system to accommodate disabled people for who they are. Furthermore, while the rhetoric alludes to independent living, the reality is a dependency upon community and welfare provision.*

Wijk (2001) also blames the form driven innovation in architecture and he mentions that innovates for comfort does not fully apply to the making of the built environment; this leaves the users of the built environment with a gap. For bringing the gap between the users and built environment; actively consumer involution and enforcing the accessibility requirements (in the constitution and in building codes) by legislation is significant (Wijk, 2001, pp. 28.3).

For removing physical barriers to participation in EU, Walsh (2001, p.33.7) suggests some principles that are valid also in Turkey;

- *Viewing access/egress/evacuation and health/safety/welfare issues in the light of equality of opportunity and the right to participate*
- *Developing effective legislation, standards (nationally transposed ENs), and technical guidance to eliminate all forms of barrier*
- *Moving toward a person-centred approach in the planning/design/construction/maintenance of a sustainable built environment.*

### **3.2 Universal Design in general**

Assuming that all people share a basic set of common needs and that all spring from the accommodation of such needs is the most universal aspect of the design process (Lawton, 2001, p.7.1). As a traditional understanding in design customers are classified into two standards; the average<sup>91</sup> people (normal individuals) and the special populations (persons with disabilities and elderly persons). In a way it means segregation, but not for achieving good, real and serious design, it is the prejudice of them and us (Moore, 2001, p.2.4). Design process has

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<sup>91</sup> Story and colleagues (1998, p.11) also mentions on “avarage” group of people in “The Universal Design File” and the nonexistence of such a group in fact, because every individual is unique and human species is quite diverse.

been based on the optimal male form or “universal man”. According to Mallory-Hill and Everton (2001), the concept of universal man is based on a high ideal of human form that most people simply do not fit. By 1970’s, design reference books of anthropometrics and measures started to include dimensions for females and children and in the past ten years persons with disabilities began to be seen in these reference books. But still design is based on averages, which means that people who do not fall into the definition of average are forced to adapt or change their behaviour in order to be able to function in environments based on these measures. Universal design is revolutionary from considering people in environments to be disabled to considering environments and products to be disabling (Mallory-Hill and Everton, 2001).

Tappuni (2001) emphasizes that in the conventional design process physical requirements of healthy adults are defined and needs of significant sectors of the population is excluded. Because of this approach, children, old people, pregnant mothers, and persons with temporary or permanent disabilities encounter with environmental handicaps (Tappuni, 2001, p.63.3). The architecture of buildings creates or suppresses the disability. Grosbois (2001) mentions that disabilities are defined in terms of the activities in which a person wants to engage. Disability appears when the built environment cannot provide any compensation for a person’s disabilities (Grosbois, 2001, p.27.2)

According to Bringa (2001), despite the high level objectives and international policies on accessibility exist, the common practice in many countries is to relegate the implementation to a technical, ineffective and poorly coordinated effort with little prestige (Bringa, 2001, p.29.1). Today’s inaccessible environments, away from the cost considerations are the result of inattention to the needs of persons with disabilities. By this way, unnecessary costs for society are created artificially by creating a class of “special need users” that requires costly special provisions. According to Metts (2000), these special provisions tend to exacerbate the social isolation and economic dependency experienced by persons with disabilities and identifies them with high costs, government intervention and annoying, ugly and incongruent additions to structures (Metts, 2000, p.46).

Luck and colleagues (2001, p.44.4).call attention to the autocratic character of design in making decision on behalf of people with disabilities, despite a user

consultation process in some design exercises. From the point of social model of disability for breaking this gap people with disabilities should be emancipated and their views should be considered from an empowered; rather than a consultative position. According to Luck and colleagues; it would be possible if people who have disabilities are designing environments for themselves, but few architects and planners have disabilities. They continue as follows;

*...Even this position will be flawed if a person with a disability had to presume the needs of a person with a different disability, and the approach assumes that the views of one individual will represent those of a larger population. The nature of design makes an emancipatory approach difficult. Design is a specialist activity, with liabilities, knowledge, and expertise that cannot arbitrarily be passed on to someone else.*

For breaking the gap between the designer and user, Coleman (2001, p.4.9) argues a shift in emphasis from the object to the user, from the producer to the consumer not only in architecture, but also in design. Coleman describes the design in the twenty-first century with the terms; sustainability and inclusivity. According to him in this century the worthy and somewhat patronizing motives of the past should not be considered. A new realism that acknowledges the convergence of social and economic interests in creating a stable and equitable world in which people of all ages and abilities can live independently, contribute to society, and fulfil their personal aspirations should be the priorities of the design (Coleman, 1998; cited in Coleman, 2001, p.4.9)

Universal Design is a term that was first used in the United States by Ron Mace, himself a wheelchair user as a result of having contracted polio as a child (Moore, 2001, p.2.4; Eren, 2004, p.62). Universal design and inclusive design are terms often used interchangeably to label a design approach that implies equity and social justice by design. The terms like; life span design, design for all, barrier-free design, design for the broader average, design for the non-average and trans-generational design are covered by universal design (Sandhu, 2001, p.3.4). Rone Mace defines universal design as “...an approach to design that incorporates products as well as building features which, to the greatest extent possible, can be used by everyone” (Ostroff, 2001a, p.1.5; Preiser, 2001, p.9.1; Calkins et. al., 2001, p.22.1; Eren, 2004, p.56). As Balaram indicates universal design is an “...approach

*that values and celebrates human diversity*” (Balaram, 2001, p.5.3; Story, 2001, p.10.17). Goldsmith defines the universal design as “...*the products that designers design are universally accommodating, that they cater conveniently to all their users*” (Goldsmith, 2001).

In literature universal design is mostly associated with the three elements of design which are defined by Vitruvius as; commodity, beauty and firmness (commoditas, voluptas and firmitas) (Grosbois, 2001, p.27.1; Preiser, 2001, p.9.6). Universal design takes its roots beginning from the French Revolution which predicts equality for all. More superficially universal design was influenced by Russian Revolution. When we come to the present in principle two parallel understanding: the evolution of the normalization principle in Sweden and civil rights movement in the United States embodied the philosophy of universal design (Sandhu, 2001, p.3.4-5). The civil rights history in United States, by confirming the right of every individual to participate fully in society, sets a background to the philosophy of universal design (Ostrhoff, 2001b, p.43.1). The civil rights movement influenced activists of the persons with disabilities to take the centre stage to introduce a new conceptual framework as; disability is a condition imposed by society, attitudes and inadequacies of the built environment were the main culprits. By the legislative proceedings like Americans with Disabilities Act (ADA) in America, several enactments in Canada, Australia, Spain, Holland and United Kingdom’s Disability Discrimination Act (DDA), rule 5 of UN Standard Rules for Equalization of Opportunity and article 13 of Amsterdam Treaty of European Union, limitations of the emerging design standards clarified and this gave way to the universal design (Sandhu, 2001, p.3.4-5).

The design standards are based on the capabilities of independent wheelchair users, in a discriminatory way by excluding the severely handicapped persons with disabilities According to Goldsmith (2001, pp.25.1-3), while making the standards there is a presumption that persons with disabilities are abnormal, peculiar, and different. So for making buildings accessible to them, a set of special accessibility standards, as add-ons to the unspecified provisions that are made for normal people, should be used. An excessive number of constraints and specific technical rules, imposed on top of other rules related to different issues, is frustrating for the



designer, makes research impossible, and often eliminates imagination (Vescovo, 2001, p.26.3). According to Lifchez (1987), emphasizing only on technical specifications transfers persons with disabilities into impersonal objects, thinking wheelchairs within a given turning radius. Significance of specifications is evident but they should serve as adjuncts to, not replacements for understanding for how persons with disabilities can live independently in a world designed by and for the able-bodied (Lifchez, 1987; cited in Manley, 2001, pp.58.6-7)

### **3.2.1 Universal Design and accessibility**

According to Salmen (2001, p.12.1), there is a profound difference between universal design and accessibility. Accessibility is a function of compliance with regulations or criteria that establish a minimum level of design necessary to accommodate to persons with disabilities. Salmen defines universal design as the art and practice of design to accommodate the widest variety and number of people throughout their life spans. Tappuni (2001, pp.63.1-2) evaluates the concept of universal design as an advanced phase of development in the domain of barrier-free planning and design. For him universal design, addresses the fundamentals of planning and design, targeting the full spectrum of the population, by this way aims to include children, elderly people and persons with disabilities. Providing equitable access means enabling important sectors of society participating in the socioeconomic development of the country.

Afflerbach (n.d., p.2) call attention to the consideration of problem of accessibility in the past as a direct result of the individual's deviation from that norm. He continues as follows;

*The person was “the exception”, hence “the problem”. Following an itemized approach, the most common response to accessibility problems has been to add special facilities to an existing building, such as ramps or wider doors. This response, however, reinforces the idea that certain individuals are “exceptions to the rule” and stigmatises them by obliging them to use, for example, separate entrances, often at the rear of the building. Furthermore, most of those modifications are add-ons, following some afterthoughts, rather than results of a planned design process (Afflerbach, n.d., p.2)*

According to Goltsman (2001), universal design incorporates the general principles of its predecessor, barrier-free design that emphasized the removal of

physical barriers and the creation of specially designed features for persons with disabilities. But at the other hand universal design is not based on the assumption of wheelchair accessible facilities are also accessible to individuals with other disabilities. For Goltsman (2001) universal design is away from these limitations and it is a more comprehensive view of human needs and abilities (Goltsman, 2001, p.64.3). Universal design is not yet a coherent and systematic approach to designing for people, because it has many missing pieces in its complex jigsaw puzzle. By the help of the UN Standard rules and the European Commission's Fifth Framework universal design can evaluate (Sandhu, 2001, p.3.13).

According to Luck and colleagues (2001), the change in language in universal design not only reflects semantic preferences but also different meaning and responsibility. For Luck and colleagues, the shift in terminology from barrier-free, design for all, design for disabilities and accessible design to universal design parallels the change from the handicapped to persons with disabilities (Luck and colleagues, 2001, p.44.1). Thiberg, (1996, p.298) calls attention to consideration of the barrier-free society; space as a broken continuity. He suggests that it can be seen in the manner that legislation for accessibility is illustrated. He continues as;

*Normally a step by step policy is used, starting from administrative, economic or technical divisions, such as public versus private, public buildings versus housing, buildings versus street environment, buildings versus transport systems. This way of thinking results in shortcomings in the strategy for full accessibility (Thiberg, 1996, p.298).*

Nitanai and colleagues (2003, p.2) discuss the difference between universal design and barrier-free design. They specify that barrier-free design focuses on specialized groups as elderly people and those with disabilities, evaluates built environments only from the viewpoint of physical accessibility, and conceptually takes "symptomatic measures" to eliminate environmental barriers for those people. They express the universal design as follows;

*On the other hand, the concept of universal design, according to its most common understanding, goes beyond the notion of barrier-free design and emphasizes an inclusive approach by which the physical, social, and psychological needs of all possible users are considered from the early stages of a design process and integrated into physical design solutions. "Bad design" may require additional*

*barrier-free measures to adjust physical environments later, but “good design” does not.*

Lifchez, (1987, p.40) defines accessibility for people without disability as degree of ease with which one can reach a destination. He indicates that if the parking provisions are inadequate, people without disabilities can use bus for arriving a building but for a physically disabled person, getting there is only half the problem. He delivers that if a person with disability arrives there he or she may not be able to enter easily, circulate through, and enjoy full use of the building or facility. He exemplifies a factory that *a manager may be able to reach the administrative offices but not gain access to the laboratory bench; a moviegoer may be able to see the film but unable to see the bathroom*. Wijk, (2001, p. 28.16) states three reasons for architects and other designers not to comply with accessibility requirements: ignorance, unfortunate conditions and obstinacy. He offers suggestion for these reasons as follows;

*Ignorance can be tackled by providing good handbooks. Unfortunate conditions (e.g., a complex building location or conflicting requirements) can be tackled by the client, who has to put his or her priorities straight. The promoters of good accessibility should also provide architects inspirational, ingenious, and imaginative examples. Obstinacy can also be tackled by the client, who can be selective in the architect he or she contracts with. A major concern is that to some clients, not the least of which is local governments, building is just an opportunity to show off their artistic awareness or economic potency, instead of adequately facilitating the activities of building users (Wijk, 2001, pp. 28.16).*

Lifchez (1987, p.33) mentions the symbolization of ramp as a signifier of accessibility and emphasizes that making a place accessible means more than making ramp. He specifies that attention should be focused on the way in which a physically disabled person is or is not supported by his surroundings and how he experiences them. He goes on as follows;

*Understanding how a disabled person experiences architecture heightens the designer's sense of social responsibility. Designers who consider disability a factor apart from others, or who think it can be “figured in” subsequent to the “real” design process, do so at their own risk (Lifchez, 1987, p.33).*

### 3.3 Universal Design definitions

Story and colleagues (1998, p.11) defines as *“to design a product or an environment to suit a broad range of users, including children, older adults, people with disabilities, people of a typical size or shape, people who are ill or injured, and people inconvenienced by circumstance”*. Story and colleagues (1998, p.11) also emphasize respect of the human diversity and promotion of inclusion of all people in all activities of life in universal design. They also define universal design as a process, rather than an achievement. The Center for Universal Design at North Carolina State University also defines universal design in the same manner as; *“the design of all products and environments to be usable by people of all ages and abilities, to the greatest extent possible”* (Story, 2001, p.10.1).

For Afflerbach, definition of “universal design” in Resolution ResAP(2001)1 on Universal Design goes well beyond the traditional North American approach, by adding features aimed at facilitating the full participation of persons with sensory impairments and intellectual disabilities (Afflerbach, n.d., p.3);

*“Universal design” is a strategy, which aims to make the design and composition of different environments and products accessible and understandable to, as well as usable by, everyone, to the greatest extent in the most independent and natural manner possible, without the need for adaptation or specialized design solutions.*

*The intent of the universal design concept is to simplify life for everyone by making the built environment, products, and communications equally accessible, usable and understandable at little or no extra cost. The universal design concept promotes a shift to more emphasis on user-centred design by following a holistic approach and aiming to accommodate the needs of people of all ages, sizes and abilities, including the changes that people experience over their lifespan. Consequently, universal design is a concept that extends beyond the issues of mere accessibility of buildings for people with disabilities and should become an integrated part of architecture, design and planning of the environment (EC, 2001a, chapter 2).*

The terms “integral accessibility”, “design for all” and “inclusive design” is associated as synonymous with the term “universal design” in the Resolution ResAP(2001)1 on Universal Design;

*For the purpose of this resolution the terms “integral accessibility”, “design for all” and “inclusive design” are understood to have the same meaning as the term “universal design”, which is used in this text (EC, 2001a, chapter 2).*

Resolution ResAP(2001)1 on Universal Design also provided clarification to

the terms “everyone”, “independent”, “natural”, “built environment”;

*The term “everyone” means that no difference will be imposed by the environment upon individuals regardless of their age, size or other physical features, abilities or disabilities.*

*The term “independent” means the ability to act without having to rely on outside help, thus avoiding dependency.*

*The term “natural” stresses the integral aspect of the definition. It implies that provisions for access and usability are perceived as normal.*

*The term “built environment” means all buildings, traffic provisions and places or spaces open to the public (EC, 2001a, chapter 2).*

### **3.4 History of Universal Design**

Story and colleagues (1998, p.15) imitates universal design as “...a bean sprout that emerges only after its root is deep and strong” and grounds the beginnings of it in demographic, legislative, economic and social changes among older adults and people with disabilities throughout the 20<sup>th</sup> century. Story and colleagues (1998, p.16) mention that in the last few decades, public acknowledgement of people with disabilities and progress toward universal design has developed three parallel tracks of activities briefs them as; “*legislation fuelled by the disability rights movement, the barrier-free design to universal design movement, and advances in rehabilitation engineering and assistive technology*”.

By the demands of veterans with disabilities and advocates for people with disabilities to create opportunities in education and employment rather than institutionalized health care and maintenance, barrier-free movement began in the 1950s as a process of change in public policies and design practices. In this movement, physical barriers in the environment defined as a significant frustration especially for people with mobility impairments (Story et al, 1998, p.16).

Ostroff (2001b, pp.43.3-4), associates the history of Universal Design with the civil rights development in United States. Basing on the Constitution of the United States (1791), that guarantees the individual rights, The Civil Rights Act<sup>92</sup> of

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<sup>92</sup> Story and colleagues (1998, p.16) emphasize the significance of the Civil Rights Movement as an inspiracy for the the Disability Rights Movement and the influence on the Ilegislation of the 1970’s, 1980s and 1990s. According to them “*these new laws prohibited discrimination against people with disabilities and provided access to education, places of public accommodation, telecommunications*

1964 is significant in moving forward the civil rights agenda, by prohibiting discrimination by employers, public accommodations, and recipients of federal funds on the basis of race, religion, national origin, and sex, but did not cover persons with disabilities.

By the help of the Civil Rights Movement and Barrier-free Movement, in 1961 American Standards Association (ANSI) developed the national standards of “barrier-free” buildings as; “A 117.1 – Making Buildings Accessible to and Usable by the Physically Handicapped”. But these standards were not enforceable, until adopted by state or local legislative entities. For avoiding the differing accessibility guidelines by individual federal agencies that have attempted to provide minimum access through additional regulations and standards, for standardizing these attempts in 1984 ANSI specifications were incorporated into Uniform Federal Accessibility Standard (UFAS). For increasing the employment of people with disabilities, the Architectural Barriers Act of 1968 predicted the removal of the significant obstacles in the physical design of the buildings and facilities that people with disabilities had used in work. The act required the accessibility of all buildings designed, constructed, altered, or leased with federal funds (Story et al, 1998, p.17).

The Civil Rights Act established the foundation for Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act<sup>93</sup> (ADA). The Rehabilitation Act was the first federal law that incorporated civil rights prohibiting discrimination toward persons with disabilities limited by recipients of federal funds, but the regulations that would give guidance to its implementation were not signed for 4 years. The Rehabilitation Act in a way settled a basis for ADA, identified the need to remove architectural and communication barriers, and provide accommodations in order to remove barriers to participation. In a way it established a new legal definition more than medical understanding. According to Ostroff (2001b), the Rehabilitation Act balanced the right of the individual with the cost of the accommodation to society (Ostroff, 2001b, pp.43.4-5).

The Education for Handicapped Children Act of 1975 (now known as Individuals with Disabilities Education Act, or IDEA) had an effect on educational

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*and transportation”.*

<sup>93</sup> Burgdorf (1991) indicates ADA as a shift from charity to civil rights (Burgdorf, 1991, p.426).

programs as well as on the facilities, for maintaining a free, appropriate education for all children with disabilities (Story et al, 1998, p.18). The Fair Housing Amendments Act (FHAA) of 1988 which builds on 1968 Fair Housing Act, is also significant related with persons with disabilities. In 1988, the Fair Housing Amendments Act added persons with disabilities and families with children as two new protected classes. In a way it is was revolutionary in covering all multifamily housing, including private developments, even if there was no federal financing involved. According to this Act, all units in a building with an elevator had to include the Fair Housing Design Guidelines in every unit as well as in all common areas. On the other hand in a no elevator building, only those dwelling units on the ground floor were covered (Ostroff, 2001b, pp.43.6).

Americans with Disabilities Act (ADA), which is the most significant and far reaching of all civil rights acts for persons with disabilities, includes employment (all aspects of the employment relationship including hiring, retention, benefits, and firing), businesses those provide services to the public (retail stores, restaurants, hotels, service industry, recreation facilities, cultural settings, etc), all aspects of state and local government, related with government authorities, public and private transportation, and some telecommunications services. By ADA, the concept of perceiving lack of architectural access as a form of discrimination reinforced. In ADA cheap and easy is the main idea (Ostroff, 2001b, pp.43.7-8). The Architectural and Transportation Barriers Compliance Board, for accessible design in 1991 issued Accessibility Guidelines that were adopted by the U.S. Department of Justice and became the enforceable ADA Standards for Accessible Design (Story et al, 1998, p.18). In ADA, at the section 2 finding and purposes, architectural barriers were emphasized;

*“...individuals with disabilities continually encounter various forms of discrimination, including outright intentional exclusion, the discriminatory effects of architectural, transportation, and communication barriers, overprotective rules and policies, failure to make modifications to existing facilities and practices, exclusionary qualification standards and criteria, segregation, and relegation to lesser services, programs, activities, benefits, jobs, or other opportunities” (ADA, 1990, section 2, article 5)*

In telecommunication sector, the Telecommunications Act of 1996 envisages

design, development and fabrication of telecommunications services and equipment and customer premises equipment as accessible and usable by individuals with disabilities, if readily achievable. The Act covers all types of telecommunications devices and services from telephones to television programming to computers (Story et al, 1998, p.18).

The Ladder toward an Inclusive Approach

***Universally inclusive***

*Universal right to an accessible environment at all levels of provision*

*Principles of universal/inclusive design accepted*

*A holistic approach*

*Part of the agenda for social justice*

*Collaborative approach including interprofessional and user collaboration*

***Barrier-free***

*Awareness of wider applicability*

*Disabling characteristics recognized for a wide group of people*

*Awareness of barriers beyond consideration of access to buildings*

*Rights legislation in embryo stage*

*Equal opportunities policies*

***Special needs***

*Recognize wider definition of disability to include physical and sensory impairments*

*Little appreciation of effects of cognitive disorders*

*Technical specifications for access to buildings dominate*

***Design for people who are disabled***

*Limited view of disability*

*Technical specifications dominate provision*

*Designs an “add-on extra”*

***Unaware***

*No provision*

*No accessibility codes*

*No rights legislation or equal opportunities policies.*

**Figure 3 1:** The Ladder toward an Inclusive Approach (Manley, 2001, p.58.8)

Manley (2001, p.58.8) illustrates the progress of accessibility concept beginning from the level of no sense to inclusive approach by the table as below. According to Manley (2001, p.58.8), authorities at the bottom of the ladder, that have no provision, no accessibility codes, no rights legislation or equal opportunities policies bases their policy on medical or charitable model of disability as seeing the provision of facilities for people with disabilities an extra. Manley mentions that this approach implies people with disabilities as a “special needs” matter in a “*belief that society only has responsibility to provide those facilities and benefits that are deemed to be affordable, and that provision is only made for those who deserve these*



*benefits. In terms of planning and designing the public realm, a “special needs” approach is likely to result in very minimal commitment to ensuring that streets and public spaces are accessible” (Manley, 2001, p.58.8).*

### **3.5 Principles of Universal Design**

As Story and colleagues (1998, p.41) mentions the theory of universal design is simple but practice of it is more complicated so defining the term is not sufficient. So for illustrating universal design two strategies used. The first one is citing good examples of aspects of the concepts, like lever door handles that require no grasping, remote controls to adjust devices from afar, and motion detecting room lights, etc. As a second strategy for illustrating universal design, time-proven tests used. But they were not definitive as being criteria that covers all aspects of any design. So “The Center for Universal Design” had some evaluations on consumer products, architectural spaces and building elements, to determine optimal performance characteristics and use features that make products and environments usable by the greatest diversity of people. Then for developing the Principles of Universal Design, the Center gathered a working group of architects, product designers, engineers and environmental design researchers to assemble a set of principles of universal design. By setting the principles evaluating the existing designs, guiding the design process and educating designers and consumers about the characteristics of more usable products and environments, is aimed. In the following part of the thesis, for comprehending universal design the Principles of Universal Design is illustrated.

#### **3.5.1 Principle One: Equitable Use**

*The design is useful and marketable to people with diverse abilities.*

*Guidelines:*

- *Provide the same means of use for all users: identical whenever possible; equivalent when not.*
- *Avoid segregating or stigmatizing any users.*
- *Make provisions for privacy, security, and safety equally available to all users.*
- *Make the design appealing to all users (Story et al., 1998, p.43).*

Universal design approach suggests that people with diverse abilities can use the same design. In a way, by universal design properties discrimination in design is

eliminated. People of different ages, abilities and sizes can use the objects, buildings and urban places in the equal manner. Provisions for privacy, security and safety are equally available to all users; as Eren (2004, p.66) mentioned architectural features and urban elements are usable, accessible, visitable and attractive for everyone.



**Figure 3 2:** Equitable Use symbol (MOPD, 2001, p.21)

According to Mayor's Office for People with Disabilities and Department of Design and Communication (MOPD, 2001, p.21), the means of building that people use should be the same. As an example of means entry to the building should be usable by everyone. If the design cannot be identical than the features like privacy, security, safety and convenience should be provided in equivalency. Mayor's Office emphasize that *"the building must never employ means that isolate or stigmatize any group of users or privilege one group over another"*. As an example of isolating and stigmatizing design, especially in Turkey entrances that are adapted for people with disabilities are exiled to a remote delivery area with ramps that cannot be even climbed. Equal accessibility means beyond the specialized solutions for people with disabilities, providing accessibility in all indoor and outdoor spaces; in circulation patterns and pedestrian flow, etc.

### **3.5.2 Principle Two: Flexibility in Use**

*The design accommodates a wide range of individual preferences and abilities.*

*Guidelines:*

- *Provide choice in methods of use.*
- *Accommodate right- or left-handed access and use.*
- *Facilitate the user's accuracy and precision.*
- *Provide adaptability to the user's pace (Story et al., 1998, p.43).*

Design should respond diverse needs of all users. Universally designed features give the user to select the adequate position, like usage of the right or left hand. Universal design gives the user the right to choose for his/her accuracy and precision. Eren (2004, p.67) indicates that universal design allows adaptability for the unexpected spatial conditions and for the changing requirements of the users over time. She mentions that by the universal design understanding the movement patterns and circulation networks inside and outside the buildings can be flexible enough to accommodate diverse users. As Mayor's Office (2001, p.22) emphasizes the building design should inherit a built-in flexibility that can be usable even when the building is used in an unconventional or unanticipated manner.



**Figure 3 3:** Flexibility in Use symbol (MOPD, 2001, p.22).

### 3.5.3 Principle Tree: Simple and Intuitive Use

*Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.*

*Guidelines:*

- *Eliminate unnecessary complexity.*
- *Be consistent with user expectations and intuition.*
- *Accommodate a wide range of literacy and language skills.*
- *Arrange information consistent with its importance.*
- *Provide effective prompting and feedback during and after task completion (Story et al., 1998, p.43).*

Away from complexity universal design provide simplicity in design for making it easy to understand independent from the abilities of user like; experience, knowledge, language skills, or current concentration level. As Eren (2004, p.68) implies the spatial layout or circulation patterns of buildings can be planned in a simple manner that all types of users can easily access to all spaces. As an example planning the circulation system of huge buildings like hospitals, markets, and airports

can become an introspective advantage in using and managing these buildings. Because of the complexities of buildings' networks, especially for the people with mobility disabilities, finding a specific space or the entrance of the building can be a painful challenge. Mayor's Office clarifies this principle as; *"its means of use should be intuitively obvious so that it operates as anticipated and, therefore, can be used spontaneously"* (MOPD, 2001, p.22).



**Figure 3 4:** Simple and Intuitive Use symbol (MOPD, 2001, p.22).

### 3.5.4 Principle Four: Perceptible Information

*The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.*

*Guidelines:*

- *Use different modes (pictorial, verbal, tactile) for redundant presentation of essential information.*
- *Maximize "legibility" of essential information.*
- *Differentiate elements in ways that can be described (i.e., make it easy to give instructions or directions).*
- *Provide compatibility with a variety of techniques or devices used by people with sensory limitations (Story et al., 1998, p.43).*

In different modes (written, symbolic, tactile, verbal etc) the building should provide all essential information for achieving the effective communication independent from the users' sensory abilities. The information should be presented with sufficient contrast to surrounding conditions for making it distinguishable from its context and decipherable in all its different modes of presentation (MOPD, 2001, p.22).



**Figure 3 5:** Perceptible Information symbol (MOPD, 2001, p.23).

Eren (2004, p.69) states that universally designed mobility patterns and circulation areas can communicate with users and they can locate themselves easily in built environment. She specifies the significant architectural elements that used for designing spaces for all people with different abilities as colour differences, tactile elements, visual and sensory equipments, etc.

### **3.5.5 Principle Five: Tolerance for Error**

*The design minimizes hazards and the adverse consequences of accidental or unintended actions.*

*Guidelines:*

- *Arrange elements to minimize hazards and errors: most used elements, most accessible; hazardous elements eliminated, isolated, or shielded.*
- *Provide warnings of hazards and errors.*
- *Provide fail safe features.*
- *Discourage unconscious action in tasks that require vigilance (Story et al., 1998, p.44).*

Mayor's Office (2001, p.23) suggests that ideal building design should eliminate, isolate or shield design features that inherits hazardous or inconvenient properties. If the potential dangerous conditions are unavoidable, users should receive warnings when they approach the design feature; like providing proximity warnings in a variety of sensory modes near the tops of the stairs. According to this principle with universal design, spatial arrangements can be used for minimizing hazards. Designing workplaces with universal design approach not only will benefit the people with disabilities but also can minimize the work accidents.



**Figure 3 6:** Tolerance for Error symbol (MOPD, 2001, p.23).

### 3.5.6 Principle Six: Low Physical Effort

*The design can be used efficiently and comfortably and with a minimum of fatigue.*

*Guidelines:*

- *Allow user to maintain a neutral body position.*
- *Use reasonable operating forces.*
- *Minimize repetitive actions.*
- *Minimize sustained physical effort (Story et al., 1998, p.44).*

Design should have features that require little or no physical force to use them, when a low level of force is required; it should be used without assuming an awkward or hazardous body position (MOPD, 2001, p.24). With this principle universal design can easily meet the needs of diverse users varying with age, disability, etc. Mayor's Office give as an example the lavatory which is adjustable in height by it's up and down controls.



**Figure 3 7:** Low Physical Effort symbol (MOPD, 2001, p.23).

### 3.5.7 Principle Seven: Size and Space for Approach and Use

*Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.*

*Guidelines:*

- *Provide a clear line of sight to important elements for any seated or standing user.*

- *Make reach to all components comfortable for any seated or standing user.*
- *Accommodate variations in hand and grip size.*
- *Provide adequate space for the use of assistive devices or personal assistance (Story et al., 1998, p.44).*

An adequate amount of space that is appropriately arranged to enable anyone to use them” is the clarification for this principle. Also space should be arranged to provide a clear path of travel to and from significant design features for all users (MOPD, 2001, p.24).



**Figure 3 8:** Size and Space for Approach and Use symbol (MOPD, 2001, p.24).

## CHAPTER IV

### INCLUSIVE WORKPLACE ACCOMMODATION

#### 4.1 Workplace Accommodation

Researches have shown that employees with disabilities can perform equally well in particular segments of the workforce if appropriate accommodations are compensated for them (Baldrige and Veiga, 2001; Hechter, 2003, p.1). Wilton (2004) in his article, *“From flexibility to accommodation? Disabled people and the reinvention of paid work”* examines the experiences of persons with disabilities in paid work, analyses that workers with disabilities often encounter problems in contemporary employment. He discloses the situation from *“a lack of control over the labour process and work environment, and a lack of workplace accommodation”*. Wilton (1998) claims that specifically problems merge from expectations relating to training and multi-tasking, speed and demands for the emotional and aesthetic labour. According to his investigation persons with disabilities who obtained meaningful accommodations were often among a minority of workers in managerial and professional positions (Wilton, 2004, pp. 429-430).

Moreover, aging of the workforce and rises in the cost of the work disability, demographic and economic trends in combination with legislation regarding employment of people with disabilities, make universal design in the workplace a powerful issue. As Anders and colleagues (1999; cited in Mueller, 2001, p.45.1) mention considering age-related changes in vision, hearing, posture and mobility, workplace design will be critical to an aging workforce that is expected to work even further into their senior years than previous generations.



By the anti-discrimination legislation and measures in the world (especially in United States and European Union), the concept of “workplace accommodation” has become important by the day as a determinant of entering and keeping employment for persons with disabilities and has intensive reflections on literature. Multi subject studies tend to focus on general themes of workplace accommodation, so a need exists to identify themes of workplace accommodation along with the associated facilitators that contribute to successful employment for individuals with disabilities. By this way, workplace accommodation priorities for future projects addressing job outcomes for persons with disabilities can be determined.

In this chapter of the thesis, before setting the general principles of inclusive workplace accommodation, initially some barriers to workplace accommodation are explored. Further, the policy on workplace accommodation will be discussed following the discussion of the policy cost of workplace accommodation. The nature of workplace accommodation is going to be examined and lastly the general principles of workplace accommodation, factors of workplace accommodation are tried to be determined. After setting the general principles, samples of workplace accommodation will be illustrated.

## **4.2 Barriers to workplace accommodation**

In an investigation on workplace experience with the employment of individuals with disabilities, in 1995 in Boston, members of the supervisors’ groups identified three type of barriers to the employment of individuals with disabilities;

- limited expertise,
- concerns about resolving workplace problems and
- difficulties accessing resources needed for workplace support/ accommodation (Butterworth and Pitt-Catsoupes, 1995, p.14).

Wilton (2004) states that multiple strategies of control in workplaces work against access to accommodation; like managerial efforts to deflect accommodation requests, relations persons with disabilities’ with co-workers and with themselves, etc. Wilton (2004) argues that by requesting accommodation respondents often

confronted with a difficult choice between ‘problem worker’ or ‘bad worker’ that fail to meet performance norms. On the other hand the absence of accommodation risks disadvantaging the worker with disability in labour processes modelled on a non-disabled norm. Wilton (2004) strikes that efforts to secure accommodation can produce changes to the labour process but risks the positioning of the worker as a recipient of ‘special treatment’, prompting disciplinary reactions from supervisors, co-workers and the worker her/himself (Wilton, 2004, p.430). Employees with disabilities have relatively low level of education and training and they are mostly not employed in career professions (like doctor, engineer, lawyer etc), so that such cases are not prevalent but samples of this case can be found.

In European Disability Forum’s (EDF, 2000, p.14) core policy document on employment “Employing disabled people: Europe’s forgotten workforce” discrimination faced by people with disabilities is illustrated in a same manner. In the mentioned document it is narrated that in certain circumstances the impairment of people with disabilities may affect the ability to carry out a job in the conventional manner. So many people with disabilities may require a reasonable accommodation like an adaptation to the workplace or work rhythm or the provision of necessary (specialised) equipment or personal support. European Disability Forum characterizes the *failure by employers to make a ‘reasonable accommodation’* as a third form of discrimination in addition to direct and indirect discrimination. It is also signified that this type of discrimination is mentioned in existing legislation in the countries like United Kingdom, Sweden and the United States, *but such accommodations are not required if making them would result in the employer suffering an “undue (financial) hardship”* (EDF, 2000, p.14).

#### **4.3 Policy documents on workplace accommodation**

In Rule 7 of United Nations’ “Standard Rules on the Equalization of Opportunities for Persons with Disabilities” (UN, 1993), it is emphasized that States' action programs should include;

- *Measures to design and adapt workplaces and work premises in such a way that they become accessible to persons with different disabilities;*
- *Support for the use of new technologies and the development and production of*

*assistive devices, tools and equipment and measures to facilitate access to such devices and equipment for persons with disabilities to enable them to gain and maintain employment;*

In USA with ADA (Americans with Disabilities Act), workplace accommodation is characterized as “reasonable accommodation” in section 101 at article 9 and defined as follows;

*A) making existing facilities used by employees readily accessible to and usable by individuals with disabilities; and*

*B) job restructuring, part-time or modified work schedules, reassignment to a vacant position, acquisition or modification of equipment or devices, appropriate adjustment or modifications of examinations, training materials or policies, the provision of qualified readers or interpreters, and other similar accommodations for individuals with disabilities (ADA, 1990, sec. 101, article 9)*

In Section 102, in ADA, at article 5, not making reasonable accommodation is defined under discrimination title except the undue hardship circumstances;

*A) not making reasonable accommodations to the known physical or mental limitations of an otherwise qualified individual with a disability who is an applicant or employee, unless such covered entity can demonstrate that the accommodation would impose an undue hardship on the operation of the business of such covered entity;” (ADA, 1990, section 102, article 5).*

In Section 101 at article 10 of ADA (ADA, 1990, sec. 101, article 10), the term “undue hardship is defined as follows;

*A. In general.--The term "undue hardship" means an action requiring significant difficulty or expense, when considered in light of the factors set forth in subparagraph (B).*

*B. Factors to be considered.--In determining whether an accommodation would impose an undue hardship on a covered entity, factors to be considered include*

- i) the nature and cost of the accommodation needed under this Act;*
- ii) the overall financial resources of the facility or facilities involved in the provision of the reasonable accommodation; the number of persons employed at such facility; the effect on expenses and resources, or the impact otherwise of such accommodation upon the operation of the facility;*
- iii) the overall financial resources of the covered entity; the overall size of the business of a covered entity with respect to the number of its employees; the number, type, and location of its facilities; and*
- iv) the type of operation or operations of the covered entity, including the composition, structure, and functions of the workforce of such entity; the*

*geographic separateness, administrative, or fiscal relationship of the facility or facilities in question to the covered entity (ADA, 1990, sec. 101, article 10).*

In the world employment of people with disabilities is becoming important day by day, by the importance of employment, designing and accommodating workplaces is becoming a discipline for designers like architects, interior designers, product and facility designers. Mueller (2001, p.45.1) briefs the situation in USA as follows; *“with the increase in Social Security Disability Income payments in USA, congress passed the “Ticket to Work and Self-Sufficiency Act of 1999” for providing greater vocational rehabilitation services and financial incentives to enable more Americans with disabilities to work. Combining with ADA, this law made workplace accommodation more significant than ever”.*

### ***Policy documents on workplace accommodation in Turkey***

According to the article 24 of the Regulation<sup>94</sup> on the Conditions to be applied as Civil Servant and Competitive Examination to be delivered for People with Disabilities (ÖDMAŞ, 2006) that grounds on Civil Servants Law no 657 (CSL, 1965); government funded bodies and organizations are responsible for taking measures to make the working conditions appropriate and to provide the required tools and equipment for the people with disabilities.

For article 14 of the Regulation<sup>95</sup> on the Employment of the Disabled, Ex-convicts and Terror Victims (ÖHTY, 2004) that ground on Labour Law no 4857 (LL, 2003, article 30), employers are responsible for accommodating workplaces in the circumstances of the workplace; like preparing the workplace to ease the study of the

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<sup>94</sup> **Madde 24- (Değişik: 13/2/2006-2006/10129 K.)**

*Kamu kurum ve kuruluşları çalışma yerlerini ve eklentilerini, özürliülerin erişebilirliğine uygun duruma getirmek, özürliülerin çalışmalarını kolaylaştıracak gerekli tedbirleri almak ve özürliülerin görev yaptıkları kadronun gereği olan işleri yapabilmeleri için özür durumlarına göre gerek duyulan yardımcı ve destekleyici araç-gereçleri temin etmek zorundadır (ÖDMAŞ, 2006, article 24)*

<sup>95</sup> **Madde 14 –**

*İşverenler, işyerlerini imkanları ölçüsünde, özürliülerin çalışmalarını kolaylaştırabilecek şekilde hazırlamak, sağlıkları için gerekli tedbirleri almak, mesleklerinde veya mesleklerine yakın işlerde çalıştırmak, işleriyle ilgili bilgi ve yeteneklerini geliştirmek, çalışmalarını için gerekli araç ve gereçleri sağlamak zorundadırlar.*

*Özürliüler, yapabilecekleri işler dışında sağlıklarına zarar verecek diğer işlerde çalıştırılmaz.*

*Uygun koşulların varlığı halinde çalışma sürelerinin başlangıç ve bitiş saatleri , özürliünün durumuna göre belirlenebilir (ÖHTY, 2004, article 14).*

workers with disabilities, taking measures for their health, employing in their professions or close professions, enhancing their knowledge and abilities related with their work, rearranging work environments and redesigning equipments/instruments.

#### **4.4 Cost of workplace accommodation**

The Accessibility Guide for Workplaces that was prepared by European Foundation (EF, 1999, part 2, slide 16) mentions that planning initially for accessibility is cheaper than adding accommodations later, so policies should encourage initial planning. The guide mentions that *“any capital and/or revenue costs for fully accessible general work environments will involve no (or marginal) extra costs for disabled workers’ needs”*.

According to Survey of Employers about People with Disabilities and Lowering Barriers to Work that Dixon and colleagues (2003) implemented; six in ten of all employers agree that the government should offer tax incentives to employers for hiring persons with disabilities and about the same number agree that the federal government should provide funds for tax incentives to employers to pay for accommodations of workers with disabilities (Dixon et. al., 2003, p.3)

In the world it is discussed to make accommodations to bring employees with disabilities back to the job, instead of paying enormous cost of paying to them not to work. Mueller cites Job Accommodation Network data; 71 percent of accommodation cost \$500 or less and for every \$1 spent on job accommodation, the employer gets back \$26 in savings (Job Accommodation Network, 1999; cited in Mueller, 2001, p.45.2)

Despite the fact that many accommodations involve few direct costs but they require employers to adjust how, when and where essential work tasks are performed to meet the needs of employees with disabilities. According to Wilton (2004), “accommodation constitutes a challenge to the logic of contemporary capitalist economies, where flexibility is first and foremost a privilege of capital” (Wilton, 2004, p.423).

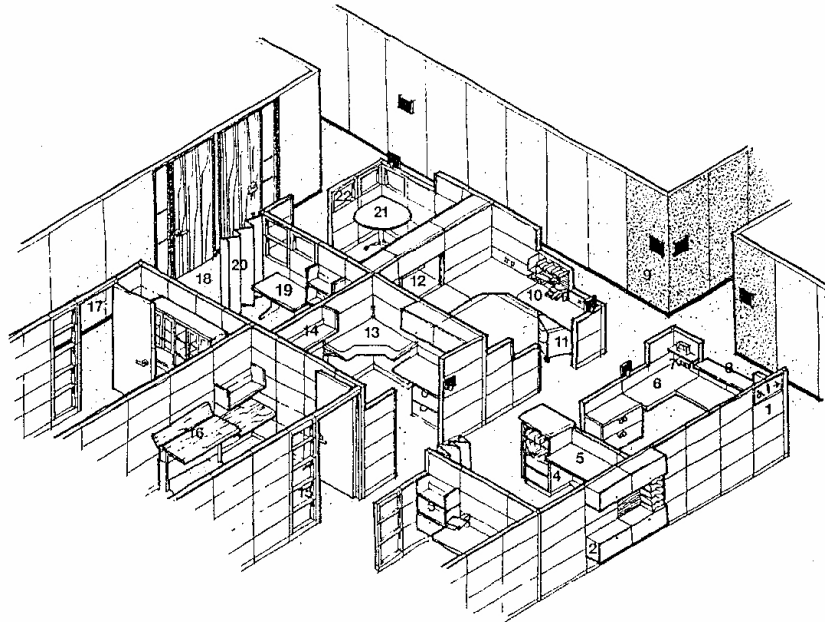
#### 4.5 Necessities of Workplace Accommodation

Unger (2001) mentions that employers are willing to grant accommodations to workers with disabilities that are perceived as straight forward, inexpensive, one-time only, not time consuming, or easy to make as opposed to requests for accommodations that require a sustained effort or permanent change in work arrangements (Unger, 2001, p.47).

Mueller (2001, p.45.2) signifies that job accommodations for workers with disabilities should be transparent or have no effect at all on co-workers and customers. He suggests that same barriers to productive and safe work faced by employees with significant disabilities are with a lesser degree, usually barriers to the co-workers without disabilities as well. Mueller (2001, p.45.6), by citing the “The Workplace Ergonomics Workbook”, identifies the workplace design factors that might be barriers to workers with disabilities and also workers without disabilities. He illustrates the common workplace features as follows;

- **Workplace accessibility**
  - Accessible routes of travel
  - Accessible doorways and door hardware
  - Changes in level
  - Flooring
  - Navigation
  - Emergency evacuation
- **Visual and Auditory Information**
  - Positioning and lighting
  - Typeface selection
  - Ambient noise and auditory signals
  - Sound attenuation
- **Lighting**
  - Illumination without glare
  - Materials and positioning to reduce glare
  - Orientation to natural and artificial light
  - Personal measures for reducing eye fatigue
- **Storage**
  - Easy access at workstation
  - Appropriate containers
  - Identification of materials
  - Safe handling and transport
- **Seating**
  - Adequate support and stability
  - Adjustability features
  - How to adjust seat, back, and arm support

- **Work Space Layout**
  - Adequate space
  - Work surface materials and adjustments
  - Air quality
- **Computer Displays**
  - Monitor placement
  - Minimizing glare
  - Locating source documents
- **Computer Inputs**
  - Keyboard and mouse positioning
  - Hand and wrist support
  - Software options
- **Telephones and Other Office Equipment**
  - Electrical supply
  - Equipment controls
  - Telephone location
  - Telephone peripheral options
- **Work Practices**
  - Maintaining a neutral posture
  - Minimizing repetitive and cumulative stresses
  - Maintaining general health and productivity (Mueller, 2001, p.45.6),



**Figure 4 1:** Illustration from the Applications Guide of Herman Miller (Herman Miller Inc., 1995; cited in Mueller, 2001, p.45.9).

For exemplifying “designing for everybody”, Mueller (2001, p.45.9) samples a worker using a wheelchair that might have difficulty retrieving a thick file folder from the top of a four-drawer file cabinet. He suggests that a co-worker with short stature or a worker with wrist fatigue after long hours of keyboard work might have similar difficulties. Mueller determines the main philosophy of designing for employees with disabilities as “without undue effort or expense”. He gives as an example Herman Miller office facilities and equipments shown in figure above.

Mueller (2001, p.45.10) emphasize that each employer should select from a number of accommodation alternatives and apply the best solution which suits the needs of the individual and the business. He specifies the significant features of successful accommodations as;

- **Effective:** With the solution workers with disabilities should do his or her job productively and safely. For being affective accommodation should not substitute for the individual but enable to use his or her abilities.
- **Transparent:** The accommodation should not have an effect on co workers, customers and other aspects of the business or it should not have a positive affect in improving productivity and/or safety<sup>96</sup>.
- **Timely:** The accommodation can be fulfilled in a reasonable period of time.
- **Durable:** The accommodation should be useful and flexible enough to remain effective throughout the employee’s service. Maintenance of the accommodations and necessary modifications due to business or technology changes can be readily accomplished

Depending on the diversity of impairments, accommodation can involve many changes including alterations to office furniture, additional training time,

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<sup>96</sup> Accomodations for the workers with disabilities are sometimes seen as awarding especially by co workers, so having no effect to the productivity is preferred.



telephone amplification equipment and flexible work schedules (Wilton, 2004, p.423). According to the study of Zwerling and colleagues (2003, p.520), on workplace accommodations for persons with disabilities depending on National Health Survey Disability Supplement in 1994-1995, the most common accommodations received included accessible parking or accessible transportation (4.2%); an elevator (3.1%); a workstation specifically designed for your use (3.1%); handrails or ramps (2.2%); and reduced or part-time hours (2.1%). Persons with the most severe impairments were most likely to receive accommodations. According to the findings of the study of Zwerling and colleagues (2003, p.523), the provision of any accommodation was associated with more severe functional limitation and those with higher income were more likely to be accommodated.

*Nature of Accommodation*

- *Handrails and ramps*
- *Accessible parking, accessible transportation*
- *An elevator*
- *An elevator designed for persons with special needs*
- *A workstation specifically adapted for your use*
- *A restroom designed for persons with special needs*
- *An automatic door*
- *A voice synthesizer, telecommunications device, or other technical device*
- *Braille, enlarged print, special lighting or audio*
- *A reader, oral or sign language interpreter*
- *A job coach to help train you and supervise your work*
- *A personal assistant to help you with job related activities*
- *Special pans or pencils, chairs, office supplies*
- *Job redesign, modifications of difficult job duties or slowing the pace of tasks*
- *Reduced work hours to allow for more breaks or rest periods*
- *Reduced or part-time hours*
- *Some other equipment, help or work arrangement.*

**Figure 4 2:** Nature of Accommodation (Zwerling et al., 2003, p.519).

Butterfield (2004) classifies the studies on workplace accommodation as related with;

- computer technologies,
- environmental access,
- assistive technology; tool operation and seating and positioning

Environmental access accommodations are explained by Butterfield as “any change which is made to the physical structure and layout of workplace” (Butterfield, 2004).

In the guide “Making Workplaces Accessible” that was prepared for the European Foundation for the Improvement of Living and Working Conditions (EF, 1999, part 2, sld.2), it is suggested that the coherent accessibility policies and strategies should aim;

- *eliminate segregation, prejudice and exclusion.*
- *foster integration - rather than special adaptation.*
- *give disabled workers independence and equal opportunity.*
- *create environments which feel ‘natural’ to all users.*
- *support awareness, openness and responsibility in enterprises.*

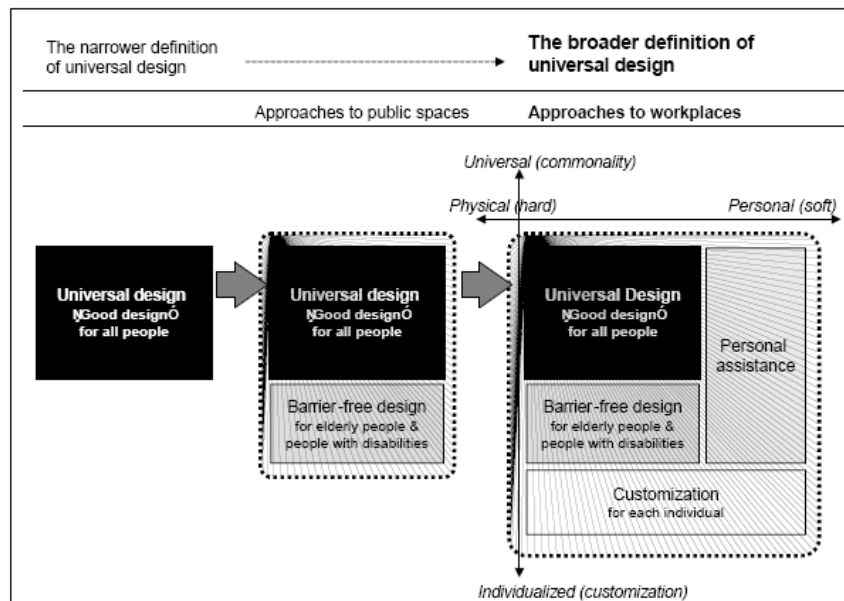
In Making Workplaces Accessible guide (EF, 1999, part 2, sld.3), the components of the accessible workplace are illustrated with the figure below;



**Figure 4 3:** Components of workplace accommodation (EF, 1999, part 2, sld.3)

“Making Workplaces Accessible” guide (EF, 1999, part 6, slide 4) briefs the specifications related with workplace accommodation as follows;

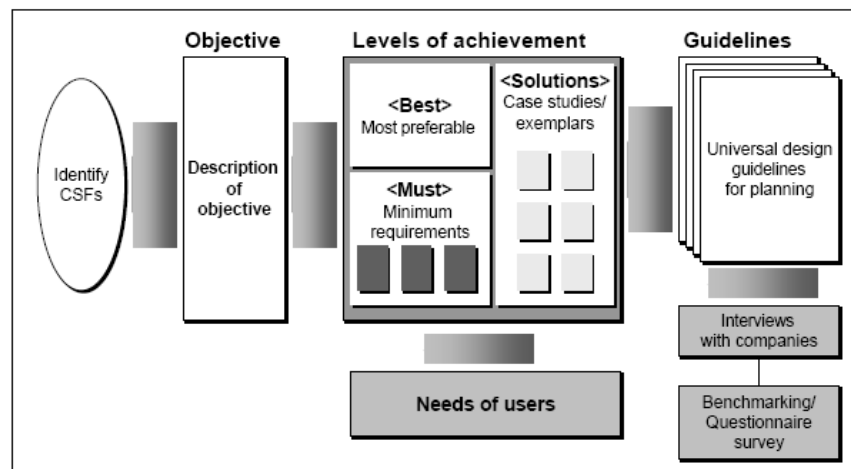
- *Site, access, parking and landscaping*
- *Construction*
- *Capital, energy and maintenance costs*
- *Size and form*
- *Specific requirements for production processes*
- *Environmental impact and methods for its assessment*
- *Re-cycling of materials*
- *Internal relationship of spaces and the sequence of movement through them*
- *Required environmental conditions to be met (thermal, acoustic, lighting, dust and colour)*
- *Provision of mechanical, electrical, water, waste disposal, gas, and communication service systems*
- *Flexibility for future change*
- *Space needed for toilets, washing, protective clothing and changing*
- *Provision for eating, rest, recreation, and sports*
- *Means of horizontal and vertical movement*
- *Systems for dealing with fire, emergencies and for maintaining security.*



**Figure 4 4:** Attribute of workplace universal design (Nitanai et al, 2003, p.3).

Nitanai and colleagues (2003, p.3), in their presentation on “Guidelines for Universally Accessible and Usable Workplaces” at the *World Workplace Europe 2003* conference, compares approaches to the workplace with approaches to public spaces. They emphasize the necessity of universality and commonality of universal

design as a concept in public places; on the other hand workplace generally targets specific users (employees). According to Nitnai and colleagues, workplace's quality of accommodation can be enhanced by personal, on-site, case-by-case measures like mutual considerations and informal arrangements among workers. They mention that many physical aspects of the workplace like workstations, seat height, lighting, air conditioning and layouts of elements can be planned in the universal manner as relatively flexible and adaptable to the needs or preferences of individual workers. For Nitnai and colleagues, with these features of workplace universal design, not only the collective needs of a group considered but also remained sensitive to the individual needs.

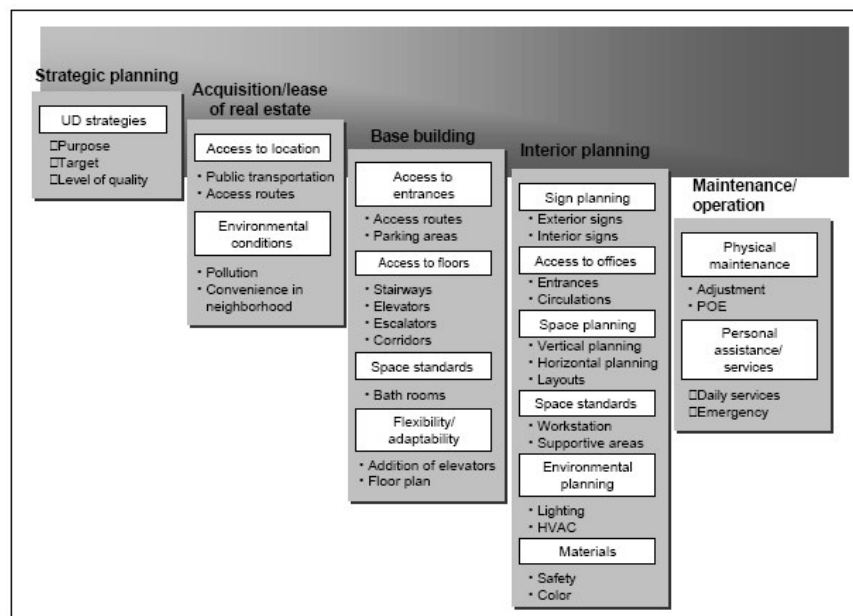


**Figure 4.5:** Workflow to develop universal design guidelines (CFS: Critical success factors) (Nitnai et al, 2003, p.4).

Nitnai and colleagues (2003, p.5) define some phases for the successful workplace accommodation in the *Figure 4.5* as;

- Strategic planning,
- Acquisition/lease of real estate
- Base building
- Interior planning
- Maintenance/operation.

Nitanai and colleagues (2003, pp.4-5) defines strategic planning phase that covers improving the value of assets, reducing life cycle costs of a building, increasing productivity, accommodating diverse employees, embodying a corporate ideology, etc Acquisition of real estate phase encloses two major critical factors as access to location and environmental conditions. Especially for the people with mobility difficulties for accessing to location it is significant to consider distance, safety and intelligibility of routes between a site and public transportation stops in the neighbourhood and for car commuters' easy vehicular access from surrounding streets to the site. Environmental conditions like contamination of toxic substances, air pollution, noise and vibration, the convenience of the neighbourhood should be taken into account (Nitanai et al, 2003, pp.4-5).



**Figure 4 6:** Critical success factors (CFS) (Nitanai et al, 2003, p.4).

Nitanai and colleagues (2003, pp.5-6) determine base building planning phase as the essential components of a building that are difficult to alter later like configuration, structure and building core. For them especially in this phase applying universal design approaches is significant for having financial advantage. For the probable changes in building and changes of accessibility regulations and de facto standards in the future, maximizing flexibility and adaptability of building is

significant. Nitnai and colleagues specifies the base building planning phase as;

- **Access to entrances:** *Parking areas, walkways, and vehicular ways within a site should be made safe, accessible, and easy to understand for both employees and guests.*
- **Access to floors:** *Interior accessible routes, including stairways, elevators, escalators, and corridors, should be provided from the entrances to each floor. Thoughtful planning of signs, zoning, and way-finding can enhance ease of access. In addition, it is crucial to carefully plan evacuation routes so that they are effective even for people with mobility and sensory impairments.*
- **Space standards:** *It is difficult to change size and shape of spaces associated with a building core. In particular, bathrooms must be made usable for elderly people and those with physical disabilities.*
- **Flexibility and adaptability:** *Flexibility and adaptability of a building should be maximized as much as possible to allow for future changes of building use and/or legal requirements.*

Nitnai and colleagues (2003, p.6) indicate the interior planning phase as the relatively easy to change and controllable for meeting the needs of a company, but the quality of this part has a great impact on workers as being the most immediate work environments to workers. Nitnai and colleagues specifies the interior planning phase as;

- **Sign planning:** *Signs should be easy to understand for both guests and employees. Simple, intuitive, and perceptible signs are necessary to provide accessibility to people with visual and hearing impairments and foreigners who do not use the common language.*
- **Access to office space:** *To increase accessibility from building core to office spaces, attention should be paid to circulation, entrances, and signs.*
- **Space planning:** *The overall configuration of a workplace strongly affects accessibility and usability for workers. The most effective vertical and horizontal distribution of departments and functions, as well as office layouts within a floor, should be pursued along with consideration of the appropriate size of areas and costs.*
- **Space standards:** *Workstation setting strongly affects usability and comfort for individual workers. It is preferable to adopt workstations highly adaptable to the need and preference of individuals and to configure those workstations in ways that will allow for flexible arrangement. It is also important to appropriately arrange common areas, such as business support areas (e.g. meeting rooms, reception rooms), information management areas (e.g., OA rooms, libraries, storage), and amenity areas (e.g., refreshment areas, cafeteria, gymnasium).*

- **Environmental planning:** *Since each person differently perceives the degree of illumination or temperature, it is important to provide appropriate lighting and air conditioning systems that allow for flexibility and ease of maintenance. Perceptibility can be heightened by finishing materials and color schemes for walls, floors, and ceilings, and combination of lighting with signs. This is particularly helpful for people who have low vision.*
- **Materials:** *Finishing materials contaminated by toxic substances, such as formaldehyde and mold, can cause allergies, so-called “sick building syndrome,” and other serious health problems. Such health problems must be prevented by eliminating contaminated finishing materials and improving the quality of air conditioning (Nitanai, 2003, p.6-7).*

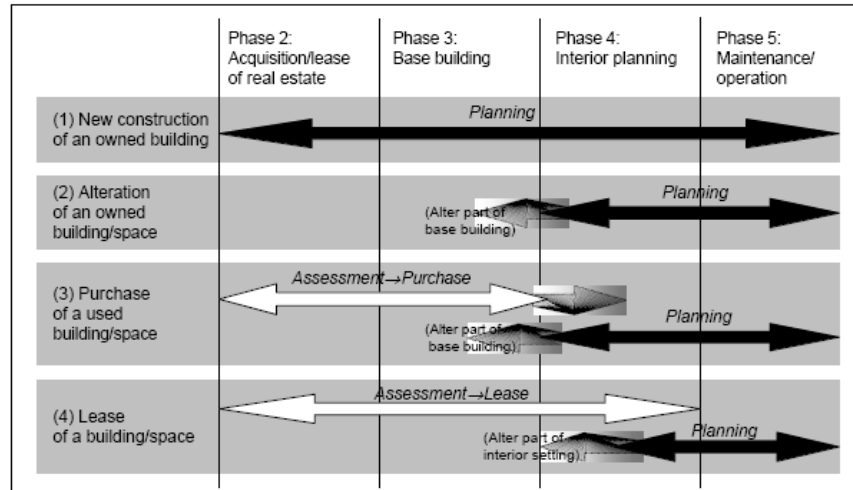
Nitanai and colleagues (2003, p.7) define another phase as daily maintenance and operation of physical and personal aspects and illustrate as;

- **Physical maintenance:** *After starting operation, interior settings, including both workstations and common areas, should be continuously reviewed and, if necessary, modified to increase user satisfaction. Periodic post-occupancy evaluation is an effective way to find problems that need resolution.*
- **Personal assistance and services:** *In many workplaces, informal arrangements and rules to help one another are made among workers. It is particularly important to establish explicit emergency manuals and regularly conduct evacuation drills so that workers with mobility and/or sensory impairments or those with language difficulty can know how to properly respond to an emergency. Daily services and assistance should also be provided in multiple modes. In addition to conventional personal assistance, use of the Internet and/or intranet is an effective way to increase inclusive communication among workers with differing abilities.*

Nitanai and colleagues (2003, p.7) categorizes the building types for universally accessible and usable workplaces as;

- New construction of an owned building,
- Alteration of an existing owned building or space,
- Purchase and alteration of a used building or space,
- Lease of a building or space.

After categorizing the types of buildings, Nitnai and colleagues (2003, p.8) combine them with the phases of critical success factors for workplace accommodation as below in the *figure 4.7*.



**Figure 4 7:** Use of critical success factors by the type of projects (Nitanai et al, 2003, p.8)



## 4.6 Principles of Inclusive Workplace Accommodation

For setting the principles of Inclusive Workplace Accommodation, determining the factors that affect the employees with disabilities in and out the workplace is important. Factors of workplace accommodation can be classified as follows;

- Management,
- Transportation to work,
- Location of workplace (approach to building),
- Entrances,
- Routes,
- Workspaces,
- Loading,
- Health & Welfare,
- Emergencies,
- Relaxation,
- Services

### 4.6.1 Management

A Total Quality Management (TQM)<sup>97</sup> approach supported by mutually interactive and related system is needed for an inclusive workplace. Especially in Turkey, management is significant; most of the public buildings have elevator and WC for people with disabilities but maintenance of these facilities becomes a problem. Mostly elevators are in failure and WC's are locked, not appropriately designed or not in service because of bad management.

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<sup>97</sup> *TQM covers structure, systems and management (commitment, responsibility, leadership, involvement, objectives, plans, values, attitudes, behaviour, environment, performance, monitoring and review) in an environment of open communication and accessibility. It also covers a social framework (recruitment, employment, training, teamwork, health & safety, insurance and training) plus individual respect and recognition (EF, 1999, part 3, slide 13).*

#### **4.6.2 Transportation to work:**



Away from place of the workplace, the problem of the daily home-to-work journey can prove a greater barrier to accessibility than the workplace itself (EF, 1999, part 3, slide 3).

#### **4.6.3 Location of workplace (approach to building):**

##### **4.6.3.1 Arrival and departure**

Beginning from the end-point of the public transport system or the car park to the entrance/exit of the building, every detail needs attention.



Provide easy and direct access to the building and its facilities (MOPD, 2001, p.29; Levine, 2003, p.23).



Provide clear, accessible approach paths or routes; free of obstructions, level, kerbless, and with changes in tactile surfaces (EF, 1999, part 7, slide 5; MOPD, 2001, p.29).



Avoid obstructions and hazards that intrude into the path of travel (e.g. drainage grates, signs, overhanging trees, manholes, light fixtures or benches) (EF, 1999, part 7, slide 5; MOPD, 2001, p.30; Levine, 2003, p.24).



Avoid slip surfaces; they should be smooth, firm and continuous (EF, 1999, part 7, slide 5; MOPD, 2001, p.30).



Potentially hazardous stairs, ramps and transitions marked with contrasting colours, textures or materials to alert users (1999, part 7, slide 5; MOPD, 2001, p.31; Levine, 2003, p.23).



Locate seating and rest stops at intervals out of the circulation path (MOPD, 2001, p.30; Levine, 2003, p.23).



Edges of pathways defined with curbs, contrasting textures or other means (MOPD, 2001, p.30; Levine, 2003, p.23).



Avoid irregular textures, ridges, rough or uneven traveling surfaces and those that have large or protruding joints (MOPD, 2001, p.30; Levine, 2003, p.24)



Width of the path based on the expected volume and direction. A cross slope of 2% is recommended (MOPD, 2001, p.30; Levine, 2003, p.23).



Major access routes should not exceed a 5% slope. Any steeper segments should be designed as ramps (MOPD, 2001, p.30).



Where steep grade, difficult surfaces or obstacles exist on challenging recreation trails, provide information for the user who is not familiar with the trail (MOPD, 2001, p.30).



All pathways accessible unless there are alternative pathways (to users who are easily fatigued) that begin and end in the same location (MOPD, 2001, p.30; Levine, 2003, p.23)



Separate pedestrian, vehicular and bicycle/skating pathways with clearly marked boundaries (Levine, 2003, p.23)



Emergency communications equipment at strategic locations wherever potential security or safety threats may exist (Levine, 2003, p.23)



Video surveillance as a deterrent in dangerous areas (Levine, 2003, p.23)



Lighting along pathways reflected downward onto the path without creating hot spots or glare (Levine, 2003, p.23).



Avoid highly reflective surfaces (Levine, 2003, p.24)

#### 4.6.3.2 Car parking

Car parking should be located near the workplace entrance, to keep the route as short as possible (EF, 1999, part 7, slide 5).



For avoiding misappropriation; provide adequate, dedicated, clearly marked spaces (EF, 1999, part 7, slide 5).



If the weather is extreme cold and/or hot, special climate provision may be required (EF, 1999, part 7, slide 5).



Parking areas should be wide enough for carrying, loading and unloading wheelchairs (EF, 1999, part 7, slide 5).



Emergency phones at large parking facilities (Levine, 2003, p.77)



Alternate parking area for buses, RV's and other larger vehicles (Levine, 2003, p.77)



Adequate lighting in all parking areas and at passenger loading zones (Levine, 2003, p.77)



Routes from accessible parking do not pass behind parked vehicles (Levine, 2003, p.77)



In large parking facilities, colour coded zones with easy to remember locator identifiers such as names identified on prominently displayed signs in that area (Levine, 2003, p.77)



Pedestrian pathway indicators (including signs, crosswalks, planters, bollards, etc.) that identify (Levine, 2003, p.77)

## 4.6.4 Entrances and exits

### 4.6.4.1 Finding the building



Use distinctive exterior design features on or near the entrance of a building to make the building easy to distinguish from other nearby buildings (MOPD, 2001, p.37). Landmarks such as canopies, plazas, columns, fountains, flagpoles, statues, etc. that add identifiable features to buildings (Levine, 2003, p.42)



Distinctive exterior design features should involve more than one sense (e.g., employ visual, informational and tactile properties as detection devices) to provide the flexibility necessary to accommodate a range of individual preferences and abilities (MOPD, 2001, p.37).



Establish a circulation system that provides a direct path of travel to all facilities and is identifiable, understood and usable to everyone (Levine, 2003, p.41)



Provide a comprehensive sign system that includes directories, maps, and graphics to assist in finding destinations (Levine, 2003, p.42).



Include key landmarks in the site or building design (Levine, 2003, p.42).



Signs at major vehicular entrances those are simple, functional and readable at distances and speeds of moving vehicles (Levine, 2003, p.42).



Immediate and easily detectable information center provided at prominent site entry points and other decision making areas (Levine, 2003, p.42).



Talking Signs® that help provide directions and identify objects for people who are visually impaired (Levine, 2003, p.42).



Orientation maps for motorists, pedestrians and bicyclists at major intersections (Levine, 2003, p.42)



Building names and logos in large size mounted in locations where they can be easily seen from primary vehicular and pedestrian access routes (Levine, 2003, p.42)

#### **4.6.4.2 Identifying the entrance or exit**



All public entrances recognizable to all types of users regardless of their abilities (MOPD, 2001, p.38; Levine, 2003, p.44)



Provide perceptible multi-sensory cues (e.g., visual, informational and tactile design properties) to help the person tell the difference between entrance and exit doors (MOPD, 2001, p.38).



Entrances clearly distinguishable for both people arriving by foot or automobile (Levine, 2003, p.44)



Directional signage that guides users towards entrances and exits (Levine, 2003, p.44)



Higher than normal lighting levels at entrances to make it easier for users to identify points of entry and to enhance safety (Levine, 2003, p.44)



Materials color and form to differentiate the entrance from the rest of the building (Levine, 2003, p.44)



Different roof line above entrance to create a hierarchy among the parts of the building (Levine, 2003, p.44)



Clear visual access to building entrances from points of site entry (Levine, 2003, p.44)



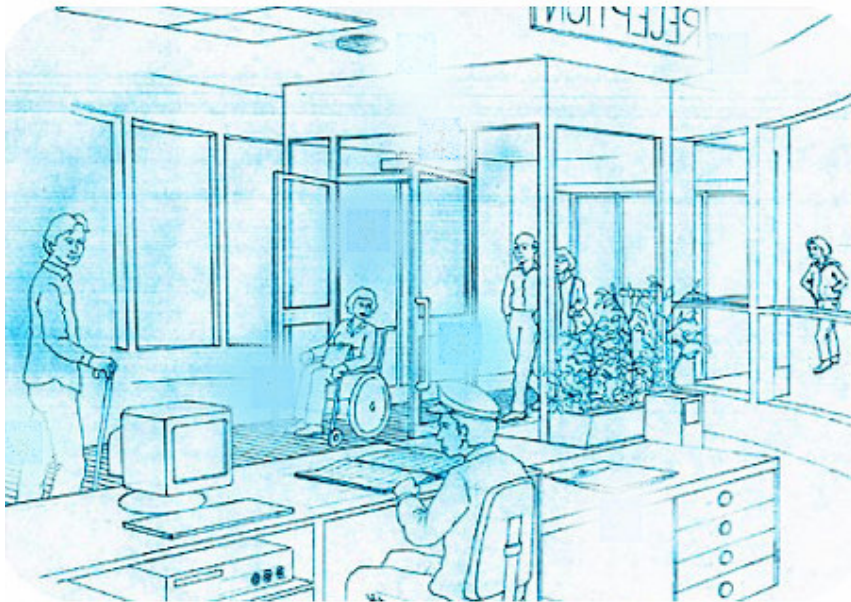
Alternative glazing applications that make entrances distinguishable when glass panels are used on the building facade (Levine, 2003, p.44)



Non-reflective glass and other surfaces to prevent them from becoming a source of glare (Levine, 2003, p.44)



Paving, plant material, and other site elements that can be used to guide pedestrians (Levine, 2003, p.44)



**Figure 4 8:** Entrance of the building (EF, 1999, part 7, slide 7).

#### 4.6.4.3 Approaching the entrance or exit



A primary path of travel to the entrance or exit should be provided that is readily perceptible by workers and anyone, which is free of level changes and obstructions that could impede access or make access

hazardous (MOPD, 2001, p.38; Levine, 2003, p.46). These provisions should be followed throughout the building, and not merely on a few special routes. There should be a choice of routes to cloakrooms, changing rooms, toilets and workstations (EF, 1999, part 7, slide 8).



Multiple paths of travel leading away from the entrance or exit may be needed when there are unavoidable grade changes or limited space, especially in adaptive, re-use or historic preservation projects. Each path should be convenient and secure (for width, obstructions, surfaces, colours, signs, lighting and other features) (EF, 1999, part 7, slide 8; MOPD, 2001, pp.38, 41).



Where grade changes must occur along the primary path of travel leading to an entrance or exit, provide travel surfaces with minimal slopes (not greater than 1:20) to ensure efficient and comfortable use by everyone and to minimize the need for handrails (MOPD, 2001, pp.39, 41; Levine, 2003, p.46).



Provide redundant multi-sensory cues (for finding easily) that can serve as indicators to alert people that they are getting close to the entrance or exit (e.g., pedestrian or vehicular traffic, grade changes) (MOPD, 2001, p.39, 41; EF, 1999, part 7, slide 8; CAP, 1998, p.7).



Provide landmarks that can provide anyone with orientation and way finding cues as they move away from the entrance and exit (MOPD, 2001, p.41).



Provide areas adjacent (but out of the path of travel) to the entrance and exit that can permit people with a wide range of preferences and abilities to pause, rest, wait for others or simply congregate (MOPD, 2001, p.39, 41; Levine, 2003, p.46).



Provide protection from inclement weather as well as intense light and heat changes at the entrance and exit to allow the person's senses to



adjust to the contrasting indoor and outdoor conditions (MOPD, 2001, p.39, 42).



Enable all users to approach entrances or exits with clearly perceptible spatial organization (Levine, 2003, p.46)



Make facilities manageable and safe to both pedestrian and vehicular traffic (Levine, 2003, p.46).



Smooth, paved pedestrian pathways approaching all buildings to support easy movement (Levine, 2003, p.46)



Pathways free of overhanging trees, bushes, debris, and other temporary barriers that impede people from using them (Levine, 2003, p.46)



Surfaces that are slip-resistant and prevent water from accumulating (Levine, 2003, p.46)



Tactile guide strips that have raised markers indicating a safe path of travel (Levine, 2003, p.46)



Heated walkways that eliminate slipping hazards (Levine, 2003, p.46)



Adequate illumination along all pathways and stairs that prevent accidents after dark (Levine, 2003, p.46)



In large buildings, at least two doors designated as either "entry" or "exit" for traffic travelling in opposite directions (Levine, 2003, p.46)

#### 4.6.4.4

#### Manoeuvring through the entrance or exit



Entrance doors should operate automatically and safely without thresholds (replaced by low ramps) preferably as inward swinging doors; accommodate people whose hands or arms are

otherwise occupied (e.g., an adult holding a children or packages) (Levine, 2003, p.49, 176; MOPD, 2001, p.39; EF, 1999, part 7, slide 8; CAP, 1998, p.7).



The controls of automated doors should accommodate differing speeds and styles of movement through the doorway (MOPD, 2001, p.39; EF, 1999, part 7, slide 8; CAP, 1998, p.7).



Provide adequate clearances for approach and continuous pass-through for all users (e.g., a person traveling with luggage, be of ample width for wheelchairs) (CAP, 1998, p.7; EF, 1999, part 7, slide 8; MOPD, 2001, p.39; Levine, 2003, p.49).



Push-type, lever, or U-shaped handles that can be operated easily by someone with poor hand strength (MOPD, 2001, p.40; Levine, 2003, p.49)



Latch side clearance should be provided at all swinging doors that open toward a person to provide space to move out of the way of the door's swing (MOPD, 2001, p.40).



Lightweight doors that can be opened and closed with very little force (MOPD, 2001, p.40; Levine, 2003, p.49)



Entrance/exit doors should not close rapidly or with much force to ensure the safety of people who travel at slower speeds or employ differing styles of movement (e.g., a person pushing a shopping cart) (MOPD, 2001, p.40; EF, 1999, part 7, slide 8).



Entrance and exit doors that are access or departure control points in buildings should be designed to ensure through passage by anyone (e.g., a person pushing a stroller) (MOPD, 2001, p.40).



Broad entrance and exit areas should have recommended paths of travel that are readily identifiable and easily negotiated by

everyone regardless of ability (MOPD, 2001, p.40; EF, 1999, part 7, slide 8; CAP, 1998, p.7).



When entrance or exit doors are provided for use specifically for persons of differing abilities, they need to be detectable, identifiable and usable by everyone (MOPD, 2001, p.40; EF, 1999, part 7, slide 8; CAP, 1998, p.7).



When faced with a sequence of entry or exit doors (e.g., a vestibule condition), the doors need to be far enough apart and easily operable to enable anyone to proceed through them (e.g., a person escorted by a pet) (MOPD, 2001, p.40; EF, 1999, part 7, slide 8; CAP, 1998, p.7).



Glass vision panels must be at right height for wheelchair users, short, children etc and large glass panels have to be clearly marked (use tempered glass with decals at face height), so as to be easily seen, including by visually impaired workers (CAP, 1998, p.7; EF, 1999, part 7, slide 8; Levine, 2003, p.49).



Careful planning may reduce the number of doors needed, but they should all be clearly signed, contrastingly painted, well lit and with easy-to operate handles, knobs, latches, levers, push-bars, U-shaped pull handles, buttons or swipes (EF, 1999, part 7, slide 8; CAP, 1998, p.7).



Doors should not open straight on to corridors and should be fitted with alarm release closers. Never use revolving doors or turnstiles by themselves (EF, 1999, part 7, slide 8).



Glazing in doors to see people approaching from the other side (Levine, 2003, p.49)



Metal kick plate installed on the bottom of the door that prevents scratches and other abrasions by users employing wheeled devices (CAP, 1998, p.7; Levine, 2003, p.49)

#### 4.6.4.5 Departing the entrance and exit areas



Locate means of egress where they are detectable and usable from all locations in the building (Levine, 2003, p.52)



Design configuration of exits should enhance users' orientation, prevent expected congestions and enhance the safety of user groups, particularly during emergency situations (Levine, 2003, p.52).



All the entrances designed to be usable for both normal and emergency egress situations (Levine, 2003, p.52)



Pathway lighting system used exclusively during emergency that guide users to exits or to the nearest area of rescue (Levine, 2003, p.52)



Clearly detectable audible messaging system that convey directional information (Levine, 2003, p.52)



Human assistance and evacuation plans in place for people unable to navigate independently (Levine, 2003, p.52)



Multi-sensory indicators that help detect the exits of a building (Levine, 2003, p.52)



All automatic doors with a fail-safe mode so that when power fails, they still can be used to exit (Levine, 2003, p.52)

#### 4.6.5 Routes

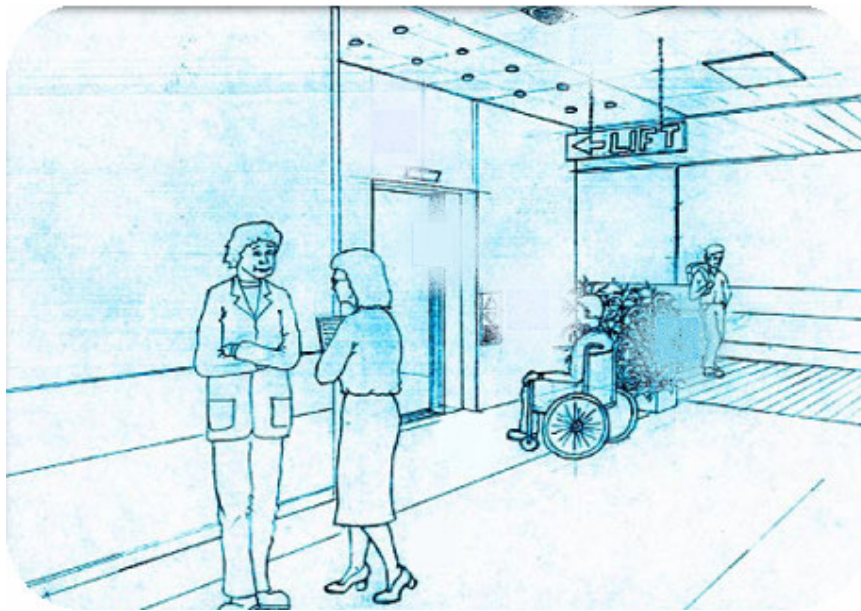
To make it easier to reach the work area and move around freely and safely;



Provide ramps with slip-resistant surfaces and handrails as an alternative to steps; mark level changes with flush contrasting visual and tactile floor strips, (CAP, 1998, p.7)



There should be ample clear floor/paving surfaces to enable safe and obvious use (EF, 1999, part 7, slide 8).



**Figure 4 9:** Movement in the building (EF, 1999, part 7, slide 10).

##### 4.6.5.1 Movement



Design solutions to barrier-free movement within workspaces need managing for their full potential to be achieved (EF, 1999, part 7, slide 11).



Someone has to be responsible for ensuring that wheelchair-user

WCs, for instance, do not become storage for furniture, materials, packages, containers etc., where safety and ease-of-use become issues (EF, 1999, part 7, slide 11).

#### 4.6.5.2 Passages and corridors

Inside circulation of the workplace should be convenient, safe and continuous.



Corridors should be wide enough for two people (whether standing or sitting), to pass each other while travelling in opposite directions, and threshold-free, for workers with disabilities, as well as wheeled goods/machinery, to pass - but not too wide as to disorientate those with visual impairments (CAP, 1998, p.7; EF, 1999, part 7, slide 11; MOPD, 2001, p.34; Levine, 2003, p.32).



Use audio and visual markers, signs, and other information devices (floor texture (non-slip) finishes) to facilitate way finding (e.g. corridor crossings / space changes etc) (EF, 1999, part 7, slide 11; MOPD, 2001, p.34; Levine, 2003, p.32).



Avoid side or overhead objects (e.g., signs, fire extinguishers, drinking fountains, etc.) that protrude into the circulation space (CAP, 1998, p.7; MOPD, 2001, p.34).



Avoid carpet and underlayment that could pose a tripping hazard or impede travel for people using wheeled mobility devices (MOPD, 2001, p.34).



Evenly illuminate all hallways and corridors. Gradual transitions from dark to bright spaces, especially those that have high levels of natural illumination (EF, 1999, part 7, slide 11; MOPD, 2001, p.34; Levine, 2003, p.32)



Provide comfortable and easy movement throughout the building (Levine, 2003, p.32). Minimize distances between entrance, work area, restrooms, office equipment, and other common facilities; relocate if feasible, (CAP, 1998, p.7)



Significant changes in level should have stairlift devices available (EF, 1999, part 7, slide 11).



Restricted-height passageways should be protectively screened (EF, 1999, part 7, slide 11).



Guide rails should be easy to hold and provided on both sides of the stairs (EF, 1999, part 7, slide 11).



Ramps and stairs need good acoustics (with sound absorbents) so that those with hearing disability can communicate when using them (EF, 1999, part 7, slide 11).



Stairways kept out of the direct path of travel (Levine, 2003, p.32)



Ramps running in the direction of normal travel (Levine, 2003, p.32)

#### **4.6.5.3 Ramps and steps**

Ramps, stairs, steps and handrails should be designed and constructed in a manner that everybody can use them safely (MOPD, 2001, p.32).



Approach ramps, slopes and steps should have appropriate gradient/pitch, width, landings, rails and lighting, and should be clearly signed (EF, 1999, part 7, slide 5).



Weather conditions may require them to be non-slip, heated (embedded low-voltage cables) and/or covered for safety in use (used as signposts for visually impaired workers) (EF, 1999, part 7, slide 5).



Steps should avoid open risers, be well lit and with clearly marked nosing throughout (EF, 1999, part 7, slide 5).



Ramps should be wide enough to accommodate the expected pedestrian flow, with handrails (heated if necessary) at the right height, and wheel guards for safety (EF, 1999, part 7, slide 5; MOPD, 2001, p.32; Levine, 2003, p.30).



Handrails, on both sides, need to be continuous, firmly fixed, clearly visible, warm and holdable (EF, 1999, part 7, slide 5; MOPD, 2001, p.33). Drainage grids should be set clear of useable areas (EF, 1999, part 7, slide 5).



Provide ramps and stairs at grade changes. Where ramps are short and the slope is less than 6.5%, the ramp alone is sufficient (MOPD, 2001, p.32).



Design ramps for all to use rather than as special accommodations for wheelchair users (MOPD, 2001, p.33).



If ramps are long, provide level resting platforms (e.g., seating) periodically (MOPD, 2001, p.33).



Provide no more than ten risers on stairways between landings (MOPD, 2001, p.33; Levine, 2003, p.30).



Use non-slip (without impeding the mobility of wheelchairs, strollers and other wheeled devices) and non-glare surfaces and edges (MOPD, 2001, p.33; Levine, 2003, p.30).





Avoid winders and single, double and curved steps. These features are hazardous to everyone (MOPD, 2001, p.33).



Treads on stairways no deeper than 14 inches (355 mm) and risers between 4 inches (100 mm) and 7 inches (180 mm) high (MOPD, 2001, p.33; Levine, 2003, p.30)



Provide handrail extensions at the top and bottom of stairs and ramps to help people identify the change in grade and make the necessary adjustments in gait (MOPD, 2001, p.33). Tactile indicators on railings like grooves or bumps to mark the beginning and end of a stairway, changes in direction or location of specific facilities (Levine, 2003, p.30)



Handrail extensions should be turned down or returned to the wall for protection (MOPD, 2001, p.33).



Wall surfaces adjacent to handrails should be non-abrasive (MOPD, 2001, p.33).



Provide multi-sensory indicators to identify the beginning and end of a set of stairs, a change in direction, or the location of facilities (MOPD, 2001, p.33).



Ramps and stairs should be marked and lighted evenly throughout their length (MOPD, 2001, p.33).



Illuminate travel (e.g., handrails, treads and walking) surfaces with low lighting to reduce strong shadows (MOPD, 2001, p.33; Levine, 2003, p.30).



Mark and secure the underside of freestanding stairs to prevent users from inadvertently moving underneath (MOPD, 2001, p.33).



Where stairs are provided, they should be as safe as possible for all

people who may choose to use them (Levine, 2003, p.30).



Ramps with a less than 1:12 slope, which are more manageable (Levine, 2003, p.30)

#### **4.6.5.4 Mechanical circulation systems**

Mechanical devices are used extensively in multi-story buildings and they are a major item of vertical communication especially for workers with disabilities.



Plan mechanical circulation systems so that the people who use them are not inconvenienced or unduly separated from the main pattern of building use (MOPD, 2001, p.35).



The location and the physical characteristics of lobbies, car and platform interiors, call buttons and control panels should support the usability of mechanical circulation systems (Levine, 2003, p.27).



Limit the use of platform lifts to provide access to existing buildings where it is not feasible to install ramps (Levine, 2003, p.27).

#### ***Elevators***



Elevator lobby within short distance from main building entrance and other main function facilities (Levine, 2003, p.27)



Lifts should be clearly signposted, well lit, and with ample auditory and visual indicators (high contrast signs and labels) of floors (inside) and arrival (outside) (EF, 1999, part 7, slide 11; MOPD, 2001, p.35.).



Lift doors should be automatic sliding with ample widths and a level entrance (EF, 1999, part 7, slide 11).



Lifts should be sited away from flights of stairs and be adequately timed for opening and closing (EF, 1999, part 7, slide 11).



Clear floor area of the lobby wide enough to allow people to assemble and gather prior to entry without obstructing the circulation flow (EF, 1999, part 7, slide 11; MOPD, 2001, p.35; Levine, 2003, p.27)



Clear floor surface of the landing area wide enough for all users to approach and use from a forward or a parallel direction (EF, 1999, part 7, slide 11; MOPD, 2001, p.35; Levine, 2003, p.27)



Clear floor surface of the elevator car allows people who use wheelchairs, push strollers or pull wheeled luggage to make a 180 degree turn (EF, 1999, part 7, slide 11; MOPD, 2001; Levine, 2003, p.27)



Standard telephone keypad layout to "dial up" the floor desired (Levine, 2003, p.27)



Contrasts between objects (e.g. doorway frames, calling buttons, faceplate, key numbering) and their backgrounds or their adjacent environments (e.g., using complementary coloured backgrounds to enhance the colour tenacity phenomenon) (Levine, 2003, p.27)



Voice synthesis or recorded announcements to describe the floor reached and its contents, where applicable (MOPD, 2001, p.35; Levine, 2003, p.27)



Operable parts of all calling buttons and control panels between 35 inches (890 mm) and 48 inches (1220 mm) to serve all users (EF, 1999, part 7, slide 11; Levine, 2003, p.28)

### ***Platform Lifts***



Ensure that power to lifts will not be inadvertently turned off (Levine, 2003, p.29)



Lifts that have a manual override to both raise and lower the platform if it malfunctions (Levine, 2003, p.29)



Lifts located under overhangs or other climate protected areas for outdoor placement (Levine, 2003, p.29)

### *Escalators and Moving Walkways*



Provide escalators and moving walkways to move large numbers of people quickly and overcome long distances (MOPD, 2001, p.34; Levine, 2003, p.27).



Provide detectable floor surface changes at approaches to escalators and moving pedestrian pathways or keep them out of the direct path of travel (MOPD, 2001, p.35).



Moving pedestrian pathways should be wide enough and safe for use by all people whether standing or sitting (MOPD, 2001, p.35).



Elevators in proximity to escalators where they are provided (Levine, 2003, p.29)



Moving walkways that allow use in a wheeled mobility device (Levine, 2003, p.29)



Inclined moving walkways as alternatives to escalators (Levine, 2003, p.29)

## 4.6.6 Workspaces

### 4.6.6.1 General features

#### *Flexibility*



A well-designed workspace should enable a flexible response to changes in production demands, as well as foster movement, encounters, communications, and the formation of workgroups. For example, pictograms can be more readable than written language signs (EF, 1999, part 7, slide 14).



Devices, other than walls and signs, can be used as spatial indicators and information communicators. Landscaping, and other patterns and textures, can provide soft boundaries to spaces and to guide people through the building (EF, 1999, part 7, slide 14).



Differences in floor level should be avoided (EF, 1999, part 7, slide 14).



Provide approach space (CAP, 1998, p.17).

#### *Windows:*



Windows should be positioned to enable both seated and standing people to see out - avoiding transoms at or near the eye level of wheelchair users (EF, 1999, part 7, slide 14).



Opening and closing devices, both manual and automatic, need to work easily and have controls reachable from a wheelchair (side hung windows may be the easiest to manipulate) (EF, 1999, part 7, slide 14).



Blinds, to control light or glare, need similar treatment (EF, 1999, part 7, slide 14).



Windows must not open out, as potential hazards, on to routes (EF, 1999, part 7, slide 14).

### ***Worktop heights and slopes:***



Fixed surfaces need to be at the correct height - particularly for wheelchair users. This requirement applies to enquiry and service counters, benches, and window chills (EF, 1999, part 7, slide 14).



Adjustable work surface heights, angle, increased depth, space underneath work surfaces, and larger floor space to maneuver in cubicles or offices (CAP, 1998, p.17; EF, 1999, part 7, slide 14; Levine, 2003, p.176)



The height for controls, light switches, coat racks, telephones, sink units etc., also needs to be appropriate for all users (EF, 1999, part 7, slide 14; Levine, 2003, p.176).

### ***Finishes:***



The texture, hardness and colour of surfaces, especially floors, can carry symbolic and tactile information and should be used imaginatively for this purpose - but avoid confusion (EF, 1999, part 7, slide 14).



However, such finishes also need to be allergen-free, non-slip, cleanable, wear-resistant, glare-free (reflections can be misleading) and dust-inhibiting - among other things (EF, 1999, part 7, slide 14).

### ***Fixed Partitions and doors***



Reduce the need to make future renovations for employees with disabilities, including those who have limitations of stamina (Levine, 2003, p.176)



Provide flexibility to accommodate trends in wheeled mobility devices evolving and other predictable advances in technology (Levine, 2003, p.176)



Extra space planned within each office workspace to allow accommodations for people who may need to use wheeled mobility devices, including scooters (Levine, 2003, p.176)

### ***Grab bars and guide rails***



Grab bars and guide rails should be at the right heights for all (wheelchair and other users) and should project beyond the beginning and end of the space for which they are provided - (e.g. staircases, toilets etc.) (EF, 1999, part 7, slide 17)



Their diameter of grab bars and guide rails should be neither too small nor too large for a firm grip and they should be made of strong materials with firm fixings and brackets (EF, 1999, part 7, slide 17).



Guard rails of sufficient real and 'psychological' robustness are needed at high points (atrium balconies, towers) to reassure those suffering from vertigo (EF, 1999, part 7, slide 17).

### **4.6.6.2 Storage**



Store materials so that labels face you; add instructions, symbols or colour coding if necessary (example; mark location of printer on toner cartons) (CAP, 1998, p.13),



Avoid lips on edges of shelves and sticky or very rough shelf surfaces to make sliding of materials easier; add shelf liners if necessary, (CAP, 1998, p.13).



**Figure 4 10:** Workspace (CAP, 1998, p.6)



Design storage and materials flow to support job performance by people of varying statures and abilities. Where feasible, automated materials retrieval systems to bring materials close to the employee (CAP, 1998, p.13; MOPD, 2001, p.98; Levine, 2003, p.184)



Design the work environment to reduce lifting and carrying to a minimum (CAP, 1998, p.13; Levine, 2003, p.184).



Locate materials needed during work nearby to minimize trips between work stations and storage areas (CAP, 1998, p.13; Levine, 2003, p.184).



Work environment organized to minimize the frequency that materials have to be moved from storage to workstations (Levine, 2003, p.183; MOPD, 2001, p.98)





Need for redundant handling of materials, including paperwork, minimized (Levine, 2003, p.183; MOPD, 2001, p.98)



Decentralization of supplies balanced with the need to control access to them (Levine, 2003, p.184)



Complimentary materials stored near the point of use, (e.g. toner and copy paper near the copy machine) (CAP, 1998, p.13; Levine, 2003, p.183)



Storage containers that provide the option of carrying, pushing, pulling, or rolling (CAP, 1998, p.13; MOPD, 2001, p.98; Levine, 2003, p.184) Rolling carts to distribute or move commonly used office materials (Levine, 2003, p.184)



Materials that everyone needs located in the comfort range of 24 inches (610 mm) and 48 inches (1220 mm) above the floor (CAP, 1998, p.13; Levine, 2003, p.184)



Options for handling heavy, fragile or awkward objects and materials (e.g. large boxes of paper and computer monitors) or an office policy that requires more than one employee to move such items (CAP, 1998, p.13; Levine, 2003, p.184)



Provide clearance from work surface to underside of shelves and cabinets (CAP, 1998, p.17)

#### **4.6.6.3 Seating**

*Sitting is generally less strenuous than standing, and allows easier control over hand and body movements. It is not surprising that the sitting workstation is the most common (MOPD, 2001, p.100).* Workstations that accommodate both standing and seated positions, also referred to as "sit-stand" workstations used wherever possible. While the physical characteristics of a workstation will depend largely on

the tasks that are to be performed, sit-stand workstations provide a common baseline for workstation design (Levine, 2003, p.190)



Use sitting workstations to facilitate hand movement accuracy when smaller hand manipulation forces are required and when less area needs to be covered by the employee (MOPD, 2001, p.100).



Support good posture to reduce back and neck injuries (CAP, 1998, p.15; Levine, 2003, p.190).



Provide support to reduce repetitive motion injuries (CAP, 1998, p.15; Levine, 2003, p.190)



Provide work and seating surfaces that can be adjusted to suit the needs of people who have different statures (CAP, 1998, p.15; Levine, 2003, p.190)



Height adjustable work surface between 28 inches (715 mm) and 32 inches (815 mm), with frequently used items stored within 24 inches (610 mm) and 48 inches (1220 mm) and within 24 inch (610 mm) maximum of reach arc from the elbow (MOPD, 2001, p.101; Levine, 2003, p.189)



Adequate knee and toe clearance for wheelchair users under the work surface (MOPD, 2001, p.101; Levine, 2003, p.189)



Wheeled chair with adjustable height seat, reclining tilt function, lumbar support, adjustable arm rests and a high back to support neck and head (CAP, 1998, p.15; Levine, 2003, p.190)



Footrests to relieve stress on lower back and thighs (Levine, 2003, p.190)



"Direct glue-down" adhesive installation for carpeting to avoid potentially dangerous "zippering" or "creep", which is caused by

repeated chair movement in seated workstation areas (Levine, 2003, p.190)



Provide clearance between the chair seat surface and the underside of your work surface (CAP, 1998, p.17).



Round all edges and corners (CAP, 1998, p.17)

#### **4.6.6.4 Standing**

Several types of employees (e.g., retail checkers, ticket takers, fabricators, architects, and graphic designers) use standing workstations. Standing for long periods of time can be particularly straining to the back and legs; as a result, standing workstations often contain a sitting or resting option to reduce fatigue (MOPD, 2001, p.99).



Provide surfaces that can be adjusted to suit the needs of different heights and different uses (MOPD, 2001, p.100; Levine, 2003, p.188).



Provide opportunities for workers to periodically get relief from the stress of standing or sitting for long periods of time (MOPD, 2001, p.101; Levine, 2003, p.188).



Counter heights for standing work should be adjustable to fit a work force with a wide range of statures and visual abilities (MOPD, 2001, p.100; Levine, 2003, p.187).



Standing workstations instead of sitting workstations when heavy physical effort is required or the employee must supervise a larger work area (MOPD, 2001, p.100; Levine, 2003, p.187)



Adjustable stool or "perch" for leaning to temporarily reduce pressure on the lower back (CAP, 1998, p.17; Levine, 2003, p.187)



Objects or tasks at hand within normal view to minimize stooped postures that cause neck and back injuries (Levine, 2003, p.188)



Adequate knee and toe clearance beneath workstations and counters so that employees can be as close to the workstation as possible (MOPD, 2001, p.100; Levine, 2003, p.188)



Options for controlling all or some work related operations with feet as well as hands (Levine, 2003, p.188)



Avoidance of elevated platforms (MOPD, 2001, p.100; Levine, 2003, p.188)



Durable rubber floor matting to reduce muscle fatigue of the legs and backs for those who stand (MOPD, 2001, p.100; Levine, 2003, p.188)

#### **4.6.6.5 Computer displays, keyboard and mouse**

For workstations that contain computers and their accessories, special design considerations can be suggested (Levine, 2003, p.188). *Video display terminal (VDT) workstations hold a monitor, and usually a keyboard, mouse, trackball and/or other input device, and may also require room for a telephone, printer, and other office supplies. The space and furniture requirements of VDT workstations therefore have a unique set of design requirements (MOPD, 2001, p.101).*



Monitors should be positioned to reduce neck strain. Adjustable stands are desirable to accommodate people with different statures and needs (MOPD, 2001, p.101).



Footrests should be used to provide relief in the lower back and buttocks for those sitting in front of computer terminals (MOPD, 2001, p.102).



Ambient and natural light conditions should be designed to eliminate any glare or interference on the screen (CAP, 1998, p.19; MOPD, 2001, p.102).



Avoid using a “notebook” computer for prolonged periods (CAP, 1998, p.19).



Locate your source documents as close as possible to the monitor screen with clipping a document holder to the right or left side of the monitor or provide a height-adjustable document stand (CAP, 1998, p.19).



Locate your keyboard and mouse within easy reach; place the keyboard and mouse together on a platform, directly in front of you and directly beneath the monitor; provide adequate cabling to allow right or left mouse positioning. Install a padded, removable wrist and palm support as close as possible to keyboard and mouse, (CAP, 1998, p.21).



For avoiding input errors and excessive keystroke force due to unstable platform; if the keyboard/mouse platform is movable, it must be easy to pull out, push back, and lock securely into place. Height of the keyboard/mouse platform should allow your hands to rest lightly on keyboard or mouse with your forearms on the chair armrests (after you have adjusted your chair) (CAP, 1998, p.21).



Advantage of effort-saving software can be taken by alternating the use of keystroke equivalents for mouse movements, using adjustments for key input delay and key repeat, using macros and style sheets wherever possible (CAP, 1998, p.21).



Adjustable monitor arm and/or stand to bring monitor up to a position level with the eyes and within the visual range of the user (CAP, 1998, p.19; Levine, 2003, p.189)



Integrated data and electrical outlets, cable management systems and CPU support shelves to reduce the confusion and complexity of the work environment (MOPD, 2001, p.101; Levine, 2003, p.190).



Adjustable tilt on keyboard tray (MOPD, 2001, p.102; Levine, 2003, p.190)

#### 4.6.6.6 Telephones and other office equipment



Make sure electrical outlets are adequate and reachable;

Electrical equipment, no lower than 15” above floor, or provide extension cords or outlet strips when needed. Where outlets are within reach; use ground-fault interrupter (GFI) outlets (CAP, 1998, p.23).



Make equipment controls easier to use; place clear, simple labels or instructions next to controls. Contrast color, brightness, and texture of controls with background; add bright and/or tactile labels if needed (CAP, 1998, p.23),



If knobs are difficult to twist, add non-slip tape or replace with levers (ideally, all controls should be operable with a closed fist) (CAP, 1998, p.23),



Provide adequate lighting (without glare) on controls (CAP, 1998, p.23),



Locate equipment at a height and angle that allows operation with minimal bending, flexing, or twisting of arms, wrists, or hands (CAP, 1998, p.23),



Mix, automate, or change task sequence to minimize repetitive movements (CAP, 1998, p.23),



Allow maneuvering space or movement of the equipment to allow right- or left-hand operation (CAP, 1998, p.23),



Make telephones more comfortable to use; wall-mounted phones should be no higher than 48" above the floor, with room for a wheelchair to approach, and do not protrude into path of travel (CAP, 1998, p.23),



Allow sufficient cabling for desktop phone placement on the right or left side (CAP, 1998, p.23),



Desktop phones should be reachable without leaning and should be located opposite your dominant hand to allow writing while on the phone without cradling the handset between your neck and shoulder; if suitable for tasks and work area, use a speakerphone (CAP, 1998, p.23),



If headset is used, use lightest possible headset with adequate cabling for free movement without entanglement, or use wireless headset; locate desk unit to allow alternating between use of handset and headset (CAP, 1998, p.23).



If text telephone (TTY) is provided, post international TTY Symbol<sup>98</sup> (CAP, 1998, p.23).

#### 4.6.7 Loading

Excessive bending, reaching and lifting are a common cause of industrial injury - for workers with disabilities the effect can be particularly severe. Training should be provided so that these actions are done properly (EF, 1999, part 7, slide 17).





The differences in levels between standing and placing objects should be reduced - by adjusting floor, platform and shelf heights, or providing lifting devices, or by re-designing work operations (EF, 1999, part 7, slide 17).



Regular heavy lifting work should involve mechanical or electrical devices (EF, 1999, part 7, slide 17).

#### **4.6.8 Health & Welfare**

##### **4.6.8.1 Physical and thermal environment**

For health and safety at work; thermal, visual and acoustic conditions (air quality, freedom from dust, allergens and chemical pollution etc.) should be controlled (EF, 1999, part 7, slide 20). Temperature, humidity and ventilation affect employee comfort, work performance and employee health (MOPD, 2001, p.96).



To avoid damage or injury reduced work performance or limits to conditions of comfort etc., specific knowledge of disabilities, good management, and monitoring is essential. This can allow work tasks and workspaces to be allocated effectively (EF, 1999, part 7, slide 20).



Individuals should be able to adjust the ventilation, heat and humidity associated with their work areas. This can be accomplished by giving employees control over the temperature and ventilation at their workstations through the use of local thermostats, windows, fans and adjustable window blinds (CAP, 1998, p.17; MOPD, 2001, p.97; EF, 1999, part 7, slide 20; Levine, 2003, p.180). Comfort limits can give environments which satisfy most workers with disabilities, but stricter limits may have to apply - (e.g. air quality for chronic asthmatics)





Temperature and humidity extremes should be avoided, particularly cooler environments that may be uncomfortable for the elderly or others with circulatory impairments (MOPD, 2001, p.97).



Ventilation must be effective but minimally distracting. Use low speed ceiling fans, so that air velocities can be changed depending on the environment temperature and humidity, tasks performed and preferences of individual employees (CAP, 1998, p.17; MOPD, 2001, p.97).



Keep direct heat sources and air conditioned supply registers away from work station where they do not discharge directly above or next to work stations; provide adequate ventilation for computer and processing unit (CAP, 1998, p.17; Levine, 2003, p.180)



All controls within the comfortable reach zone of between 24 inches (610 mm) and 48 inches (1220 mm) above the floor (Levine, 2003, p.180). Remote controls for HVAC systems, including ceiling fans (Levine, 2003, p.180)



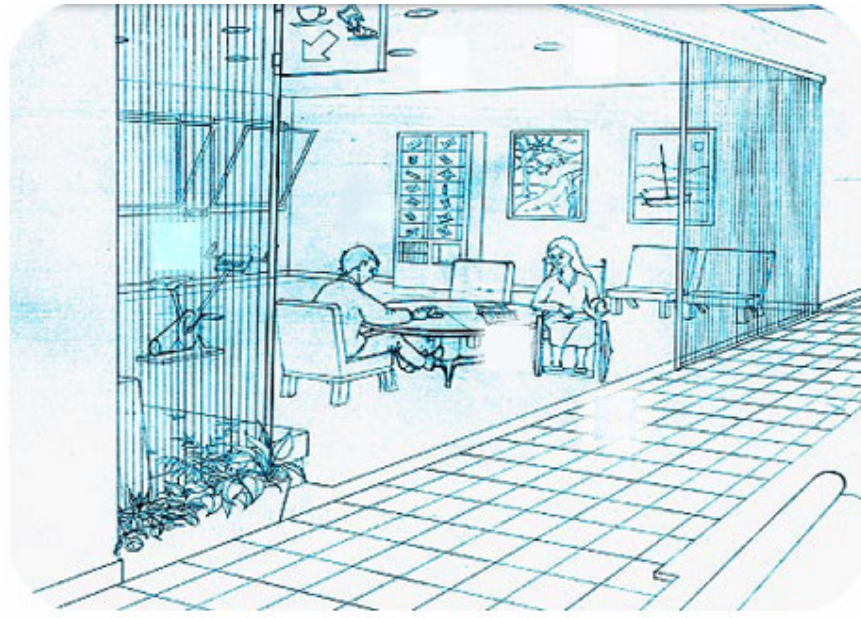
Extra outlets near the base of workstations for humidifiers or other individual equipment (Levine, 2003, p.180)



Office furniture with built in ventilation systems (Levine, 2003, p.180)



Adequate hanging storage at workstations for employees to store clothing such as sweaters and light jackets (Levine, 2003, p.180)



**Figure 4 11:** Health and welfare in workplace (EF, 1999, part 7, slide 19)

#### 4.6.8.2 Lighting and visual perception



Provide flexible lighting conditions to support different types of tasks (CAP, 1998, p.11; EF, 1999, part 7, slide 20; MOPD, 2001, p.96; Levine, 2003, p178). Systems for employees to adjust light levels at their workspaces to best fit the requirements for their specific tasks, individual abilities and preferences (Levine, 2003, p178)



Use adjustable blinds so that employees can control the amount of natural light that enters their workspaces (CAP, 1998, p.11; MOPD, 2001, p.96). Automated control systems with sensors to adjust the amount of artificial light in relationship to the amount of natural light, thereby reducing wide variation over the course of the day (Levine, 2003, p178)



Provide sufficient illumination levels to support high levels of productivity and reduce errors and accidents (CAP, 1998, p.11; MOPD, 2001, p.96; Levine, 2003, p177)



Improve legibility of the task surface by controlling glare (Levine, 2003, p178). Excessive glare may cause discomfort and reduce work performance. Because those with reduced visual ability may require greater illumination levels, it is very important to avoid glossy work surfaces (CAP, 1998, p.11; MOPD, 2001, p.96). Overhangs, reflective baffles, tinted glass, adjustable blinds and shades, and indirect lighting used to control excessive glare from natural illumination (Levine, 2003, p178)



Reduce eye fatigue due to frequent and major shifts in overall light level (Levine, 2003, p178)



Provide sufficient exposure to natural light to maintain health and morale (Levine, 2003, p178). Optimal use of natural light to provide an antidote to seasonal affective disorder (Levine, 2003, p178)



Ensure that lighting controls are simple and easy to understand (Levine, 2003, p178). Switches organized to follow the spatial layout of the lighting fixtures that the switches control (Levine, 2003, p178)



Light shelves, clerestories and other devices to bring natural light into the building to produce an even distribution of natural light throughout (Levine, 2003, p178)



Circulation spaces need non-reflective finishes and adequate, glare and silhouette free illumination. Markings and signs should suit people on foot, in wheelchairs and with learning disabilities and visual impairment. Avoid glare, silhouetting and down lighters - strongly shadowed faces present lip-reading problems (EF, 1999, part 7, slide 20).



To make vital information seen and heard throughout the work area; wherever possible, communicate information through sight, sound and

touch (example: vibrating pager with visual display) (CAP, 1998, p.9; EF, 1999, part 7, slide 20).



To make vital information seen throughout the work area; locate visual information according to its importance – direct line of sight from workstation to emergency signs, less important signs away from center of vision and ensure adequate lighting on all visual information; lighting should strike signs at an angle of about 45 degrees (CAP, 1998, p.9).



To make visual information understandable in very bright or very dim light; use matte, non-glare surfaces on signs; clearly contrast colour, brightness, and texture of lettering with background, avoid underlining and borders around lettering, and avoid tight spacing between letters, words and lines and reinforce text messages with familiar symbols wherever possible (CAP, 1998, p.9).

#### **4.6.8.3 Acoustics**

Workplace noise can negatively affect both task performance and personal safety (MOPD, 2001, p.97).



Dedicated, sound-controlled, spaces for meetings and teleconferencing (EF, 1999, part 7, slide 20; Levine, 2003, p.182)



Office policies implemented to keep controllable noise pollution to a minimum including music and mobile phone ringers (Levine, 2003, p.182) To make the work area quiet enough for conversations and telephone use; add volume control or headset to telephone, use e-mail, or set aside “quiet area” for meetings (CAP, 1998, p.9).



Background (ambient) noise can interfere with communication among employees. To allow efficient communication, keep ambient noise

levels low and avoid short, unpredictable noise (CAP, 1998, p.9; MOPD, 2001, p.97). Sound absorbent materials on walls and floors to keep ambient noise levels as low as possible where background noise cannot be eliminated (Levine, 2003, p.181)



Reduce uncontrolled background noise to a minimum and isolate loud areas and quiet spaces from the rest of the workplace (CAP, 1998, p.9; MOPD, 2001, p.97; Levine, 2003, p.182). Elimination or isolation of sources of loud and distracting noise (Levine, 2003, p.181) Background music or "white noise" generators to mask background noise that cannot be controlled (Levine, 2003, p.181)



Ensure adequate communication of emergency events and optimize communications by supporting clarity and legibility of sound quality (MOPD, 2001, p.98; Levine, 2003, p.182). Auditory alarms supplemented with visual signals (e.g., flashing lights) (Levine, 2003, p.182)



No large open areas with many desks. Cubicles and other devices to give individual workers some control over noise (Levine, 2003, p.182)



Plan a variety of conditions in the workspace so that there are enough options to accommodate all differences between individuals in the types and intensity levels of noise that they can tolerate without distraction (Levine, 2003, p.182)

## **4.6.9 Emergencies**

### **4.6.9.1 Escape and Refuge**



The emergency routines to cope with fire, breaches of security, explosion or accidents need to be specifically adapted to the needs of all workers (EF, 1999, part 7, slide 23).



Prepare evacuation plan for people who need assistance in an emergency (EF, 1999, part 7, slide 23; MOPD, 2001, p.35; Levine, 2003, p.38). To make it easier to evacuate the building safely; develop and rehearse evacuation drills; establish buddy system for workers with disabilities; inform internal security and local fire/rescue staff of special assistance needed (CAP, 1998, p.7).



Provide public address announcements in both clear verbal and visual formats during emergencies to inform everyone of the situation (EF, 1999, part 7, slide 23; MOPD, 2001, p.36; Levine, 2003, pp.38, 182). Visual and audible signalling systems under fire service control to help direct people along the best route given the building condition at any one time (Levine, 2003, p.38)



Plan at least one approved place of refuge (for workers who are unable to use escape routes independently) during emergencies on every floor in strategic locations. Vestibules leading to fire stairs or elevator lobbies that are also served by stairways can be used for this purpose if they are large enough. Provide labelling and instructions for use of refuge areas (EF, 1999, part 7, slide 23; MOPD, 2001, p.35).



Elevators designed to be safe for emergency egress (EF, 1999, part 7, slide 23; Levine, 2003, p.38). Other means of escape for workers with disabilities need to be considered including aircraft-style strip lighting to demarcate escape routes, the use of emergency chutes, the use of acoustic 'marking' on special routes, evacuation chairs, visual fire alarms or personal vibrating alarms for those with hearing impairments (EF, 1999, part 7, slide 23).



Directional signage when the direction of emergency egress is not easy to understand (EF, 1999, part 7, slide 23; MOPD, 2001, p.36; Levine, 2003, p.38). To make it easier to evacuate the building safely; use contrast walls with floors in colour and brightness, place plants,

wall hangings and other “landmarks” to aid direction-finding (CAP, 1998, p.7).



Provide two means of stairless egress when the topography makes it feasible to have entries at different grade levels (MOPD, 2001, p.35). All accessible entrances designed to serve as emergency egress routes as well (Levine, 2003, p.38)



Reserved stairway for the fire service (Levine, 2003, p.38)



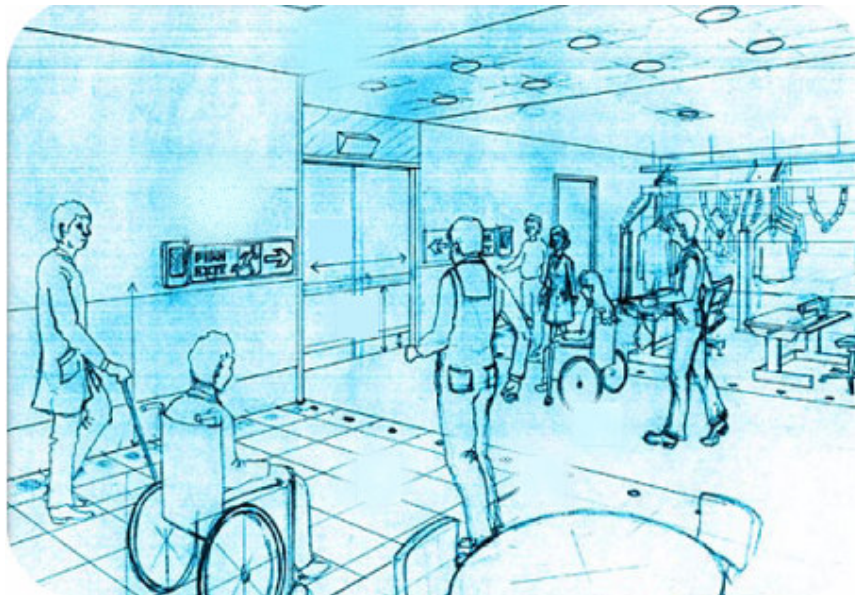
Total building sprinkler system (Levine, 2003, p.38)



Two-way emergency communications in all remote areas (Levine, 2003, p.38)



Supplemental illuminated exit signs near floor level (Levine, 2003, p.38).



**Figure 4 12:** Emergencies (EF, 1999, part 7, slide 22).

#### 4.6.9.2 Hazards

The quality, economy, safety and morale of an enterprise as a whole, requires regular planned and efficient repair, maintenance and cleaning of loading bays and other workspaces. Failures can particularly affect workers with disabilities.



Wherever renewable materials are used, such as soap, toilet rolls, paper tissues and paper drinking cups, their non-replacement can be a more serious matter for workers with disabilities, since the freedom to search for alternative locations may not be available to them (EF, 1999, part 7, slide 23, 26).



It requires effective action, supported by a thorough maintenance routine, to prevent such incidents accumulating into a management emergency (EF, 1999, part 7, slide 23).



Unexpected/temporary obstructions and uneven/slippery surfaces should be cleared and rectified promptly (EF, 1999, part 7, slide 17).



Fittings and signs etc (such as lights, loose or missing tiles, wet or slippery floors, defective time delays on automatic doors, jammed opening devices, and clogged filters etc.) must be kept in good order to avoid those becoming hazards to people who rely on them (EF, 1999, part 7, slides 17, 23).



Faulty or ill-maintained ventilation and lighting systems can cause invasive noise for those with hearing problems (EF, 1999, part 7, slide 17).



Clutter, litter, etc., in circulation spaces presents a special hazard to persons with visual disabilities (EF, 1999, part 7, slide 17). Place garbage receptacles in highly visible locations; reachable, usable by everyone and without heavy lids (Levine, 2003, p.112).





Garbage receptacles distributed throughout building so that items to be disposed do not have to be carried long distances (Levine, 2003, p.112)



Practice of emptying receptacles often to promote cleanliness and avoid overflow (Levine, 2003, p.112)



Textural changes along the path of travel to help people with low vision identify the location of trash receptacles (Levine, 2003, p.112)

#### **4.6.10 Relaxation**

##### **4.6.10.1 Rest and Relaxation**

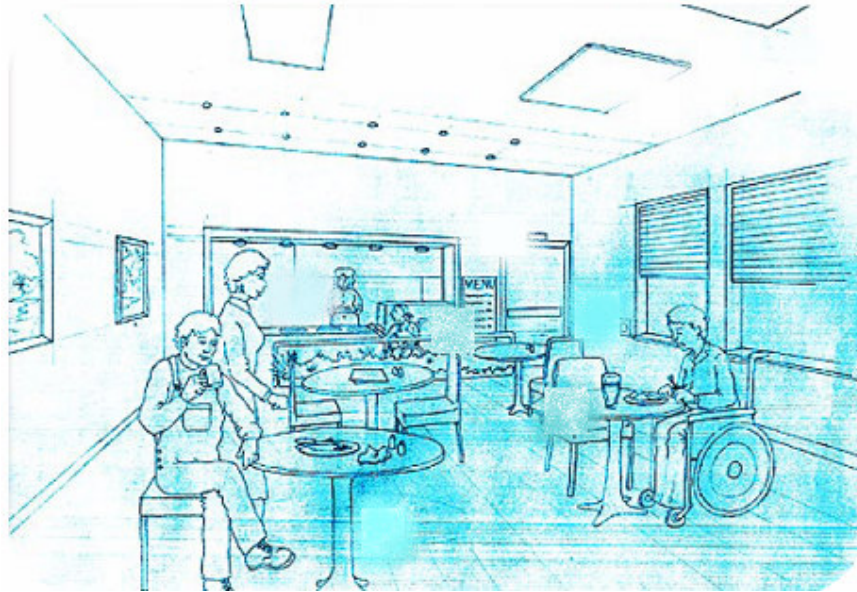
This criteria is applicable in many other parts of a workplace apply as much to rest and relaxation areas.



Plan areas to encourage social interaction and hold impromptu meetings like eating, drinking, refreshment and rest/break-out spaces (EF, 1999, part 7, slide 26; Levine, 2003, p.186).



Provide areas that afford privacy away from the general office environment Designated break areas to give workers a place to recover from work demands and socialize with others (Levine, 2003, p.186). Provided break areas should be quiet, comfortable and have a pleasant environment so that they are more likely to be used by employees (Levine, 2003, p.186).



**Figure 4 13:** Rest and relaxation areas (EF, 1999, part 7, slide 25)



Create environments that include the needs of everyone rather than cloister and segregate one group from another (EF, 1999, part 7, slide 26; Levine, 2003, p.186).



Furniture arranged in social spaces in clusters to facilitate interaction between employees (Levine, 2003, p.186). The provision of exercise equipment is recommended (EF, 1999, part 7, slide 26).



Anti-glare lighting is required and the area must be free of polluting dust and noise (EF, 1999, part 7, slide 26).



Workstations situated so employees can communicate effectively with visual and/or verbal modes of communication (EF, 1999, part 7, slide 26; Levine, 2003, p.186)



Support for wireless communication devices in social spaces to allow employees to "stay connected" while not at their usual workstations (Levine, 2003, p.186) Support instant messaging services those allow real-time communications (Levine, 2003, p.186).

#### 4.6.10.2 Furniture and Fittings



Both tables and counter areas in employee cafeterias, lounges and break spaces that can be used by people with wheeled mobility devices (EF, 1999, part 7, slide 26; Levine, 2003, p.186)



Appliances those are usable by people with disabilities including sufficient access space for wheeled mobility devices, controls and reach (EF, 1999, part 7, slide 26; Levine, 2003, p.186)



The controls themselves need visual, auditory and tactile signals. All surfaces should be hygienic, easily cleanable and suitably wear resistant (EF, 1999, part 7, slide 26).

#### 4.6.11 Services

##### 4.6.11.1 Systems and amenities



Energy, environment, communications, information technology (IT), and building services are typical of these systems and special provision can include closed loop and infra-red systems for boosting hearing in cloakrooms, toilets and lifts, and adequate space for wheelchair users with easy to-use taps, controls and switches located at a suitable height for them. IT systems need keyboards of suitable design, mounted at the right height and slope and with adequate lighting at terminals (EF, 1999, part 7, slide 29).



Public amenities must be located on a clear path of travel where accessibility is continuously maintained (MOPD, 2001, p.63).



Locations of all amenities should be clearly marked at heights detectable by all users. They should be equally discernible to users with varying abilities (MOPD, 2001, p.63). Whether outside a

building or inside, the sitting and height of letterboxes, bells, entry phones and security swipe cards should suit wheelchair users as well as pedestrians and be capable of use with one hand (EF, 1999, part 7, slide 8).



Switches, controls, instructions, and dispensers must be understandable to the broadest audience possible, accessible from numerous heights, and usable by many alternative means (EF, 1999, part 7, slide 29; MOPD, 2001, p.64).



Avoid placing public amenities in situations where users are isolated. Isolation, though not a physical threat itself, places the vulnerable user at greater risk to crime (MOPD, 2001, p.64).



Reflective surfaces (e.g., mirrors) should be installed so that those using them may observe anyone approaching (MOPD, 2001, p.64).



Provide emergency communications equipment wherever potential security threats exist (MOPD, 2001, p.64).



Amenities that require payment before use should accept multiple means of payment (e.g., cash, credit or debit card) (MOPD, 2001, p.64)

#### **4.6.11.2 Toilets/Bath and Washrooms**



Fittings in these facilities should be easy to use and at an appropriate level (EF, 1999, part 7, slide 29). Provide automatic flush plumbing or a large flush activation switch placed so that it can be activated with the gross movement of a hand, shoulder, or elbow (MOPD, 2001, p.64).



Lighting and ventilation should be good (EF, 1999, part 7, slide 29; Levine, 2003, p.111).



For wheelchair users, there will be a maximum height for wash-hand basins and a minimum height for WCs. There needs to be adequate turning space for wheelchairs in WC cubicles and washplaces (EF, 1999, part 7, slide 29). Provide Toilet with an adjustable height seat (MOPD, 2001, p.65; Levine, 2003, p.111).



Use ample, well-sited grips, rails, taps, shower controls, and other operating devices (EF, 1999, part 7, slide 29).



**Figure 4 14:** Toilets/bath and washrooms (EF, 1999, part 7, slide 28).



Sharp or protruding objects should be avoided out of consideration for people with epilepsy or visual impairment. Mirrors should be positioned so as not to cause confusion for those with visual impairment (EF, 1999, part 7, slide 29).



An alarm system should be easily reached and useable in case of emergency. All equipment should be easy to operate without the need for assistance (EF, 1999, part 7, slide 29).



Toilets suitable for use by workers with disabilities must be sufficient in number and distributed to make for easy access and use - having to move between mezzanines or floors is not acceptable. If the types of work vary with floor levels, workers with disabilities should not suffer discrimination because the work requiring their skill and training is on a level without toilet facilities (EF, 1999, part 7, slide 29).



Non-slip flooring that is designed to dry quickly and provide easy maintenance (EF, 1999, part 7, slide 29; MOPD, 2001, p.64; Levine, 2003, p.111)



Diaper changing station in at least one restroom at a height usable from both a standing and seated position (MOPD, 2001, p.64; Levine, 2003, p.111).



A hook 48 inches (1220 mm) above the floor to hang clothing (MOPD, 2001, p.65; Levine, 2003, p.111)



Maze-type entry system that eliminates the need for doors (MOPD, 2001, p.65; Levine, 2003, p.111)



Additional family style restroom with emergency alarm to provide parents the opportunity for assisting young children (MOPD, 2001, p.65; Levine, 2003, p.111)



Provide a floor-to-ceiling mirror to enable use by anyone (MOPD, 2001, p.65; Levine, 2003, p.111).



Position handrails and grab bars so that they are not obstructed by soap or towel dispensers (MOPD, 2001, p.65).



Stalls should provide either a shelf or ledge to keep personal items off the floor and should be large enough to accommodate the user with packages or luggage (Levine, 2003, p.111; MOPD, 2001, p.65).



Lavatory, soap and paper towel dispenser located inside a large toilet stall for convenience (MOPD, 2001, p.65; Levine, 2003, p.111)



Consider providing a lavatory inside a large toilet stall (MOPD, 2001, p.65).



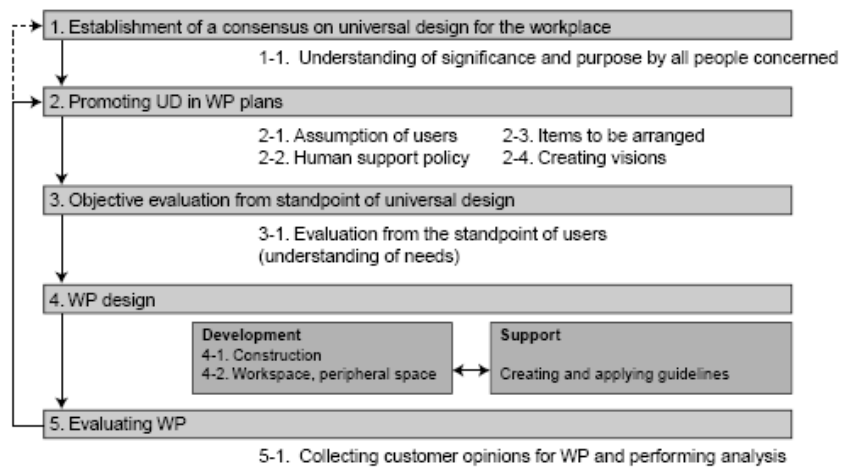
Enough stalls ("potty parity") appropriate to the function and capacity of the building. Stall depth large enough to accommodate luggage and briefcases (Levine, 2003, p.111)



Disposable toilet seat covers from a dispenser mounted at a height reachable by all people (Levine, 2003, p.111)

#### 4.7 Inclusive Workplace Accommodation Samples

Hirano and colleagues (2005, pp.97-8) in article “Universal Design for Workplace” summarizes the policy of promoting Universal Design in Workplace design from the standpoints of such users as employees and customers and as a practical example introduces Fujitsu workplace design. Hirano and colleagues illustrates the steps taken for universal design to achieve universal design for the workplace as shown in the figure below.



**Figure 4 15:** Steps for achieving universal design for workplace (Hirano et al, 2005, p.99)

Fujitsu Solution Square is given as an example of universal design for workplace in article of Hirano and colleagues (2005, pp.100-1). They emphasize some assessments compatible with universal design as; secured parking lot for wheelchair users and passageways where wheelchair users can move easily that are wider than standard widths and wheelchair-ready elevators with Braille and audio assists.





**Figure 4 16:** Wide passageways of Fujitsu Solution Square (Hirano et al, 2005, p.101).

In Fujitsu Solution Square, multipurpose restrooms also designed with universal design understanding. Number of the security gates in the building that provide intra-company security and protect customer information was minimized with defining the management of entrance and exit as barrier to mobility (Hirano et al, 2005, pp.101).



**Figure 4 17:** Multipurpose restroom (Hirano et al, 2005, p.101).

Concierges (information desk) designed in the universal design manner in Fujitsu Solution Square and stationed on the conference floor and work floors. Concierges perform work focused on office services solving problems regarding office use, the maintaining of equipment, and arranging of supplied items for achieving an employee friendly workplace (Hirano et al, 2005, pp.101).



**Figure 4 18:** Office concierges (Hirano et al, 2005, p.101).

Reception area of the building also shaped with universal design approach with the space required for receiving visitors, the criteria for selecting office furniture and interior equipment specifications (Hirano et al, 2005, pp.103).



**Figure 4 19:** Reception area (Hirano et al, 2005, p.103).

## **CHAPTER V**

### **CONCLUSION**

Marginalisation and exclusion from the mainstream of the society is the main problem of the people with disabilities. In literature many sources indicate that the roots of the exclusion base on history. Especially with the industrial revolution, the means of production changed. Change from agrarian society to industrial society broken up the large families, which also brought individualism and competition in working life. With the individualism and competition, even surviving of people with disabilities became a big problem. Initially people with disabilities were seen in the frame of charity, than they were seen in the frame of welfare. In the 20<sup>th</sup> Century especially with the world wars employment of people with disabilities began to be discussed. For the employment of people with disabilities some policies (like quota systems, discrimination based, supported employment) developed as it is narrated in the second chapter of the thesis.

Though it is mostly indicated that disability emerged with the concept of employment, it is beyond debate that employment is the main way in inclusion of people with disabilities in the mainstream of the society. But the status of people with disabilities related with employment is not encouraging which can be briefed with unemployment or underemployment, discrimination, lack of satisfaction and advancement in work, loss of job and time pressure at work etc.

Beside the main causes intensified competition and rapid change in labour market; lack of physical access, lack of information in an accessible format about job, inadequate training, incompetent personal qualifications and work experience,

insufficient benefit and support of welfare systems, employers' unwillingness to hire people with disabilities and to make adaptations, type and severity of disability, relatively low educational level of people with disabilities etc. can be indicated as reasons for unemployment or underemployment of people with disabilities. In addition to these factors of the unemployment or underemployment of people with disabilities, in this thesis it is argued that problems encountered by people with disabilities in employment have a close connection with the accommodation of workplaces. It is argued that varieties of barriers in built and workplace environment increase the exclusion of persons with disabilities in the employment.

The study highlights the significance of space organization in workplaces as being instrumental in reproducing and sustaining workplace practices beyond being technical specifications. As a means of social mechanisms workplaces have a significant role in maintaining either spatial isolation/marginalisation or inclusion of people with disabilities in the labour market. Especially in the industrialized countries in the frame of supported employment, integration of people with disabilities in workplaces has become disciplines like rehabilitation, assistive technology, etc. But considering the diversity of disabilities, the aging society and the increase of disability with the aging, etc. necessitates an inclusive approach beyond the individual solutions. An inclusive society deserves an inclusive workplace accommodation which has been vital not only for people with disabilities but also for "all people".

For attaining an inclusive workplace accommodation as a background, an investigation on Universal design is implemented. Universal design aims to simplify life, make communications equally accessible, usable and understandable for everyone. Beyond the barrier free design and accessible design, universal design have a broader meaning that inherits the people with various needs and demands of children, pregnant women and people with diverse abilities, sizes and ages.

In literature studies on universal design mostly focus on residential design or urban design. Also there some studies on accessible workplace accommodations, they inherit many valuable information but they can not go beyond being technical specifications. So such study on inclusive workplace accommodation is essential. Beyond the dimensional standards and disability guidelines, with the universal

design the overall organization of workplaces, circulation networks, etc should be considered but most importantly spaces should be considered as an instrument in inclusion of people with disabilities. In this study it is aimed to emphasize the significance of the consciousness that is acquired by exposing different aspects of workplace accommodation for the design process and evaluate workplace accommodation in frame of the universal design.

Turkey has an economic potential to take measures related with the employment of persons with disabilities with reorganization, planned researches, conscious studies and with some technical measures. Inadequacy of services related with persons with disabilities not only related with economic reasons but also related with inadequacy of general social consciousness, application of legal conditions, adequate expertise knowledge and also with organizational and managerial reasons (legal, knowledge, experts, related with organizational and managerial reasons). Away from being a technical guide on workplace accommodation, it is aimed to discuss the different aspects of disability and by this way compose a base for the adoption of a social life perspective that encloses people with disabilities in sharing the lives, spaces and environments.

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