Teleworking Implementation Process Model for Yebam (Elderly&Disabled Care, Research, Training and Implementation Center)/Konya-Turkey

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Abstract
People with disabilities are facing many constraints when using urban interior and exterior spaces. At the same time, aging brings with physical losses. Because of these physical restrictions, the participation of disabled and elderly people in working life gets much harder. New solutions should be developed for elderly and disabled people in order to improve the employment of them. In this context, the information and communication technologies (ICTs) provide opportunities for people with disabilities in all areas of life. These opportunities also have importance for people having different mobility disabilities. At this point, teleworking, as a new way of working provides an opportunity for employee to work anywhere and anytime through ICTs so daily trips could be decreased with teleworking. This paper aims to evaluate opportunities for the employment of elderly and disabled people. Firstly, the concept and forms of teleworking are defined. Then the importance of this new way of working for elderly and disabled people is discussed. In Turkey, there are many institutions that provide services to the elderly and people with disabilities. However, these institutions are not enough for these people so new solutions should be developed. For this purpose, Yebam (Elderly&Disabled Care, Research, Training and Implementation Center) will be established in Selcuk University Campus-Konya/Turkey. Educational services, living spaces, production and rehabilitation centers will be combined in one place. Finally, teleworking implementation process model proposed for Yebam has been discussed in the last part of the paper.

Keywords: Information and communication technologies, teleworking, disability, disabled and elderly people, employment, Yebam

Introduction
Some changes such as the loss of effective roles of elderly people in family due to the change in family structure, limited interpersonal relationships, retirement process, the lack of productivity, and decrease in income lead to material and social problems. Age-related physical and mental changes also harden social problems (Kaya, 1999). The status of elderly people passes to consumer from producer in the retirement period. An elderly person generally has difficulty to adapt to this new situation and think that s/he has lost his/her dignity and she/he is useless now. To leave working life, in other words getting retired, is a stressful incident resulting in significant changes in human life. A person having dealt with many problems during the life time encounters with social problems apart from physical, psychological and economic ones in old ages. In retirement period, it is a serious problem for a person to find an environment to maintain his/her social life and to adapt to this new environment. The person having devoted himself/herself to job and workplace and
having been identified with the work feels himself/herself empty in the retirement. In the old age period when social relations are limited and weaken, people start to move away from the society (Dansış, 2004).

Imposing a certain age rule for retirement on people who need and want to keep working causes age discrimination. Here, discrimination refers to a force imposed by agencies on people. In various studies conducted in UK, it is found that age discrimination affects people within the last working ages. 2.7 million people aged between 50 years and state retirement age do not work, it is predicted that more than 1 million of them want to work, it is believed that elderly employees are discriminated (Baybora, 2010).


- Recognize the social, cultural, economic and political participation of the elderly,
- Encourage the participation in every stage of decision making process,
- Provide employment opportunities for all elderly people who want to work,
- Level the playing field for life long,
- Get use of capacity and counseling of elderly people regarding their experiences,
- Empower the equality and solidarity between generations,
- Eliminate social and economic inequalities related to age, gender or any other reason before elderly people (Dönümcü, 2007).

In this sense, when elderly people keep being productive and working, they will hold on to the life and their age-related social and psychological problems will be minimalized.

Similarly, the wish for producing and being in a respectable status in society is the fundamental desire of the disabled just like any healthy human. A disabled person reintroduced to society contributes to family economy in specific and to country economy in general (Öztürk 2011). Just like for any person in society, the main condition for disabled people to continue their lives depending solely on their own potentials is to reach a level at which they can carry out any work or job in the best way (Baran, 2003). The prior issue in the employment of disabled people is the fact that they need to be employed more than those having no disabilities. When this need is met, the disabled will not be excluded from the society; in other words, these people will have social and psychological remedial by working. On the other hand, both to earn money by working not to be dependent on other people and to participate in production as an adult are normal desires of any human (Özürlüler Şurası, 1999). Besides, the employment will help to include the mostly ignored intelligence, skills and abilities of disabled people into the production period (ILO, 1992). To have a physical or mental disability does not mean that people with these disabilities cannot use their skills. Any approach contrary to this view will cause waste for society. People having no disabilities cannot use their organs at full capacity while they are working as well. They use a part of their skills or work undercapacity according to the type of their jobs. Then we can say that disabled people can also work and they can be as productive as other people healthier people (Seçkin, 1978).

When considering the economic importance of disabled employment, we can see that the consumption of disabled people being at a significant rate within the population without producing anything adversely affects the balance between population and resource. For this reason, in order to use resources at optimum level, disabled people should participate in the production as well (Aydın, 1991). Due to the fact that resources of countries are limited and needs are limitless, it is necessary to make disabled people producers in the society in accordance with their capacities. Societies regard the disabled as non-producer people who need care of their families or state and most of the

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time they feel sorry for people with disabilities. Employers do not prefer the disabled for employment unless there are legal obligations or personal reasons. Because they think that the disabled are inexperienced and are not suitable for the job in terms of career and occupational training. For this reason, the chance of the disabled to be employed is lower than other unemployed people (ILO, 1985). The point is to determine on which jobs a disabled person can work efficiently and to enable them to contribute to national economy. In addition, it should be remembered that on condition that the disabled are not made self-sufficient and not employed, at least one person having working capacity will be have to take care of a disabled person and s/he will be receiving a share from national revenue without making any contribution (Karaduman, 1988).

The employment of the disabled differs by development levels of countries. Attitudes in workplace are as important as the employment of the disabled. Just as discrimination cannot be made while hiring a person, no discrimination is acceptable towards the disabled who have started to work. With reference to positive discrimination, business environments where the disabled can use their education, knowledge and skills at the highest level should be offered. Attitudes and prejudices of colleagues and employers significantly affect the labor productivity of the disabled in workplace (Ergün, 2005).

**Telework Concept**

**The Definition of Telework**

Telework or teleworking and telecommuting terms refer to the practice of reducing the distance travelled to a central place of employment by working from an alternate location (Di Martino and Wirth, 1990). The official definition of "telework" can be found in the Telework Enhancement Act of 2010 (the Act): “the term 'telework' or 'teleworking' refers to a work flexibility arrangement under which an employee performs the duties and responsibilities of such employee's position, and other authorized activities, from an approved worksite other than the location from which the employee would otherwise work”. In practice, teleworking is a work arrangement that allows and employee to perform work, during any part of regular, paid hours, at an approved alternative worksite such as home and telework center (URL 1).

There are three widely-recognized forms of telework: home-based telework, telecenter-based telework and mobile telework. The home-based teleworkers designates an area in their home as the office. Home-based teleworking is completely eliminates the commute to and from the office. This type of teleworking improves employee’s psychological well-being by avoiding roadway congestion. Also it saves time for alternative use or enjoyment and improves morale and decrease absenteeism by increasing one’s physical proximity to schools, child care, and enabling the employee to conduct home-related business during lunch. However, potential disadvantages of home-based telecommuting include issues related to child care, visiting friends, or other home-related distractions (Fitzgerald and Halliday, 2001). Satellite and neighbourhood centres are telecenter-based teleworking that can be eliminate negative aspects of home-based teleworking such as social isolation.

Satellite centers are separate units within an enterprise, geographically removed from the central organizations but remaining in contant electronic communication. Neighbourhood centres provide electronic facilities which are shared by different users and belong to various entrepreneurs. These centers are located near workers’ homes. Mobile teleworkers are professionals whose work involves travel can use electronic communication facilities to link up with their headquarters (Di Martino and Wirth, 1990).

In principle, working at tele centers closer to home than the usual workplace, mobile work such as sales, and home-based work by people who are self-employed. However, is on employees of
organizations who are given the opportunity to perform their jobs from their homes. Obviously, not all jobs are suitable for telework—tasks that require face-to-face communication or interfacing to equipment or systems located at the organization’s primary work site clearly would not be amenable to teleworking. However, with increased advances in computer-based technologies, many more work tasks, such as those involving data processing, accounting, computer programming, design, customer service, quality control, and health care, can be performed from the home (Sharit et al., 2009). Table 1 shows the typical equipment and suitable and unsuitable jobs for teleworking.

Table 1: Equipment, Tasks and Jobs for Teleworking (URL 2).

<table>
<thead>
<tr>
<th>Typical Teleworking Equipment:</th>
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<tr>
<td>Telephones, Cell phones, Voice mail, Desktop computers, Laptop computers, Software, Broadband Internet Access, Scanner/Printer, PDAs (personal digital assistants)</td>
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<tr>
<th>Teleworking is feasible for:</th>
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<tr>
<td>• Work that requires thinking and writing, such as data analysis, research, reviewing grants or cases, and writing regulations, decisions or reports.</td>
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<td>• Telephone-intensive tasks, such as setting up a conference, obtaining information and contacting customers.</td>
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<tr>
<td>• Computer-oriented tasks, such as programming, data entry, graphic design, auditing, and word processing.</td>
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<th>Teleworking may not be practical for:</th>
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<tr>
<td>• Jobs that require the employee’s physical presence on the job or jobs in which the employees need to have extensive face-to-face contact with their supervisor, other employees, clients, or the public.</td>
</tr>
<tr>
<td>• Positions that require access to material that cannot be moved from the regular office.</td>
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<tr>
<td>• Work involving security-sensitive materials.</td>
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The Social and Economic Aspects of Teleworking

Thanks to the nature of teleworking, traveling to workplace and thus travel stress are eliminated to a great extent. Building a balance between business and family life will increase the working performances and having more time for social activities will increase social integration. On the otherwise, the lack of face-to-face communication between people working at home and their colleagues will cause these people to feel isolated from the social life. Limited communication will cause stress and this can affect labor productivity. Researches related to such views are being conducted and the issue is being discussed with case studies. Under the European Commission Program on Information Society Technologies, researches have been conducted since 2002. The research is named "Sustainable Teleworking Project" and in order to diversify the research nationally and institutionally, field researches have been conducted on seven different organizations and five countries. According to the research findings, 75% of those who participated in the survey stated that their life quality improved with working. However, it is stated that those working with teleworking is healthier than those who do not work (URL 3).

Teleworking leads to changes in social norms. Communication which used to be face-to-face once is started to be via computer. Social functions with face-to-face communication need adaptation. The changing meanings of home and work will bring along some changes. Considering the fact that social and psychological concepts are based on temporary and physical separation between home and work since the last century, it is clear that this change is inescapable (Wunderlich, 1997).
The same flexibility reduces the traveling time and helps to ensure elderly people to keep working (Castells, 1989). Physical travelling to workplace and some reasons related to workplaces cause some people to get retired very early. In order to prevent this process, smart companies offer teleworking to their competent and productive elderly employee as an alternative to retirement. While the company gets benefit by keeping its skilled employee at work, the employee keeps obtaining social benefits by being a productive member of the society. This is also case for the disabled. The participation of the disabled in working life will realize equality principle and the disabled will have opportunity to work equally as others.

Economic effects of teleworking can be assessed under the titles of added value, human capital, employment, flexibility and personal welfare. When considering the added value, it can be said that teleworking improves the working performance and reduces the unwillingness to job. While teleworking brings along equipment requirement for each house to be fulfilled by companies in many cases; mobile teleworking reduces office costs to a great extent. However, badly-designed teleworking projects fail financially. In the framework of the effect of teleworking on human capital, while most of those who participated in researches stated that teleworking has positive effects on their skills and abilities, some stated they are afraid that their career will be adversely affected. In the scope of its effect on employment, it is stated that the participation of some groups (the disabled, elderly or people living in remote areas) into labor force will positively affect the national economy. The effects of teleworking on personal welfare stand in balance. This is to say; while such expenses of teleworkers as transportation, clothing, eat-out and child care reduce, their expenses such as heating and lightening increase as they spend more time at home. However, studies conducted on this issue reveal that energy consumption of teleworkers at home is much less than in office (URL 3).

Additionally, companies will need less office places. Getting use of e-state service will provide benefits for both companies and national economy and reducing travelling to workplaces will contribute to the transportation infrastructure and investment in this area. With the growth in the market of information technologies, size of sector and employment rate will increase. As investments in this area continue, growing companies will continue making investments in technology and the changing structure of the economy will bring along new kind of companies (EITO, 2002).

**Telework as an Employment Opportunity for the Elderly and Disabled People**

Information and communication technologies (ICTs) could offer wide opportunities for employees with disabilities and others to participate in global activities as equals. Disabled people also could benefit from opportunities provided by current technological developments in all of the same fields as able-bodied. This is one of the major requirements of being a social and contemporary state. These new technologies could be used by all social groups alike and offer disabled people better quality of life. In many European Cities, internet is an important tool to eliminate discrimination. The user’s age, gender, ethnicity class or physical ability loses its importance with internet (Neumann and Uhlenkueken, 2001). Additionally, opportunity of teleworking is expanding rate of potential and available work (Bilevičienė and Bilevičienė, 2010). Teleworking, which permits home-based work through the use of information and communication technologies (ICTs), alleviates many of return-to-work barriers for individuals with disabilities, including job demands, mobility limitations, transportation needs and fatigue imposed by medical complications (Bricout, 2004). Teleworking can enable disabled persons to be more productive in their home environment than elsewhere; potential difficulties of transport to work are eliminated, and work and communication can take place while using ones own workplace, adaptations or tools (Zwinkels, 2003). Many people with disabilities have the desire and capabilities to work from their
homes. These individuals, many with good job skills and a strong work ethic, constitute a hidden labour pool (West and Anderson, 2005). Teleworking offers the possibility of an accessible, barrier-free workplace, flexible scheduling and the elimination of discrimination. Many organizations have discovered the benefits of allowing employees to work at home through teleworking (EEOC, 2003). Teleworking in particular circumstances would compose positive opportunity of choice for disabled people. This is very important for persons, who became disabled after they got qualification and competence, and create safe identity in their working field (Bileviciene and Bileviciene, 2009).

Table 2: The use of teleworking benefits for the elderly and disabled (* adapted from O’Neill et al., 1998).

<table>
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<tr>
<th>The use of teleworking benefits for the elderly and disabled</th>
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<tr>
<td>Teleworking could eliminate geographical barriers, benefiting both disabled and elderly people*</td>
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<tr>
<td>The integration of ICTs and teleworking may help to dispel negative attitudes and lead employers to view disabled persons much more equally*</td>
</tr>
<tr>
<td>The use of teleworking increases job satisfaction and motivation among both able-bodied and disabled people*</td>
</tr>
<tr>
<td>People with disabilities face many physical obstacles during their commute to work and within the workplace; teleworking therefore provides increased physical comfort to disabled workers*.</td>
</tr>
<tr>
<td>Due to reduced travel to work, teleworking will also lead to a reduction in workplace stresses for disabled people*.</td>
</tr>
<tr>
<td>If people who got retired compulsorily due to the elder age are employed with teleworking, their experience and knowledge will be used.</td>
</tr>
<tr>
<td>The conduct of life of elderly people who keep being productive by working will improve.</td>
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<tr>
<td>By means of teleworking, the elderly will keep getting income and will not need another person.</td>
</tr>
<tr>
<td>Age-related psychological problems will be solved and ties between elderly people and society will be strengthened.</td>
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“Telework is useful for persons with very heavy physical disability, who can’t go outside their home (for example, disabled persons with hard injuries of backbone); for persons who have chronic disease and suffer from periodical exacerbations (for example, persons with very heavy asthma or rheumatoid arthritis); for persons with easy and medium mental disability, who can use telework for creation similarity to previous work in open market; for tenders of disabled persons, whose duties can’t let them to be out for longer time. Telework has its limits. One of the most spread problems is isolation of person from contacts with other persons. Tele centres, opposite to work at home, would be more suitable choice for most of disabled persons, who decide to telework. For the majority of teleworkers work at home is comfortable. For disabled persons it is revolution of independence. Opportunity of telework expands circle of abilities and available work. This is way to autonomy, membership of society and dignity” (Bergum, 2007 cited in Bileviciene and Bileviciene, 2009).

Teleworking Implementation Process in Yebam (Elderly & Disabled Care, Research, Training and Implementation Center) Konya/Turkey

In the campus of Konya Selçuk University, a wide-ranging research, training and implementation center (YEBAM) will be established. This center will offer care, rehabilitation, training, social and cultural services for elderly and disabled people. At the first stage, YEBAM will
be established to train personnel specialized in elderly and disabled care. The main objective of the project is to get maximum benefit from current institutions which could not be organized to fit for purpose and to turn private or public institutions which offer care for elderly and disabled people in Turkey into "living space, production and rehabilitation centers". In the campus of Konya Selçuk University, 100,000 m² area has been allocated for YEBAM and project works have been started (Figure 1). The main units to take part in YEBAM are educational institution, elderly and disabled village, culture complex, workshops and production centers, sports and hobby areas. In addition, a separate unit will be established order to help elderly and disabled people living in YEBAM to maintain their productivity with teleworking. This unit will be equipped with information technologies and elderly and disabled people will have opportunity to maintain their working life actively in this unit.

Figure 1: The Location of YEBAM (The Elderly & Disabled Training, Research, and Care Center) within Selcuk University Campus (Meshur and Alkan, 2014).

In Figure 2 and Table 3, the teleworking model to be implemented in YEBAM is presented. Transferring of institutional knowledge from experienced people to new training people in public and private sector is highly important. This model will help retired people to participate in activities and organizations of the institution in which they worked and they can share their knowledge and experiences. For universities, this issue has another importance. Instructors working in universities get retired compulsorily at an early age (67) regarding their knowledge and experience. As these people get retired at an age that they can still be efficient, this is a serious problem as the loss of qualified labor force.
Figure 2: Teleworking Implementation Model for Elderly and Disabled People

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### Table 3: Teleworking Implementation Process (Adapted from URL 2).

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<th>1. INITIAL STEP</th>
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<tr>
<td>A. Establish a Teleworking Advisory Committee</td>
<td>The first step is to establish a team representing a cross-section of departments to develop the organization’s telework program. Members might include management and representatives from human resources, information technology, policy and planning, and training. The committee’s main role is developing the telework program and reviewing its progress.</td>
</tr>
<tr>
<td>B. Select a Teleworking Coordination</td>
<td>The telework coordinator leads this committee, overseeing all activities of the team and serving as the point person for all facets of organization’s telework program.</td>
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<tr>
<th>2. SETTING THE COURSE FOR TELEWORK</th>
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<tr>
<td>A. Defining the Program’s Scope</td>
<td>In order to create the best telework program for the organization, the committee should define the scope of the program and set clear, measurable goals to help guide them through the process.</td>
</tr>
<tr>
<td>B. Identify Appropriate Teleworking Tasks and Jobs</td>
<td>To select jobs suitable for telework, the coordinator considers each position and determines whether there is any potential to create a telework opportunity and whether the telework will be full-time, part-time, or episodic depending on the individual.</td>
</tr>
<tr>
<td>C. Develop Eligibility Criteria for Teleworking</td>
<td>Having eligibility criteria determines which employees in the organization can apply to the telework program. It’s better to keep the eligibility criteria as general as possible and use the selection process to address personalities and positions.</td>
</tr>
<tr>
<td>D. Assess Equipment Needs and Provide for Security of Sensitive Information</td>
<td>Computers, remote connectivity, electronic communications, paperless work processes have made work increasingly mobile. Equipment needs for individual teleworkers, however, may vary greatly.</td>
</tr>
<tr>
<td>E. Develop a Teleworking Proposal for Management</td>
<td>The committee has designed the basic framework for the organization’s telework program. They’ve defined the scope and goals of the project, determined what tasks would be ideal for telework, established the criteria for participating in the program, and assessed the equipment needs.</td>
</tr>
<tr>
<td>F. Write a Teleworking Policy</td>
<td>Once management approves the proposal, the committee can write a policy document that will serve as a guide to inform potential teleworkers and supervisors about how the telework program will work.</td>
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<th>3. FROM PLAN TO ACTION</th>
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<tbody>
<tr>
<td>A. Promote Teleworking Internally</td>
<td>Building interest in the organization’s teleworking program from the beginning is vital in ensuring that the employees view teleworking in a positive light. As the program develops, the coordinator should share information organization-wide.</td>
</tr>
<tr>
<td>B. Selecting Potential Teleworkers</td>
<td>The primary goal of selection process is to ensure that the best-suited employees are selected as teleworkers.</td>
</tr>
<tr>
<td>C. Training Teleworkers and Supervisors</td>
<td>Organizations should hold separate training sessions for supervisors and teleworkers.</td>
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<th>4. CHECKING IN</th>
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<tr>
<td>A. Evaluating the Teleworker Performance Evaluation form should be completed periodically</td>
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Teleworker by the supervisor and will provide a framework for performance evaluation.

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<thead>
<tr>
<th>B. Evaluating the Program</th>
<th>The main reasons for evaluating the program is to measure how well the program objectives are being met and decide how the program should be adjusted to better meet those objectives.</th>
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<tbody>
<tr>
<td>C. Maintaining the Program</td>
<td>To keep teleworking program running smoothly, the coordinator should first and foremost be attuned to the program’s participants, their successes, and their challenges.</td>
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</table>

The designed teleworking model offers an opportunity to eliminate this problem. Regarding the number and quality of the new universities in Turkey in recent years, this model will contribute to the development of universities having challenges to find qualified personnel. This model also offers significant opportunities for the disabled who will live in YEBAM. By means of teleworking, disabled people will have an equal working environment away from prejudices. It is observed that satisfaction and motivation increase in many works conducted with teleworking. Teleworking offers control and self determination for people. When the disabled work at home, they have advantages of working in an environment where all physical needs are met. Workplace related stress reduces and transportation problems are eliminated.

**Conclusion**

Working in a job is significantly important to cling to life for especially elderly people and to remove age-related social and psychological challenges. Having a healthy and active life in accordance with their power and potentials is very important for elderly people in terms of their conduct of life. Alternative solutions are needed to maintain the productivity of elderly people. The retirement is in median age which is the most productive period of people. It is very hard for people whose social status changes, physical activity decreases and who see working as the meaning of life to accept this situation. The retirement in the period when the knowledge and experience of people are at the peak in working life should be discussed in terms of society and the individual.

The prior point in the employment of the elderly is the fact that elderly employment will provide many personal, social and economic benefits. Because when elderly and disabled people keep working, it prevents these people to be excluded from the society other words, these people will have social and psychological remedial by working. At the end, disabled and elderly people who want to be beneficial for the society by working will be living without being dependant on other people and they will have strong relationships with the society.

To summarize, the primary thing to do in order to integrate elderly and disabled people with the society is to employ them and make them participate in working life. In this scope, the awareness towards the importance of the elderly and disabled employment should raise. Afterwards, current employment policies should be analyzed and developed and new solution recommendations should be generated. In this point, a teleworking program which is in accordance with the national policies and designed accurately will contribute to the participation of elderly and disabled people in working life.

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