(REVIEW ARTICLE)

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Teleworking as an employment opportunity for people with disabilities and special educational needs in Greece

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Abstract

For teleworkers, there is flexibility in work and balance in personal life and work. In addition, a better standard of living is observed because people have more free time, less stress, lower travel costs and can stay permanently in any area they wish. However, there is a risk that right limits (hours, private life) are not set in working from home or in the social isolation of employees. Teleworking increases the supply of work and simultaneously reduces the unemployment of people with disabilities and special educational needs. It also allows people with disabilities to work equally with other employees.

Keywords: Teleworking; Employees; Disability; Special Education; Inclusion; Equality

1. Introduction

People with disabilities are a key group in our society that strongly experiences isolation, marginalization in terms of inclusion in various social activities and employment. People with disabilities do not always have the same and equal opportunities to join the workforce (OECD, 2018). In the domestic labor market, the percentage of the workforce consisting of people with disabilities is quite low compared to the percentages of the rest of the EU countries. The above problem needs to be addressed due to the inadequacy of the methods and policies.

There are approximately 87 million people with disabilities in the EU, according to data from the European Parliament (European Commission, 2020). The employment rate of people with disabilities (aged >20-64) is 50.8%, compared to 75% for people without disabilities. Additionally, 28.4% of people with disabilities in the EU are at risk of poverty or social exclusion, compared to 17.8% of the general population. In one of its last sessions, the European Parliament called for an inclusive society in which the rights of people with disabilities are protected and where there is no discrimination (European Commission, 2020).

In the context of the above data, in March 2021, the European Commission adopted a new strategy for ensuring the rights of people with disabilities for the period 2021-2030, which includes the main recommendations of the Parliament, which are as follows (European Commission, 2021):

- Mainstreaming the rights of people with disabilities in all policies and sectors.
- Equal access to healthcare, employment, public transport, and housing is needed for people with disabilities.
- Implementation and further development of the EU pilot scheme for disability cards, which allows for the mutual recognition of disabilities in some EU countries.

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Despite international developments, however, the economic crisis of the past decade and the COVID-19 pandemic, which exacerbated the effects of the economic recession, have disrupted the smooth inclusion of people with disabilities in the labor market worldwide. Especially for our country, this sector has not shown substantial progress, and the shortcomings in the necessary legislative framework and in taking the necessary measures on the part of society, cause only superficial progress in the employment rights of people with disabilities (Papavassiliou-Alexiou, 2022). The need for work for people with disabilities is not simply a matter of economic survival. Workers with disabilities believe that their work contributes to improving their quality of life and opportunities to socialize, to promoting their sense of self-esteem and to accelerating the process of adapting to their disability, so that their lives acquire meaning and purpose. Although not always an end in itself, financial support is a means to a dignified living (Papavassiliou-Alexiou & Fotiadou, 2019).

Concluding the introduction, we emphasize the significance of all digital technologies in the field of education and in teleworking training and exploitation, which is highly effective and productive and facilitates and improves assessment, intervention, and educational procedures via mobile devices that bring educational activities everywhere [47-50], various ICTs applications that are the main supporters of education [51-65], and AI, STEM, and ROBOTICS that raise educational procedures to new performance levers [66-73]. Additionally, the development and integration of ICTs with theories and models of metacognition, mindfulness, meditation, and the cultivation of emotional intelligence [74-90], as well as with environmental factors and nutrition [83–86], accelerates and improves more than educational practices and results, especially in teleworking training and exploitation.

2. Benefits and challenges of teleworking

According to Pierrakeas & Koutsonikos (2003), teleworking is an achievement in the development of new technologies. It is a flexible form of work that brings work to employees instead of employees. The main advantage for employees is that they save time because they do not have to travel. They have a better quality of life, with less stress and more time with family and friends. In addition, they develop skills - knowledge based on new technologies that they would not need to know about traditional work. Employers, on the other hand, need less investment in building facilities with the increase in the use of teleworking. There is also an increase in productivity in companies because there is greater concentration of teleworking without interruptions. There are also social benefits related to the environment because pollution is reduced (reduced travel), and citizens are relocated to smaller cities. Location independence concerns not only employees but also the entire work system. However, this independence creates some problems, most of which are due to the work environment. Teleworking is difficult if there is no personal workspace in each home or if the individual has excellent computer skills. Initially, there is isolation of employees, and it is difficult to have professional discussions with colleagues. In addition, there is no face-to-face contact, which is very helpful. Furthermore, exact working hours are difficult to calculate, thus, there is the possibility of a reduced work rate in the case of low motivation by employees or weak self-discipline (Pierrakeas & Koutsonikos, 2003).

According to Pouliakas (2020), although Greece started to adopt digital technologies after the crisis, it was not ready for digitalization. Thirty-five percent - 35% of jobs in Greece can be teleworked and should do so to remain competitive. For this to be possible, the state should provide schools and financial support for parents so that they can work from home without interference or balance work and family. During the pandemic, teleworking was the only way to maintain jobs (Pouliakas, 2020).

Giannakopoulou (2012) develops flexible forms of employment in her work. She presents a study by the American Company Management Technology Associates on teleworkers with the benefits for employees and businesses. In businesses, you can see a reduction in costs (mainly operating), an increase in productivity by employees, the ability to select employees with more qualifications because there is no geographical restriction, and greater flexibility in personnel management ultimately, the work of teleworkers does not depend on factors such as strikes in transport, the weather or natural disasters. For employees, there is a reduction in travel costs and more opportunities for work because there is no geographical restriction. There are also flexible working hours and a balance between work and family. A very important benefit is that people with disabilities (physical) or parents in single-parent families or mothers with young children or people caring for the elderly can work by teleworking. There are also negative effects, but they are fewer. First, organizing work during teleworking is difficult for each employee. Additionally, many people find it difficult to work with telework because to perform at their best, they need constant guidance and control (Giannakopoulou, 2012).

According to Martin & MacDonnell (2012), after an interdisciplinary search of databases, they concluded that teleworking has positive effects on mainly employees and businesses, however, it is not chosen as often as it should be. There is a positive correlation between teleworking and organizational results, but this correlation depends on the age

of the employees. Specifically, teleworking increases productivity, job maintenance, organizational commitment strengthening and improved organizational performance. Additionally, an important factor that affects the performance of teleworking employees is the number of employees in each company that works with telework (Martin & MacDonnell, 2012).

With the advent of the pandemic, the use of teleworking began, and 37% of employees in the EU in 2020 worked from home. Before the pandemic, teleworking was mainly performed by managers, while later, it was extended to administrative employees. To be able to use teleworking, companies must invest in technology, in the training of their employees and in rules in accordance with the national work framework. In addition, the "right to disconnect" should be institutionalized (Kyriakoulias, 2020).

Ipsen et al. (2021), collected data with an electronic questionnaire from 29 European countries in the first weeks of the pandemic (March 11 to May 8, 2020) and studied the advantages and disadvantages of teleworking. The questionnaire had 23 questions, was sent through social media and universities and took approximately 10 minutes to complete. The sample included 5,748 workers from Europe (23.3% from Denmark, 23.1% from Germany, 15.3% from Italy, 14.5% from Sweden), who were mainly women (59.2%). A total of 84.1% of the respondents worked fully on teleworking during the COVID-19 pandemic, while 15.9% sometimes worked on teleworking. The advantages are grouped into three categories. First, they are related, to work-life balance because there is no time to travel to work or stress. Second, when employees perform better because they focus their time on the main job and not on meetings or secondary tasks, third, they have less control over their work and thus can take breaks when they want and eat their own food. The use of teleworking reduces the incidence of the pandemic. The disadvantages include, first, the restriction of the worker to the home, where there is social isolation and equipment at home (desk, chair, screen), but the noises also do not help in working from home. The second is the uncertainty of work, and the third, is the necessity of using and knowing new technologies (Ipsen et al., 2021).

Costa et al. (2022) conducted a study on employee satisfaction and performance related to the use of teleworking during the COVID-19 pandemic. With the advent of the pandemic, most employees were forced to work from home, and those with children also had to take care of them because schools were closed. The research was carried out in 2020 (November - December) by sending an online questionnaire to office workers who worked from home during the pandemic. The study population included 94 people (63 women and 31 men) with an average age of 50.4 years. Approximately 65% of the sample were married, 20% had children under 18 years old, and 49% had children aged 18 and older. Approximately 29% of the sample had physical illnesses, while none had mental illnesses. Forty percent of the sample (42.9% women and 33.3% men) with children under 18 years of age believed that the age of their children affected their performance when working from home. A total of 95.7% of the respondents (95.2 women, 96.8 men) felt satisfied with their performance during the pandemic. When asked if their job has changed, 17% responded that it has worsened, 54.3% that "the work is unchanged" and 28.7% that it has improved. Approximately 30% of the respondents responded that they feel lonely and nervous when working remotely. Additionally, those who were married or cohabiting felt less lonely than those who were single. Irritability is positively related to loneliness, while mood changes are related to sleep problems such as insomnia, night awakenings and nightmares. In addition, the level of education is positively related to performance. Additionally, people who responded that the pandemic changed their lives (85.1% of the sample) felt more irritable and had sleep problems. Most employees stated that they feel satisfied with their teleworking performance, with the exception of half of women with children under 18 years of age, who stated that they need social support from the government to be able to work satisfactorily from home while having small children (Costa et al., 2022).

Hartner-Tiefenthaler et al. (2022) conducted a survey in Austria, among 283 employees living with their partners (families) who worked teleworking during the first lockdown on the benefits of teleworking. According to the survey, the gender of the employee and whether they have children play important roles. With the arrival of the pandemic in 2020, to limit its transmission, everyone was forced to stay at home. From there, workers had to create a space to work, and at the same time, those with children had to supervise them because schools were also closed. External help from relatives or staff for childcare or home care was nonexistent due to restrictions and the fear of transmitting the virus. Fathers began to help more with the house and children than before, but still to a lesser extent than mothers. The 283 people in the survey were employees, and members of the Austrian Chamber of Labor and completed the questionnaire from June 26 to October 25, 2020. This was a period without restrictions, after the lockdown. A total of 46.4% of the participants were women, and 53.6% were men. A total of 46.3% had at least 1 child living with them. According to men without children, teleworking makes family life easier because it reduces the time required for work, and this free time is available for the family. Women without children stated that they have more time for housework and family and concentrate better on work from home. Women with children feel more burdened with home, children and work during teleworking during the pandemic. Working fathers feel that teleworking makes work and family life easier. Working

parents interrupt their work more often for nonwork-related issues than for those without children. Working mothers interrupt their work for family obligations more than working fathers do (in the same home). In addition, the presence of children at home leads to less positive associations with teleworking. Therefore, gender influences the experience of teleworking during the COVID-19 pandemic, but having children also burdens women more. Therefore, teleworking reduces work-life conflict for men and women, but to different extents depending on family status (children) (Hartner-Tiefenthaler et al., 2022).

Sousa-Uva et al. (2021) studied the level of satisfaction of employees with teleworking in Portugal during the COVID-19 pandemic and whether teleworking had any impact on their health. The first lockdown in Portugal began on March 18, 2020, and from March 19 until early July, teleworking was mandatory. Employees and businesses were not prepared because teleworking before the pandemic was very low. Additionally, working parents supervise and care for their children at the same time. The survey was carried out with an online questionnaire completed by 1004 employees. 91% of employees used teleworking for more than 1 month. Twenty-five percent were aged 30-39 years, and 39% were aged 40-49 years. A total of 59.86% were married, 27.79% were single, and 12.35% were widowed or divorced. A total of 51.20% had no children at home, 21.02% had 1 child, 23.5% had 2 children and 4.28% hed 3 or more children. The satisfaction rate of employees with teleworking increased and was close to 69%. A total of 52.9% of the respondents answered that they have better concentration at work and a balance between personal and work life (53.10%). A total of 31.4% answered that with teleworking, they feel flexible at work. Additionally, 62.30% answered that they feel good in the workplace from home. Ninety-two percent of respondents wanted to work telework again in the future, but 60.16% wanted part-time teleworking. However, 59.46% of the respondents reported that they worked more hours than usual. Employees needed help from the company in training and equipment, and 66% of the participants responded that they did not have help. Additionally, teleworking has adverse effects on physical and mental health. Important factors for these results are the trust that employers showed in employees and that they felt good in the workplace at home. Additionally, the work environment and organizational culture play important roles in employee satisfaction (Sousa-Uva et al., 2021).

3. The dimension of diversity

Working in a "typical" office environment generally assumes a "typical" employee. It is expected that dimensions related to physical ability are within the normal range, while disability issues may cause difficulties in the smooth exercise of professional activity and integration into the general work context. In the event that an organization employs people with disabilities, special provisions regarding access and integration into the work environment need to be taken. Cases where there are issues beyond the "technical" dimension, such as mobility problems, and diversity due to an illness or an accident, need to be addressed. Choices of the individual, such as extreme appearance, e.g., extensive use of tattoos or piercings, or even issues of a psychological nature, such as some form of functional autism or agoraphobia, but even issues of diversity in one's gender identity, can constitute elements of diversity. Issues related to a person's appearance, such as height and weight, can also raise issues of diversity.

Due to their diversity, employees who may possess some of these characteristics may face issues related to effective interaction with the object of their work, especially with their customers or colleagues (Michielsens et al., 2013). An answer to all these questions may be found in remote work. The nature of remote work, which puts computer and telecommunications networks as intermediaries in communication, offers a level of isolation that, in the case of diversity, creates independence from issues mainly related to social prejudice. For the employer, the advantages range from the opportunity to have access to the skills of an individual who may not be able to work physically in a workplace, but is able to do so remotely.

For an employee with a disability, the advantage is that he or she has the opportunity to claim a place in the world of work, an opportunity from which his or her disability may prevent him or her. Even the process of moving to the workplace can be a determining factor for a person with disabilities, especially when these also involve mobility problems. In cases of remote communication, a disability can potentially be addressed more effectively, such as in the case of deafness, where hearing can be largely replaced satisfactorily through written communication, which may not be practical in the case of face-to-face communication. By having the opportunity to work, the individual acquires a more fulfilling life, benefiting both himself or herself, his or her immediate environment in general, and society as a whole (Drosos & Tsampalati-Vakalopoulou, 2019). In the case of disabilities, issues related to the use of necessary systems must be addressed by examining appropriate technological solutions and practices that address the difficulty of use caused by the disability in question.

At the level of the organization's culture, tolerance of diversity is an essential element. Within the framework of labor policies, this must be guaranteed and actively pursued. Organized movements by NGOs or state initiatives must assist

organizations and employees with disabilities or other chronic problems in cooperating. As an example, the NGO Astriid ('Available Skills for Training, Refreshing, Improvement, Innovation and Development') - www.astriid.org.uk-, whose mission is to help people with chronic diseases find satisfying jobs. A typical example is the case of a person with a chronic illness who, with the help of this NGO, managed to find a satisfactory job through teleworking (McDonald, 2019). However, research shows that there is generally a bias in working with people with special needs by a large number of employers, with the dominant issue being the view of the reduced efficiency of employees with special needs or disabilities compared to a person who operates in the sphere of "normal" (Fraser et al, 2010).

4. Teleworking and Disability

Lecours (2023) conducted a survey of 16 workers with physical disabilities (motor, and sensory) that included a sociodemographic questionnaire and an interview (online or telephone) to examine the impact of teleworking during the pandemic on the work experience of people with physical disabilities. After the survey data were collected, analysis was performed using Nvivo 1.5 software. The workers who participated in the survey had a physical disability, had worked part-time or full-time for 1 year or more, and used teleworking during the pandemic. In June 2020, 39% of the Canadians were working remotely, an increase of 17% compared to the prepandemic percentage. In the UK, 43.1% of employees were teleworking in April 2020, compared to 5.7% before the pandemic (January 2020). In addition, during the pandemic in France, 64% of employees with disabilities chose to telework, compared to 53% of the general population. The factors that influence work experience are related to 3 parts - the individual, the organization and the environment - and are approximately 15. The use of teleworking during the pandemic by people with disabilities has mental, physical and social consequences. The survey included 11 women (68.8%) and 5 men (31.3%), mainly aged 31-56 years. Of these, 11 people had a sensory disability (80% vision, 20% hearing), 3 people had a motor disability (muscular dystrophy, polio, spina bifida), and 2 people had both sensory and motor disabilities. During the pandemic, the majority of employees worked from home, 7 worked from home in a specially designed workspace, and 25% of the respondents used workstations that provided them with appropriate software (enlargement of letters, text-to-speech conversion, Braille notebook), office equipment, and computer and human assistance. (Lecours et al., 2023)

Factors that influence the work experience of people with disabilities during teleworking: (Lecours et al., 2023)

- Equipment for people with disabilities
- Social contacts
- Support from managers and colleagues
- Personal schedule management
- Travel time- Free time
- Workload
- Home work environment

5. Conclusions

A new form of employment, teleworking, has emerged dynamically, and the indications converge to the conclusion that its development will continue in the future, constituting a common belief of all participants in the research. Teleworking combines the exploitation of new technological developments in the field of Information Technology and Communications in combination with a new work ethic regarding the basic parameters of the concept of work. A basic prerequisite for teleworking is the possibility of performing work remotely, which in practice means that it must be performed through some form of digital-computing system. This also highlights the need to educate people with disabilities and special educational needs to have more professional prospects.

In summary, the advantages of teleworking for employees with disabilities can be summarized as follows:

- Gaining paid experience, can improve employees' professional profile.
- Broadening professional circles can be an opportunity
- Access to employment opportunities that would either not be possible to access otherwise or would be accessed under problematic conditions. A key dimension is the distance traveled to a place that requires physical presence. Another dimension is the possibility of performing work in a time frame that deviates from the established 8-hour workday.
- The ability to respond to emergency work needs in a timely manner.
- There is an opportunity to claim improved income, either as a complementary activity or by finding a better-paid job in relation to the local market.

- It can be an alternative to serving the employee's personal needs, such as in the case of family needs or even illnesses.
- It can offer better working environment conditions, provided that the space from which telework is performed is appropriately configured to provide peace and functionality for the performance of the work.
- It can be the beginning of one's own entrepreneurship if it suits the professional aspirations of the teleworker.

Teleworking is undoubtedly the future of the work sector. Teleworkers can choose where and how they will live, regardless of where they work. Businesses can choose the most capable employees from all over the world. In addition, there is a balance between work and family as long as there is a structured workspace at home without interference from roommates. During the pandemic, it was difficult for working parents to perform telework because schools were closed, and they could not help relatives or staff with home and child care due to the restrictive measures taken to spread the virus and fear. In addition, teleworkers are forced to constantly expand their knowledge to keep up with technological development and to be able to cope with telework. It also allows people who find it difficult to work in person, such as mothers with young children, single-parent families, people caring for elderly individuals, and people with physical disabilities. Teleworking provides flexibility to employees through the ability to organize work by themselves. Exploring the approach of teleworking in relation to individuals who present differences due to disabilities or special educational needs would be particularly interesting.

Compliance with ethical standards

Disclosure of conflict of interest

The Authors proclaim no conflict of interest.

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