Workplace Adjustments for People with Disabilities. A Case Study of a Research Company. Part I – Barriers for People with Disabilities

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Abstract. The crucial issue concerning employment of people with disabilities is making workplace adjustments to accommodate their special needs and abilities. In Poland, the Labor Code and statutory law on occupational and social rehabilitation and employment of people with disabilities impose this obligation on the employer. However, the regulations provide no further explanation of how to proceed with such accommodation. A review of EU legislation has not revealed any exact guidelines or instruments for workplace disability analysis. In the two-part article, an example of workplace adjustments to accommodate the needs of disabled people is presented based on a case study of a research company operating in Łódź as a typical representative of the industry. In the first part, the results of the study performed with the 'Checklist for assessment of workplace adjustment to the needs of people with disabilities' are discussed. The second part presents adjustment recommendations to accommodate the needs and capacities of people with different types of disabilities. Other research and development organizations, scientific and higher education institutions may use the reported results to improve the employment-to-population ratio for people with disabilities.

Keywords: Workplace · Disability · Research company · Adjustment

1 Introduction

Workplace adjustments for special needs of people with disabilities are crucial as far as employment of this group of people is concerned. In Poland, it is the employer who has this obligation pursuant to the provisions of the Labor Code [1] which prohibit the employer from discriminating based on disability, among others, and pursuant to the provisions of the statutory law on Occupational and Social Rehabilitation and Employment of Persons with Disabilities [2], and the Regulation of the Minister of Labor and Social Policy of 26 September 1997 on general provisions for safety and hygiene at work [3]. The law, nevertheless, does not specify what such adjustments should be like. Consequently, employers frequently have no clear understanding of where to start and how to perform a need analysis. What is more, the very expression - adjustment - automatically makes them think of additional, high costs that they will have to bear. Although

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the statutory law on Occupational and Social Rehabilitation and Employment of Persons with Disabilities [2] allows the employer to have an external provider prepare an analysis of workplace adjustment for special needs of people with disabilities, the cost of which can be reimbursed by the State Fund for Rehabilitation of Disabled Persons, unfortunately, very few employers are aware of it.

Before analyzing workplace adjustment for special needs of persons with disabilities, it would seem reasonable to first discuss the meaning of the concept 'adjustment' which, in casual conversation, is frequently mistaken for 'redesign'. According to the Polish Dictionary [4], to adjust is to change something so it suits something else. A related word 'to adapt' is defined as to make something suitable to needs or conditions. Another similar expression 'to match' involves combining pieces, elements so they make an integral whole. All of these words have one common feature, which is that they all imply customizing something to particular needs to create optimum conditions. When the topic of employment of disabled workers is discussed, another term tends to be used, namely, workstation redesign. By the Polish Dictionary definition, 'redesign' means to change the design of a building, a device etc., to design again, from the start. This definition suggests that the term has a more technical meaning than the previous terms. It implies that there already is a design, and that someone has the knowledge and skills to modify it. Frequently, when they consider workplace adjustment for the needs of disabled workers, employers tend to think of redesign rather than adaptation, and therefore, they imagine that the costs of such an undertaking should be high. In fact, in many cases adjusting the workplace to the needs of persons with disabilities will not require redesigning. Therefore, it is important to realize right from the start that the concept of workplace adjustment need not mean redesign. What actions will be required should be determined on the basis of a performed analysis.

Article 2(8) of the statutory law on Occupational and Social Rehabilitation and Employment of Persons with Disabilities defines adjustment of disabled worker's workstation as fitting it with equipment and organizing it so it meets those special needs of the person with disabilities that result from the type and grade of this person's disability [2]. In Article 23a of the statutory law, the range of mandatory measures that the employer must undertake with regard to workstation adjustment for disabled workers is limited to necessary but reasonable accommodation. Such accommodation means making necessary and appropriate modifications and adjustments. Persons with disabilities are required to notify the employer of their special needs. The employer is obligated to implement only such measures that are possible at the workplace and that do not generate disproportionate costs for the employer. At the same time, the law specifies that the total amount of expenses that may be claimed from public funds is a justified limit of expenses that the employer should bear. Further, the law establishes that the said accommodation is required not only for employees but also for job candidates during the recruitment, and for people who are just learning the job, e.g. interns, trainees, or apprentices.

During the analysis of various factors that need to be considered in workplace or workstation adjustment for the needs of the disabled, it is worth taking the following into account: exterior and interior architecture, workroom illumination, including visual signaling system, workroom acoustics and sound signaling system, electromagnetic

fields and various kinds of radiation; spatial organization of the workstation, worker physical loads, the type and complexity of the machinery and equipment used at work, workroom microclimate, biological and chemical factors, psychosocial conditions [5].

The description of the job and workstation that have been adjusted to the needs of persons with disabilities should include a description parameters such as the type of location of the workstation, tasks of the job, working posture, load on the musculoskeletal system, anticipated energy expenditure during performance of regular tasks, type and degree of psychological load; required job qualifications; a list of disabilities that will not prevent one from performing the job [6].

The guidelines concerning jobs and workstations that have been adjusted to the needs of people with disabilities also specify what is not allowed in a given job at a given workstation. These include working in stress positions, especially for extended periods, work that increases the risk of excessive load on the static-dynamic system; work which involves a great deal of nervous tension; work demanding increased energy expenditure; work which demands extended periods of high mental concentration [6].

While a suitable job for a person with disabilities is being sought at a company, it is important to first analyze the needs of the company as well as of the potential worker. Companies that operate in an open market, being business organizations, want to profit from their activity. Employment of people with disabilities need not be only a cost to them, if a sufficient number of people are recruited for pre-planned tasks and appropriately adjusted workstations. Before employing a person with disabilities, characteristics and skills needed for a particular job need to be considered as well as hindrances that may be encountered and ways of mitigating them. The employer needs to take into account what can be offered to a potential disabled worker, what adjustments will and will not be possible at the organization.

Workplace adjustment for special needs workers will be discussed with reference to a research company operating in Łódź as a typical representative of the industry. It is assumed that it is possible to make adjustments for disabled workers in any open market business organization, although such accommodation will not be possible for all disability groups. In the first part of the paper, the results of a study based on the 'Checklist for assessment of workplace adjustment to the needs of people with disabilities' are reported [7]. Adjustment recommendations for different jobs, workstations and capacities of people with different disabilities are provided in the second part of the paper.

2 Characteristics of a Research Company Activity

As specified by the Central Statistical Office in Poland, research organizations are established for the purpose of conducting basic, developmental, experimental or industrial research, and large-scale dissemination of knowledge and research results through education, publication and other types of knowledge transfer. Whereas, research and development (R&D for short) activity is defined as creative research to expand knowledge and develop innovative applications for the knowledge gained [8].

The literature does not offer one definition of a research company. A definition given by a web-based encyclopedia [9] emphasizes that it is a kind of company that has the

necessary technical resources to conduct research, the specialized knowledge, research tools and instruments, and qualified personnel to carry out research on markets and/or opinions. The following are listed as the necessary technical resources: technical equipment, relevant software, a network of research staff, instruments for CATI and CAWI surveys, focus group facilities. It is worth pointing out that these resources and infrastructure need not be the property of the research company. The company may hire them from other organizations to perform its own activities. Most frequently, young people, 35 years of age or younger, are employed at research companies [10] who usually hold a degree in social sciences (sociology, psychology, law, management), economic sciences (econometrics, micro- and microeconomics), and information technology. It is a common practice to hire people who are not employed by the company to perform particular tasks, especially field work, based on a contract of mandate (civil contract). They will oftentimes be students.

Some research companies specialize in selected research techniques, while others provide all-round services using different research techniques as the task demands. Some companies only deal with specific target markets, e.g. specialized companies that only research construction, press, mass media, advertising, and sports industries or TV viewership and ratings. There are small, only a few-employee companies, as well as large organizations that provide their services across the entire country, carry out national-scale projects, e.g. opinion polls, recommendations and research.

Work at a research firm is classified as broadly-construed office work because it is performed at an office and a majority of the job duties are performed with office equipment e.g. a desktop computer, a laptop, a printer, a scanner, a phone, etc.

3 Description of the Studied Company

Company activity: The company was established in 2007 in Łódź, drawing from the experience of doctoral degree holders and professors whose fields of expertise include macroeconomics, econometrics and psychology, affiliated professionally with the University of Lodz. The company is a non-public research organization providing the following services: consulting, research projects, scientific and popular science publications, trainings for business, governmental and non-governmental organizations. Its services also include drafting and carrying out national and international research and development projects. The research and analyses performed by the company are primarily in the broadly-construed fields of social and economic sciences, and in particular, they deal with issues concerning the job market, higher and vocational education, demographics, economics at local, regional, national and international levels.

Company structure: The company employs specialists in economics, econometrics, sociology, psychology, pedagogy, information technology and Polish studies. The Institute is a member of OFBOR, whereas a number of employee hold membership of PTBRiO. The company is an authorized training center. During the study, the firm employed 40 workers and was organized into four departments: Organization and Finance, Projects, Research, Sales.

Organization and Finance Department deals with formal aspects of the company activity. It is divided into two offices: a secretary's office and an accounting office, with four employees, inclusive of the organization and finance manager. Apart from regular office duties and financial operations, this department is also responsible for developing, distributing and updating company documents, recruitment and cooperation with external service providers, e.g. law offices, statutory auditors, OSH training providers, a translator, a cleaning crew, a security firm, etc.

The Research department is the largest one with 19 specialists representing many scientific disciplines whose task is to collect information and develop commissioned research and scientific works, reports and other publications about the job market, higher and vocational education, demographics, economics. The department is managed by the research and analysis manager. The department is subdivided into three teams: pedagogy, forecasts and recommendations. Their work involves collecting information, writing and substantive editing of developed texts, statistical and econometric computing (models, forecasts, etc.). The department is also responsible for conducting or coordinating market research (part of this activity, especially, in distant Polish cities, is performed by people hired for the task on the basis of a civil contract or by an external company. This applies in particular to field research (survey studies or large CATI studies) related to projects that are being carried out and preparing analyses based on their results. The department staff also design training materials for trainees and trainers, and deliver project trainings.

The Project Department is comprised of 11 employees. The head of the department manages two five-employee teams: the programming team and the editing team. The editing team are responsible for preparing the works and publications developed by the Research Department for print. Apart from printed publications, digital materials are also prepared for training purposes and for online and digital publishing. The programming team is in charge of website development and updating, mobile applications and internet tools development (and testing) with regard to their functionality, and feeding the content developed by the Research Department and edited by the editing team into applications and systems.

The Sales Department is made up of six persons inclusive of the sales manager. Typical tasks of the sales staff include client acquisition by way of presenting the company's research and scientific services and pitching them to institutions, both public and non-public, and commercial organizations. The second area of activity for the employees of this department is seeking out projects and preparing tender documentation in public procurement procedures for projects co-financed with EU funds or national public funds. The team are also responsible for developing and commissioning commercial (advertising) projects, updating the company's website and social media and social networking services profiles.

At the studied company, all employees are at least university graduates. Age structure analysis reveals that no employee is older than 35. A gender distribution analysis shows that a majority of employees are women, which also applies to managers as three out of the total four are women. Prior to 2016, the institute did not employ people with disabilities.

Company location: The company is located in Łódź, in a three-story tenement building in the city center. The building dates back to 1890s, and is privately owned by several people. It is under partial heritage curatorship. Since 2009, the company has rented the space located on the second and third floor that once used to be tenements but was converted into offices with some elements of the original architecture, e.g. windows, tall double-door, hardwood flooring and decorative ceiling moldings, preserved. To get to the company entrance one needs to go through the property gate and an entrance in the courtyard. To get to the offices, one needs to climb the stairs with one-side railing. The property offers no elevator. The entrance door is a heavy burglar-proof double-door.

Office floorplan: The floorplan of both floors is almost identical. The difference lies in the fact that the third-floor offices, made up of two previous tenements the total square area of which is 335 sq. m, are walk-through as the wall that used to divide them had been demolished. The usable area on this floor comprises two hallways with separate entrance doors, nine workrooms for employees, three bathrooms, two kitchens (typically fitted) and a dining room. On the second floor, the total of 137 sq. m is rented and comprises a hallway, four workrooms (one focus group facility, one conference suite where meetings with clients are held, two rooms for the managers), bathrooms. The rooms are 3.6-meter-high.

Equipment, tools and instruments used: Employees have access to equipment that can be classified into the following three groups: office, kitchen, and other equipment. The first group includes computer workstations with one or two display units, laptops, multifunction office machines, scanners, a facsimile machine, phone sets, shredders. Besides electrical machines, the workers can also use such manually-operated devices as a binding machine, paper cutters and trimmers, laminators. Kitchen equipment comprises: a coffee maker, a refrigerator, microwave ovens, electric kettles, water dispensers. Other equipment includes: an enclosed server with a telephone exchange system, air conditioners, gas water heaters. The focus group facility contains a separate set of equipment that due to its high cost can be accessed by a limited number of employees. There are microphones, session recording systems, a multimedia projector, video and photo cameras, voice recorders, and a control panel with specialized software.

Standard furnishings and workstation arrangement: Each workstation is furnished alike because all workstations have been designed for office jobs. Each employee has a desk and a chair that meet the requirements laid down in the Regulation of the Minister of Labor and Social Policy of 1 December 1998 on occupational health and safety of workstations with display units. The desks are 71 cm high and can be adjusted in the range of 2–3 cm, and have standard dimensions: length -120 cm; width - 60 cm. There is one (or two) display unit(s) and a computer mouse at each workstation. In addition, on the desks, there are containers to store documents, writing instruments or paper clips. There is an electric desk lamp on each desk, and a cork board above it. Under a few desks, on the left or the right-hand side, there are small key-locked cabinets where the workers keep documents, office supplies and personal belongings. Some employees also keep an additional chair next to their desks.

Some workstations are set by the windows. They are placed with their short side parallel to the window. The widows are fitted with roller blinds. The desks located deeper

in the room are arranged in the shape of the letter 'U' in such a way that the workers sit with their backs towards one another. It is an open space arrangement.

The walls in all rooms are very light beige, while the flooring is hardwood. The rooms are illuminated with fluorescent lamps which in the workrooms are fitted inside ceiling-mounted louver light fixtures. Each desk has an additional desk lamp.

4 Description of the Research Instrument

In order to analyze how well-adjusted the workplace is for people with disabilities, the checklist developed by the Central Institute for Labor Protection – National Research Institute during the research project 'Framework guidelines for design of facilities and workspace, and workstation adjustments for people with disabilities with specific needs' [7] was used (hereinafter called 'the checklist').

The instrument is comprised of two parts. Part one includes 46 questions concerning those characteristics that could limit the possibility of the job being performed by persons with a specific disability. The second part is comprised of 99 questions and refers to seven aspects of the work environment that need to be considered in the design of the workstation for the needs of people with a disability. These are: architectural and spatial organization of the workstation, lighting (including signaling lights), work space acoustics (including signaling sounds), electromagnetic fields and/or radiation, machines and devices, microclimate, chemical factors and physical loads.

Each of the diagnosed characteristics, in both parts of the instrument, is examined separately for the following types of disabilities: musculoskeletal, vision, and hearing impairments; mental disorders; intellectual impairments; disability resulting from systemic diseases (cardiovascular, respiratory, nervous, digestive, and genitourinary system diseases).

No information on the standardization of the instrument is available, and therefore, it should only be used for qualitative analysis. Further, some interpretative errors could arise due to insufficient operationalization of some of the concepts used and lack of an explanation of the meaning of some of the items.

5 Results of the Study Conducted with the 'Checklist for Assessment of Workplace Adjustment to the Needs of People with Disabilities'

The study based on the checklist was performed in September 2016. The checklist was completed for the following groups of jobs: researcher, accountant, programmer, editor, sales person.

In the first part of the checklist, the results were different for different jobs, whereas in the second part, the distribution of responses for all studied posts was the same due to the fact that the same workplace was described.

Analysis of the first part of the checklist, which included a list of characteristics that could render working at the studied company more difficult for a person with disabilities,

did indeed reveal some issues that such a person would come across. The first issue that figured for all types of disability was the need to work overtime. The most constraints were recorded for intellectual impairments; second came mental disorders, whereas the number of constraints for musculoskeletal disability, visual and hearing impairments was similar. The fewest maladjustments were observed for people with disabilities stemming from systemic diseases.

Some of the characteristics included in the checklist and rendering the work of a person with disabilities more difficult applied to all of the analyzed jobs. People with disabilities will experience the least difficulty if they work as an editor, and the most difficulty if they work as an accountant and a researcher (Table 1). Types of disabilities that a given hindrance applies to are indicated in brackets where MS stands for a musculoskeletal disability, V - visual, H - hearing, M - mental, I - intellectual, C - cardiovascular R - respiratory, N - nervous system, D - digestive system, G - genitourinary system.

Table 1. Diagnosed hindrances for people with disabilities by the type of job.

Job	Hindrance
All jobs	Working overtime (MS, V, H, M, I, R, C, N, D, G), Requirement for upper and lower limb functionality and precision (MS), Requirement for functionality of upper limbs (MS), Periodically fast or forced pace of work (MS, V, M, I, R, C, N, D, G), Verbal communication requirement (H, I), No job coach or disability support worker (MS, V, H, M, I, N), Duties require specialized knowledge and qualifications (I), Work requires continual learning or creative thinking (I) Periodically, stress-inducing factors (M, I)
Researcher	Color vision requirement (V) Working in an open space environment (H, M, I) Requirement for complex decision making (M, I) Frequent and continual verbal communication with others (H, M, I) Business travel (MS, V, M, I, N, D, G) Requirement for sustained high mental concentration (M, I)
Accountant	Working in an open space environment (H, M, I) Requirement for complex decision making (M, I) Frequent and continual verbal communication with others (H, M, I) Financial responsibility (M, I) Business travel (MS, V, M, I, N, D, G) Requirement for sustained high mental concentration (M, I)
Programmer	Requirement for complex decision making (M, I) Color vision requirement (V) Business travel (MS, V, M, I, N, D, G)
Editor	Color vision requirement (V) Requirement for sustained high mental concentration (M, I)
Sales	Working in an open space environment (H, M, I) Requirement for complex decision making (M, I) Frequent and continual verbal communication with others (H, M, I) Business travel (MS, V, M, I, N, D, G)

Analysis of the second part of the checklist revealed a number of different maladjustments for specific disability types.

For musculoskeletal disability, the following maladjustments were diagnosed on the basis of the checklist:

- no designated parking spaces in the immediate vicinity of the building,
- in some places, the vestibules and hallways do not provide sufficient, 1.5 × 1.5 m, maneuvering space,
- no possibility to move between floors by elevator or other lifting devices,
- stairway landing is in the parameter of the swing of the door,
- no railings on both sides of the staircase,
- in some places, not enough room to move unhindered in the hallways (cardboard boxes, side tables, etc. block the way),
- no accessible restroom,
- floor surface in the restroom is not slip-resistant,
- in social rooms, in some places, entranceways/passageways are not of the required minimum width of 0.9 m,
- access to some of the workstations is hindered by poorly-fitted floor border profiles,
- a disability support worker has not been assigned to a disabled worker in case of emergency,
- working surfaces have not been fitted with edge protection preventing objects from falling off,
- no designated space at the workstation to put away mobility aids securely (crutches, walkers),
- some of the materials used for work are out of reach of the upper limbs.

For visual impairments, the following parameters were diagnosed as requiring adjustment:

- there is no pedestrian crossing with a sound signaling system in the vicinity,
- the gate and the gateway are not visible at all times,
- doorbell and intercom buttons are poorly visible,
- entrance doors are not clearly marked and are not sufficiently visible at all times,
- stairs are not distinguished with colors that contrast with wall colors,
- stairs are not distinguished with colors that contrast with flooring colors,
- stairway landing is in the parameter of the swing of the door,
- in some places, not enough room to move unhindered in the hallways (cardboard boxes, side tables, etc. block the way),
- light switches and plug-in sockets are not a color that would make them stand out from the color of the wall,
- internal doors color does not contrast with the color of the walls and flooring (a majority of doors have been dismantled as they were very tall, massive, double-doors; only hygiene and sanitary room doors and two glass doors to the conference suite and to the editing room remain),
- floor surface in the restrooms is not slip-resistant,
- no uniform and adequate system of visual room identification,
- no room identification system based on a convex point code or Braille,

- no emergency signaling adequate for low vision and blind persons at the company,
- a disability support worker has not been assigned to a disabled worker in case of an emergency evacuation,
- working surfaces have not been fitted with edge protection preventing objects from falling off,
- the edges and the corners of the desks and tables are not rounded,
- no designated space in the immediate vicinity of the disabled worker's workstation to place the white cane securely,
- the equipment and software used are not adjusted to the capacities of people who are legally blind.

For workers with hearing impairments, the following parameters were diagnosed as requiring adjustment:

- there is no pedestrian crossing with a signal light system in the vicinity,
- there is no emergency signaling system for people with hearing impairments at the company,
- a disability support worker has not been assigned to disabled workers incase of an emergency evacuation,
- no-one at the company can use sign language.

The workplace features that were diagnosed as requiring adjustment in the case of people with mental disorders included:

- the disabled worker has not been assigned a disability support worker in case of an emergency evacuation,
- a quiet, isolated room where medication could be taken was not designated.

The following are the features that would require adjustment for people with intellectual impairments:

- the gate and gateway are not visible at all times,
- the disabled worker has not been assigned a disability support worker in case of an emergency evacuation,
- machines and devices' operation manuals are not written in a simple, easily-understandable language or presented in the form of pictorial instructions,
- software applications are not appropriate for the knowledge and skills of the worker.

For disabilities stemming from systemic diseases, regardless of the type of the disease, the following issues would need to be resolved:

- no designated room to take medication,
- there are no desks and tables with rounded corners (this would only matter for disorders of the nervous system),
- no informational pictorial identification of hygiene and sanitary rooms (important for diseases of the digestive and genitourinary systems).

The performed analysis implies that people with visual impairments, and with musculoskeletal disorders, especially of the lower limbs, would be the most disadvantaged, whereas people with mental disorders, and with disabilities resulting from systemic diseases would encounter the least difficulty.

6 Conclusions

The study revealed many hindrances that disabled workers would encounter at the research company. However, it bears emphasizing that none of them would entirely exclude these persons from being employed.

Working as a researcher could be particularly difficult for people with musculoskeletal disabilities involving upper limbs (for lower limbs, the hindrances would mainly be caused by architectural maladjustment of the building and the requirement for business travel - the same would apply to working in the other jobs), and for people with hearing impairments. As the job requires creative, conceptual work as well as specialized higher education qualifications, a person with intellectual impairments would not be able to do it. Whereas, due to extended periods of working at the computer without a possibility to perform any other tasks, it would also be very difficult for low vision and legally blind persons. People with mental disorders, hearing impairments or systemic diseases (including people with epilepsy) could perform typical tasks of the job if adequate organization of their work was ensured by the manager. Because of considerable variability of tasks and working teams' structure, people with autism spectrum disorders could find working as a member of a research team rather difficult.

Working as an accountant may be particularly challenging for most people with disabilities due to high levels of stress experienced during the performance of the tasks of this job. Their considerable complexity, inherent financial responsibility and key impact of financial operations on the company's performance indicate that people with mental disorders and intellectual impairments could not be appointed for this job. The need for continual verbal communication both with the company employees as well as with other people renders employing people with hearing impairments for the job impossible. The requirement to use complicated accounting software would greatly constrain the possibility of employing low vision people for the job. Once the required adjustments have been introduced, the job could be performed by people with systemic diseases, musculoskeletal disabilities, and people with hearing impairments who use hearing aids.

The job of a programmer, as it necessarily requires continual work at the computer without the possibility of switching to another task, would not be recommended for legally blind and low vision people, and for people with major dysfunctions of the upper limbs. Further, due to the conceptual character of the job, it would not be suitable for persons with intellectual impairments. This job does not require frequent social contacts by way of verbal communication, and therefore, it would be recommended for the profoundly deaf or people with hearing loss. There are no contraindications for people with peripheral nervous system (PNS) disorders or mental disorders to perform the job;

in fact, people with autism spectrum disorders, e.g. Asperger syndrome, may handle the tasks related to software testing particularly well.

Working as an editor is quiet work but it actually requires a high degree of accuracy, paying close attention to the smallest details and knowledge of numerous rules concerning both word spelling as well as graphic structuring of texts, and therefore, it will not be suitable for people with intellectual impairments or people with visual and hearing impairments who cannot use written/spoken Polish. Because of a great deal of pressure and high perceived stressfulness of the job, it would be especially demanding for people with mental disorders. High variability of duties in this job, and the requirement for cognitive flexibility (attention shifts) is the reason why people with autism spectrum disorders, including Asperger syndrome, may find meeting the demands of this job particularly challenging.

Using computer graphics software and continuous engagement with a computer display may significantly limit the possibility of employing low vision people for the job. There are no contraindications for people with PNS disorders and musculoskeletal disabilities, even with dysfunctions of the upper limbs or unilateral upper limb loss, to perform this job once their workstations have been adjusted.

The job of a sales person requires frequent and intensive verbal interaction, and therefore, it is not recommended for people with speech dysfunctions and hearing impairments. This job should be extremely challenging for legally blind or low vision people, and also for people with intellectual impairments due to considerable task complexity. It might seem that that a salesperson's job should prove to be exceptionally stressful because of the need for frequent social interactions. However, the analysis performed at the studied company showed that the employees of this department regarded it as not very stressful, and therefore, there are no contraindications to employing people with mental or PNS disorders in this job. Nor are there any contraindications to appointing people with musculoskeletal disabilities for this post [11].

Adjustments that should be made to enable the studied research company to employ people with different disabilities will be discussed in the second part of the foregoing paper.

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