Inclusion of people with disabilities – a multidimensional approach

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What is „inclusion”?

Inclusion – integration, full participation in social and professional life.

This term is related to different social groups defined by age, health status and sex.

Main causes to deal with inclusion

Socio-demographic changes are impacting the labor market - there is an increase in older workers and a **shrinking workforce**. As a result, employers need to **tap into the potential of different social groups**. To achieve this, it is necessary **to create a work environment** that supports the effective use of the potential of all employees. **The most challenging** situation concerns utilizing the potential of people with disabilities, due to **numerous barriers**, including a lack of knowledge and skills in **managing this particular potential**, limited management experience, and prejudices from management or co-workers toward disabled employees.

What are the main factors taking into account in our research?

Individual

- Demographic variables e.g. age, sex, level of education, marital status
- Skills, experience
- Psychological variables e.g. motivation, willingness to take actions

Social environment

- Knowledge
- Attitudes
- Experience

Technological support

- Assistive technology
- Architectural space

Our methodology

How do we measure variables included in our research?

- Questionnaires
- In-depth interviews
- Observations

Which groups are included in our research?

- People with different types of disabilities
- Employers
- Co-workers

What have we researched in context of social inclusion?

- Motivation to work people with disabilities
- Determinants of professional activity among young mothers with disability
(work-life balance, self assessment of work ability, psychosocial working conditions)
- Potential of workers with disabilities and determinants of its use
- Opinions of non disabled workers about work of people with disabilities

Potential of workers with disabilities and determinants of its use

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Method

Questionnaire research (e-questionnaire), carried out using the CAWI (Computer Assisted Web Interview) among 515 employees with various disabilities (movement, sight, hearing, mental and internal organ diseases).

- The questionnaire developed for the project consisted of 35 questions concerning the potential of people with disabilities and ways of using it in the workplace, opportunities / barriers in employment, self-assessment of well-being and work ability, acceptance of disability, importance of work in opinions of workers with disabilities and their expectations,
- COPSOQ (questionnaire for assessing the psychosocial work environment, Kristensen et al., 2005),
- UWES (work engagement scale, Schaufeli et al., 2006)
- WEIMS-PL (work motivation scale, in the Polish adaptation of Chrupała Pniak, Grabowski, 2016).

Potential indicators *developed for the survey: high level of well-being, acceptance of disability, high assessment of work ability, motivation to life long learning, work engagement, internal motivation.*

Results

More than half of the respondents believe that their potential is the same as other employees

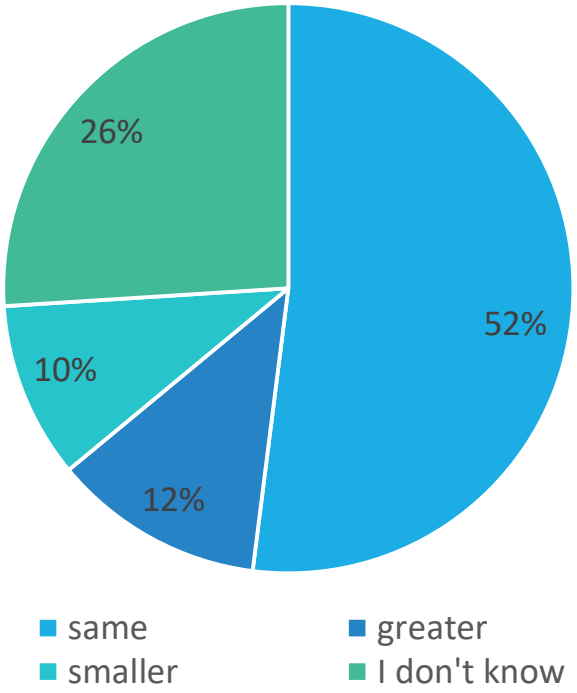

Chart 1. Potential of disabled employees compared to non-disabled, in the opinion of disabled people (N = 515, %)

36,5% employees had high potential and 63,5% - low (based on potential indicators developed for the survey)

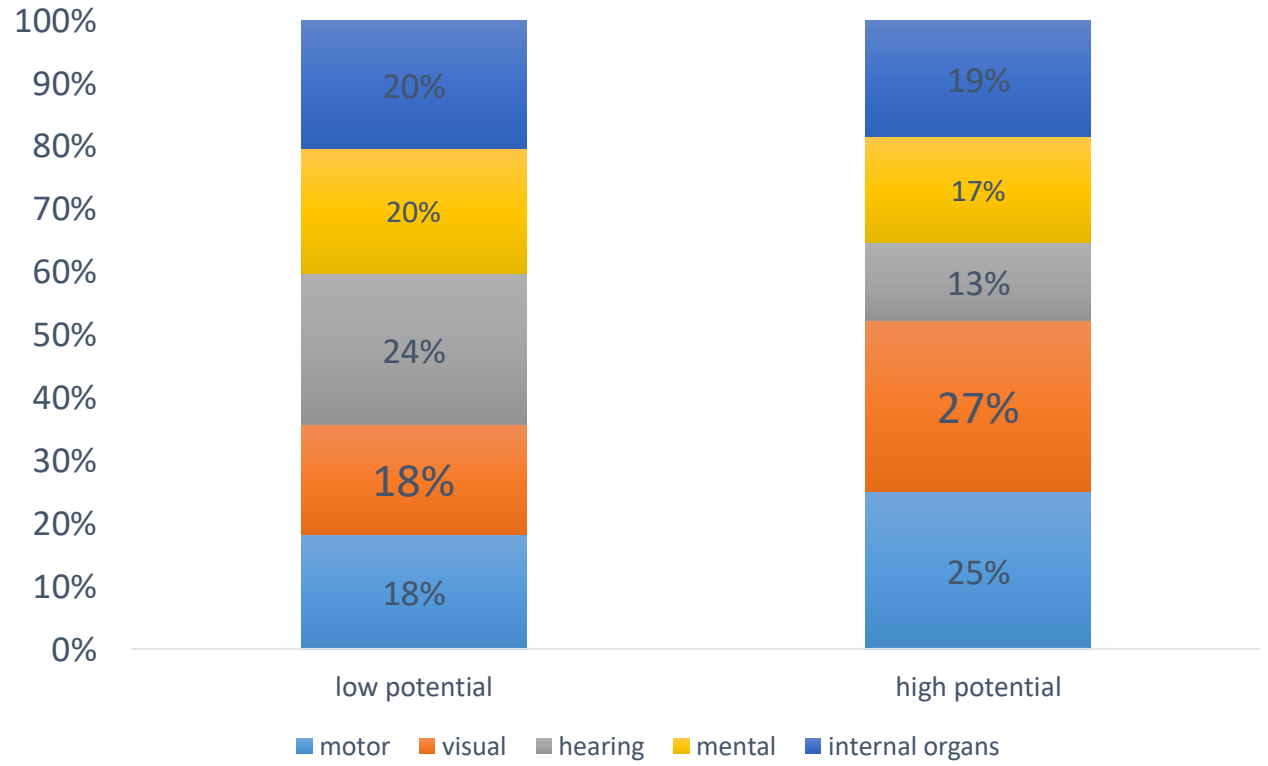

Chart 2. High vs. low potential determined on the basis of potential indicators

Table 1. Key determinants for using the potential of people with disabilities

Determinants	*B*	*SE*	*Exp(B)*	*p*
Positions compatible with qualifications	1,38	0,24	3,99	0,000
Resistance to stress	0,84	0,36	2,32	0,021
Training offer for people with disabilities	0,79	0,26	2,19	0,002
Rewarding results of work	0,73	0,30	2,07	0,014
Adapting workplaces to meet the needs of people with disabilities	0,58	0,25	1,78	0,023
Positive attitudes of employers and colleagues	0,56	0,25	1,75	0,028
Support from boss	0,26	0,13	1,29	0,046
Sense of effectiveness	0,01	0,01	1,01	0,090
Work as a source of income	-1,00	0,36	0,37	0,005

Conclusions

- People with disabilities have a potential that they are aware of.
- However, there is a need to constantly increase employers' awareness of this potential and the possibility of using it.
- There is a need to develop solutions and instruments that make it easier for employers to take advantage of the valuable values and resources that people with disabilities bring to the company.

Based on results it has been developed an application for employers PONTI („Potential of people of disabilities is an investment”).

What have we researched in context of new technologies and digitalisation?

1. Assessment of digital competencies of people with disabilities

- Digital competencies test for people with visual impairment
- Application for measuring digital competencies pointed by employers as future competencies (ongoing)

2. Virtual work assistant for people with intellectual disabilities

Assessment of digital competencies of people with disabilities

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Assessment of digital competencies of people with disabilities

Two projects:

- digital competencies among people with visual impairment
- digital competencies among people with different type of disability in context of competences of the future pointed out by employers

Method and results

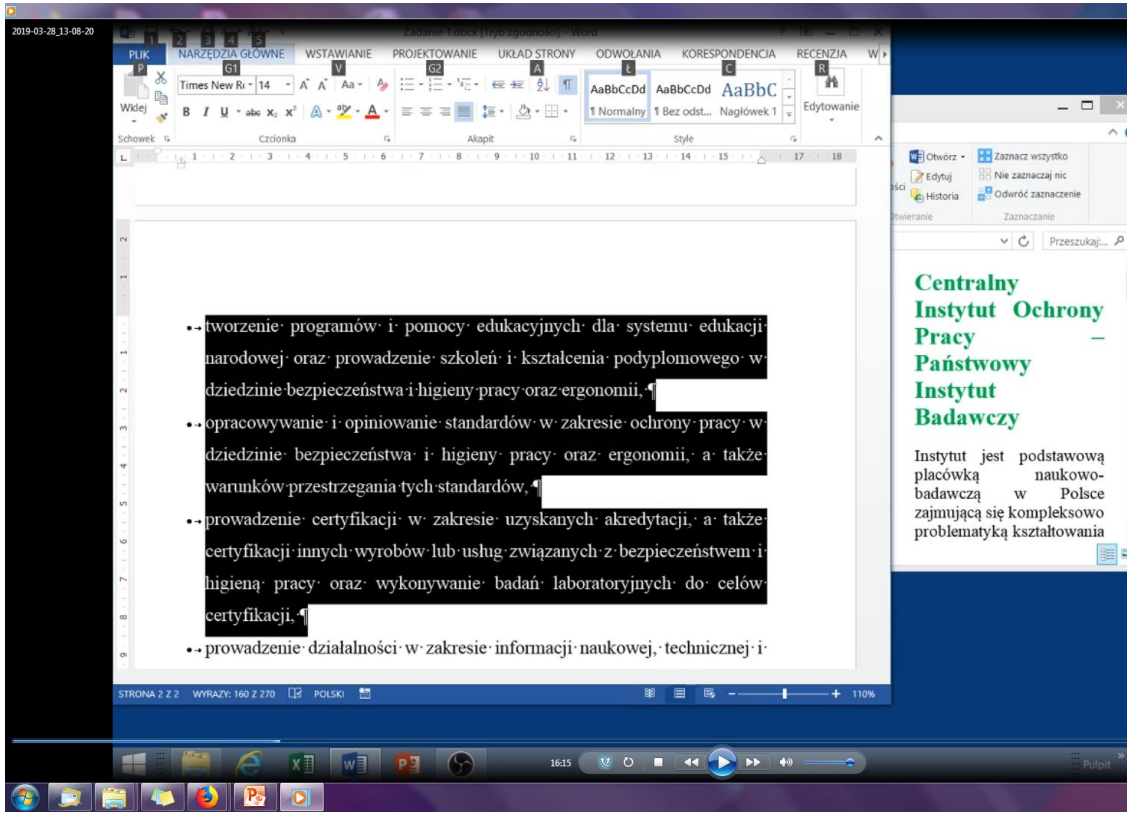
Method:

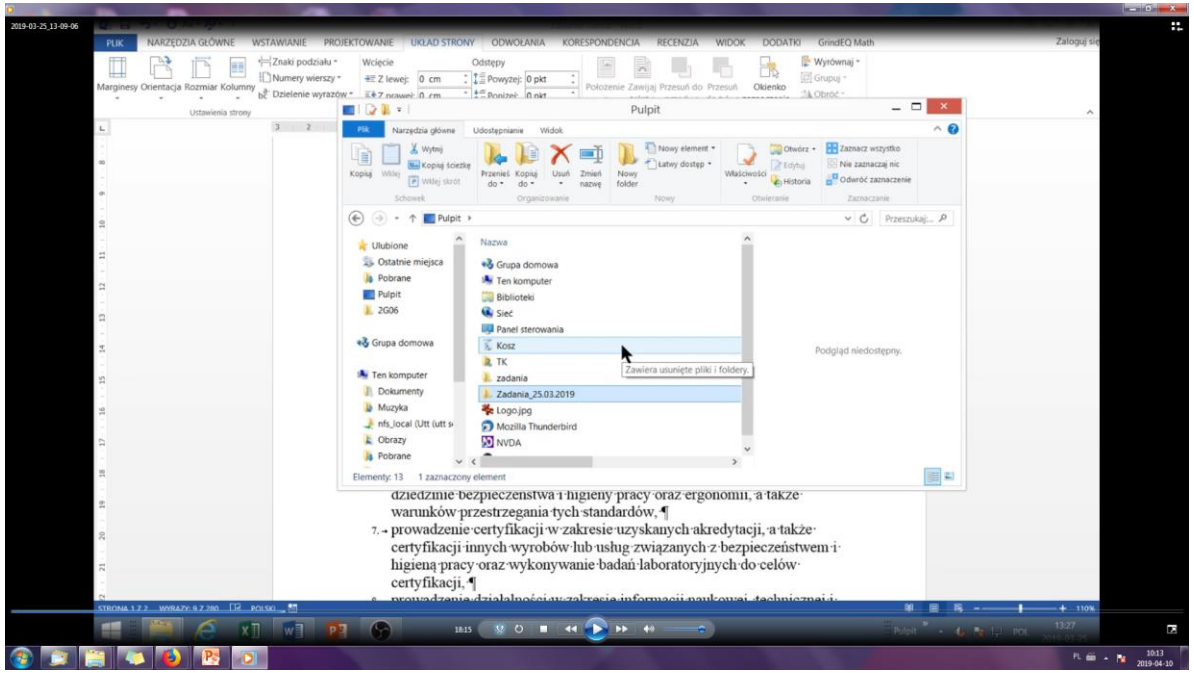
- self assessment of digital competencies among people with visual impairment (In-depth interviews) – assessment of own digital competencies,
- objective assessment of digital competencies by observation diuring test (making tasks related to digital competencies in real time)

Results:

- blind people achive better ranks in tests made in real time than people with low vision which made more mistakes diuring work by computer

How do people with visual impairment works with computer?



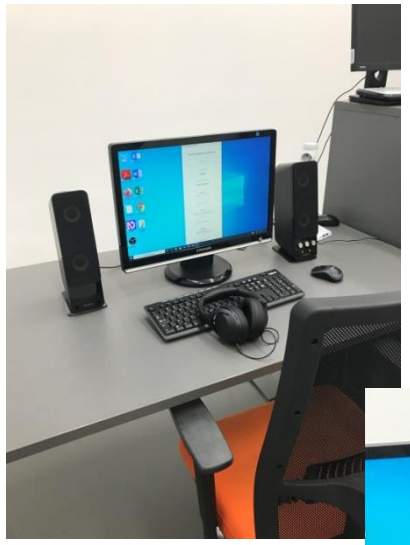


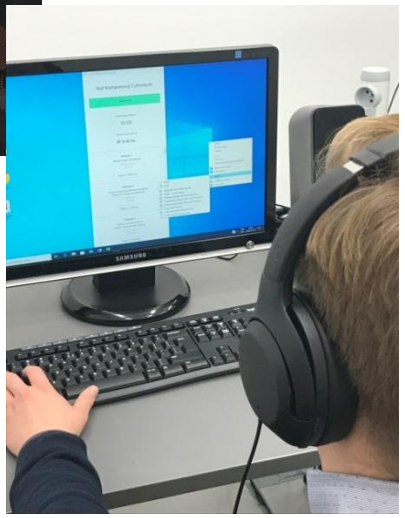
Test for people with visual impairment

Application Digital Competencies Test for people with visual impairment

Application made from 42 taskt related to use of computer, e-mail and MS office in real time. Shows on what level is every user (as a result application shows the percentage of gained points in context of all points which user can gain)

Application veryfied by people with visual impairment during making tests. All comments were gaind during the work with application and all of them were took into account during the creation of the last version of application)





Digital competencies among people with different types of disability in context of competences of the future which were pointed out by employers

Methods:

- questionnaier conducted among people with different types of disability to assess the level of digital competencies and to assess the level of adjusment of digital cmpetencies courses to the needs of people with different types of disabilities
- questionnaire conducted among employers to define the competences of the future in context of digital world
- market research of courses of digital competencies to assess the level of adaptation to the needs of people with disabilities and the requirements of the labor market

Results – application which will test the digital competencies of people with different types of disabilites of competences of the future which were pointed out by employers

Virtual work assistant for people with intellectual disabilities

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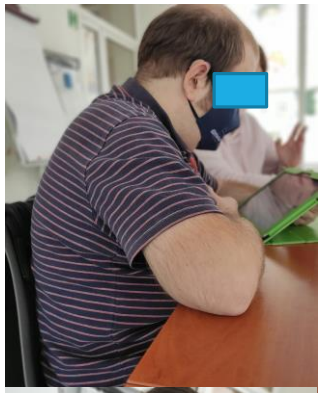
Virtual work assistant for people with intellectual disabilities

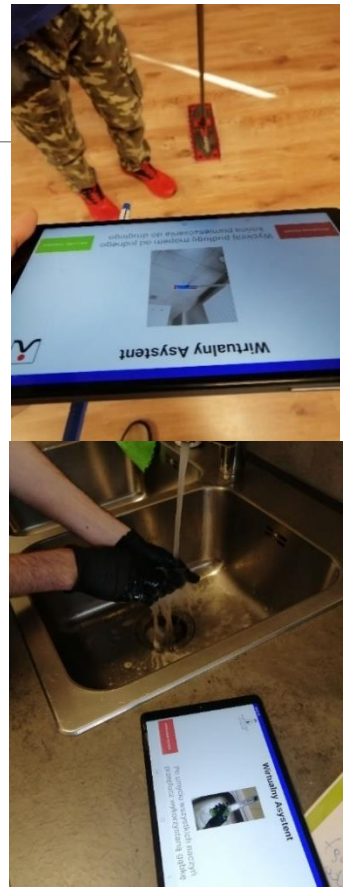
Application Virtual assistant was developed in the CIOP-PIB in Warsaw. This solution is intended to show how to perform professional activities during work step by step.

How do we developed the solution:

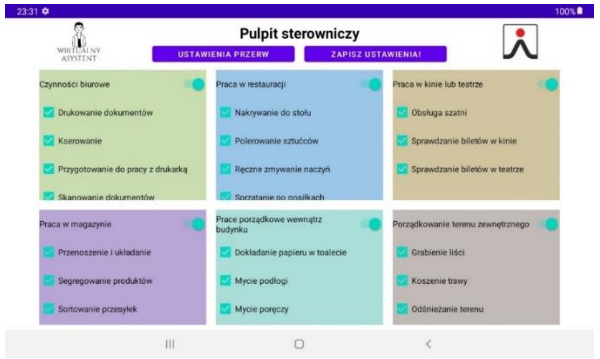
- Selection of professional activities performed by people with intellectual disability (based on opinion of job coaches and specialist which works wit people with intellectual disability)
- In depth interviews among people with intellectual disability to define their needs and preferences of application functionality (e.g. what should this application have, how it should look like)
- Development of the first version of application
- Test of first version of application conducted in laboratory conditions



Virtual work assistant for people with intellectual disabilities



- Verification of first version of application on the base of opinions of people with intellectual disability gaind duriung the test counducted in laboratory conditions
- Development of the second version of application
- Test of the second version of application in real conditions
- Development of final version of Virtual work assistant



How it was working in reality?

Conclusions

Inclusion is a very broad term related to many areas and many factors which are must be included in discussion about inclusion.

To get the best results of research it is good to mix different types of methods like questionnaires and in-depth interviews.
It will allow to gain full results - quantitative completed by qualitative results.

All proposed solutions and ideas should be discussed with people with disabilities and tested by them to receive feedback that will help to improve the developed solution in response to specific needs.

Thank you for your attention

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