Beatrix Séllei

The role of emotional intelligence in the vocational rehabilitation

PhD thesis

Doctoral School in Psychology
The leader of the Doctoral School: Attila Oláh, professor
The leader of the Doctoral Program for Work and Organizational Psychology:
Klára Faragó, professor emerita

Supervisor: Lajos Izsó DSc, professor

Reading committee:
President: Klára Faragó, professor emerita
Internal reviewer: Katalin Billédi, collage lecturer
External reviewer: Ildikó Takács, associate professor
Secretary: Orhidea Edith Kiss, assistant professor
Members: Miklós Györi, associate professor
Emőke Bagdy, professor emerita
Ferenc Türy, professor
Lajos Kullmann, professor emeritus

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The qualification of the author as psychologist and special needs teacher determines the frame of this research. The research basically uses the tools and methods of psychology, but because of the complexity and interdisciplinarity of the theme, we have to use some methods borrowed from social sciences, disability science and institutional history too. This holistic view supports the connection between the practical and the theoretical side of vocational rehabilitation. In every case, the occupational rehabilitation is determined by the environment, so we narrow our research down to the actual Hungarian rehabilitation system and to the Hungarian society. The goal of this paper is to map the present Hungarian situation concerning less able workers from the point of view of the positive psychology.

After the social and economical changes of the recent years the vocational rehabilitation have become a neglected territory disgracefully; nevertheless a lot of people from the active age population is affected by it.

We are not satisfied only discovering the situation, we ask questions and make propositions that hopefully could bring some fresh dynamism to the processes and agents of occupational rehabilitation.

We researched the emotional competences and motives of the most important agents of vocational rehabilitation – the employers, the co-workers and the workers with changed working ability – and their role in the process of rehabilitation. The growing activity of the disabled persons in the society makes a lot of changes in the attitude towards them, and this social phenomenon will be assigned also as the object of our research and this phenomenon, as an invisible context, can determine the success of the occupational rehabilitation too. The institutional background of the complex rehabilitation and within this, the vocational rehabilitation to understand the circumstances, motives and attitudes of the agents is analyzed.

1. Literature Overview

To set the appropriate approach first a detailed literature review on the emotional psychology was conducted, and its common point was shown with the positive psychology. The actual state-of-the-art of both the theory and the practice of the complex rehabilitation was reviewed and summarized, connecting this also with the relevant parts of positive psychology. We created our thesis on that joint fields.

First the current models of the emotional intelligence were reviewed –three groups of them can be separated (Pérez et al, 2005). There are ability-based models (Salovey and Mayer, 2000; Salovey et al, 2000), trait models (Bar-On, 2000), and mixed models (Goleman, 1998/2004). We cast anchor by the trait-based model of Bar-On what describes the emotional intelligence in the following way:
After presenting the emotional intelligence models the problems of its measurability are discussed. That could be a very sensible point for operationalizing and conceptualizing the phenomenon, because every model has its special measure tool but we are not sure that every tool measure the same thing (EI Consortium, 2014; Pérez et al, 2005). After discussing the debates about definitions we continue our paper about a special field of application of the emotional intelligence: the presence of EI at the workplaces (Cherniss, 2000; Ashkanasy, 2004). We can group the results of this scientific field to three parts: we can focus the research on the emotional attributes of the leaders (for example Obradovic et al, 2013; Goleman et al, 2013; Behbahani, 2011; Johar et al., 2012; Akca, 2010), or of the employers (Trivellas et al., 2013; Tabatabaei et al., 2013; Fisher és Noble, 2004; Cekmecelioglu et al., 2012; Mara és Mara, 2010; Yozgat et al., 2013; Ghiabani és Besharat, 2011) or of the whole organization (Weiss and Cropanzano, 1996; Hareli és Rafaeli, 2008). These could be important interventional points for the vocational rehabilitation because the emotional abilities could be developed not as the biological capabilities.

We can surely pronounce – even though nobody can declare the definition clearly – that the growth of the popularity of the emotional intelligence brought us the legalization of the emotions in the decisions and showed us, that we need some kind of emotional and social competences and traits to be successful. It is a really important asset by our observed group that the EI could be developed.

The basic thesis of the positive psychology is the importance and the adaptive function of the emotions (Seligman, Csikszentmihalyi, 2000; Frederickson, 2003). These researches showed us a positive explication of the disability what could be – we presume – the key of the successful vocational rehabilitation. As a matter of fact, the same point of view appears in the modern interpretation of the workforce rehabilitation as in the positive psychology. The emphasis changes to the strengths and reserved abilities; the more this attitude spreads in the rehabilitation practice, the easier is to keep the focus on the strengths – declares the ICF (International Classification of Functioning, Disability and Health). Because the psychological rehabilitation is a part of the complex rehabilitation, the accentuation of these positive trends is very important.

### Table 1 Bar-On’s (2000) model of emotional intelligence

<table>
<thead>
<tr>
<th>Components</th>
<th>Intrapersonal</th>
<th>Interpersonal</th>
<th>Adaptability</th>
<th>Stress management</th>
<th>General mood</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>emotional self-awareness</td>
<td>empathy</td>
<td>reality testing</td>
<td>stress tolerance</td>
<td>optimism</td>
</tr>
<tr>
<td></td>
<td>assertiveness</td>
<td>social responsibility</td>
<td>flexibility</td>
<td>impulse control</td>
<td>happiness</td>
</tr>
<tr>
<td></td>
<td>self-regard</td>
<td>interpersonal relationships</td>
<td>problem solving</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>independence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>self-actualization</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
recent and gives a valuable point of view to the rehabilitation (Gable, Haidt, 2005; Zijlmans et al., 2013; Lopez, Magyar-Moe, 2006).

After describing the basics of positive psychology, we turn to the presentation of the complex rehabilitation, theory and Hungarian practice. We describe the principles, institutions, the affected persons and the attitudes towards them (for example Váradi, 2012; Heincz et al, 2012; Izsó et al, 2013; and the relevant acts). In the frames of the definition of the World Health Organization (WHO) the disability comes from a system of person – tool – environment, the disability is a feature of that complex system and not the feature of a person alone (WHO, 2001/2003). In the ICF the emphasis is laid on discovering the remaining functions what could be the basis of future rehabilitation of a person. Because of that, as the new paradigm of the complex rehabilitation says, the complex rehabilitation of the person couldn’t be accomplished without rehabilitating the society; because most of the measurements pointing the rehabilitation of society, mental, environmental, personal assertiveness or vocational level, affects the disabled person and his social environment and contacts as well (Könczei, 2009) in the same time. The attitudes of the society towards the disabled persons was not frequently researched in the last 30 years (Illyés and Erdősi, 1986), now we make an attempt to this, after presenting the results of previous researches (for example Fischer, 2009; Kegye et al, 2013). We examine the important role of the workplaces, based on the international literature, presenting a lot of good examples and best practices. Our results – based on the literature and the previous researches – point it out that the possibilities in the work and its positive effects can be exploited in the vocational rehabilitation. This could amplify the results of the rehabilitation, but also assist the personality development of the persons with changed ability (Kun, 2010; ILO, 2010; ILO, 2011; ILO, 2014; Ashkanasy, 2004; Seligman, 2011; Della Fave, 2011; Csikszentmihályi and Csikszentmihályi, 1998; Olkin, Pledger, 2003).

2. Theses

Based on the literature three theses were created and split into hypotheses presented belows.

The first thesis examines the vocational rehabilitation from the side of the employers, because they are the first key agents to the workforce reintegration.

I. thesis: The employers are more reticence from employing a disabled person.

The second main research direction is the acceptance at the workplaces. The reason is that to get a job do not mean automatically the successful socialization and the pliancy of the person with changed working ability. Based on the literature we can see that between the factors of integration the disabled person is just one; the organizational
culture is also very important as the colleagues themselves. We split the thesis into two hypotheses. In the first group there are persons with work experience and ongoing employment, and we ask their attitudes and the factors determining their attitudes towards the disabled persons.

In the second group university students - who had no working experience - were asked about how to co-operate with disabled persons. If these the two sample had similar results, we could predict that the attitude towards the disabled persons is not influenced by the work experience, and some another variables (for example prejudice towards them) could have an effect instead.

II. thesis: The future co-workers’ attitude towards disabled persons is determined by the experience and the emotional intelligence.

Of course, based on the principle “nothing about us, without us” (De nobis, sine nobis.) (Marton és Könczei, 2009, 5.) we discovered the attitude of the subjects of the vocational rehabilitation directly and indirectly too. These are the experiences what could specify the interventional possibilities later.

III. thesis: The motivation of the disabled workers to work is relatively low.

3. Empirical surveys

The observation period of the survey lasted from may 2013 till february 2015, analyzing more survey questions and samples. The process of the research is presented in the following table:

<table>
<thead>
<tr>
<th>Phase</th>
<th>Duration</th>
<th>Sample</th>
<th>Sample size</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>From May till Dec 2013</td>
<td>small and medium sized entreprenuers</td>
<td>196</td>
<td>EQ-i Bogardus’s attitude scale</td>
</tr>
<tr>
<td>II.</td>
<td>April 2014</td>
<td>teachers</td>
<td>496</td>
<td>EQ-i Bogardus’s attitude scale</td>
</tr>
<tr>
<td>III.</td>
<td>From Dec 2014 till Jan 2015</td>
<td>university students</td>
<td>400</td>
<td>EQ-i Yuker’s ATDP</td>
</tr>
</tbody>
</table>

Table 2 Short summary of our surveys

We surveyed the small and medium sized enterprises (SMEs) together with the Social communications Research Group of the University ELTE, Pedagogy and Psychology Faculty, Instiute of Psychology as a group of PhD-students. This was a quantiative research.

Teachers from the whole country are classified to the sample of the second survey, who are participated the Leader training for education of the Budapest University of Technology and Economics. These data were quantitave and qualitative also.
At the third phase the attitudes of the students of the Budapest University of Technology and Economics, as future co-workers of the disabled were surveyed. These data are quantitative.

More complementary, qualitative surveys to sophisticate the quantitative data were conducted. For example, these were the analysis of the methodological protocol of the National Office of Rehabilitation and Social Affairs, what showed us the questions and further development points of the qualification system – as the analysis of the vocational rehabilitation system. As a case description one concrete workplace was surveyed, firstly from the point of view of the receptive co-workers – as the medium of the vocational rehabilitation. Interviews were administered with workers with changed working abilities, about their experiences with job searching and working as well.

Furthermore, a rich data source - provided earlier from a large scale 2011 survey of the National Office of Rehabilitation and Social Affairs – was also analyzed. This was a primary analysis of these huge data base and the results strongly contributed to know and understand the disabled persons better.

3.1. Description of the methods and tools of the survey

While creating the questionnaires we strove to ensure the homogeneity, tried to formulate all the items in a similar way and structure. We measured the attitudes towards the handicapped persons with the social distance scale of Bogardus (1928). Both the Hungarian and the international researches found this scale as an appropriate tool for measuring the attitude against different social groups (Ferge et al, 1968, Halász et al, 1979).

We have modified the original question and decreased the possible ranges. The respondents were asked to rank the different groups of handicapped persons, which of them could be more acceptable them as co-worker. By the sample of the university students we used and translated to Hungarian the Attitudes Towards Disabled Persons (Yuker et al, 1970), what measures the attitude toward disability a little bit more obliquely. In the two adult sample we shaded the attitude measuring with our own questions.

By every sample we asked the people to fill the Hungarian version of the EQ-i of Bar-On. The survey measures the emotional intelligence based the model of Bar-On, with a self-record form. The 121 questions of the questionnaire are grouped to the factors of the model, each question is weighted to one factor. The list were translated to more languages and has good reliability and validitability indicators (Bar-On, 2006.)
3.2. Representing the samples

The attributes of the samples are presented in the following table:

<table>
<thead>
<tr>
<th></th>
<th>SMEs</th>
<th>Teachers</th>
<th>University students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample size</td>
<td>196</td>
<td>496</td>
<td>400</td>
</tr>
<tr>
<td>Mean and std of age (years)</td>
<td>45.39 (std 11.98)</td>
<td>42.74 (std 7.095)</td>
<td>20.99 (std 2.52)</td>
</tr>
<tr>
<td>Distribution of gender (m:f)</td>
<td>112 : 83</td>
<td>88 : 404</td>
<td>296 : 104</td>
</tr>
<tr>
<td>Segment/institute/faculty</td>
<td>every segment</td>
<td>every educational institute</td>
<td>every faculty of BUTE</td>
</tr>
</tbody>
</table>

Table 3 Short description of the samples

The large scale survey data were gathered by the social experts of the National Office of Rehabilitation and Social Affairs between 1. April and 18. June 2011. These data were obtained from such persons who have changed working abilities or wanted to be qualified in that category. The sample were collected from the whole country and it contains as many as 16431 people. The sample contains middle-aged people, the sexual distribution was somewhat balanced. For further additional interviews we tried to collect a heterogeneous sample but the answer tendency was really low. We could speak only with 6 active aged disabled person.

4. Results

The data analysis was done by the IBM SPSS Statistics software package, version 22.

4.1. The thesis and hypotheses linked with the employers

The attitudes of the Hungarian SMEs were surveyed towards the disabled workers depending on their experiences and emotional intelligence.

1.1. hypothesis: The employers do not employ workers with changed working ability because of the lack of knowledge and resources; furthermore they don’t see economical potential in these workers.

The entrepreneurial attitudes towards the employment of the disabled workers is shown in the following table:
We went over the knowledge and resources what can cause the low employment of the disabled workers. The ¼ part of the sample said us that they know the legal controls and the ergonomical knowledge and the sources where they can have more pieces of information if they need. It seems like that the knowledge has less affect on the employment and we see a gap between the knowledge and the employment.

52.6% of the sample do not see economical potential in the disabled workers what is not a big difference statistically between the two groups. The way, however, is interesting, how these entrepreneurs explained their answers.

<table>
<thead>
<tr>
<th>Arguments pro employment</th>
<th>Arguments contra employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>organizational side [increased market position, national and economical supports]</td>
<td>difficulties in organisation of human [their thinking isn’t complex enough, problems with worktasks]</td>
</tr>
<tr>
<td>multicoloured organisational culture</td>
<td>actual economical and workforce situation [average lasted workforce market]</td>
</tr>
<tr>
<td>social and economical benefits [corporate social responsibility]</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 The SMEs’ arguments pro and contra employment of workers with changed working ability

In summary the employers see also the advantages and disadvantages, they see them almost balanced, in the details also.

1.2. hypothesis: The employers do not dispose sufficient emotional competences, by the help of which they could change their organization to be able to accept the disabled workers.

We built a successful logistical regression model from the factors of the emotional intelligence ($\lambda=13.367$, $R^2=.071$ and $p<0.05$). The factor of stress management seems to be important. Based on the results there could be more variables that influence the SMEs thinking about economical potential of the disabled workers. In the context of seeing possibilities in the employment of the disabled, the empathy and the social responsibility (as emotional intelligence sub-scales) of the employers are significantly weaker variables ($\lambda=7.095$, $R^2=.038$ and $p<0.05$). These two emotional competences have some role in the attitude but seem to be just shading the way of thinking of the employers, not really determining it. The high social responsibility could prolong that the organizational culture opens a little bit and the attitude of acceptance; with a sufficient amount of empathy a more open organization can be created. We have to add
to this, that these ranks are lower in the sample of the entrepreneurs than in the other two samples.

Between the small- and middle sized enterprises who see or not see the economical potential in the disabled workers, we found statistically tendency-like difference on the sub-scales of self-awareness and self-esteem with an independent sampled t-test (t=1.8 and p< 0.07). Analyzed by a crosstab, we grouped the emotional intelligence scales to three parts (low, middle, high). We found weak significant results on p<0.05 level that by whom, who see the economical potential in the disabled workers, the social responsibility is higher \((\lambda = 3.94)\) and they have different stress-management competences \((\lambda = 5.99)\). Examining with the correlation of Pearson and Spearman, we see the social responsibility and the empathy moving together with the acceptance, but the level of this is different in reference of the different disability groups.

1.3. hypothesis: In the attitude of the employers towards the workers with changed working ability appears the stereotypical thinking.

1.3.1. hypothesis: In the attitude towards the different disability groups appears significant differences.

1.3.2. hypothesis: The employers, based on their stereotypes, consider just some special job for the disabled persons from different disability groups.

The acceptance of the different groups, based on the scale of Bogardus about social distances is like that:

![Figure 2 Average acceptance of the different disability groups in the sample of SMEs (from 1- higher tolerance to 4 – hardest acceptance) (n=195)](image)

The results show us that nowadays not the visually impaired people are the easiest to accept, but the physically disabled persons and the mentally handicapped persons are the least acceptable. So the stereotypes are changing, not the visibility and the visual signs have influence on the rating of acceptance or rejection, but the supposed existence of the nowadays important knowledge, speed or adaptability. This is confirmed also by the fact that the most of the employers wouldn’t change the work circumstances or have
less expectation towards the disabled workers; it means that they rate the workers through the work performance.

To discover the differences between the groups of handicapped persons, we used one way ANOVA (when the criteria of normality was met); and used Friedman-test (when the conditions of normality and homogeneity of variances were not met).

By every indicator of attitude we have seen that – based on the Friedman-test – the attributes of each groups of handicap persons are different significant (p<0,01). Comparing the groups with Mann-Whitney-test, the difference is significant on p<0,05 level, that – because of the multiple comparisons – were corrected by the Bonferroni correction. The kept differences (p<0,0083) are shown in the following table:

<table>
<thead>
<tr>
<th>Indicator of attitude</th>
<th>Groups different from each other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>mentally disabled persons versus physically disabled persons and persons with hearing impairment; persons with hearing impairment versus persons with visual impairment (0,83 &lt;d &lt; 1,31)</td>
</tr>
<tr>
<td>Looks</td>
<td>mentally disabled persons versus physically disabled persons and persons with hearing impairment (0,87 &lt;d &lt; 0,92)</td>
</tr>
<tr>
<td>Personality</td>
<td>mentally disabled persons versus each other group (1,01 &lt;d &lt; 1,1)</td>
</tr>
<tr>
<td>Rue</td>
<td>mentally disabled persons versus physically disabled persons (0,53)</td>
</tr>
</tbody>
</table>

Table 5 Significantly different disability groups according the SMEs (n=195)

We created a global acceptance indicator, according our results. This acceptance indicator fits to the requirements of the Levene normality-test, because of that, we used an one view-pointed analysis of variance to compare.

![Figure 3 The average acceptance of the groups of different types of disability based on the items of their performance, looks, willingness to work together, personality and rue (5 – mean the hardest acceptance and 20 the easiest acceptance)](image)

People accept the persons with physical disability the most, towards them the refusal is the less; the mentally handicapped persons seems to be the most marginal group. Based on the analysis of variance a significant p<0,01 difference can be seen between the attitudes towards each type of handicapped persons (2,1 < F < 6,2). We continued examining the differences between groups with Mann-Whitney-test to have a complete tapestry about our results (Bonferroni corrected p<0,0083). We found notable differences between the groups of mentally disabled persons and every other groups, as well as between the blind and the deaf people. The effect of these differences appear in
the connecting of work types for the handicapped persons. We grouped the text answers in categories and we have got these jobs:

<table>
<thead>
<tr>
<th>type of disability</th>
<th>associated jobs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mental disability</td>
<td>trained and physical jobs, data setting, storekeeping, cleaning, handicraft, assemblage, garden works [but most of the SMEs wouldn’t like to employ mentally disabled persons]</td>
</tr>
<tr>
<td>hearing impairment</td>
<td>data setting and office jobs, trained jobs, IT, packing, kitchen works</td>
</tr>
<tr>
<td>visual impairment</td>
<td>call center, data setting, human jobs, reception, handicraft</td>
</tr>
<tr>
<td>physical disability</td>
<td>office jobs, customer service, precision jobs, trade, reception, technician, teacher</td>
</tr>
</tbody>
</table>

Table 6 The SMEs thoughts about jobs for the different groups of disabled persons

The employers are thinking in classical schemes about each handicapped group and the jobs they are suitable for.

4.2. The thesis and hypotheses linked with the co-workers

We grouped the hypotheses into two bunches. First we show the surveys taken on the teachers after on the university students.

2.1. hypothesis
The emotional intelligence of the teachers as future co-workers determine how much are they recipient or repulsive towards the disabled co-workers.

2.1.1. hypothesis
The opinion of the teachers towards the workers with changed working ability is more positive, because of their high empathy level.

In the attitudes towards the groups of handicapped persons we could show only the affect of the stress management, and only towards the mentally disabled persons who are the less accepted and towards the hearing impaired persons; if we include the emotional competencies to the model (λ=11.109 és p<0.05 and R²=.557).

Among the teachers there are very few people who absolutely do not want to work together with persons with changed working ability. If comparing this with the sample of the SMEs, we found hypothetically that the teachers are more recipient in every aspect.

Figure 4 Answers of SMEs and teachers to the question “Would like to work together with workers with changed working ability?”
The effects of the earlier or actual common work or experience appear with a weak significant effect on the attitude. On every field of the emotional intelligence the teachers earned higher points than the entrepreneurs. The results shifting to the right, this shows a really high empathy level. Comparing with the crosstab, other subscales connected weakly significant (p<0,05) with the attitude instead of the empathy. The effect of the resilience appears in the attitude towards the moving impaired people ($\lambda=11,745$) and towards the hearing impaired people ($\lambda=10,529$). Moreover the subscale for the social responsibility appears in the attitude towards the people with hearing impairment ($\lambda=10,150$). These results do not fit to the results what we expected, and we see more factors in its background. On the figure above we can see that the teachers are rather recipient towards every impaired groups. There are given components like the high empathy and the positive attitude that weaken the statistical effects. The resilience, which subscale appears in every case, has a role more in process of inclusion and seems like that acceptance is not a question in this group. The surplus of problems caused by the inclusion of the disabled workers explains the appearance of the impulsivity control too.

2.1.2. hypothesis: There are notable differences between the attitudes towards the groups of disabled persons.  
2.1.3. hypothesis: Because of the open-minded attitude of the teachers they consider variable workplaces for the different groups of the disabled persons.

The teachers think differently about the attitude components of the handicapped persons. We found statistically significant differences between the five examined groups on p<0,01 level with Friedman-test that we analyzed further with Mann-Whitney test, again by the Bonferroni correction (corrected p<0,005).

<table>
<thead>
<tr>
<th>Indicator of attitude</th>
<th>Groups different from each other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performance</td>
<td>mentally disabled persons from every other group; visually impaired persons versus persons with chronic illness and physically disabled persons (0,34 &lt;d &lt; 1,19)</td>
</tr>
<tr>
<td>Looks</td>
<td>mentally disabled persons from every other group (0,48 &lt;d &lt; 0,65)</td>
</tr>
<tr>
<td>Personality</td>
<td>mentally disabled persons from every other group (1,01 &lt;d &lt; 1,1)</td>
</tr>
<tr>
<td>Rue</td>
<td>mentally disabled persons versus physically, hearing and visually disabled persons; persons with chronic illness versus persons with hearing impairment and physical disability (0,25 &lt;d &lt; 0,4)</td>
</tr>
</tbody>
</table>

Table 7 Significantly different disability groups according the teachers

The distribution of the global acceptance factor fulfils Levene-test because of that we applied one way ANOVA to compare the groups. The differences appeared between the groups of the disabled workers (p<0,01, 3,62 < F < 15,04). The results refer to the different way of thinking about the groups of disabled persons by the future collegues; they think about the mentally disabled persons as specially different.

But the teachers see the disabled persons more subtle as it can be seen from the differences of the jobs what they named for the disabled workers. Based on the analysis
of the content we can say that the sample gave us more reconsidered answers. This is also strengthened by the fact that the definition about the disabled workers was interpreted by the teachers very wide.

2.2. *hypothesis*
*The emotional intelligence of the students as future colleagues defines the level of acceptance towards the disabled workers.*

2.2.1. *hypothesis*
*The attitude of the students towards the disabled persons is influenced by their experiences connected with them. More experience they have, they more recipients and their empathy level is higher.*

Based on the numerical data and the normal distribution curve, the attitude of the university students towards the disabled persons is placed in the middle lane of the normal distribution. There aren’t highly repulsive or highly recipient persons in the sample. We examined the role of the emotional competences by the attitude with linear regression. Our results has only 7-8% of explaining force in the case of optimism, social responsibility, self-esteem and the problem-solving (*p*<0.05). The results of the correlations can be seen in the following table:

<table>
<thead>
<tr>
<th></th>
<th>ATDP-O</th>
<th>ATDP-A</th>
<th>ATDP-B</th>
</tr>
</thead>
<tbody>
<tr>
<td>p&lt;0.01</td>
<td>social responsibility (r=-.168)</td>
<td>social responsibility (r=-.160)</td>
<td>social responsibility (r=-.115)</td>
</tr>
<tr>
<td></td>
<td>flexibility (r=-.133)</td>
<td>self-regard (r=-.118)</td>
<td>independence (r=-.115)</td>
</tr>
<tr>
<td></td>
<td>optimism (r=-.172)</td>
<td>independence (r=-.101)</td>
<td>social responsibility (r=-.110)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>optimism (r=-.124)</td>
<td></td>
</tr>
<tr>
<td>p&lt;0.05</td>
<td>independence (r=-.116)</td>
<td>self-regard (r=-.118)</td>
<td>independence (r=-.107)</td>
</tr>
<tr>
<td></td>
<td>happiness (r=-.110)</td>
<td>independence (r=-.101)</td>
<td>social responsibility (r=-.110)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>optimism (r=-.124)</td>
<td></td>
</tr>
</tbody>
</table>

Table 8 Significant correlations between the emotional competencies and the attitude scales in the student’s sample

In the sample of the university students a t-test was applied to test a hiphotetical difference: is there a difference between the attitudes (towards the groups of disabled people) of those who had disabled classmates in the primary or secondary school and those who had not. But the tests did not confirmed our hypothesis and we did not found differences on either scales of attitude.

2.3. *hypothesis*
*The university students rank the groups of disabled people according to the stereotypical thinking.*

We compared the ranking created by students with the results of the two other samples; where we found definite accord, we signed on that table:
Table 9 The acceptance of the different groups of disabled persons on our three samples

<table>
<thead>
<tr>
<th>Small and medium entrepreneurs (n=196)</th>
<th>Teachers (n=496)</th>
<th>Students from the BUTE (n=399)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physically disabled persons</td>
<td>Physically disabled persons</td>
<td>Physically disabled persons</td>
</tr>
<tr>
<td>Persons with hearing impairment</td>
<td>Persons with hearing impairment</td>
<td>Persons with hearing impairment</td>
</tr>
<tr>
<td>Persons with visual impairment</td>
<td>Persons with visual impairment</td>
<td>Persons with visual impairment</td>
</tr>
<tr>
<td>Mentally disabled persons</td>
<td>Persons with visual impairment</td>
<td>Persons with visual impairment</td>
</tr>
<tr>
<td></td>
<td>Mentally disabled persons</td>
<td>Persons with psychological illness</td>
</tr>
<tr>
<td></td>
<td>Mentally disabled persons</td>
<td></td>
</tr>
</tbody>
</table>

4.3. Observation of the thesis and hypotheses about the motivation of disabled people

We analyzed the first two hypotheses based on the source from the National Office of Rehabilitation and Social Affairs, and for testing the third hypothesis document-analysis and interviews were performed.

3.1. hypothesis

*In the background of the low motivational readiness of the disabled workers are their intrapersonal factors in a pointed way: school qualification, willingness to learn and vision about the future.*

We analyzed the data (n=15787) with a multinominal logistic reggression method. We created a three-phase ordinal scale about the person’s motivation (not motivated, can be motivated, motivated) and we kept it as dependent variable; all the other variables were independent variables. All the variables discovered with the survey were built into the model as factor or covariant to explain the motivational status. The hit rate of the regresional model were 65,2%. The factors of motivational status (like indirect motivators) were predictable the most.

Concerning the demographical characteristics it was found, that the more family members are wage earners, the less the disabled persons want to return to work. The effect of the qualification apperas too; it’s not peculiar to the low qualified persons to have high motivation to work; according also to the results of Kopp and Skrabski (2009). Those have the worst motivation who did not finished the primary school and with the rise of the qualification, we see the motivational readiness also rising.

The younger is the person, she or he has more motivation to work.

Partly related to the health status, those who can independently do her/his daily activities need less the help from other people, and the more is the person motivated. The ability to move independently helps also for the person to be motivated.
The effect of the school qualification was also significant. Most of the members of the sample finished an industrial secondary school, the second bigger group are the people who has primary school education. These two subsamples represent the two-third of the sample itself. Based on our experience, those who finished the industrial secondary school, are less motivated to work; those who not even finished the primary school are the explicitly less motivated. Examined with Chi-square test, the connection between the years at work and the qualification separately, it appears significaly that the people with higher qualification spend more time at work ($r=1.22$ and $p<0.01$).

Examined with Chi-square test, it turned out that for the motivated or possibly motivated persons the most important factor is the existential safety, that is followed by the emotional state, the inner resources, the problem-solving capacity, the support from the family, the abilities, the health status, the qualification, the vision about the future, the apropiate self-estimation, the family example, the willingness to learn, the environment and the social support.

The vision about the future and the willingness to learn are both intellectual and emotional factors, and by the development of these factors its role can be essential in coping with the environment and increasing the compensational ability. Also, for the causes of the motivation are the willingness to learn and the vision about the future on tendency level ($p < 0.01$, $r=0.262$), but that contact is on every level significant ($p <0.01$) and stronger ($r=0.348$) between the two factors if we examine the lack of willingness to learn and the vision about the future as the cause of not motivated status. Altogether we can state, that the possible causes of motivation (and non-motivation) are well predictable by those explaining factors, that also determine the motivational state of the person. These are the sex, age, the factors that determine the socio-economical status of the person (number and employment of the family members, the type of their appartment, work experience, environmental possibilities) and the type of the community where she or he lives (capital, city or small town). The models built like that gave us 89.35 percent relevant results.

The vision of future depends also on non-material variables. With a Mann-Whitney U-test we got that the presence of the prespective about the future, as the background of the motivation or non-motivation differs at 0.05 significance-level depending on the number of the earners and minors (how many earners and dependents live in the family). The same can be stated in connection with the presence (or lack of) the willingness to learn. The presence of the prespective about the future is also a motivational factor. People with prespective about their future are different from the people without it from the point of view of how many time they spend working, without a job, the quality of their communicational skills, the emotional state they have, what attitudes they have, are they healthy, have they inner resources, which qualifications they have, how they solve their problems, have they supportive family and if they have self-esteem or not.
This is also true at 0.05 significance level with the willingness to learn, like the background factor of the motivation. These background factors contribute to and keep the appropriate perspective about the future and the willingness to learn.

3.2. hypothesis

The disabled workers motivation to work is decreased by the interpersonal and environmental factors what they experience by searching a job, also the years passign without working or the financialy state of the family what pushes them to the learned helplessness.

The finding that those have the best motivational status who work currently; can be interpreted as they are more ready to fight to keep their job.

For the people to be motivated need also a supportive environment; the inhibiting or even the neutral environment doesn’t effect positively the motivational readiness. This is true also for the immediate and the wider social surroundings too. The physical environmental obstacles cause not motivated status.

We see also big regional differences from our model. As illustration, the widest differences between the extreme regions are presented. The people in the western regions (like Veszprém, Zala, Somogy or Komárom counties) are the most motivated to work, while in the north-eastern region live the less motivated (like Borsod, Hajdú or Heves counties). Partially it could be in correspondence with the environment but we can see at regional level that the people who live in bigger or smaller towns are more motivated.

Between the predictors of the motivational status these are the variables that seem to be important:

![Figure 5: The normalized importance of the predictors produced by the artificial neural networks model (ANN MLP). (n = 16431)](image-url)
This table shows the effect of the years without work on motivational readiness:

<table>
<thead>
<tr>
<th>Number of years spent without work</th>
<th>Motivational Readiness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>2</td>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Figure 6 Changes in the motivational readiness depending on the years spent without work in the most motivated county Vas (axis y represents the 3 stage of motivational readiness, 1 – not motivated, 2 – can be motivated, 3 - motivated)

The effect of the learned helplessness is clearly seen: with the passing years with hopeless job search, the person learns that he cannot control his environment and cannot rule his fate – and this feeling lead to give up the responsibility, to the development of depression and it decreases the motivation to find a job.

3.3. Hypothesis

One of the important points of the vocational rehabilitation functions not properly: the protocol of the classification to be a disabled worker. The process assist to the low security and motivational level of the disabled people.

The protocol developed in 2013 by the National Office of Rehabilitation and Social Affairs has a complex, meticulous and multidisciplinary methodology. This is also true about the creation process and the people who are participating in it. Altough we found mechanisms in the protocol that make the classified people feel insecure and what functions not properly. These are for example the judgment the percentage of health, the scoring or the judging of motivational status or the excessive weight of the medical opinion in the complex classification.

With the application of the ICF can be the process more client-focused, it’s worth to rethink the list of the examined abilities based on the job market offers.

Our experiences by the interviews coincide with former statements. More interview subjects have not any direct experience with the classification system. Those who have, think about it as a system very anomalous, because they think that the difficulty of the work by different people couldn’t be established officialy. At the other side, it effects against the motivation that one percent can cause work limitation, with the salary can be smaller and the state doesn’t compensate the amount of money what they don’t get – altogether it will be worse for them.
The interviews were interesting also from the point of view that we could find active, working and motivated people with disabilities, on the other hand because they indirectly confirmed our hypothesis that most of the workers with disability are not motivated. They don’t make enough efforts to change their life situation and they struggle in the state of learned helplessness or use the secondary advantages of the illness. The discrepancies of the classification system also belong to the demotivational factors.

5. Discussion

We couldn’t confirm entirely our three theses but we think that the results and trends what we found, are prospective. We examined three important agents according our theses and we didn’t confirm the highlighted role of emotional competences in these processes, but we found some emotional abilities and positive characteristics, what could be integrated to the rehabilitation process. It could make the return to the work process and system more effective and prospective.

We couldn’t accept the first thesis as a whole, but confirmed the 1.2. and 1.3. hypotheses and sub-hypotheses belonging to the 1.3. Based on this, the attitude of the employers has a key role in the vocational rehabilitation. The attitude of the middle-aged entrepreneurs on the approach as manager towards the people with disabilities as social segment seems to be a point of view that the social responsibility is just a known but not applied trend. We feel the necessity of development the social responsibility because of the interiorisation of the knowledge, but we assume that the Hungarian SMEs need improvement in every emotional skill.

We couldn’t confirm the second thesis as a whole either, it was possible to confirm only the parts 2.1.1., 2.1.3. and 2.1.2. hypotheses in the sample of the teachers, while the parts 2.2. and 2.2.2. hypotheses in the sample of the university students. Based on that it can be seen that the common people are more recipient towards the people living with disabilities like the entrepreneurs. The recipient attitude, the way of thinking is less determined by the stereotypes, but this is only the first step to the successful inclusion and workplace socialization. The opinion and knowledge of both the employers and the future colleagues are not satisfactory, because of that the readiness to connect as a reception organization to the vocational rehabilitation can be lower.

Additional but important result is that between the groups of persons living with disability the physically disabled persons are the most accepted. People with visual and hearing impairment are accepted in between, the normal everyday people have slight difficulties with communication with them because they have impairment even in the main communication channels. According to prior studies the mentally disabled persons are the least accepted group. In its background there can be more factors from the visible looked differences to communication difficulties, and sometimes these together.
We could, however, confirm our third thesis as a whole, and therefore also all its related hypotheses. Workers with changed working ability start from a sorely disadvantaged state in the competition of workforce market. If they start aught, because we can see from the analyses that a lot of disabled person wouldn’t like to work or they cannot be hired for such a job which gives them real economic benefit. The common state is that the labor market and the legal environment has a strong contraselective effect and that’s why usually only the highly qualified workers with changed working ability living in the economically well developed regions can get a job. But these people often have such a job which doesn’t fit to their qualification and attendance, they work only because they should earn their living and would avoid the negative effect of unemployment. Therefore a lot of capabilities are left untapped, even known by the employers too, for example the loyalty of the disabled workers or the fresh point of view which they can thrive in the organization. Except that the permanent unemployment, as we showed above, worsen further their physical and mental state. Most of the people with changed working ability are not possessing sufficient psychological immune system which could have been a protective factor against these damages. The effect of learned helplessness appears strongly in our results and there is a lack of protective factors, for example the perspective about future, motivation or emotional competencies.

Our research and results confirm that the positive psychological approach and optimistic perspective about future found in the literature and the international practices and which we adumbrate, temporarily is only a fiction in Hungary. The vocational rehabilitation system needs intervention to the optimal functioning in every surveyed level. It means that also the objects of rehabilitation, the recipient organizations and the society should be formed and urged to a shift in the approach of disability. We review the theory and the practice of Hungarian vocational rehabilitation, and we experience that these two often dissociate from each other, but it seems to be not beyond possibility to harmonize the principles with the praxis. We suggested that the key to harmony is the emotional intelligence, but from the survey comes out that emotional competencies are only one important slice of that process within the disabled persons, the workers with changed working ability would be an integrant part of the society.
References


