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## **Journal of Exceptional People**

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# Introduction

Dear readers,

into our autumnal ninth issue of the *Journal of Exceptional People* (JEP), we included a wide plethora of articles that relate to different aspects and problems of life of people with special needs. These contributions are either scientific papers, they deal with scientific research and include the methodology of the investigation, or we also publish articles on general topics, which we refer to as overview essays. These articles give readers the opportunity to get information about special education issues in Europe and in the more distant and therefore less known countries to Europeans. We decided to extend final book reviews because of the great interest of contributors. In this issue, therefore, readers will learn about four titles of interesting books by Czech and foreign authors.

Because we are a periodical published by the Institute of Special Education Studies, Palacký University Olomouc, Czech Republic, we publish part of the contributions from our domestic contributors. But articles by foreign authors are also very valuable for us. By acquiring these contributions we implement the strategy laid by our Editorial Board and we believe that this trend will successfully continue in the coming years.

In our November issue, you can see an article by Czech authors (D. Fink et al.) regarding the issue of visual impairment, followed by the contribution of the Chinese author (Li Yun) dealing with children diagnosed with attention deficit disorder. The following two articles expand the broad range of disabilities by the issue of hearing impairment (Czech author B. H. Kolíbalová and Nigerian author J. S. Igoni).

The review study by P. Baslerová deals with a support system for people with special educational needs in the Czech Republic, the contribution is followed by the article by Nilius P. et al, who pays attention to the cognitive rehabilitation of persons with residual type of aphasia. Shangwei Li in his paper presents an overview of the

system of basic special educational care in China. Slovak author P. Jurkovičová and T. Čekanová deal with social services and special-educational system in Slovakia in the context of their user requirements. Scientific research and survey part of our magazine articles is then concluded by the article about the use of expressive therapies in the context of inclusive education (K. Krahulcová) and an article of Slovak author V. Regec who devotes to Determinants of Digital Inclusion in Students with Visual Impairment in Tertiary Education.

We are proud to announce to our readers and contributors that Journal of Exceptional People was also indexed in prestigious database of Bibliographia Medica Českoslovaca (BMČ) of the National Medical Library of the Czech Republic.” This act awarded the professional level of our posts.

We wish you a nice and interesting reading

Pavel Svoboda, Jan Chrastina – executive editors

# Individuals with visual impairment and their perception of life satisfaction

(scientific paper)

Dita Finková, Kateřina Jeřábková, Martina Hubištová, Jana Kasáčková,  
Veronika Švecová, Gabriela Smečková

**Abstract:** *Although the issue of life satisfaction is being discussed in various theoretical disciplines, it has not been defined clearly yet. There are many terms that are close to term life satisfaction, such as happiness, well-being, quality of life etc., these are sometimes used interchangeably. This paper introduces an initial research of life satisfaction of individuals with visual impairment in the Czech Republic. The authors used a standardised Questionnaire of Life Satisfaction by Fahrenberg, Myrtek, Schumacher and Brahler (in Rodná, Rodný, 2001) to find out whether the life satisfaction of individuals with visual impairment differs from statistically given norm.*

**Keywords:** *Life satisfaction, quality of life, visual impairment, domains of life satisfaction, individual approach.*

## 1 Introduction

The issue of “life satisfaction” is currently being examined in detail on many different levels. Its specificity lies mainly in the areas such as understanding the life situation of an individual e.g. in connection with certain culture, value system and in relation to personal aims, expectations, standards, etc.

This paper introduces initial research on life satisfaction of people with visual impairment. The standardised Questionnaire of Life Satisfaction by Fahrenberg, Myrtek, Schumacher and Brahler (in Czech edition by K. Rodná and T. Rodný) was the main tool of the initial research. The questionnaire was originally prepared for social majority but we distributed it to people with visual impairment with the aim to realize whether they are satisfied with their life or not, whether the individual outcomes of the questionnaire will differ from statistically stated norm in either direction.

This study was supported by the project “Perception of subjective impact of disability/presence of chronic illness and concept of health awareness and literacy (IGA\_PdF\_2015\_003)”.

## 2 Issue of life satisfaction

The issue of life satisfaction has not been defined clearly yet. There are various theoretical disciplines that are interested in it – however mostly under different terms – these are e.g. philosophy (eudemonia, hedonism); theology (happiness, meaning of life); sociology (quality of life); medical sciences (subjective well-being, health related quality of life); psychology (see more below) etc.

Psychology (e.g. gerontopsychology, positive psychology, health psychology, social psychology, the area of mental health, psychotherapy, etc.) has taken relatively significant position in dealing with this issue in past twenty to thirty years. Within the psychology is the issue of life satisfaction in close connection with the issue of happiness that itself is difficult to be explained on the scientific basis. This term is “so overused, that almost lost its meaning” (Seligman, 2014, s. 20) and at the same time it is “something, that everybody has different idea about/understands its own way” (Křivohlavý, 2013, p. 11). Psychologists attempt to make their distinctive mark against its lay usage and therefore they use terms such as wellness, life satisfaction, well-being (meaning that person is feeling well), subjective well-being (meaning subjective health condition), subjective quality of life, authentic happiness, experiencing so called flow or flourishing etc. (cf. Csíkszentmihályi, 1996; Křivohlavý, 2002; Fahrenberg et al., 2000; Křivohlavý, 2013; Seligman, 2014). Due to this variability the authors of empirical studies state which concept is actually being discussed.

Křivohlavý (2013, p. 23–29) distinguishes narrower and broader concept of happiness and satisfaction. The narrower sense means so-called hedonic happiness whose main features are pleasure and emotions of happiness. The psychologists mostly use the term *well-being* for this concept, *well* meaning well, *being* meaning living or existence. The pure subjectivity is typical for this type of happiness. The person may be considered not to be happy by other people – according to their criteria of happiness but in fact he/she may be internally truly happy according to his/her own criteria. For example, people with disability are commonly thought not to be as happy as “healthy” people by the majority of people. Conversely interviews with people with disability show that they evaluate their happiness, life satisfaction or quality of life as adequate (Požár, In Jesenský et al., 2003, p. 96). Everyone assesses his/her own life on the basis of positive and negative emotions, but also on genetic basis, e.g. his/her temperament. Although the level of subjective well-being can vary partially according to different circumstances of the person experiences, it is his/her relatively stable characteristic (Křivohlavý, 2013).



Křivohlavý (2013, p. 79–80) states that the level of happiness or life-satisfaction (in narrower sense – hedonic) is quite often measured and compared between states or nations – usually under the broader framework of the term quality of life. It can be measured from the point of view of economics, politics and also from the point of view of satisfaction of people. The method Life Satisfaction Inventory can be used.

The broader concept of happiness is then “multidimensional” – Eudaimonia – an enjoyment of good, wisely and well spent life. It is the happiness as it is described in the concept of M.E.P. Seligman’s authentic happiness or flourish, or M. Csíkszentmihalyi’s experience of flow (Křivohlavý, 2013, p. 24).

According to the theory of authentic happiness (Seligman, 2014, s. 22–24) “human happiness can be analysed on three levels”: the level of positive emotions, the level of engagement in a particular activity (commitment) and the level of feeling of meaningfulness. The central theme of Seligman’s positive psychology is happiness which is operationalized by the degree of life satisfaction. The goal of the positive psychology is to increase life satisfaction. However the author reconsidered this theory. He acknowledged that the term happiness is too closely connected with positive emotions (good mood) and that his concepts of commitment and meaningfulness are not part of “happiness” as it is understood by the majority of people. Consequently the measurement of life satisfaction is considerably influenced by people’s actual mood. Seligman agreed that he was not able to leave narrower sense of happiness as it is described by Křivohlavý (2013, p. 23). So he introduced “new” well-being theory where “the main criterion of measuring well-being is the degree of flourishing” (optimal prosperity) and the goal of the positive psychology is then increasing this flourishing. (Seligman, 2014, p. 24) Well-being is a theoretical concept – it is not possible to operationalize it and measure it. However, it includes set of elements which can be measured. These elements participate on well-being but they do not define it. These elements are: positive emotions, engagement in activity, positive relationships, meaningfulness and satisfactory achievements. (Seligman, 2014) Seligman uses the acronym PERMA (P – Positive emotions, E – Engagement, R – positive Relations, M – Meaning and A – Accomplishment) (Křivohlavý, 2013).

The authors of the flourish concept devised diagnostic method used by public to reveal strengths and weaknesses of character – SST method (Signature Strengths Test) and VIA method (Values in Action) used almost exclusively by experts on positive psychology. One part of these methods is subjective assessment of respondent’s satisfaction (Seligman, 2014; Křivohlavý, 2013).

Second example of the broader concept of happiness is Csíkszentmihalyi’s Flow, he defines it as: “the way people describe their state of consciousness when their mind is in harmony and they wish to gain their goal because of the goal itself.” (1996, p. 16) In this state they are completely absorbed in an activity, especially an activity which involves their creative abilities, such as art, work, hobbies, games etc. Therefore they

are experiencing the feeling of happiness. The degree of person's happiness is connected with his/her inner harmony and his/her ability to filter and interpret everyday experiences. People feel happiness in case that they enjoy the process of reaching their goals (they enjoy the present moment, they enjoy what they are actually doing even though it may be boring or difficult), not the moment when they have finally reached their goal. To achieve the happiness people have to find pleasure and meaning of life regardless circumstances, they have to learn to distinguish what is really important for them and what is not, they have to understand their motivation, free themselves (at least to some degree) from the thoughts about future success expected (and rewarded) by the society and gain the satisfaction in everyday life – they should reward themselves (e.g. not opinions such as: if I work more, I will get more money; I must work hard now, I cannot enjoy myself now, I will enjoy myself when I am retired; etc. but opinions such as: the work is satisfying for me; I enjoy my work; the time spent at work is beneficial for me, etc. – reward for the work is also the work itself) (Csikszentmihalyi, 1996).

The authors of the Life Satisfaction questionnaire we used in our study agree with the opinion that concept of the life satisfaction is not defined enough. They based their questionnaire on the concept of Lawrence and Liang, 1988, Pavot, Diener, Colvin and Sandvick, 1991 and DeNeve and Cooper, 1998 (Fahrenberg et al., 2000, In Rodný, Rodná, 2001, p. 6) who explained the life satisfaction as part of the subjective well-being concept. Subjective well-being has four dimensions: life satisfaction – congruence, happiness, positive affectation and negative affectation. The authors also mention the term quality of life, they admit that this term is not well defined too and that it is often confused with those mentioned above. Quality of life from the medical point of view (health related quality of life) defined according to Engel and Bergsman (1988, In Křivohlavý, 2002, p. 163–164) have three spheres:

**Macro-level** – the quality of life measured in big social groups such as countries, continents, the experts concentrate on absolute meaning of life (politicians deal with issues such as epidemic, famine, poverty, genocide, etc.)

**Meso-level** – the quality of life of small social groups (school, hospital, retirement home, business, etc.), dealt issues are satisfying basic needs of groups' members, existence of social support, of shared values, etc.

**Personal level** – concerning life of individual – individual assessment of health condition, pain, satisfaction, hopes etc. Everyone assesses quality of his/her own life according to his/her own point of view, hopes, expectations or beliefs.

Křivohlavý (2002, p. 164) speaks about fourth sphere: **level of physical existence** – concerning the observable behaviour of other people, e.g. the way person walks before and after an operation – the behaviour can be measured and compared objec-

tively. However, he also adds that Engels and Bergsma (1988, In Křivohlavý, 2002) do not recommend to use it for defining quality of life.

The research of quality of life tends to concentrate on subjective conception (personal level) of assessing the quality of life in recent years, meaning concentration on individual satisfaction with given (life) situation (Ludíková et al., 2012, p. 11). Various methods can be used to measure quality of life from the subjective point of view, e.g. Patrick's and Erickson's Health Related Quality of Life (HRQoL), O'Boyle's. McGee's and Joyce's Distress and Disability Rating Scale (DDRS), Diener's The Satisfaction with Life Scale (SWLS) or recently the mostly used Boyle's, Brown's, Hickey's and Joyce's Schedule for the Evaluation of Individual Quality of Life (SEIQoL) (Křivohlavý, 2002).

We did not find any research that concentrated on life satisfaction of persons with visual impairment in the Czech Republic. Some researches concern the quality of life of persons with visual impairment such as Joklíková et al. (2013) or Finková et al. (2013). But we found some foreign researches dealing with life satisfaction of individuals with visual impairment. E.g. Holbrook, Caputo, Perry et al. (2009) proved that women with visual impairment are less satisfied with their life than men with visual impairment. Moreover, research by Ray, Horvat, Williams et al. (2007) revealed that people with visual impairment who lost the sight before the age of 12 are more likely to suffer depression than people who lost sight 6 years later. According to research by Labudzki and Tasiemski (2013) visual impairment has greater impact on quality of life than hearing impairment, diabetes (2<sup>nd</sup> type) or atherosclerosis. Last mentioned authors found out that individuals with visual impairment or blind individuals assess their overall life satisfaction as rather satisfied to satisfied. They are also satisfied or rather satisfied in "leisure time", "relationships", "family life" and "contact with friends" domains and very satisfied or satisfied in "taking care of themselves" domain.

### 3 Methodology

#### 3.1 Measurement tool

As a measurement tool of the research was used a standardised **Questionnaire of Life Satisfaction by Fahrenberg, Myrtek, Schumacher and Brahler** (Czech edition by Rodný and Rodná). This questionnaire is considered to be easy to use diagnostic tool usually used in the area of clinical psychology and educational and career counselling. It is designed for persons from 14 years of age and older to measure their overall life satisfaction and also level of satisfaction in 10 significant domains: health, work and employment, financial situation, leisure time, marriage and partnership, relationship with own children, person himself (herself), sexuality, friends, acquaintances, relatives, housing. Each domain is assessed on scale of 7 items. The Overall life satisfaction

includes only following domains: health, financial situation, leisure time, person himself (herself), sexuality, friends, acquaintances, relatives and housing.

The questionnaire can be used for individual diagnostics but also for evaluation of quality of life of selected groups of population. The Czech edition of the tool has been primarily designed for counselling purposes. Included standards from original edition are meant to have only indicative function. Administration of the questionnaire can be individual or it can be done in groups. The time limit is not given, but it usually takes 5 to 10 minutes. The questionnaire includes also some questions about the most important demographic information which can be used while interpreting the gained data in accordance with the given standards (Rodná, Rodný, 2001). The results of the questionnaire were interpreted by an experienced psychologist.

### 3.2 Target group

We conducted an initial research into the area of life satisfaction of selected target groups, f. e. adults with mild mental retardation, visual impairment or drug addicted adults, etc. In this paper we present the outcomes of the part of the research aimed at the **adults with visual impairment**.

The target group consisted of blind persons and also of persons with low vision. Persons with low vision filled in the printed version of the questionnaire using some kind of optical devices, such as digital magnifiers (so called *telelupas*), stable magnifiers, etc. Blind persons filled the questionnaire with the support of an assistant.

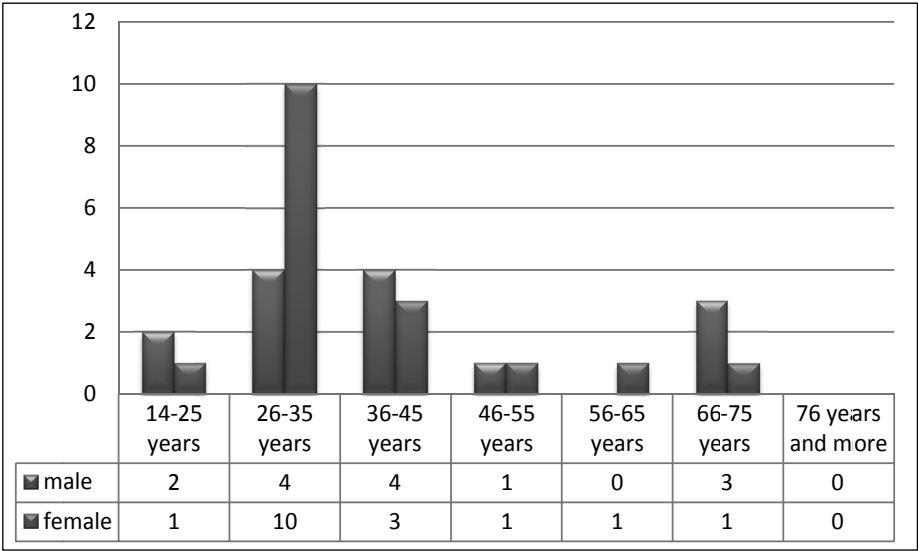


Figure 1: Age distribution of respondents

Even though the questionnaire could be used by persons from 14 years of age we set the condition that the respondents had to be older than 18 years as we targeted our study at adults. There were 31 participants with visual impairment aged 20–74 years, 14 males and 17 females in this initial research. The sex ration was thus rather balanced.

The participants, males and also females, are evenly distributed among the given age groups, except for the age group of 76 years and more. The largest was the group of females of the age between 26 and 35 years (32,26%).

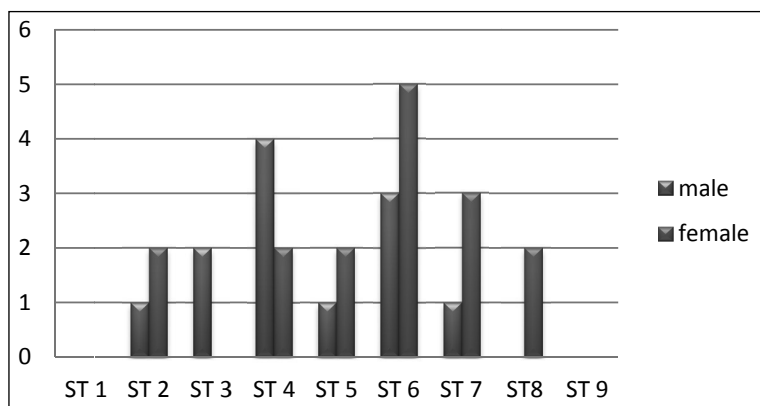
### 3.3 Recruitment of participants

As the method of participants' recruitment snowball sampling (chain sampling, referral sampling) was used. It is a technique where existing study subjects recruit future subjects from among their acquaintances. This method was slightly adapted in our study. We contacted one person with visual impairment (at the level of blindness) who filled in the questionnaire with the support of an assistant. This blind person gave to members of research team further contact information about other persons with visual impairment willing to participate on initial research (Hartnoll, Miovský, 2003).

## 4 Results

We present some of the outcomes gained through the initial research of life satisfaction of persons with visual impairment in this paper. We have preferably chosen those aimed at the domains “work and employment”, “financial situation” and “leisure time” as these may be related or dependent on each other and influence each other.

### Work and employment



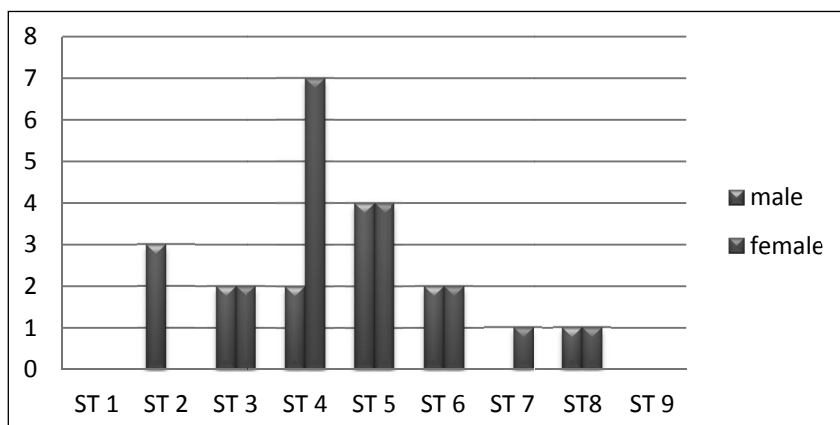
**Figure 2:** Distribution of stanine scores for sample data set in a “work and employment” domain (n = 28)

3 respondents were not included into outcomes of this domain due to the fact that they were students at the time of data collection and therefore they did not fill in this domain of the questionnaire.

The data presented in the graph above show that in the domain of work and employment the figures of more than half of respondents do not deviate significantly from statistically expected figures. Even though we expected that the figures (stanines) will differ from the average figures valid for average population due to the fact that the target group of persons with visual impairment experiences great difficulties in looking for a job they did not deviate significantly.

Only 6 respondents (3 males, 3 females) are not satisfied with their work and employment too much.

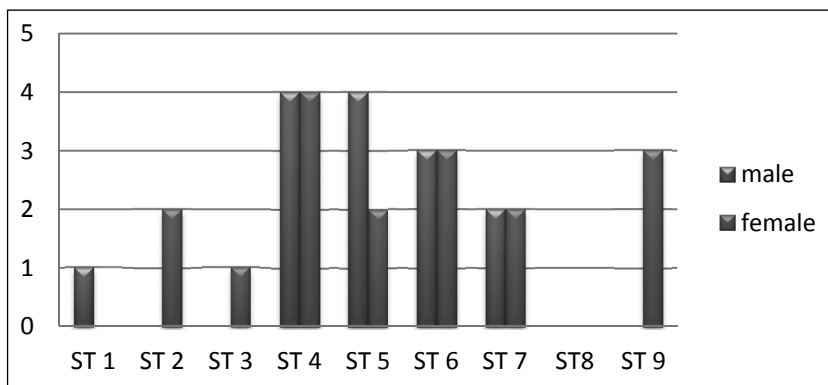
### Financial situation



**Figure 3:** Distribution of stanine scores for sample data set in a “financial situation” domain (n = 31)

Even in this case the figures of the respondents gained in the domain of financial situation do not differ significantly from statistically expected figures. Persons with visual disability responded that they are: “neither satisfied nor unsatisfied”, “rather satisfied” and “satisfied”. Satisfaction in the domain of finances is connected with the fact whether the persons can work or whether they are limited by the health condition to such degree that they cannot work at all or just work partially. This state is also interconnected with jobs availability on the labour market. Financial problems of persons with the visual impairment can be also associated with the obstacles they experience when looking for an appropriate job.

## Leisure time



**Figure 4:** Distribution of stanine scores for sample data set in a “leisure time” domain (n = 31)

The figures of the respondents in the domain of leisure time do not differ significantly from statistically expected figures too. Almost two quarters of respondents’ answers are close to average (mean). Only 4 persons with visual impairment (3 females, 1 male) are not satisfied with the way they spend their leisure time. On the other hand 7 persons (5 females, 2 males) are very satisfied.

## 5 Conclusion

The issue of quality of life (happy life, satisfactory life) is being dealt in significant amount of papers and researches from various areas of human knowledge – in the Czech Republic and also abroad. The results of the presented initial research proved that the figures of more than half of the respondents do not differ from statistically expected figures in all domains discussed in this paper.

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(reviewed twice)

Dita Finková, Kateřina Jeřábková, Martina Hubištová, Jana Kasáčková, Veronika Švecová,  
Gabriela Smečková  
Institute of Special Education Studies  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: dita.finkova@upol.cz, katerina.jerabkova@upol.cz, martina.hubistova@upol.cz,  
jana.kasackova@upol.cz, veronika.svecova@upol.cz, gabriela.smeckova@upol.cz



# The present research on children with attention deficit hyperactivity disorder in China

(overview essay)

LI Yun

**Abstract:** A search of articles from 1993 to 2014 was made of the CNKI (China National Knowledge Infrastructure) databases. By studying the literature it was found that until now, the articles mainly come from journals of medicine and psychology. The study of attention deficit hyperactivity disorder (ADHD) in China are mainly concentrated on medicine, diagnosis methods and psychology approaches, such as performance of behavior problems, and the interventions of parents and school. The researches from the perspective of pedagogy and sociology are less. Overall, the two attitudes on children who display ADHD exist at the same time: one is thought they are patients, and need to accept intervention therapy; another view is that overemphasis on ADHD as a disease will bring adverse effect to these children. The interventions aimed to improve the behavioral, academic, cognitive and/or social functioning of children with ADHD have obvious effects by approaches as followed: drug therapy, cognitive-behavioral therapy, parents training, traditional Chinese medicine therapy and physical activities therapy. However, at the same time, it showed that lack of the long-term intervention study. The social environment of children who display ADHD living needs further improved. We should pay more attention to the psychological development of children with ADHD from the viewpoint of people-oriented.

**Keywords:** children with ADHD, treatment, China, attention deficit/hyperactivity disorder.

## 1 Introduction

Attention-deficit hyperactivity disorder is most often identified during elementary school years, and inattention becomes more prominent and impairing. Generally speaking, when people are in childhood and adolescence, the emotional and behavioral

problems are common. Children who display attention-deficit/hyperactivity disorder (ADHD) have great difficulty attending to tasks, or behave overactively and impulsively, or both (Ronald J. Comer, *Abnormal Psychology*: 530). Recent studies have shown that the diagnosed ratio of children who display ADHD is 1.5% to 10% in China (YU Fang, GUO Ming, YU Zhimin, & ZHANG Huakun, 2013). The Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) represents an update on the diagnostic criteria. ADHD is listed in the newly designated section on neurodevelopmental disorders. The DSM-5 requires that “several” relevant symptoms are present before the age of 12, replacing the previous 7-years-old age of onset criterion. The very fact that neurodevelopmental disorders have been acknowledged as distinct from other diagnostic categories represents a progressive change in diagnostic conceptualization (J. Russell Ramsay, & Anthony L. Rostain, 2015). The most basic core symptoms of ADHD are mainly attention disorders, excessive activity, impulsivity and delay of gratification difficult performance in four areas (DONG Qi, 1993). ADHD is not limited to children, in young children, teenagers, and even adults we can find such a performance. Different understanding of the etiology of ADHD in different countries to determine the definition of standards also will be different. For example, many British scholars believe that children’s attention deficiency symptoms is a reflection of the children’s behavior disorder, thus, a higher percentage of patients in the UK diagnosed behavioral disorder of children, and less risk of ADHD children. On the contrary, the US scholars more considered that many behavioral symptoms are caused by children’s lack of concentration and hyperactivity, so the ratio of children diagnosed with ADHD is higher (DONG Qi, 1993).

## 2 The definition and evaluation of ADHD

ADHD was once regarded as a self-limiting disease, meaning that it will go away as patients age (GAI Xiaosong, LAN Gongrui, & LIU Xiping. 2008). However, most professionals rely on the American Psychiatric Association’s (APA’s) Diagnostic and Statistical Manual of Mental Disorders (DSM) for the criteria that used to determine whether an individual has ADHD (Daniel P. Hallahan, & James M. Kauffman, 2005: 212). The DSM-5 represents an update on the diagnostic criteria. ADHD is a neurodevelopmental disorder defined by impairing levels of inattention, disorganization, and/or hyperactivity-impulsivity. Inattention and disorganization entail inability to stay on task, seeming not to listen, and losing materials, at levels that are inconsistent with age or developmental level. Hyperactivity-impulsivity entails overactivity, fidgeting, inability to stay seated, intruding into other people’s activities, and inability to wait—symptoms that are excessive for age or developmental level. ADHD often

persists into adulthood, with resultant impairments of social, academic and occupational functioning.

The Diagnostic features referred in DSM-5 are as followed: the essential feature of attention-deficit/hyperactivity disorder (ADHD) is a persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development. ADHD children have three core clinical symptoms- attention deficit, hyperactivity and impulse. So, children with ADHD can be divided into three subtypes: attention deficit, hyperactivity and impulsive, and the two symptoms combined. In China, DSM-IV standards are commonly used.

It is better to assess ADHD children by combining the physiological-psychological and behavioral assessment. GU Qun, & LIU Xiangping (2004) argued that the assessment of ADHD has always two tropisms of physiological-psychological assessment and behavioral assessment in school psychology. In the field of physiological psychology, the assessment tropism is centered in cognitive process ability. In the short term the defects of the psychological process of children with ADHD can be tested. The shortcoming is that ignores the environmental factors and cannot exclude the children with poor hands-on capability. While in the field of school psychology, the assessment tropism is environment adaptation oriented. Through behavior observation, they describe the children's attention deficit or impulsive behavior and assess them. The assessment results can effectively guide to make special education programs. The deficiency of this standard is not objective. The assessment results will be affected by the estimator's subjective bias.

### **3 Why we should pay attention to ADHD**

ADHD should arouse people's attention, although it is so hard to pinpoint its causes. At least one-third of children with ADHD have comorbidity. YI Xiangui, SUN Wei, & YI Gezixu (2013) refers that, in general, ADHD has these comorbidities, such as: anxiety disorder, mood disorder, learning disabilities, specific sports skill developmental disorders, and speech and language development disorders.

The reason why we should pay attention to ADHD is mainly based on these aspects: firstly, more researches show that the ADHD disorder will continue to adolescence or adulthood. When the ADHD children grow up into adults, they are more likely to appear antisocial behavior and other mental health problems (JIANG Suhua, ZOU Xiaobing, TAN Weitang, MAI Zhiguang, ZHANG Hongqiao, & HUANG Niu-kai, 2012). ADHD not only has a financial impact, but also is associated with family stress, school disruption, and risk for criminality and substance abuse. ADHD is not only influent on children themselves, but also for their families, schools and society.

Secondly, ADHD affects children's physical and mental development. DONG Qi (1993) thinks that the effect include not only the direct impact on the development of children with ADHD, but also the impact of external adverse environment which resulted from the ADHD children's behaviors. On the one hand, children with ADHD cannot concentrate on their studies, which hinder the development of their calculation, reasoning and other cognitive thinking skills. On the other hand, children with ADHD have too many activities and strong impulse, so they often cause troublesome, disrupt orders and other acts to provoke others, which make them form poor relationships within peers, teacher-students, and parent-child. They often get negative evaluation, such as blame, curse, punishment, rejected, contempt, etc. As a result, they may gradually form a poor self-concept, produce feelings of helplessness.

Thirdly, parents reported their own stress levels as well as the severity of their children's ADHD symptoms, aggression, emotional lability, and executive functioning difficulties. Results indicated that the severity of children's hyperactivity/impulsivity symptoms but not their inattention related to parenting stress. The study further demonstrated via a multiple mediation model that the association between hyperactivity/impulsivity symptoms and parenting stress is mediated by co-morbid self-regulation deficits across behavioral (i.e., aggressive symptoms), cognitive (i.e., executive functioning), and emotional (i.e., emotional lability) domains (Paulo A. Graziano, Joseph P. McNamara, Gary R. Geffken, and Adam Reid, 2011).

#### **4 How children with ADHD are perceived in mainland China**

Ideally, the child's behavior should be observed in several environmental settings (school, home, with friends) because the symptoms of hyperactivity and inattentiveness must be present across multiple settings in order to fit the DSM criteria (Ronald J. Comer, 2012: 532). Environmental contributors include natural environment factors, such as prenatal alcohol and nicotine exposure, exposure to other environmental toxins (i.e. lead), and social and cultural environment. The environment involved in this paper mainly refers to the social and cultural environment.

When ADHD children are labeled, it is easy to be treated unfairly by society, and form a vicious circle, which will have bad influence on these children in the end. In 1995, YAN Wenwei (2006) followed up those children living in Nanshi district of Shanghai who were diagnosed as hyperactive children in 1979, and compared with the matched youth with similar area of age and gender, then he regards that despite their learning achievement is not so good, there is still a normal life and work. Thus, he argues that the ADHD children are not sick. They are part of the normal population, while that part has relatively poor self-control. He also regards that there are no "absolutely clear" boundaries between hyperactive children and not hyperactive children. He thought that good or poor performance of self-regulation was not qualitatively

different. He suggested calling them “hyperactive child”, and does not advocate called them patients. Sociocultural theorists have noted that ADHD symptoms and a diagnosis of ADHD may themselves create interpersonal problems and produce additional symptoms in the child (Ronald J. Comer, 2012: 532). Here is a case:

Xiaowen, is an 8 years old boy. He was a child with ADHD diagnosed by hospital, and his behavior disorder is moderate. One Sunday morning, Xiaowen’s mother invited me to her home for lunch. When I prepared for lunch, Xiaowen suddenly ran out from his room, quickly took away the chopsticks from the dinner table that I just set, and then ran back to his room satisfied cachinnation. I ignored him for I know earlier that he is a child with ADHD. Xiaowen ran out again and pat on my back heavily then ran back to his room laughing. I feel a little angry. Xiaowen’s mother yelled at Xiaowen to make him stop his mischief. Xiaowen made a face at his mom and laughed loudly. She was very angry, and caught up with him to beat him. Xiaowen ran back to his room with laughing and locked the door. His mother knocked hard at the door, shouting loudly. Xiaowen hid in his room, and his mother had to give up, leaving a word “don’t come out when we have lunch”.

Sitting at the table, Xiaowen still could not be quiet. However, his mother did not severely criticize him. Xiaowen’s mother began to tell us something about her child, such as: how the teachers and his friends view him, or he is very not obedient at ordinary times, et al. I noticed that Xiaowen seems to be not happy. At the beginning, he did not seem to care. But he frowned when he saw we laughed after listening to his mother talking about him. Suddenly, he threw his chopsticks at his mother. Xiaowen’s mother was enraged, rushing to him and dragging his arm to beat him. Xiaowen sobbed hysterically. We several guests felt very embarrassed. The nanny of this family said: “This kid is really not persuasible. He must be beaten.” Xiaowen was crying loudly in the corner. His mother, leaving him alone, returned to the table and apologized to us. About five minutes later, Xiaowen was quiet down, and back to the table for lunch. But he was active again after keeping silence about five minutes. He ate a little then ran to his room hurriedly and ran back, again and again. I do not know what this meant. The nanny said that this happens almost every day. Xiaowen’s mother often cries for the child’s behaviors.

Xiaowen’s mother told me as followed: our child is not simply hyperactive but suffering from an illness. Xiaowen is suffering from a mental illness. Our family environment is very poor. We cannot take care of Xiaowen well, because his father and I are all busy with work. In addition, the person we hired to help us looking after the child is almost an illiterate.

After a short silence, Xiaowen’s mother said: “I really can’t stand it, really can’t stand. We have intended to send him away.” Then she sobbed (YANG Lingyan, 2004).

## 4.1 At home

For ADHD children, family environment is one of the main external environments. Parents' attitudes and behaviors will bring significant effects on children's cognitive development, personality formation and behavior. Self-regulation is very important both to children with ADHD and to their parents.

The family functioning is poor in areas such as affective involvement, roles, communication, and problem solving. Parents are busy working, and ignore the ADHD children's emotions, when children lost temper, parents do not deal with them (SU Ying, 2012). YU Fang, GUO Ming, YU Zhimin, & ZHANG Huakun (2013) think that the main parental rearing appearances of children who display ADHD exist as followed: parents' refused to accept, harsh punishment, and overprotection. "Unfortunately, it can be difficult to get parents who need the most improvement in parenting skills to participate in therapy." In addition, the demands of the parenting role create stress for almost all parents (Paulo A. Graziano, et al., 2011). Xiaowen is a child with ADHD, which also gave Xiaowen's mother a certain psychological pressure. However, evidence suggests that effective treatment of the ADHD symptoms in children can improve family relations and overall family functioning (Gustafsson et al., 2008). Generally speaking, both parents and teachers pay more attention to children's academic performance in China. XU Tong, SU Yuan, YU Liping, QIAN Yan, & ZHOU Yi (1998) analyzed the psychological status of fathers and mothers in ADHD outpatient department. They found that, among 232 children, there are 59% who were suggested to see a doctor by their fathers and mothers together. It means that the other 41% whose father and mother have different opinions on their children's behaviors. However in these children the ADHD positive rate was high and they were in serious status. The poor academic performance of children with ADHD is often misunderstood not only by their parents but also their teachers.

## 4.2 At school

Teachers' knowledge of children with ADHD will influence their beliefs and values in subtle but multifarious ways. Most of the school-age children's time in the day is in school. So they often contact with teacher. The behaviors of children with ADHD are easier to be found by teachers. Susan Nolen-Hoeksema (2011: 301) referred that children with ADHD often do poorly in school. Because they cannot pay attention or calm their hyperactivity, they do not learn the material and perform below their intellectual capabilities. ADHD children's intelligence is usually normal or near normal. It will let the teachers give them poor evaluation for their hyperactivity behavior and/or deficit of their attention. This is also easier to make ADHD children in a bad circle in their emotion, behavior, and studies. Under the background of Chinese

culture, the parents of children with ADHD pay more attention to their academic performance. So they will give more measures and supervision on ADHD children's academic guidance. For teachers it is hard to focus on these ADHD children for a large number of children in class (SU Ying, 2012). SHEN Ping (2013) also thinks that the attention of children with ADHD is easily influenced by environment and transfer. Their poor academic performance is an inevitable result. Although they know they should obey the rules and order, but they cannot control their behaviors. They are seen as different students for their abnormal behaviors. They will interrupt in any occasions, which makes them being rejected in group and their relationships are also influenced. Impulsive behavior characteristics of children with ADHD will lead to trouble in the process of interaction with peers, his partner status and self-esteem will be affected also.

To face with ADHD students' behavior problems, the teachers in ordinary school are still used to use the methods of punishment or isolation, or blame them with words. But the effects are limited. On the contrary, it increased their emotional distress. SU Ying (2012) refers that ADHD children have many behavior problems, such as crying, difficult to calm down, lose temper, impulse in group activities. They have low self-evaluation, negative thoughts, and lack of self-confidence.

## **5 How ADHD children are treated in mainland China**

For better treating with children with ADHD, the school psychological consultants, clinical psychologists, teachers and parents should be involved in the intervention. In recent years, the treatment of children with ADHD tends to adopt a combined method of physiological, psychological and social treatment (YANG Fan, & XIA Zhi-chen, 2014). The most commonly applied approaches are drug therapy, traditional Chinese medicine therapies, behavioral therapy, parents training, and sports exercises et al. GAI Xiaosong, LAN Gongrui, & LIU Xiping(2008) through the comparison of the effects of different interventions, they think that the interventions aimed to improve the behavioral, academic, cognitive and/or social functioning of children with ADHD have obvious effects. Overall, the intervention that combined drug therapy and cognitive behavior therapy have the best effects, then larger for only medical interventions and smaller for behavioral or cognitive-behavioral interventions alone. To assess the effectiveness of Russell Barkley's parent training combined with Ritalin in children with ADHD comorbidity oppositional defiant disorder, a study were carried out. The conclusion were drawn that parents' training combined with Ritalin is useful to comorbidity of attention deficit hyperactivity disorder and oppositional defiant disorder and deserve to be generalized in clinical practice (ZHANG Wenwu, WANG Xiaojia, CHENG Fang, LIU Zhiwang, YUAN Hong, & HU Zhenyu, 2011). The effects of comprehensive intervention on children with ADHD are also con-

firmed in the experimental study of WU Zengqiang, MA Zhenzhen, & DU Yasong (2011). At the same time, the drugs have side effects. Ritalin, for example, has these adverse reactions such as a loss of appetite, trigger twitch, relying on drugs, and heart rate increasing (NI Xinqiang, & HAN Xinmin, 2013).

The parents' attitudes are cautious about whether children take drugs although doctor suggested the drug therapy. They hope to be able to improve their children's symptoms. Meanwhile, they worry about the adverse side effects of medicine (XU Tong, SU Yuan, YU Liping, et al., 1998).

## **5.1 Drug therapy**

A pilot comparison of the safety and efficacy of methylphenidate (MPH) combined with clonidine, clonidine monotherapy, or MPH monotherapy in 6–16 years old children diagnosed with ADHD and comorbid aggressive oppositional defiant disorder or conduct disorder was completed. The results suggest the safety and efficacy of clonidine alone or in combination with MPH for the treatment of ADHD and aggressive oppositional and conduct disorders (Daniel F. Connor, Russell A. Barkley, & Heather T. Davis, 2000).

The preschool ADHD treatment study carried on children ages 3 to 5.5 years with ADHD. They drew the conclusion: MPH produced significant reductions on ADHD symptom scales in preschoolers compared to placebo, although effect sizes (0.4–0.8) were smaller than those cited for school-age children on the same medication (Laurence Greenhill, Scott Kollins, Howard Abikoff, James McCracken, Mark Riddle, James Swanson, James McGough, Sharon Wigal, Tim Wigal, Benedetto Vitiello, Anne Skrobala, Kelly Posner, Jaswinder Ghuman, Charles Cunningham, Mark Davies, Shirley Chuang, & Tom Cooper, 2006). The children with ADHD in China are currently treated with methylphenidate, a stimulant drug that is commonly used to treat ADHD. Parents in China have more apprehensions on drug treatment and attach more importance on academic performance.

## **5.2 Traditional Chinese medicine therapies**

Traditional Chinese medicine therapies are from a whole view to diagnose and treatment ADHD. It includes Chinese medicine, acupuncture and massage treatments. Traditional Chinese medicine is an important treatment of ADHD in China. To drug treatment of ADHD, compared with western medicine, parents are more likely to accept Chinese medicine treatment for its adverse effects are less.

Traditional Chinese medicine plays a significant role to improve the function of the dopamine system. However, these related studies' results are varied (NI Xinqiang, &



HAN Xinmin, 2013)). The doctor of traditional Chinese medicine thinks that ADHD is associated with the dysfunction of heart, liver, spleen and kidney. Traditional Chinese medicine combined with acupuncture and massage can adjust the balance of Yin and Yang and organs' function. Then it can significantly improve the symptoms of children with ADHD. A massage therapy study, 30 students between the ages of 7 and 18 years ( $M = 13$  years) diagnosed with ADHD were randomly assigned to a massage group or a wait-list control group. The massage group received massage therapy for 20 minutes twice per week over the course of one month. The results revealed that massage therapy benefited students with ADHD by improving short-term mood state and longer-term classroom behavior (Sonya Khilnani, Tiffany Field, Maria Hernandez-Reif, & Saul Schanberg, 2003). Simple massage manipulation was adopted in treatment of the 33 ADHD children. The common manipulations included head manipulation, chest-abdominal manipulation and back manipulation. Of the 33 cases of ADHD children treated with massage, 10 were cured, 9 were remarkably effective, 9 were improved and 5 had no effect (WANG Yinglei, & SHI Xiaoping, 2005). However, mainly with behavioral observation, the traditional Chinese medicine lacks of strictly experimental design, which reduces the credibility of observations and repeatability.

### **5.3 Behavioral therapy**

Behavioral therapy is mainly implemented through group game counseling and individual counseling. To explore the effects of intervention, 117 ADHD children were chosen from 4500 children ranging from grade 2 to grade 4 in ten primary schools in Shanghai (WU Zengqiang, MA Zhenzhen, & DU Yasong, 2011). The behavior modification and self-management was undertaken once a week, the group game consultation done thirty minutes a time, once a week within eight weeks. The difficulty of the game is successive ascending and each game was done twice. The individual consulting is carried for promoting the self-regulation, self-control and problem solving skills. It includes two aspects: one is to correct children's most prominent behavior problems. The other is to improve the abilities of planning and arranging their daily life. The result of this research showed that the children with ADHD more effectively improved the hyperactivity symptom, reduced the difficulty faced by the children tested in daily life, bettered their adaptive behaviors, and highly enhanced the level of their self-esteem only in a short-term effect.

Other studies have shown that the abnormal brain electrical activity exists in the right prefrontal brain area of people with ADHD, and the 5-HT system function is reduced. It is effective to ADHD by using EEG biofeedback training along with drugs to improve 5-HT function (SHEN Xiaoming, 2006).

## 5.4 Parents training

Parents training is based on the scientific and systematic guidance to the parents of children with ADHD, let parents to be better in management and to guide their children. The most important thing is to guide parents to take specific strategies, and intervene children's bad behavior one by one, then achieve the purpose of reduce or eliminate the bad behavior (DU Yasong, 2010). The method of parents training is mainly to guide parents manage their children's behavior, and enhance their adherence and self-control. When the children's compliance is improved, the behavior without targeted intervened also has an improvement. To explore effectiveness of Russell Barkley's parent training in children with comorbid ADHD and oppositional defiant disorder (ODD), and to evaluate its applicability in mainland China, LIU Jin, & WANG Yufeng (2007) gave ten weekly trainings to thirty parents of children with ADHD and ODD. The conclusion was drawn that parent training could be applicable in Chinese culture and current social status, and can alleviate both ODD and ADHD symptoms. Through the form of the parents training salon, the parents increased the knowledge of ADHD, knew the methods to help their child in daily life, and the score of ADHD Questionnaire was raised, and could last for a long period of time, which means the degree of coordination from parents was effectively improved (WU Zengqiang, MA Zhenzhen, & DU Yasong, 2011).

However, some aspects will hinder the parents to ask for help with their children with ADHD, for example, the past painful memories in the process of no effect treatment, worried about the people around who know their children suffering from the ADHD disease, the lack of professional psychological services (MA Chao, 2011).

## 5.5 Sport exercises

Children with ADHD often experience difficulties in emotional, behavioral, social, and psychological functions. There are many studies carried on from the view of sport exercises intervention of children with ADHD. Research suggests that participating in martial arts improves practitioners' physical, social, educational, psychological, and behavioral functions. Its training fosters self-discipline, motivation, and positive social change. Martial arts is one form of behavior modification with potential to mitigate ADHD symptoms (Ramfis L. Marquez-Castillo, 2013). The researcher got results by meta-analysis that martial arts training can alleviate symptoms of ADHD and can help improve academic performance. Social change implications include the potential for confirming martial arts treatment as a nonpharmacological treatment for ADHD, which would benefit sufferers, mental health practitioners, educators, and parents.

Some scholars think that until now, the empirical study of the influence of sports participation to children with ADHD also is very few. The sports participation intervention theory model and the corresponding prevention mechanism of children with ADHD is also in urgent need to exploration and development (SUN Yongjun, WU Xiufeng, LIU Jun, & HAN Kun, 2012).

## 6 Conclusions

The final purpose of the treatment on children with ADHD is to assist them better self-management, integrate into society, and achieve self-fulfilling. For better treating with children with ADHD, the school psychological consultants, clinical psychologists, teachers and parents should be involved in the intervention. The current study is generally lack of ADHD individual emotions and social concerns, such as how do children with ADHD (mis)manage their real-life dyadic friendships. The influence of the long history of feudal patriarchal still exists more or less in China today. It is necessary to train parents regularly. Most study claims ADHD treatment effect are immediately available after the intervention, and which lack of the continued follow-up results. Treatment can help people with ADHD adapt better to their environment. At present, the social environment of children who display ADHD living needs further improved. We should pay more attention to the psychological development of children with ADHD from the viewpoint of people-oriented, respect people's value, and advocating personality dignity.

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(reviewed twice)

Li Yun  
 Faculty of Physical Education, Southwest University  
 Beibei  
 400715, Chongqing  
 China  
 e-mail: fanqiemeimei777@gmail.com



# Interpreting for people with hearing disability in the area of employing

(scientific paper)

Barbora Hrdová Kolíbalová

**Abstract:** *The area of employing people with health disability is a wide topic. The contribution focuses on the matter of employing people with hearing disability from the Czech sign language interpreters' point of view. The theoretical part focuses on a job interview and a new employee adaptation. From the deaf education point of view, the communication of people with hearing ability and interpreting was mentioned. The method of a structured questionnaire was selected from the empirical methods. Professional interpreters in the Czech Republic were addressed. The contribution is an output of the research and among others it offers a basic summary of problems on the part of an employee with hearing disability and on the part of the employer established by the questionnaire.*

**Keywords:** *interpreting, person with hearing ability, communication of people with hearing disability, job interview, employee adaptation.*

## 1 Introduction

The area of employing people with health disability is a current topic. The society is being developed and its view of employing people with health disability is being improved. There are still significant obstacles and in particular for people with hearing disability. Even the quotation by Helen Keller, although it is directed to people with deaf blindness but very often quoted in connection to the hearing disability itself: "In the complete darkness and silence, which separates me from the world, I miss the friendly sound of a human voice the most." Blindness separates people from things; deafness separates people from people (Hrubý, 1999) implies how serious problem the language barrier is. Most people with hearing disability use Czech sign language

for communication. We cannot expect that employer would master this language. At some working positions, it is sufficient that the employer respects the language and finds alternative ways to communicate with its employee such as written communication. The most frequent problem, which people with hearing disability experience, is usually calling. In spite of the fact that Alexander Graham Bell originally wanted to invent a device to help deaf blind children, this invention became a huge gap between the deaf and hearing societies.

It is not easy to define clearly that employing people with hearing disability is a problem. It depends on the individual person with hearing disability, his communication code, knowledge, skills, willingness to adapt and other factors. Simultaneously, it depends on the employer to what extent he is willing to employ a person with hearing disability and to what extent he accommodates to his requirements. Other factors influencing the course of events are particularly the working team, environment, finances etc. Therefore it is necessary to see this matter individually from the point of view of each individual and situation. Despite this, I would like to try to outline this matter from a general perspective.

## **2 The Area of Employing**

### **2.1 Job Interview**

As stated by Dvořáková (2012), the job interview is used especially because it offers a verification of the judgement regarding the applicant, his prerequisites and particularly his motivation to work. It is a significant moment not only from the point of view of the employer but also from the point of view of the applicant, which enables acquiring authentic information to assess reciprocal requirements and ideas.

The interview may be unstructured and it is led by the interviewer who is able to plan, organize and control the process of the interview and is able to judge and assess the reliability of the answers followingly. (Dvořáková, 2012). Koubek (1995) claims that this interview is considered to be less reliable as there is also the possibility to ask personal questions as well as the possibility of being influenced by so-called halo effect.

On the other hand, the structured interview contains questions prepared in advance which should get to know the applicant, even uncommon and unexpected questions may occur, these aim to provoke instinctive answers (Dvořáková, 2012).

Koubek (1995) assumes that a structured interview is considered to be more effective, reliable and accurate. The interviewer has lesser likelihood that he forgets certain facts. The interview is recorded and archived.



We may meet one round of the interview but also more of them. An interview between the interviewer and the applicant, an interview before a committee and an interview determined to verify professional knowledge belong among the most frequently used ones (Dvořáková, 2012).

According to Koubek (2007) the main function of the interview is primarily to assess working capacity. The task of the interview is subject to these following aims:

- Acquire sufficient and deeper information about the applicant and judge whether the applicant is the suitable candidate for the given position.
- Provide the applicant with information about the company and work for it. The applicant acquires the possibility to decide whether the position is appropriate for him.
- Assess the character, character features of the applicant.

## **2.2 Employee Adaptation**

Guided adaptation as stated by Dvořáková (2012) represents a systematic orientation and joining the new employee within the cultural, social and working system of the organization. It is possible to meet a written form or handing over from “generation to generation” while the written form is more beneficial. The purpose of the adaptation is to cut the costs related to employee fluctuation, lower the productivity loss and increase working satisfaction in the organization. In huge companies, we may meet processing and implementation of an adaptation programme which accelerated joining process and adaptation of new employees.

Dvořáková (2012) assumes that lately company culture, norms and values are emphasized. A new employee has to orientate being helped by the HR specialists and superiors. An introductory training of the new employee is common; this is used to hand over main information about the company.

The HR specialist accompanies the new employee to his new working space and hands him formally over to his superior, who informs him of his rights and duties, possibly the new employee attends health and safety training. Simultaneously, the superior introduces the new employee to his colleagues. The new employee is then guided to his working space, which was assigned to him, and hands him over the necessary equipment for performing his work. The information needed to perform work is necessary to be handed over continuously. Encouragement, trust and pleasant atmosphere is recommended (Koubek, 1995).

## 3 Communication of People with Hearing Disability

### 3.1 Czech Sign Language

Doležalová (2012) brings into attention that it is an own sign language of the deaf people which consists of a set of signs which follow rules and express symbols of real or abstract meaning according to the manifestation of the deaf person.

Czech sign language is a visual-motoric language. It is characterised by hands, body and mouth language of the speaker and is followingly perceived by the sight (Servusová, 2008).

According to Horáková (2012) Czech sign language shows basic attributes of a language: signability, double division, system, productivity, peculiarity and historical aspect. Doležalová (2012) adds that sign language is stable regarding grammar and lexical features. The specific feature is linear ordering signs one after another and the possibility to order the signs simultaneously for example by non-manual components.

The following pieces of knowledge related to the Czech sign language were proved during decades of researching the sign language:

- Sign language is a natural language.
- Sign language is independent of spoken language of the majority.
- Hands, head, body, upper part of face (eyebrow, look, eyelids), nose, mouth, cheeks, chin and tongue function as articulators in a sign language.
- These articulators may be used at the same time – simultaneously and each one participates in creating the meaning of announcement.
- Knowledge of sign language does not obstruct acquisition of the language of the majority.

Acquisition of the sign language may contribute to effective study of the language of the majority as the second language (Okrouhlíková, Slánská Bímová, 2008).

### 3.2 Signed Czech

Langer (2013) states that signed national language, in our case signed Czech, is not a natural language system, but artificially created system, which is based on the grammar and rules of Czech language, when each word corresponds to a relevant sign expressing the content of the word as precisely as possible. It is an artificially created pidgin, when a combination of two languages arises while they are fully independent of each other.

Regarding the fact that signed Czech requires the knowledge of Czech language, this communication system is suitable for people with hearing disability who master

Czech language. At the same time, the hearing society learns signed Czech much more easily than Czech sign language.

### 3.3 Speech and Lip-Reading

Czech language as well as other spoken languages is an audio-oral language. In contrast to sign languages, which exist on the visual-motoric base, it is produced by an oral system and followingly the sound is perceived by the recipient via the hearing system. The speaker works also with nonverbal elements when using spoken language. However, nonverbal communication is independent of using spoken language. These meanings may be announced in a written form or they may be recorded in a sound form (Servusová, 2008).

Doležalová (2012) defines Czech language as a linear language which is divided in time, lacks the attribute of Czech signed language, which has the possibility of being expressed simultaneously too.

The speech requires the skill of lip-reading on the part of the person with hearing disability.

Lip-reading is a skill, which enables an individual to perceive speech by his sight, which he can do on the basis of mouth movement, gestures, expression, gesticulation, the whole body posture, situational factors and context of the content of the spoken (Krahulcová, 2002).

Doležalová (2012) states that lip-reading is perceived as an imperfect replacement of the sense of hearing which cannot be fully replaced by this skill. It is necessary to follow a wide range of rules and create convenient conditions and adjust to the situation so that lip-reading had an effective impact. *External and internal conditions* belong to the conditions which influence the quality of lip-reading. *External* conditions consist of perfect and uninterrupted eye contact, appropriate lighting, the distance of the speaker, speech, its pace and rhythm, way of articulation of the speaker and current situation. *Internal* conditions for lip-reading are differently set for each individual. The differences may occur in processing the information in the central nervous system and other phases. The psychic and somatic conditions of permanent and current type may be influential as well.

Other factors influence lip-reading which may occur individually by each individual during the situation.

### 3.4 Finger Spelling Alphabets

The visual-motoric system enabling production of speech. It works on the principle of position and posture of fingers, which represent individual letters of the alphabet. We may meet a few finger spelling alphabets:

- One-handed finger spelling alphabet which is the most frequent and is used at schools for people with hearing disability as a learning aid.
- Two-handed finger spelling alphabet is used for communication of people with hearing disability and serves to express foreign words, titles possibly if a correspondent sign is missing.
- Mixed finger spelling alphabet is used by some people with hearing disability, when a combination of one-handed and two-handed finger spelling alphabet occurs (Doležalová, 2012).

## 4 Interpreting

In general, we may state The Constitutional Act n. 1/1993 Sb., The Constitution of the Czech Republic, where in the Article 3 we find that A part of the constitutional order of the Czech Republic is The Charter of Fundamental Rights and Freedoms, which mentions that *basic rights and freedoms are guaranteed to all people without difference*. Later we may also find a mention that people with *health disabilities are entitled to special protection in working relations* (Toráčová, 2008).

The right to interpreting services is ensured for the people with hearing disability by the Act n. 155/1998 Sb., On Communication Systems of Deaf and Deaf-blind People (as amended by Act n. 348/2008 Sb.). Conditions of providing the services are subject to the Act n. 108/2006 Sb., On Social Services, as amended. The clients with hearing disability are entitled to interpreting at the doctor, at the police, at work, when dealing with contracts or at the offices free of charge. Within the educational system, interpreting is free of charge.

People with hearing disability are compared to foreigners in their own country. They may learn Czech language. However, they cannot learn to hear it. Therefore interpreting in all its forms is a significant factor in interpersonal communication of people with hearing disability with the intact society.

As the Act n. 155/198 Sb., *On Communication Systems of Deaf and Deaf-blind People*, as amended by the Act n. 384/2008 Sb., (in its full version published under the n. 423/2008 Sb.) states that it is possible to meet more types of interpreting. Interpreting into Czech sign Language, transliteration into signed Czech (the client masters Czech language), visualisation of spoken Czech, possibly interpreting for deaf-blind people. The most frequent type of interpreting is interpreting into Czech sign language – primary and full communication means.

We may meet simultaneous interpreting as well (the interpreter interprets simultaneously with the speaker) or consecutive (the interpreter waits until the speaker finishes a clause or idea and followingly translates). We meet simultaneous interpreting by professional interpreters (Horáková, 2012).

According to the situation, which is interpreted in, we distinguish two types of interpreting. The first type is court interpreting, interpreting at the offices or police. In such case the body orders and pays for the interpreter. The second type is interpreting everyday situations so-called community interpreting. It is interpreting personal matters at the offices or at the doctor (Horáková, 2012).

In such a case, the person with hearing disability orders the interpreter on his own. The deaf, the hard of hearing and those who have lost hearing as well as deaf-blind clients from the Czech Republic may order an interpreter by several organizations; the most important organization in this area is The Centre for Mediating Interpreters for Deaf People (Centrum zprostředkování tlumočnicků pro neslyšící – CZTN), where we can find a database of interpreters. The operators in the centre process the requirements of clients using a special software database. It is possible to address the Czech Chamber of Sign Language Interpreters (Česká komora tlumočnicků znakového jazyka – CKTZJ), where interpreting is provided to a limited extent as the organization especially takes care of improving professional level of interpreters, protects the interests of interpreters and offers their further education. They also inform the wide public about specifics of interpreting for deaf people. It specialises in interpreting of theatre or musical performances [1].

## **5 Problems of Interpreting on the Part of the Client**

Most interpreters who interpreted a job interview for a person with hearing disability experienced client's worries that he would not pass the entrance health check. The employer does not have to fully realize the impact of hearing disability in the working process; in contrast the person with hearing disability himself is fully aware of his deficiencies arising from the disability and its possible compensation. The biggest problem, when applying for a job, is particularly calling which is impossible for most people with hearing disability and nowadays, it is completely unexpendable during the working process. Another reason for worries during a job interview is the communication barrier. Most people with hearing disability worry how the new employer will react to the fact that they communicate only through Czech sign language. The clients using lip-reading and speech may be troubled by the communication in this way as stress, unknown surrounding and strange people may influence the quality of lip-reading; as well as other factors such as insufficient lighting of the room or an inappropriate position of the interview participants.

Employees with hearing disability are worried about the way they will join the team at work and how the communication will work.

## **6 Problems of Interpreting on the Part of the Employer**

The most frequent indiscretion of the employer, possibly the person leading a job interview, is addressing the interpreter and not respecting the fact that the participant of the communication is the person with hearing disability.

Most employers are biased to certain extent towards people with hearing disability. Applicants with hearing disability experience refusal as they use hands for communication and therefore they are not capable of manual work. Another argument was safety measures where the applicant with hearing disability was informed that if there was a fire, he would not hear warning sound signals.

The employers often do not know the situation of people with hearing disability; they lack orientation in the matter and have no experience with Czech sign language, possibly with the possibility to use an interpreter. They cannot imagine cooperation with a person with hearing disability; they do not look for any solution of reciprocal communication such as writing messages on a piece of paper or other forms of communication.

People with hearing disability when stressed cannot often react, suggest optimal solution of the situation and it is not appropriate for the interpreter to enter the interview, although he is aware of the fact that there are often reasons for worries on the part of the employer, which are trivial and insignificant.

It is necessary to add that the stated problems with employers or selective procedures may not be generalized; there are still experienced HR specialists and employers at the job market who orientate in the matter very well and who are interested in employing people with hearing disability.

## **7 Research Objectives**

The main objective was to establish which problems the interpreters for people with hearing disability experience when interpreting in the area of employing people with hearing disability not only on the part of the employer but also on the part of the client.

## 8 Description of Research Set

Among criterion of choice the research sample contained professional interpreters in the Czech Republic and willingness to provide information. The research sample consisted of professional interpreters from the whole Czech Republic who were addressed via a questionnaire in an electronic version. They were chosen on the basis of the database of interpreters or on personal meeting. Gender, age, education or the type of interpreting that they provided was not taken into consideration. The professionalism of the interpreter based on attending courses, seminars and other activities deepening his ability to provide his activities professionally was taken into consideration. The significant parameter of selection was professional interpreting occupation based on performing legal conditions.

## 9 Methodology

The base of the research was a quantitative research. The research method of a questionnaire was used for this contribution from the empirical methods. The questionnaire was anonymous.

The questionnaire contained 27 questions. Introductory part contained social-demographical data of respondents as gender, age, achieved education and education in section of interpreting in Czech sign language. Questionnaire was concentrated at several research goals, for example favorite areas of interpreting from view of interpreter in Czech sign language and areas which are most preferred with people with hearing impairment. Further it focuses on thesis of employment of people with hearing impairment and problems with interpreting in these area. Questionnaire focuses on satisfaction of people with hearing impairment with interpreting in this area too and criterions used by people with hearing impairment to choose interpreter in Czech sign language. Last questions were focused on code of ethic of interpreters. Questionnaire contained closed and open questions, which offered to respondents possibility to comment given issues.

Questionnaire was sent via electronic mail, where was public address link of questionnaire, to interpreters given in database of Center of mediation interpreters for Deaf. Further questionnaire was sent to interpreters working at Teireiás center MU and another selected interpreters. Possibility of filling up questionnaire was one month.

The total of twenty-eight respondents at the average age of thirty-three years filled in the questionnaire; 85.71% of the respondents were of the feminine gender and 89.29% stated completed university education. The chosen results are analysed, graphically processed and commented on.

## 10 Results

The total number of twenty-eight respondents at the average age of thirty-three answered the questionnaire; 85.71% were of feminine gender and 89.29% stated completed university education.

Time demandingness was 15 minutes in average. The questionnaire had the total of 27 questions. Professional interpreters from the whole Czech Republic were addressed.

Concerning education in the area of interpreting the most common was university study at the Faculty of Arts of the Charles University major Czech in Communication of People with Hearing Disability, various courses of Pevnost, the Czech Chamber of Sign Language Interpreters, the Institute of People with Hearing Disability, APPN, attending conferences dealing with linguistics of Czech sign language, interpreting or generally the matter of people with hearing disability. In addition, there were seminars organized by the Centre Teiresiás or artistic workshops by the Janáček Academy of Music and Performing Arts in Brno. The project COMIN run by the Masaryk University in Brno was mentioned often and the major Special pedagogy with the specialisation of Deaf Education.

53.57% of respondents assume that there is definitely not a shortage of university majors with specialisation of interpreting Czech sign language. 39.29% are persuaded that there is not a shortage of university majors in this area and only 7.14% assume that there is a shortage of these majors.

82.14% of respondents answered that the occupation of an interpreter is significantly demanding and 10.71% are persuaded that this occupation is maximally demanding. Only 7.14% are persuaded that this profession is rather demanding.

The respondents agreed that by 89.29% the most frequently required interpreting is in the area of health care, followed by 78.57% at the offices and 60.71% at schools or other educational organization and 57.14% at universities. 17.86% require other interpreting than it was stated in the offer such as in the banks, at the wedding, within the family, business meetings or courses. 14.29% require interpreting for audio-visual media, 10.71% at court proceedings and 3.57% at the registrar office. None of the respondents have experienced interpreting at the Parliament of the Czech Republic.

According to the respondents, interpreting in the health care by 60.71% belongs among the favourite interpreting particularly because of education of the interpreter in this area as preparation for interpreting does not take so much time. Interpreting in this area is considered to be very important. According to the respondents, this interpreting is required a lot. Simultaneously, interpreters state that this interpreting is highly demanding in the mental way as it requires mental hygiene and especially empathy. 57.14% stated interpreting at schools and educational organizations as favourite and as the reason they state education and work in this area. 57.57% state



interpreting at universities as favourite. It is their opportunity to acquire new information, view and they can meet interesting people. It is known environment for them as they also studied university. They also appreciate that interpreting in this area enables them to educate themselves in other areas. The same percentage (57.57%) of respondents marked interpreting at the offices as favourite, they consider it to be less stressful than for example interpreting at the court proceedings.

As other, the respondents state – wedding, funerals, interpreting within the family or at work. 28.57% of respondents did not choose from the offer of favourite interpreting and stated the notion “other”. 14.29% of respondents like interpreting for audio-visual media and 7.14% of respondents consider interpreting at the registrar office to be their favourite as it does not require significant preparation. 3.57% of respondents like interpreting at court and consider it to be highly demanding and interesting at the same time.

78.57% of respondents stated that they have already interpreted a job interview. 21.43% have not experienced such a situation yet.

The most frequent type of interpreting in the situation of a job interview was Czech sign language which was stated by 76% of respondents. 21% of respondents stated as the type of interpreting the option “other” and followingly they stated that they have not experienced this situation yet. 3% selected interpreting into the signed Czech.

The respondents stated the following problems on the part of the employer as the most frequent: worries about communication with people with hearing disability, communication with colleagues at the workplace and joining the team, furthermore they stated the impossibility of calling.

The respondents met the following problems on the part of employee as the most frequent: inability to express himself and expecting help or answering questions by the interpreter, inability to react to possible questions and informal or inappropriate behaviour on the part of the person with hearing disability. In addition, there is also a late coming or insufficient knowledge of the course of the interview.

The respondents expressed also their opinions on the matter of interpreting a job interview for the client with hearing disability. In general, there is insufficient information of the matter of hearing disability and communication principles with an interpreter on the part of the employer according to the respondents. Even people with hearing disability make mistakes by the fact that they do not know how to present themselves, they rely too much on the help of the interpreter and they expect the interpreter to act on behalf of them. Nonetheless, it is highly individual and it depends on each client. The respondents agreed that people with hearing disability should be better informed for example via courses that would be dedicated to the matter of searching a job so that they learn how to behave at a job interview, possibly some service focused on help for people with hearing disability when searching

a job. The respondents also assume that possible problems may originate in the little necessity to find and keep a job, as it is a job, which they mostly do not enjoy and they are not well paid for it, so they do not feel necessity to aspire to it.

64.29% of respondents stated yes to the question whether they experienced interpreting of the first day at work for a client with hearing disability and 35.71% of respondents stated no. 85.71% of respondents experienced interpreting of important meetings or courses (such as fire protection, health and safety etc.) for a client with hearing disability. 14.29% have never experienced such a situation.

At the scale: excellent, good, bad and neutral relationship towards the clients with hearing disability; 39.29% of respondents selected the notion excellent and 53.57% good. 7.14% stated a neutral relationship.

According to the respondents, clients choose an interpreter on the basis of the knowledge of Czech sign language (85.71%) and confidentiality (82.14%). Furthermore, they state reference from surrounding (71.43%), sympathy (53.57%), other (25.00%) (As other they stated for example reliability, trust, habit), the interpreter's look (17.86%) and friendship (10.71%) as important factors. 7.14% of respondents identically stated price and education.

According to the respondents, their clients with hearing disability consider accurate transfer of information (78.57%) and confidentiality (75.00%) to be the most important, later they stated following the Code of Ethics for Interpreters (25.00%) and the option other (14.29%). As other, they specified flexibility, the knowledge of the interpreter for a long time and being used to him, appropriate clothes and the interpreter's behaviour. 7.14% stated a friendship as an important factor for a client with hearing disability.

96.43% of respondents have experienced a dissatisfied client. 3.57% have not experienced a dissatisfied client. According to the respondents, possible dissatisfaction is mostly demonstrated in such a way that the client does not order the interpreter any more; possibly he makes a complaint to his superior.

At the scale: definitely yes, yes, no, definitely no; for 64.29% of respondents it is not demanding to follow the Code of Ethics for Interpreters. 14.29% stated that it is demanding to follow it and 21.43% expressed that it is definitely not demanding to follow the Code of Ethics for Interpreters.

To the question whether clients require strict following of the Code of Ethics, 17.86% of respondents agreed on the answer yes and the same percentage (17.86%) agreed on the answer no. 3.57% selected the answer definitely no. The option other was crossed by 60.71% of respondents and followingly they specified why they chose this option of the answer. The most frequents answers were those although clients themselves require confidentiality; they themselves require information about other clients. Some require strict following; the others do not as they would like the interpreter to act on behalf of them, which is not allowed by the Code of Ethics. The

interpreters assume that young generation does not require strict following, in contrast older generation is not aware of the existence of the Code of Ethics and therefore they do not require it. 82.14% of respondents do not feel the need to amend the Code of Ethics by new articles. 3.57% of respondents chose the answer definitely no and 14.29% chose the option yes that they would amend it. They would amend an article stating that interpreters behave in situations according to their feeling and conscience.

## 11 Summary

Interpreting for people with hearing disability in the area of employing is still a current topic. Not only on the part of employers but also on the part of people with hearing disability problems or deficiencies occur that influence job applicants possibly an already accepted employee with hearing disability. These deficiencies arise especially from the limited information in the area of people with hearing disability. The contribution views this matter through the eyes of interpreters for people with hearing disability. The work of interpreters for people with hearing disability is demanding. The Code of Ethics for Interpreters is supposed to be a support in this uneasy occupation. As the research showed, it may also be limiting and restricting for their work.

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Mgr et. Mgr. BcA. Barbora Hrdová Kolíbalová  
Institute of Special Education Studies  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: widdy@volny.cz

# Effect of hearing impairment on academic achievement of secondary school students in Abeokuta North Local Government Area of Ogun State

(scientific paper)

Igoni, Joy Sade

**Abstract:** *This study investigates the effect of hearing impairment on academic achievements of secondary school students with hearing impairment in Abeokuta North Local Government Area in Ogun State. To achieve the purpose of the study, three hypotheses were formulated. The experimental design was adopted for the study. A total sample of thirty respondent (15 normal hearing students i.e. control group and 15 hearing impaired students i.e. experimental group) were randomly selected for the study. The selection for the control group i.e. normal hearing students was done through simple random collection to match against the 15 hearing impaired students available in senior secondary school 1 (SSSI). Teacher made tests in English language was used as instrument for data collection. To test the hypotheses, and to ascertain whether to accept or reject them, Pearson Product Moment Correlation Coefficient(r) analysis was used. The 0.05 level of significant was used for the statistical testing of each hypothesis with critical value and degrees of freedom. The results shows that there is significant influence of hearing impairment on language development, poor language development on academic achievement and the use of instructional methods on academic achievement of the hearing impaired students.*

*Based on the findings of the study, recommendations were proffered.*

**Keywords:** *hearing impairment, academic achievement.*

## 1 Introduction

Education, in all its ramification has been associated with one form of evaluation criterion or the other, for assessing the achievement level of those acquiring it, be it adults or children. It is from this purpose that tests and examinations are administered at all levels of schooling and at given intervals to ascertain whether the learners

is progressing or retrogressing. Since different individuals also have varying abilities, educationists have been wise enough to stratify education, and as well design eligibility test to determine who should proceed to next level of schooling and who should not.

It is well established that the educational achievement of the hearing impaired has attracted the attention of so many individuals. Scholars have consistently pointed to the difficulties experienced by both teachers and the hearing impaired students in their academic work.

Hearing impairment during childhood years causes a serious decline in academic progress, which is compounded by their inability to speak or to express themselves and lack of language to communicate. As such, the hearing impaired student suffers a setback due to inability to communicate in the chosen language effectively. Often teachers find it difficult to communicate ideas and other abstract concepts which utilizes verbal communication. This has greatly impeded their ability to comprehend abstract concepts.

Nwazuo (1993) in his study of academic and social problems of hearing impaired students agreed that they suffer some academic setback which he attributed to lack of skills of teaching the hearing impaired students by most teachers. Consequently, the gap between the vocabularies of students with normal hearing and those with hearing loss widens with age. Students with hearing loss do not catch up without intervention. American speech language hearing association (ASLHA), (2005) posits that there are four major ways in which hearing impairment affect the hearing impaired academically. These are:

- It causes delay in development of receptive and expressive communication skill (speech and language).
- The language deficit causes learning problems that result in reduced academic achievement.
- Communication difficulties often lead to social isolation and poor self-concepts.
- It may have an impact on vocational choices.

Clearly, ASLHA affirms that the hearing impaired students have difficulties with all area of academic achievement especially reading and mathematical concepts. Students with hearing loss often cannot hear quiet speech sounds such as “s”, “sh”, “f” and “t” and therefore do not include them in their speech, thereby making their speech difficult to understand. Also, the hearing impaired students cannot hear words ending with “s” or “ed”. This leads to misunderstanding and misuse of verb tense, pluralization and non agreement of subject and verb.

More so, the hearing impaired students may not hear their own voices when they speak. They may speak too loudly or not loud enough. They may sound like they are mumbling because of poor stress, poor inflection or poor rate of speaking when compared with the normal hearing student.

Okuyibo (1993), supporting the above views maintained that educationally, hearing impairment has some adverse effect on its victims. On the long run, hearing impairment translates into the feelings of academic inferiority with their hearing counterparts.

It is generally believed and obvious that the hearing impaired students are found to be underachievers and delayed in academic achievements. The foreign problem has prompted the researcher to look into the root of these problems which is believed to be caused by difficulties in acquiring language, inability to adequately relate in the school setting coupled with the methods used in teaching the hearing impaired students.

In this study, an attempt is made to highlight the effect of hearing impairment on academic achievement of secondary school students with hearing impairment.

## **2 Purpose of the study**

The purpose of the study was to examine the effect of hearing impairment on the academic achievement of secondary school students in Abeokuta North Local Government Area, Ogun State, Nigeria. Specifically, the study was aimed at determining the:

- Influence of hearing impairment on language development of the hearing impaired students.
- Effect of poor language development on academic achievement of the hearing impaired students.
- Influence of the use of instructional methods on academic achievement of the hearing impaired students.

### **Hypothesis**

Based on the stated purpose, these research hypotheses were formulated for the study:

- There is no significant influence of hearing impairment on languages development of the hearing impaired students.
- There is no significant effect of poor language development on academic achievement of the hearing impaired students.
- There is no significant influence of the use of instructional methods on academic achievement of the hearing impaired students.

### 3 Literature review

#### Hearing impairment and language development

According to Ojile (2006), hearing impairment is a general term indicating a hearing disability, which may range in severity from mild to profound. It includes those known as deaf and hard of hearing person. On the other hand, language is an important instrument of thought, for it enables us to systematize experience. According to Hallaham and Kauffman in Obi 2006, language is referred to as the communication of ideas through arbitrary system of symbols that are used according to certain rules that determines meaning.

In discussing hearing impairment and language development, emphasis is placed on how hearing impairment is likely to affect the child's ability to develop language because of the close link between hearing impairment and delay in language development. Hearing impairment is based primarily on the basis of spoken language abilities. Davis (1988) observed that vocabulary skills differentiated students with hearing impairment from their hearing counterparts. On the average, children with hearing impairment seemed delayed two to three years in vocabulary development. This occurs because students with hearing impairment do not learn much incident vocabulary which facilitates language development as other students without hearing impairment.

In addition, they do not learn slang use of words necessary for conversation among classmates and friends. In a survey of 367 learners with hearing impairment in Iowa, Davis reported that over one fourth of these children had repeated at least one grade because they were less accepted by peers due to the hearing impairment that affect their language development. Also, the hearing impaired individuals develop language in a similar pattern like their hearing counterparts but slower and poorer.

At age 5, the hearing impaired child may acquire a vocabulary of 50 words while a normal hearing child acquires 2,000 words (Davis, 1988). This means that the inability of the hearing impaired child to convey or hear sounds or spoken words through the hearing mechanisms generally called the ear affect the child's ability to acquire language.

More so, Abednego (1995) and Ezugwu (1985) affirmed that hearing impairment manifest itself in retardation of language acquisition skills in the hearing impaired students when compared with their hearing counterparts. That is, the hearing impaired students are most profound in vocabularies and least apparent in mathematics computation. Deafness or loss of hearing creates a major handicap to the development of accurate communication because the hearing impaired child has no concept of language which is the basis for communication. As a result of this loss, hearing impaired students are already well behind their hearing age mates in both language



development, cognitive and social development that comes from interactions with parents and peers using natural language.

### **Poor language development and academic achievement of hearing impaired students**

The hearing impaired individuals have been found to be underachievers and delayed in academic skills due to poor language development and lack of auditory exposure to their environment resulting from the impairment. Mba (1981) said that it is only through language that the individual make his/her feelings, motives, wishes, ideas, intention and understanding known to others. Since all academic functions are performed with good understanding and application of language, the hearing impaired students suffer a setback due to lack of language for effective communication when compared with their hearing counterparts.

Also, Reamer in Ezugwu (1985) observed that hearing impairment constitutes a serious barrier to normal educational process. This assertion according to him may stem from the fact that inability to hear normally and develop language makes the task of schooling more difficult. The poor academic achievement of hearing impaired students may also result from the difficulties that they experience in acquiring language and communication skills. It is recognized that poor language and communication skills among these students have serious consequences on their reading abilities.

Due to lack of or poor language to facilitate their learning, it becomes difficult for their teachers to communicate idea to them. As such they passed out of school and are seen by the society as academically inferior to their hearing counterparts. Poor language development or the lack of it, is seen as the root cause of nearly all the problems hearing impaired students contend with later in life (Mba 1981). It is established that the hearing impaired students significantly performed below their hearing counterparts. This is manifested in English and language related skills, such as listening, reading, writing and speaking which are heavily dependent on language and not on abstract thinking such as mathematics as the major constraints to the academic achievement of the hearing impaired students.

### **Use of instructional methods and academic achievement of the hearing impaired students**

An instructional method as used here encompasses the various approaches and ways adopted by the teachers to clearly impart knowledge to the hearing impaired students. The instructional methods used to instruct the hearing impaired students includes: lip reading, total communication, sign language, Rochester methods, etc. Lip reading is the systematic way of deciphering the meaning of spoken words through the observation of the lip movement. Total communication is the use of various methods of communication that enhances and clarifies the understanding of concept. Rochester

method is the use of finger spelling simultaneously with speech, while sign language is the use of finger-spelling to form a word or sentences for meaningful understanding of concept etc.

Instructional methods affect the student academic achievement positively, but when it is misused, it grossly affects the academic achievement of the hearing impaired students. When discussing the use of instructional methods and academic achievement of the hearing impaired students, emphasis is placed on how the misuse of these instructional methods affect the hearing impaired students in their academic achievement. Atukum (2002) opined that teachers of the hearing imparted students are expected to posses sufficient knowledge of various methods of communication and should be able to use any efficiently when called upon to do so. The choice of any method however should be determined by the possibilities of its meeting most appropriately the need of the hearing impaired students. There must be flexibility of usage of these methods when instructing the hearing impaired due to their varying capacity of understanding.

The method of communication used does not determine the success or failure of the hearing impaired student, but the manner in which communication is used in teaching-learning processes. Salaam and Situ (2005) posited that poor teacher's use of instructional methods result in failure on the part of the hearing impaired students and poor feedback for the teachers. The hearing impaired students suffer a grave handicap when this occur because they become helpless in the face of unclear complex messages or concepts. For instance, sign language as an instructional method is said to have its own grammatical structure for effective communication. It has been used in educating the hearing impaired students in all the nations of the world from primary to tertiary level. It is regretted for points out that in most schools observed sign language skills of the special education teachers are grossly poor.

Raji (2003) defined sign language as a system of communication devoid of sound but movement of the fingers, hands, arms and the head simultaneously or at variance which produces meaningful messages. As sign language is a method of teaching devoid of sound, it is obvious that the hearing impaired students find it very difficult to identify words that have similar sound. The case is similar with the hearing impaired students who could lip read. Word ending such as 's', 'sh', and quiet speech sound such as 's', 'f', 't' and 'k' are often very difficult to lip read. Also, where the teacher is speaking while facing the blackboard, the students will not be able to lip read what the teachers says, and may sometimes focus on the interpreter and not on the teacher that is speaking. This could lead to misunderstanding and misuse of past tense, verb tense, pluralization, non-agreement of subject and verb, and possessives.

Based on the foregoing, Wood, Griffith and Howarth in Fatakun et al, (2003) alluded that successful communication lies in the manner rather than in addition to the mode of communication. Therefore, teachers of hearing impaired students need

specialization in speech reading and should be able to receive and express self clearly and effectively through sign language. Thus, the teacher's ability to communicate effectively will enhance their understanding and improve the academic achievement of the hearing impaired students.

## 4 Methodology

**Design:** In this study, the research made use of experimental design which is meant to allow variable (independent) to be manipulated and their effect on some other variables (dependent) observed or measured.

**Population:** The population of this study consists of 200 students of Saint Peter's college Olomore, Abeokuta who are in senior secondary school I, the population consists of hearing impaired and normal hearing students of the school.

**Sample:** A total number of 30 students was randomly selected, 15 are normal hearing students (10 males and 5 female) presently in senior secondary school I (SSSI) 2012/2013 academic session. The sampling technique employed in selecting the sample size was the stratified random sampling technique.

**Instrumentation:** The main instrument used for data collection was teacher made test in English language. The teacher made test in English was constructed and administered to the respondents to enable them choose the alternatives that can best describe their opinions.

The teacher made test in English contain three parts. Part I focused on words that contains sound represented by a given phonetic symbol while part II contained a reading passage and part III, Pronouncing of words and identification of their differences.

**Validity of the instrument:** the instrument used for data collection was validated using face to content validation. Each of the items on the teacher made test were formulated to relate hypotheses and topic under investigation.

**Reliability of the instrument:** to determine the reliability of the instrument used for this study, test-retest reliability was conducted on a smaller sample size using Pearson product moment correlation coefficient ( $r$ ) and the result yielded 0.80. This shows a high level of reliability

### Hypothesis one

There is no significant influence of hearing impairment on language development of the hearing impaired students. The result of the analysis is presented in Table 1.

**Table 1:** Pearson product moment correlation analysis of hearing impairment on language development of the hearing impaired student (N = 30)

Groups	$\Sigma x$ $\Sigma y$	$\Sigma x^2$ $\Sigma y^2$	$\Sigma xy$	r-value
Normal hearing students (control group)	330	21,872	13,029	0.616
Hearing impaired students (experimental group)	195	18,399		

*Significant at .05 level, critical  $r = .361$ ,  $df = 28$*

The result of the statistical analysis as presented in Table 1 indicates that the calculated r-value of 0.616 is greater than the critical r-value of .361 at .05 level of significance with 28 degrees of freedom. The result is significant and the null hypothesis was rejected. This means that there is a significant influence of hearing impairment on language development of the hearing impaired students.

### Hypothesis two

There is no significant effect of poor language development on academic achievement of the hearing impaired students. The result of the analysis is presented in Table 2.

**Table 2:** Pearson product moment correlation coefficient (r) of poor language development on academic achievement of the hearing impaired student (N = 30)

Groups	$\Sigma x$ $\Sigma y$	$\Sigma x^2$ $\Sigma y^2$	$\Sigma xy$	r-value
Normal hearing students (control group)	318	20,398	12,749	0.955
Hearing impaired students (experimental group)	200	8,610		

*Significant at .05 level, critical  $r = .361$ ,  $df = 28$*

The result of the statistical analysis as presented in Table 2 indicates that the calculated r-value of 0.955 is greater than the critical r-value of .361 at .05 level of significance with 28 degrees of freedom. The result is significant and the null hypothesis was rejected. This means that there is a significant affect of poor language development on academic achievement of the hearing impaired students.

### Hypothesis three

This is no significance influence of the use of instructional methods on academic achievement of the hearing impaired students. The result of the analysis is presented in Table 3

**Table 3:** Pearson product moment correlation analysis of influence of the use of instructional methods on academic achievement of the hearing impaired students (N = 30)

Groups	$\Sigma x$ $\Sigma y$	$\Sigma x^2$ $\Sigma y^2$	$\Sigma xy$	r-value
Normal hearing students (control group)	298	17,680	10,829	0.939
Hearing impaired students (experimental group)	180	7,378		

*Significant at .05 level, critical  $r = .361$ ,  $df = 28$*

The result of the statistical analysis as presented in Table 3 indicates that the calculated r-value of 0.939 is greater than the critical r-value of .361 at .05 level of significance with 28 degrees of freedom. The result is significant and the null hypothesis was rejected. This means that there is a significant influence of the use of instructional methods on academic achievement of the hearing impaired students.

## 5 Discussion of findings

This section deals with the discussion of findings of the hypotheses directing the study. The result of the first hypothesis indicates that there is a significant influence of hearing impairment on language development of the hearing impaired students. The finding of this hypothesis is in line with Davis (1988) who posited that vocabulary skills differentiated students with hearing impairment from hearing individuals because children with hearing impairment seemed delayed two to three years in vocabulary development. This is so because students with hearing impairment do not learn incident vocabulary, which facilitate language development as other students without impairment. The result of the second hypothesis indicates that there is a significant effect of poor language development on academic achievement of the hearing impaired students. The findings of this hypothesis is in agreement with Mba (1981) who said that it is only through language the individual makes his/her feelings, motives, wishes, ideas, intentions and understanding known to others. Since the hearing impaired students could not develop language as others, they suffer a setback due to lack or poor language for effective communication when compared with their hearing counterparts. Also, Reamer in Ezugwu (1985) observed that hearing impairment constitutes a serious barrier to normal educational process. This assertion according

to him may stem from the fact that the inability to hear normally and develop language makes the task of schooling more difficult.

The result of the third hypothesis indicates that there is a significant influence of the use of instructional methods on academic achievement of the hearing impaired students. The findings of this hypothesis are also in line with Salaam and Situ (2005) who observed that poor teacher's use of instructional methods results in failure on the part of the hearing impaired students and poor feedback for the teachers. The hearing impaired students suffer a grave handicap when this occurs because they become helpless in the face of unclear complex messages or concepts. Also, Raji (2003) affirmed that sign language is a system of communication devoid of sound but movement of the fingers, hands arms and head simultaneously which produces meaningful messages. Due to this lack of sound in sign language, the hearing impaired students find it difficult to identify words that have similar sound. This greatly affects their sentence structure resulting in poor performance academically.

## **6 Conclusion and recommendation**

Based on the findings, it is noted that hearing impairment affects language development due to the inability of the hearing impaired students to develop vocabulary and to hear normally like their hearing counterparts. Also, language development which is poorly developed in the hearing impaired students reduces their academic achievement because language itself differentiates human beings from animals and aids the actualization of oral communication, without it, individual faces the problem of inadequate learning, interaction and sharing.

More so, the misuse of the various instructional methods by their teachers has greatly impeded the academic progress of the hearing impaired students. Thus, the following recommendations are made:

- The hearing impaired students should be given ample exposure to language development processes with the help of appropriate speech therapist. They should be encouraged to interact with the normal hearing children to develop linguistic power.
- Parents should provide enabling environment for their children to communication with speech and develop language communication skills before school age. This could be achieved by attending workshops and seminars on hearing impairment.
- Well-trained special education teachers should be employed for proper use of instructional methods such that adequate instruction is given to the hearing impaired students.

- There should be in-service training for old special education teachers to enable them update their knowledge with the numerous innovation brought about by an expert in the field.
- Federal and state government should offset the short supply of well trained special education teachers by providing grant and encouraging more people to study special education so that more professionals will be in supply.

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(reviewed twice)

Igoni, Joy Sade  
University of Uyo  
Uyo  
Akwa Ibom State  
Nigeria  
e-mail: sadespecial@yahoo.com





# Supportive measures – new approach towards pupils with special educational needs

(overview essay)

Pavlína Baslerová

**Abstract:** *In the Czech Republic there is a paradigm shift being realized in the approach to the education of students (children, pupils and students) with the need for supportive measures. The existing model where diagnosis of a pupil plays a crucial role and where support of this pupil is related to this diagnosis does not fit the educational reality any more. By contrast special educational needs of the pupil are linked to the supportive measures nowadays. Pupils need these supportive measures “to fulfil their educational opportunities or to exercise or to apply their rights on the principle of equality” (Education law, p. 9).*

*This change is reflected not only in legislation, but especially in the work of teachers. Like any other change, this brings a lot of doubt and ambiguity. In this situation a team of specialist with field experience (especially special education teachers who work in special educational centres) and academics involved in the project Systemic support of inclusive education a series of detailed methodological materials: Catalogue of supportive measures. This is a document that gives teachers a relatively detailed description of the various supportive measures. The catalogue is supposed to provide recommendations how to fulfil special educational needs of pupils in the context of newly passed supportive measures.*

**Keywords:** *Supportive measures, Degrees of support, Catalogue of supportive measures.*

## 1 Introduction

### **Pupil with special educational needs – current concept**

The term “supportive measures” has not unequivocal interpretation in Europe. The concept of “supportive systems” appears for example in the document “Five key

messages towards inclusive education”<sup>1</sup>. However in this document this term is being related only to the funding of special educational needs. The closest interpretation of the “Czech concept” of supportive measures is to see in Estonia:

*Supportive measures for pupils with special educational needs:*

*If it turns out that the pupil has special educational needs, coordinator for vocational studies initiates the necessary educational and psychological research, and implements other supportive measures. Special education teachers, psychologists and social teachers are at pupil's disposal if needed. Other supportive measures implemented in schools the most are differentiated instruction in the classroom, help after school, special educational support and logopedic sessions in support groups and individual education plan.*

New school year (2016/2017) will reflect changes in Czech education related to the effective amendment of Education act (Law nr. 82/2015. The law that changes the law nr. 561/2004, about preschool, primary, secondary, higher, vocational and other education (Education Act), as amended and some other laws). This amendment changes the definition and therefore also meaning of the term “special educational needs”.

Nowadays, in accordance with applicable legislation, are as children, pupils and students (pupils) with special educational needs meant pupils with:

- health disabilities,
- health handicap,
- social handicap.

This approach favours the medical aspect: the pupil and his/her special educational needs are assessed on the basis of his/her medical diagnosis (usually clearly defined, but saying just little or nothing about the needs that need to be fulfilled in his/her educational process) or on the basis of “diagnosis” of his/her social or cultural status, for which, however, are not clearly defined criteria.

This system, however, does not fully cover in practice the special educational needs of pupils. These pupils are now being educated in more than 65% in so-called normal schools (the schools are not established just for pupils with special educational needs). State manages to provide education of pupils with health disabilities (normative funding, support for school counselling facilities...)

Nevertheless there is not the same, equal, mechanism for pupils with health handicap (they do not receive any financial support from the state despite high educational demands) and for pupils with social handicap (the funding is possible only by means

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<sup>1</sup> European agency for special and inclusive education, 2014. Five key messages towards inclusive education. Putting theory into practice. Odense, Denmark: European agency for special and inclusive education.

of non-systematic measures within development programs of Ministry of Education, Youth and Sports).

## 2 Pupils with the need of supporting measures – a new concept

The amendment of Education law defines special educational needs in another way:

**§16, par. 1:** *Child, pupil and student with special educational needs is a person that needs supportive measures to fulfil his/her educational opportunities or to exercise or to apply his/her rights on the principle of equality.*

### What do supportive measures bring?

Supportive measures are a set of organizational, personnel and educational measures that are provided to the pupils who these measures for some reason (generally defined by law) need.

**It is essential that the law clearly states** that children, pupils and students who have special educational needs identified, are entitled to free supportive measures provided by school.

The law specifies areas that include individual support measures:

**§16. par. 2:** *Supportive measures lie in:*

- a) *consulting support schools and school counselling facilities,*
- b) *adjustment of setup, content, evaluation, forms and methods of education and school services, inclusive providing of subjects of special educational care and inclusive prolongation of the length of secondary and higher vocational education up to two years,*
- c) *adjustment of conditions of admission to education and completion of education,*
- d) *use of assistive aids, special schoolbooks and special teaching aids, use of communication systems for deaf and deaf blind persons, Braille, and supportive or alternative communication systems,*
- e) *adjusting of expected learning outcomes within the specified limits of educational programs and accredited education programs,*
- f) *education according individual education plan,*
- g) ***use of teaching assistant,***
- h) *use of other teaching assistant, interpreter of Czech sign language, transcriber for deaf people or use of other person that can support child, pupil or student at school or educational support facilities according to special legal regulations, or*
- i) ***arranging of education or school services in structural or technically modified rooms.***

In view of the fact that the pupil has the right on free supportive measures provided by school, it is clear that the amendment will have a significant impact on the financing of education in the Czech Republic especially thanks to the provisions of subparagraphs g) and i).

### 3 Supporting measures – grades

The law divides further supportive measures into five degrees:

*§16, par. 3: Supportive measures are according to the paragraph 2 divided into five degrees based on organizational, pedagogical and financial demands. Supportive measures of single types and degrees can be combined. Supportive measures of a higher degree can be used if school counselling facilities finds that according to type of special educational needs of child, pupil or student or according to the effect of use of supportive measure up to now supportive measure of a lower degree will not be sufficient to fulfil his/her educational opportunities or to exercise or to apply his/her rights to education. Incorporating of supportive measures into different degrees is determined by implementing legislation.*

The whole system makes step back from the “medical diagnoses” and focuses on real needs of schools and teachers: **diagnostic of the impact of health status or social status of the pupil on his/her education, determination and implementation of measures that reflect his/her educational needs.**

The law avoids, correctly, the labelling of pupils with health diagnoses. Nevertheless, it is clear that majority of pupils will require support measures due to the impact of some of the following situations in education:

- Pupils with health disability: mental, physical, visual, auditory, communication disorder, autism spectrum disorder, or have a combination of different disabilities.
- Long-term sick pupils, pupils with mental illness, pupils with learning disabilities, pupils with behavioural disorders.
- Pupils from a non-stimulating social environment, living in the so-called excluded localities, pupils in families that do not want or cannot dedicate to the needs of pupils, pupils from families with long-term or seriously disordered relationships, pupils placed in social protection equipment or in school facilities for institutional or protective care.
- Pupils with a different mother tongue, pupils from families of immigrants and asylum seekers, pupils exceptionally gifted and talented.

The majority of the above mentioned target groups of pupils have special educational needs determined hitherto. However, there is a presumption that supportive measures

will be focused fairer also on the groups of pupils who had difficulties with obtaining of the support or who have not been receiving any support at all. These are pupils with health and social handicap.

Supportive measures are divided into 5 degrees, based on the organizational, educational and financial demands. Supportive measures in the first grade are provided by school, even without a consultation and decision of school counselling facilities.

If there is a school advisory staff at school, this facility is supposed then to find those pupils at school. Simply said, the purpose of the first grade is to highlight the need for “individual approach”. In other words we can talk about creativity, skills and professional honour of every teacher to find the way to the education of pupils who are in certain way “different” and therefore need our support. The school provides these measures within its current budget without any increase of funding.

Supportive measures in 2.–5. degree are diagnosed by school counselling facilities. The facility establishes a diagnose and based on this diagnose they propose supportive measures. They supervise if the school provides these measures and evaluate their efficiency in cooperation with schools and legal representatives. The higher is the degree of supportive measures the higher is the financial amount that the state provides in order to implement these measures in education of a particular pupil.

The result of the diagnostics is not only a simple classification of educational needs in a particular grade (a pupil can get support from more degrees). Below there is a list of illustrative problems and handicaps of pupils that lead to getting support from particular degrees. However the cases illustrate just situations where problems and handicaps of pupil are isolated from other problems and handicaps that make the education more complicated.

Problems of the pupil in the first degree of supportive measures can be based on:

- Danger of school failure due to short-term illness, moving, divorce or family bereavement, bullying, change of teacher...
- Longer-term problems resulting from the impossibility or the inability of families to secure an adequate homework, little attention disorders, non-specific non-serious behaviour disorders...
- Light disruptions of communication skills affecting the level of reading and writing skills.

Problems of the pupil in the second degree of supportive measures can be based on failure of the pupil due to:

- weak cognitive performance (“borderline intellect”),
- weak auditory and visual functions,
- diseases (including psychological), which has serious impact on educational process,

- weak communication skills,
- insufficient knowledge of language of instruction.

Problems of the pupil in the third degree of supportive measures can be based on failure of the pupil due to:

- mild mental disabilities,
- visual or hearing disability (partial blindness, partial deafness), impaired communication skills,
- physical disability or illness (including psychological), which has serious impact on educational process,
- lack of knowledge of language of instruction,
- syndrome CAN.

Problems of the pupil in the fourth degree of supportive measures can be based on failure of the pupil due to:

- moderate mental retardation or severe mental retardation,
- severe visual or hearing disability (blindness, deafness),
- Autism Spectrum Disorder,
- inability to communicate through the spoken and written word.

Problems of the pupil in the fifth degree of supportive measures can be based on failure of the pupil due to:

- profound mental retardation,
- combination of severe health disability.

In view of the fact that degrees of support depend more on educational needs rather than on the actual diagnosis, the amendment brings more freedom, but consistently higher demands on the responsibility of counsellors who diagnose these educational needs.

## 4 Catalogue of supportive measures

A team of experts from the Institute of Special Education Studies at Faculty of Education, Palacký University Olomouc (area of special educational needs due to health handicap) and organization People in need (area of special educational needs due to social handicap) created the following upcoming legislative amendments a **Catalogue of supportive measures** within the project Systemic support of inclusive education.

This project was co-funded by the ESF and the state budget of the Czech Republic.

The catalogue of supportive measures is primarily intended for teachers of pupils with educational needs. However the practice shows that in the short period of its

“life” (the catalogue was published and distributed at the end of August 2015) the catalogue has become a great tool in the work of counsellors.

The catalogue consists of one general and seven thematic parts:

- *Catalogue of supportive measures – general part.*
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **mental retardation or weakening of cognitive performance.***
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **physical disability or serious illness.***
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **visual disability or weakness of visual perception.***
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **hearing disability or weakness of auditory perception.***
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **impaired communication skills.***
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **Autism Spectrum Disorder or psychiatrics inness.***
- *Catalogue of supportive measures – thematic part for pupils with educational support needs due to **social handicap.***

The general part of the Catalogue of supportive measures introduces the whole topic and explains:

- Why was the Catalogue created.
- What is the purpose of the Catalogue.
- What are the supportive measures inclusive description of individual degrees.
- Who will implement supportive measures in practice.
- How should the user work with the Catalogue.
- How should the user work with online version of the Catalogue.
- Overview of all supportive measures which are presented in detail elaborate in specific parts of the Catalogue of supportive measures.

The thematic parts of the Catalogue have the same structure:

- Definition of concrete type of disability or handicap leading to mentioned special educational needs.
- Characteristics of the impact of the disability or handicap on educational process.
- Diagnosis of disability or handicap, with an emphasis on pedagogical diagnosis leading to the identification of the first degree support.
- Description of individual supportive measures.
- Overview of the basic terms of special education terminology of specific area.

- List of important organizations related to educational process of a pupil with certain disability or handicap.
- Bibliography.

To make the work with the Catalogue more manageable the supportive measures are divided into ten areas:

1. Organization of teaching.
2. Modification of teaching methods and forms.
3. Intervention.
4. Teaching aids.
5. Modification of teaching content.
6. Evaluation.
7. Teaching preparation.
8. Social and health support.
9. Work with the class group.
10. Adjustment of environment.

The catalogue of supportive measures is a set of time-honoured experience of counselors and teachers in the education of pupils with special educational needs

The new part is supportive measures for pupils who, based on the current legislation, do not have any access to the financial support – particularly pupils with health and social handicap. Besides that there is also description of supportive measures in the first degree which in first instance mean “a return to good pedagogy”.

On the writing of the Catalogue participated about 100 authors, especially counselors, experienced teachers and academics.

**The Catalogue has been published in printed and electronic version (.pdf, e-book) and is available for all interested parties (together with outcomes of the project Systemic support of inclusive education) on [www.inkluzi.upol.cz](http://www.inkluzi.upol.cz).**

There is also an interactive electronic version of the Catalogue available to make the work with the Catalogue more manageable: [www.katalogpo.cz](http://www.katalogpo.cz).

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(reviewed twice)

PaedDr. Pavlína Baslerová  
 Institute of Special Education Studies  
 Faculty of Education  
 Palacký University Olomouc  
 Žižkovo náměstí 5  
 771 40 Olomouc  
 Czech Republic  
 e-mail: [pavlina.baslerova@upol.cz](mailto:pavlina.baslerova@upol.cz)



# Monitoring the effect of cognitive rehabilitation in patients with a residual type of aphasia

(scientific paper)

Petr Nilius, Lucie Šebková, Petra Krulová, Dagmar Fiedorová,  
Pavel Ressler, Olga Zapletalová

**Abstract:** *Introduction: The main objective of this paper is to analyze the development of cognitive functions and the effect of cognitive rehabilitation on the process of brain ageing in the context of the Mild Cognitive Impairment (MCI).*

*Methodology: Research has a character of a quantitative non- randomized intervention study in which the effect of cognitive rehabilitation in the sample (ALL, N = 67), aged from 18 to 70 years, is observed. The research sample was divided into three groups. The NEURO group (n = 38) included patients meeting criteria for a Mild Cognitive Impairment (MCI). The APHASIA group (n = 15) included people with an expressive type of aphasia and a brain damage. The NORM control group (n = 14) included people without a brain damage, but exhibiting a functional cognitive deficit of a mild neurocognitive impairment. A cognitive rehabilitation effect was evaluated with the Addenbrook cognitive test, a revised version, 2010 (ACE-R), and with the overall IQ score of the WAIS III neuropsychological test. A subjective change was determined with the Clinical Global Impression psychiatric scale (CGI).*

*Results: A statistically significant effect of cognitive rehabilitation with parameters ACE-R, IQ and a verbal fluency test was confirmed in all monitored groups. In the APHASIA clinical sample, no statistically significant effect was found in any researched verbal subtests, except of significant improvements in cognitive flexibility and verbal fluency. A non-cognitive effect, such as changes in perception in terms of reduction of anxiety and depressive symptoms, was found in the NEURO sample. A small number of valid examinations and the need to use a non-parametric test limited the acquired data.*

*Conclusion: The effect of cognitive rehabilitation on the development of better cognitive functioning of every person was detected and verified. There was no difference of this effect within the examined groups found.*

**Keywords:** *cognitive rehabilitation, aphasia, MCI, ACE-R, CGI, WAIS III.*

# 1 Introduction

The aim of the study is to analyze the effect of cognitive rehabilitation on the semantic components in patients with residual expressive aphasia who completed the CR program without an accompanying speech and language therapy. The CR effect is also monitored in patients with a cognitive deficit on an organic basis, and in patients with a functional type of cognitive weakening.

## 1.1 Mild Cognitive Impairment

According to the ICD-10, the Mild Cognitive Impairment (MCI) corresponds to the diagnostic criteria of modest recognition impairment and is accompanied with changes in the size and structure of the brain. Modest recognition impairment may occur as a residual consequence of the brain structure damage due to the trauma, infections, vascular brain strokes, tumours and others. These acute cognitive deficits usually have a good prognosis in comparison with the deficits of gradually expanding cortical atrophy due to neurodegeneration. Apart from a degree of disability and injury mechanism, a young age, premorbid cognitive reserves (education), timeliness and aimed cognitive rehabilitation are important factors for a good prognosis.

## 1.2 Relations between aphasia and cognitive functions disorders

The language allows us to describe and express ideas, to control thoughts and actions of every person, and is a prerequisite for a variety of cognitive performance. Its demand for symbolism makes it one of the most challenging cognitive activities. One of the most important human abilities is the ability to communicate, or the conscious use of language as a system of signs and symbols in order to realize the communication plan (Hallowell & Chapey, 2008; Lechta, 2009; Šteňová & Ostatníková, 2011; Kopečný, 2014). A complete loss of already acquired communication skills is called aphasia. It is a selective disruption of language modalities and functions, which occurs in a focal brain damage, and has a negative impact on the quality of life of people with aphasia, on their relatives and caregivers; it affects social functioning and pragmatic aspects of communication (Cséfalvay & Košťálová, 2012; Papathanasiou, Coppens & Potagas, 2011).

The beginning of intensive research on the relationship between the language impairment (aphasia) and cognitive disorders dates back to the 80s of the 20th century (Vukovic, Vuksanović & Vukovic, 2008). Early supporters of the presence of non-verbal cognitive impairment in people with aphasia argued that the cognitive impairment was (at least partially) a by-product of the language disorder. This phenomenon

was attributed to weakening of the thinking process (Gianotti, 2014). Nowadays, it is thought that the language disorder is manifested by impaired cognition (Baldo, Dronkers & Wilkins et al., 2005). These claims are supported by models that specify an integral relationship between the language and other domains of the cognitive function in people with or without the language disorder (Murray, 2012).

Aphasia therapy is a long process, and the most effective results can be achieved not only by applying the evidence-based therapy (Evidence-Based Therapy), but also in teamwork which provides a holistic approach. It was proved that non-linguistic impairments of cognitive functions are a big predictor of the success of aphasia therapy (e.g. Cahana-Amitay & Albret 2015; Vallila-Rother & Kiran, 2013; Brownsett & Warren, Geranmayeh et al., 2014). Deficits in some non-linguistic cognitive areas may disrupt not only the recovery process of language skills, but also the process of coping with the disability (Seniów, Litwin & Lesniak, 2009). Overall, an individual profile of non-linguistic damage is observed, which suggests that it is not possible to predict the level of non-linguistic cognitive abilities according to the level of language skills (Helm-Estabrooks, 2002; Seniów, Litwin & Lesniak, 2009; Murray, 2012).

In terms of monitoring the functioning of cognitive functions which can be tested with the use of psychological methods, we can monitor cognitive functioning of speech production as a semantic system as a whole, its word range or the ability to create a concept. In the context of the CHC theory which assumes a cooperation of a wider range of individual functions, the disruption would be manifested in components of crystallized intelligence (the ability to form a concept and knowledge – abilities to communicate previously learned information and the ability to express an opinion fluently), and in components using a long-term memory (GLR). (Flanagan, et al., 2007). It must be mentioned that in terms of a neuroanatomic breakdown of cognitive functions, a verbal production also reflects the quality of the functioning of executive, managerial components which relate to the process of thinking. Impairment at this level may result not only in verbal fluency production, but also in coherence and content-fit.

A key precondition for the functioning of cognitive rehabilitation is based on the principle of brain plasticity (neuroplasticity), defined as a natural ability of the organism to overcome a limitation of genes, and to adapt to a rapidly changing environment. Neuroplasticity is an intrinsic property of the brain, functioning despite various mechanisms related to the age, throughout the entire human life cycle (Pascual-Leone, 2011). This adaptability is based on the principles of using the brain and cognitive reserve, which the organism has built up across its development.

Walker and Hickok (2015) observed the interaction of psycholinguistic components with components of motor control, and on the basis of the results of the interactions they created a new model of speech production in the context of aphasia,

which explained disorders functioning. They pointed out that improvement in one of the components influences an improved performance in the other. Thus, it may be assumed that a cognitive improvement using cognitive rehabilitation will improve the area of expressive speech components as a form of brain adaptation to the disease in the context of linking cognitive structures. This assumption is based on long-term memory components, a better ability to respond quickly and flexibly, and an overall effective functioning of cognitive processes as a whole.

## 2 Methodology

The work has a character of a quantitative non- randomized intervention study using a control clinical sample. The intervention group (clinical sample) was made up of two groups of patients (ALL,  $n = 67$ ). The first sample were patients who met criteria for the Mild Cognitive Impairment (MCI) and had a cerebral damage, according to the CT, as a result of an acute disease (NEURO,  $n = 38$ ). The second sample included patients with a residual type of aphasia as a result of a brain disease (APHASIA,  $n = 14$ ). The NORM control intervention group ( $n = 14$ ) included people without a cerebral damage, but exhibiting a cognitive deficit of the Mild Cognitive Impairment.

A cognitive rehabilitation effect was evaluated with the Addenbrook cognitive test, a revised version, 2010 (ACE-R), and with the overall IQ score of the WAIS III neuropsychological test. A subjective change of the disease and its improvement was determined with the Clinical Global Impression psychiatric scale (CGI). A level of anxiety and depressive symptoms was measured with the scale of subjective anxiety and depression – HADS (The Hospital Anxiety and Depression Scale).

The results of research were evaluated by statistical analysis and verified by the non-parametric Wilcoxon signed-rank test for paired values at the level of the significant change ( $p > 0.05$ ), and verified by the non-parametric Sign test. Comparison of the effect between samples was verified by the One-way Kruskal-Wallis analysis non-parametric test for independent samples. The calculation was carried out with the STATISTICA Standart 12 GB statistical software.

### 2.1 Research sample

Based on the statistical comparison of monitored groups (NEURO, APHASIA and NORMAL), it can be stated that samples were age-matching with a similar average (median) length of education, age and problems. There was no significant rate of occurrence of anxiety or depressive symptoms in monitored samples.

**Table 1:** Input characteristics of the monitored sample (IQ and IVP are presented in IQ score; HADS and MMSE in HS)

	N (men/ women)	Aphasia	Age (min- max)	Education (min- max)	MMSE (min- max)	IQ (min- max)	IVP (min- max)	HADS (min- max)
<b>ALL</b>	67 (31/36)	15	51 (18–70)	2 (0–3)	28 (14–30)	85 (50–113)	91 (50–129)	13 (0–34)
<b>APHASIA</b>	14 (10/4)	14	50.5 (21–70)	2 (0–2)	27.5 (14–30)	84 (55–101)	90 (50–105)	10 (0–24)
<b>NEURO</b>	38 (21/17)	0	48.5 (18–70)	2 (0–3)	27 (18–30)	86.5 (50–113)	91 (56–129)	13 (0–30)
<b>NORM</b>	14 (7/8)	0	55 (20–69)	2 (1–3)	29 (24–30)	85 (68–107)	91 (76–123)	14 (5–34)

With regard to the initialization weakening of cognitive functioning, the input IQ scores correspond to the below-average zone with (IQ 85), according to the median value of all the monitored samples. The verbal comprehension index (VCI), referring to the ability to work with the language (from WAIS III) did not show any significant differences in indication phases of tests.

Patients of the monitored sample met diagnosis criteria based on criteria of the Mild Cognitive Impairment (DSM-5 V), and the description of computed tomography (CT), they had an appropriate medication, including the psychiatric one, before starting the rehabilitation program which was not changed throughout the course. A patient placement to the particular monitored group was performed by an independent, attested neurologist who did not know results of the psychological examination and did not have a prior diagnostic – clinical contact. Residual of aphasia was identified during a psychological examination and reviewed by a post speech and language pathologist on a basis of available medical reports.

The age between 18–70 years was the excluding criterion, MMSE < 20 points for patients without a diagnosed aphasia, sensory disturbance which would make it impossible to complete a program of cognitive rehabilitation, a long-term, pharmaceutical-resistant psychiatric comorbidity; aphasia other than that of an expressive type and a communication disorder on the basis of neurodegeneration (cognitively communication impairment). All monitored patients underwent a cognitive rehabilitation program at the Centre for Cognitive Disorders at the University Hospital in Ostrava. They were enrolled on the rehabilitation program at least three months after the occurrence of an acute illness.

### 3 Results and discussion

The non-parametric Wilcoxon signed- rank test for paired data was used to test the hypothesis about the significance of changes in cognitive functions in the whole sample (ALL). It verified significant changes in the monitored indexes associated with an effect on the ability to use the language; vocabulary and FLUENCY on the significance level of  $p \leq 0.05$ . A significant effect in the areas of cognitive functioning in the MMSE, ACE-R and IQ indexes was found in the ALL monitored sample. The monitored effect was found at a highly significant level  $p \leq 0.01$ . A highly significant effect in the area of non-cognitive changes ( $p \leq 0.01$ ) in the HADS and CGI indexes was found in the ALL monitored sample (see Table 2).

**Table 2:** CR, ALL effect (Wilcoxon signed-rank test for paired data)

		Test		R-test			Wilcoxon		
ALL	n	Median	min-max	Median	min-max	$\Sigma$ valid	W	Z-score	value - p
Vocabulary	55	9	2-15	9	2-17	37	200	-2.2856	0.022*
Information	55	9	2-17	10	3-16	37	422.5	1.0711	0.284
Details	55	8	2-14	9	3-16	44	342	-1.7855	0.0734
FLUENCY	59	8	0-14	10	0-14	42	122	-4.12	$p \leq 0.01^*$
MMSE	59	28	14-30	29	19-30	39	184	-2.8747	$p \leq 0.01^*$
ACE-R	59	84	34-97	91	43-100	57	103	-5.7484	$p \leq 0.01^*$
IQ	67	85	50-113	94	52-121	63	261.5	-5.1106	$p \leq 0.01^*$
HADS	54	13	0-34	12	0-31	40	710.5	4,0391	$p \leq 0.01^*$
CGI	63			2	0-4	63	0	-6.9009	$p \leq 0.01^*$

\*  $p \leq 0.05$

The non-parametric Wilcoxon signed-rank test for paired data was used to test the hypothesis about the significance of changes in cognitive functions in the monitored clinical sample (NEURO). It did not verify any significant changes at the level of importance  $p \leq 0.05$  in monitored indexes associated with the effect on the ability to use the language Vocabulary, Information and Similarities. It showed a highly significant change ( $p \leq 0.05$ ) in the FLUENCY index. A highly significant effect in the



areas of cognitive functioning in the MMSE, ACE-R and IQ indexes was found in the monitored NEURO sample. The verified effect was found at a highly significant level  $p \leq 0.01$ . A highly significant effect in the area of non-cognitive changes ( $p \leq 0.01$ ) in the HADS and CGI indexes was found in the NEURO monitored group (see Table 3).

**Table 3:** CR, NEURO effect (Wilcoxon signed-rank test for paired data)

		Test		R-test			Wilcoxon		
NEURO	n	Median	min-max	Median	min-max	$\Sigma$ valid	W	Z-score	value - p
Vocabulary	31	9	2-15	9	2-17	20	54	-1.904	0.057
Information	31	10	2.17	10	3.16	20	149	1.6426	0.101
Details	31	8	2.14	8	3.16	23	88.5	-1.5055	0.131
FLUENCY	33	8	0-14	10	0-14	25	68	-25427	0.011*
MMSE	33	27	18-30	29	22-30	23	42	-2.9198	$p \leq 0.01^*$
ACE-R	33	79	41-97	90.5	63-100	27	84.5	-3.2314	$p \leq 0.01^*$
IQ	38	86.5	50-113	95.5	52-121	36	100.5	-3.6527	$p \leq 0.01^*$
HADS	32	13	0-30	11	0-25	22	219	3.0031	$p \leq 0.01^*$
CGI	36			2	0-4	36	0	-5.2316	$p \leq 0.01^*$

\*  $p \leq 0.05$

The non-parametric Wilcoxon signed-rank test for paired data was used to test a hypothesis on the significance of changes in the area of cognitive functions in the entire monitored APHASIA sample. It did not verify any significant changes at the level of importance  $p \leq 0.05$  in monitored indexes associated with the effect on the ability to use the language Vocabulary, Information and Similarities. (see Table 4).

Given the small number of detected changes (<10), the non-parametric Sign test was used to check the findings (see Table 5). The significance level ( $p \leq 0.05$ ) did not verify a significant improvement in the indexes Dictionary, Information and Similarities in the monitored APHASIA sample. A highly significant change ( $p \leq 0.05$ ) was found in the FLUENCY index. A highly significant effect in the area of cognitive functioning in ACE-R and IQ indexes was detected in the monitored APHASIA sample. The monitored effect was found at a highly significant level  $p \leq 0.01$ . Given the small number of detected changes (<10), the non-parametric Sign test was used for checking. It did not verify a significant change in the MMSE

index at the level of importance  $p \leq 0.05$ . A highly significant effect in the area of non-cognitive changes ( $p \leq 0.01$ ) in the CGI index was found in the monitored APHASIA sample. There was no significant change verified at the monitored level of importance in the HADS index.

**Table 4:** CR, APHASIA effect (Wilcoxon signed-rank test for paired data)

		Test		R-test			Wilcoxon		
APHASIA	n	Median	min-max	Median	min-max	$\Sigma$ valid	W	Z-score	value - p
Vocabulary	11	8	3.11	8.5	2-12	9	32	1.1255	**
Information	11	9	6.12	9.5	5-12	8	24	0.8402	**
Details	11	8	3.11	9	4-13	11	34.5	0.1334	0.89656
FLUENCY	13	5	0-11	8	1-11	10	0	-2.8031	$p \leq 0.01^*$
MMSE	13	29	14-30	29.5	19-30	9	14.5	-0.9478	**
ACE-R	13	79	34-90	86.5	43-96	12	3	-2.8241	$p \leq 0.01^*$
IQ	14	84	55-101	89	59-109	14	7	-2.8563	$p \leq 0.01^*$
HADS	12	9.5	0-24	11.5	2-26	10	27	-0.51	0.96012
CGI	14			2	1-4	15	0	-3.4078	$p \leq 0.01^*$

\*  $p \leq 0.05$ ; \*\* a small number of valid measurements, the result is not significant at  $p \leq 0.05$

**Table 5:** CR, APHASIA effect (Sign test)

		Test		R-test			Sign test		
APHASIA	n	Median	min-max	Median	min-max	$\Sigma$ valid	$v < V$ %	Z-score	value - p
Vocabulary	11	8	3.11	8.5	2.12	9	62.5	0.35	0.724
Information	11	9	6.12	9.5	5.12	8	57.1	0	1
Details	11	8	3.11	9	4.13	11	60	0.32	0.752
MMSE	13	29	14-30	29.5	19-30	9	75	1.06	0.289

\*  $p \leq 0.05$

The non-parametric Wilcoxon signed-rank test for paired data was used to test a hypothesis on the significance of changes in the area of cognitive functions in the monitored NORM sample. It did not verify any significant changes at the level of

importance  $p \leq 0.05$  in monitored indexes associated with the effect on the ability to use the language Vocabulary, Information and Similarities and Fluency (see Table 6).

Given the small number of detected changes ( $< 10$ ) and the insufficient number of valid measurements, the non-parametric Sign test was used to check indexes (see Table 7). The significance level ( $p \leq 0.05$ ) did not verify a significant improvement in the Information, Similarities and Fluency indexes. The non-parametric Sign test verified a highly significant change at the level of importance ( $p \leq 0.05$ ) in the Vocabulary index in the NORM sample. The CR effect may be assumed within this index. A highly significant effect in the area of cognitive functioning in the ACE-R and IQ indexes was detected in the monitored NORM sample. The effect in the ACE-R index was found at a highly significant level  $p \leq 0.01$ . It did not verify a significant change in the MMSE index at the level of importance  $p \leq 0.05$ . A highly significant effect in the area of non-cognitive changes ( $p \leq 0.01$ ) in the CGI index was found in the monitored NORM sample. There was no significant change observed at the monitored level of importance in the HADS index, and given the small number of valid measurements ( $< 10$ ) the finding is not significant at the monitored level of importance  $p \leq 0.05$ .

**Table 6:** CR, NORM effect (Wilcoxon signed-rank test for paired data)

		Test		R test			Wilcoxon		
NORM	n	Median	min-max	Median	min-max	$\Sigma$ valid	W	Z score	value - p
Vocabulary	14	9	6.10	10	6.12	9	5	-2.0732	**
Information	14	9	6.14	11	7.16	10	14	-1.376	0.167
Details	14	8.5	6.11	10	7.12	10	12	-1.579	0.114
FLUENCY	14	10	7.14	12	10.14	7	4.5	-1.6058	**
MMSE	14	29	24-30	30	23-30	8	11	-0.5071	**
ACE R	14	88.5	75-97	94	80-98	10	0	-2.8031	$p \leq 0.01^*$
IQ	14	85	68-107	94.5	77-107	13	10.5	-2.446	0.014*
HADS	10	15	5.34	16	3.31	8	35	2.38	**
CGI	14					12	0	-3.059	$p \leq 0.01^*$

\*  $p \leq 0.05$ ; \*\* a small number of valid measurements, the result is not significant at  $p \leq 0.05$

**Table 7:** CR, NORM effect (Sign test)

		Test		R-test		Sign test		
NORM	n	Median	min-max	Median	min-max	v < V %	Z-score	value - p
Vocabulary	14	9	6.10	10	6.12	88.9	2	0.046*
Information	14	9	6.14	11	7.16	80	1.58	0.114
Details	14	8.5	6.11	10	7.12	81.8	1.81	0.07
FLUENCY	14	10	7.14	12	10.14	85.7	1.51	0.131
MMSE	14	29	24-30	30	23-30	75	1.06	0.289

\* $p \leq 0.05$

Using the non-parametric ANOVA KRUSKAL WALLIS test to compare medians of more than two random selections showed no difference in any of the monitored indexes, despite a relatively small number of measurements. The monitored samples (APHASIA, NORM and NEURO) can be considered identical in the range of the CR effect. This finding is verified at the level of  $p \leq 0.05$  (see Table 8).

**Table 8:** CR effect differences in monitored samples. Kruskal-Wallis one-way ANOVA

Statistical significance (Two-tailed)	MMSEE	ACE-R	IQ	CGI	Vocabulary	Information	Details	FLUENCY	HADS
N	38	38	43	43	37	37	37	38	33
Statistical datum of exam	H(2) = 0.592	H(2) = 1.634	H(2) = 0.499	H(2) = 1.003	H(2) = 2.139	H(2) = 1.134	H(2) = 0.106	H(2) = 3.459	H(2) = 1.492
NORM	p = 0.744	p = 0.442	p = 0.779	p = 0.606	p = 0.343	p = 0.567	p = 0.948	p = 0.177	p = 0.474
APHASIA									
NEURO									

$p \leq 0.05$

### 3.1 Discussion

A statistically significant effect of cognitive rehabilitation on indexes primarily associated with cognitive functioning – the ACE\_R and IQ indexes were verified in all monitored groups (see Table 9). An effect in the area of cognitive flexibility (fluency) was found in the whole monitored sample. Fluency in this context is understood as an ability to choose various solutions adaptively as well as an ability to move from

one solution to another fluently. Due to such effective functioning other cognitive functions, which are in the ACE-R and IQ, are used more effectively. The entire monitored sample and a control sample of patients without an identified damage of the cortical brain structure revealed a significant effect in the Vocabulary index, which in the context of using verbal components characterizes a change of abilities to recall and use words. This finding, however, in addition to improving the level of the ability to use words, also corresponds to the ability to recall words from the long-term memory components.

In a clinical sample of patients with a residual type of aphasia, no statistically significant effect in any of the monitored verbal subtests was found, except of a highly significant improvement in cognitive flexibility and verbal fluency. Nevertheless, this improvement rather reflected a more effective use of executive functions, also measured by this test, than the influence of the semantic components improvement. Even if the deficit speech disorders are sorted out, or they completely disappear due to neuroregenerative processes, there is still a significant percentage of patients whose disability persists even in chronic stages (Lendrem & Lincoln, 1985). These chronic lesions are also accompanied by complications of a broader cognitive disorder. Thus, methods of aphasia recovery vary considerably in the spectrum of patients, and the recovery process depends on the level of activation of neuroplasticity processes of the cerebral cortex. Maria Richeter et al. (2008), using a functional magnetic resonance, demonstrated that activation of specific areas of the right hemisphere can be considered a positive sign of aphasia subsiding. According to Hill et al., a bigger blood flow to the brain can give rise to at least a partial recovery of the neurological deficit. Increase in the blood flow to the brain can be caused by a pharmacological intervention but also by the activation of the organism with neurorehabilitation, including activation of cognitive and speech functions.

With regard to the overall activation of the patients, a statistically significant, subjectively experienced positive change due to CR was monitored in the entire sample.

**Table 9:** Summary of CR effect

	ALL	NEURO	NORM	APHASIA
<b>Vocabulary</b>	$p < 0.01^*$	$p < 0.01^*$	0.021	0.294
<b>Information</b>	0.094	0.387	0.074	0.612
<b>Details</b>	$p < 0.01^*$	$p < 0.01^*$	0.026	0.308
<b>FLUENCY</b>	$p < 0.01^*$	$p < 0.01^*$	0.035**	$p < 0.01^*$
<b>MMSE</b>	$p < 0.01^*$	$p < 0.01^*$	0.093	0.183
<b>ACE-R</b>	$p < 0.01^*$	$p < 0.01^*$	$p < 0.01^*$	$p < 0.01^*$
<b>IQ</b>	$p < 0.01^*$	$p < 0.01^*$	$p < 0.01^*$	$p < 0.01^*$

\*  $p < 0.01$ ,  $p < 0.05$

### 3.2 Study limits

Limitations of the study may be influenced by the overall small number of patients in the study, and by using non-parametric tests. The size of the monitored sample and the total number of patients who did not meet required criteria, or who were not enrolled on the research or were expelled from the rehabilitation, corresponded to the current state of knowledge and a similar type of realized studies.

Another limitation of the study may be implementation of a computerized rehabilitation which was individualized on the basis of initial psychological tests and impaired cognitive domains, therefore the same battery of rehabilitation tests was not used for the entire monitored sample.

A limitation of the study may be caused by interpretation of the CT which was interpreted by different radiologists, and insufficient specification of lesions (the size). A sticking point was insufficient identification of cortical lesions incurred. The data were not available. Nor can it be assumed that some patients did not have CNS damage at the microscopic level, which also caused altered cognitive functioning.

Medication was not taken into account in the results of examination. Patients included in the study had a medication which did not change during the rehabilitation program.

In the context of the ongoing treatment in a clinical setting, it was not possible to create fully controlled conditions for monitoring the cognitive rehabilitation effect, and consequently an overall high degree of the individualization setting of the rehabilitation process, due to monitoring conditions of training individualization.

Absence of the speech and language therapy examination is the most disputable limitation within the monitored CR effect in patients with a residual of the language impairment. A diagnosis of an aphasia residual of an expressive type was additional information by an indicating neurologist. A monitored clinical group was created on the basis of this diagnosis.

A limitation of the study may be influenced by the overall small number of patients and a language impairment of the expressive type (APHASIA) and patients without an identified brain damage (NORMAL). Within these samples, no significant changes after the CR application were verified in the use of speech and language. A significant fact limiting the finding was that those areas were not significantly damaged according to the entry examinations (a lower average spectrum according to the Verbal comprehension index of WAIS III). It can be assumed a so-called misleading diagnosis of expressive aphasia.

Even though the sample monitoring the CR effect in language impairments (ALL) was divided into three groups, it showed a small number of valid changes (regarding aphasia it was impossible to complete a monitored subtest in some cases), and examinations and a number of patients in clinical studies (APHASIA;  $n = 5$ ) corresponded

to the usual number of patients with such specific clinical diagnostic examination. The size of the monitored sample and the total number of patients who did not meet required criteria, or who were not enrolled on the research or were expelled from the rehabilitation, corresponded to the current state of knowledge and a similar type of realized studies which also used non-parametric statistical methods.

## 4 Conclusion

In the context of expressive aphasia, it has been detected and verified that the CR affects a development of cognitive functioning of patients, a highly significant improvement in cognitive flexibility and verbal fluency, nevertheless, without a specific speech and language therapy intervention that complements the treatment of cognitive functions through a non- pharmaceutical way, the treatment is not effective in a predictable range and treatment of these deficits should be supplemented by a specific form of a speech and language therapy intervention. This intervention should be an essential component in acute diseases as well as in cognitive communication disorders in patients with atrophic changes in the context of the Mild Cognitive Impairment and a subsequent development into dementia.

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1<sup>st</sup> PhDr. Petr Nilius  
Department of Psychology  
Faculty of Arts Palacký University Olomouc  
Vodární 6  
771 80 Olomouc  
Czech Republic

2<sup>nd</sup> and **corresponding author**: Mgr. Lucie Šebková  
Institute of Special Education Studies  
Faculty of Education Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: lucie.sebkova@upol.cz

3<sup>rd</sup> Mgr. Petra Krulová, PhDr. Dagmar Fiedorová, MUDr. Pavel Rössner, Ph.D., MUDr. Olga Zapletalová  
Neurologická klinika  
Fakultní nemocnice Ostrava  
17. listopadu 1790  
708 52 Ostrava-Poruba



# Basic special education in China: Status, challenges and strategies

(overview essay)

Shangwei Li

**Abstract:** *Special education in China originated the in 19<sup>th</sup> century. The aim of the paper is mainly to introduce basic special education in contemporary China. At present, basic special education in China has made great progress in scale, integration and admission rate, etc.. However, there are some children with special needs not at elementary schools and fewer special schools with distributing imbalance, shortage of special teachers and poorer environment. Thus, it is very necessary to further improve “ecology”, promote “inclusion” and reform teacher education of elementary special education in future China.*

**Keywords:** *Special education, basic special education, China.*

## 1 Introduction

There are the following 33 provincial-level divisions, including 22 provinces, five autonomous regions, four municipalities, and two special administrative regions in China. The total area is 9.6 million square kilometers and the country's population is around 13.7 billion people.

Special education, in the modern sense, originated from Qiming-Gumu School for the blind children in Beijing in 1874, whose name is now Beijing Blind School; and Dengzhou Deaf School set up in 1887. Before 1949, the church was the main founder of special education in China (Guo, 2007), which involved in religious, vocational courses (Zheng, 2014). During 30-years reform and due to opening to the world from 1978, China has set up more and more complete special education system. The main purpose is to introduce the status, problems and strategies of contemporary basic special education in China.

## **2 Definition of special education in China**

At present, the scholars considered that there are two different definitions of special education including broad and narrow senses (Li, 2015A). The former sense considers that special education should meet special needs of all individuals with or without disabilities; the latter one considers that it should mainly meet special needs of children with disabilities. In Chinese theory and practice, the scholars, mainly from the broad sense, consider that special education is supposed to meet special needs of individuals with or without disabilities.

### **1.1 Special education is to meet special needs for all individuals with or without disabilities in China**

On the one hand, special education should meet special needs of individuals with disabilities including visual, hearing, speech and mental disabilities; especially, autism, deaf-blindness, emotional disturbance, hearing impairments, mental retardation, multiple disabilities, orthopedic impairments, other health impairments, specific learning disabilities, speech or language impairments, traumatic brain injuries and visual impairments, etc..

On the other hand, special education should meet special needs of individuals without disabilities, including giftedness education, special abilities education (such as music, art, movement, etc.), special periods education (such as different growing stages, natural and social environments), special fields education (such as safety, health, aids, sex education, etc.), special method education (such as punishment, isolation, etc.), special family education (such as divorced families, single-parent families, family with poor environment, etc.), special group education (such as migrant children, orphans, children with internet addiction, etc.) and individualized education (such as female children, children with bad morality, etc.) (Meng, 2006).

### **1.2 Special education system involves in both basic and higher education, and adult and vocational education in China (Zhao & Meng, 2008)**

Basic special education is to meet special needs for individuals in basic education, including preschool special education (0–6 years old), elementary special education (6–12 years old), and junior and senior secondary special education (12–16/18 years old). Its main purpose is to make the educated learn some basic knowledge, skills and attitudes and lay foundation for further learning and life.

Higher special education is to meet special needs for individual in higher education, including higher professional education (3 years, no degree), undergraduate education (4–5 years, bachelor degree), graduate education for master degree (2–3; or 5–7 including united bachelor with master), and graduate education for doctoral degree (3–6; or 5–7 years united master and doctor; or 9–11 years united bachelor, master with doctor) at colleges and universities.

Vocational special education is to meet special needs for children and adults in vocational education, including elementary, secondary and higher vocational special education. Its main purpose is to introduce some basic knowledge and skills for vocation or employment.

Adult special education is to meet special needs of adults with or without disabilities. Its main purpose is to provide the adult with special needs with formal or informal education with or without diploma and degree.

In a word, special education in China is used for special needs of individuals with or without disabilities. It is divided into preschool, elementary, secondary, higher, vocational and adult special education, etc..

### **3 Status of basic special education in China**

With further reform and opening to the world, China thinks more and more of special education and basic special education has made great progress in scale, integration and admission rate.

#### **3.1 Increasing scale of basic special education schools in China**

Investigation shows that there were more and more teachers and children with special needs and special education schools in China. For example, there were only 1531 special education schools with 386, 400 children with special needs and 38, 906 special education teachers in 2001, however, 2000 special education schools with 394, 900 children with special needs and 53, 360 special education teachers in 2014 (see Table 1)<sup>[1]</sup>.

**Table 1:** Status of basic special education in 2001–2014 China

Year	2001	2002	2003	2004	2005	2006	2007
Number of special education schools	1531	1540	1551	1560	1593	1605	1618
Number of children with special needs	386,400	374,500	364,700	371,800	364,400	362,900	413,000
Number of special education teachers	38,906	40,378	40853	41384	42256	43572	44,862
Year	2008	2009	2010	2011	2012	2013	2014
Number of special education schools	1640	1672	1706	1767	1853	1933	2000
Number of children with special needs	417,440	428,125	425,613	398,736	378751	368103	394,900
Number of special education teachers	45,990	47,466	49,249	51,189	53,615	55,096	57,360

In addition, there are 2.2 billion students at elementary and secondary schools, among of which there are 1.6 ones at rural schools. According to 3 percent high IQ, there are 500 million children with giftedness at Chinese rural elementary and secondary schools (Guan, 2009).

### 3.2 Integrative basic special education in China

Integrative basic special education in China means that some of children with special needs attend special education schools and some attend general schools. Investigation shows that there are about 48,000 children aged between 0–6 who were diagnosed as disabled. There are 2000 special schools with 48,100 special education teachers and 394,900 individuals with special needs; and 209,100 children with special needs at general schools; and there are 187 special education classes at senior high schools with 7,227 students including 6,173 deaf and 1,054 blind children. In the meantime, there were 197 secondary vocational education schools for individuals with special needs (PWDs), with 11,671 current students, 7,240 graduates, and 5,532 with professional certificates in 2014 (CDPE, 2015).

### 3.3 Increasing enrollment rate of basic special education in China

There is 9-year compulsory education in China, which mainly involves in elementary special education and junior secondary special education. *Special Education Enhancement Program* (2014) tells us that by 2016, compulsory education enrollment rate

will have reached over 90% for children and adolescents with disabilities including visual, hearing, mental disabilities.

## 4 Challenges of basic special education in China

Although basic special education in China has made great progress in scale, integration and admission rate, it is still facing following challenges.

### 4.1 Less number and distribution imbalance of special education schools

On the whole, the number and quality of basic schools cannot still meet more and more special education needs in China.

On the one hand, there are still fewer basic special education schools in China, some of which are poor quality. Investigation shows that number of the students at pre-basic special education schools has become lower and lower during 2001–2014 in China (see Table 2)<sup>[1]</sup>. Thoughts, content and methods are unsuitable to social development (Peng, 2010), and quality is very poor (Zhao & Meng, 2008) at some basic special education schools; early childhood education focuses on speech and hearing, elementary and secondary school curricula reflects low expectations for deaf students and lacks the same academic content provided for hearing students (Lytle, Johnson & Yang, 2005); gifted education is short of scientific purpose, curricula, modes and cannot meet educational needs for gifted children (Su, 2009).

**Table 2:** Ratio status of students in basic special schools in 2001–2014 China

Year	2001	2002	2003	2004	2005	2006	2007
Number of special education schools	1531	1540	1551	1560	1593	1605	1618
Number of children with special needs	386,400	374,500	364,700	371,800	364,400	362,900	413,000
Ratio between students and schools	252.38	243.18	235.14	238.33	228.75	226.11	255.25
Year	2008	2009	2010	2011	2012	2013	2014
Number of special education schools	1640	1672	1706	1767	1853	1933	2000
Number of children with special needs	417,440	428,125	425,613	398,736	378,751	368,103	394,900
Ratio between students and schools	254.54	256.06	249.48	225.66	204.40	190.43	197.45

On the other hand, there are some imbalances in educational levels (preschool, elementary and secondary special education), types of special education needs and basic schools, regional distribution, general and special education. As regards education levels, elementary and junior secondary special education in China has developed very quickly, and preschool and secondary special education has developed very slowly (Lu, 2004; Zhang, 2014), quantity and quality of preschool special education cannot meet social needs (Liu & Zeng, 2007). As regards regional distribution, a gradually increasing difference is found between urban areas and rural areas, where a comparatively large number of disabled children fail to attend schools (Peng, 2013); there are more than 100 basic special schools in some provinces of east China, and fewer than 10 basic special schools in some provinces of west China (Peng, 2010). As for types of special needs and basic schools, the number of disabled students learning at ordinary schools is gradually decreasing in quantity (Peng, 2013); gifted education has mainly been distributed in urban region, and 55.1 percent of gifted children distributed in rural regions are looked down upon (Li & Mu, 2009).

#### **4.2 Some children with special needs not in basic schools**

Investigation shows that there are 84,000 disabled children and that the youth at school age did not have access to education, including 5,000 visual impairment, 5,000 hearing impairment, 5,000 speech impairment, 26,000 physical disabilities, 3,000 psychiatric diseases, and 12,000 multiple disabilities in 2013 (CDPF, 2014); 34.74% out of the 6–17 years old children with disabilities are dropped out of school, and among these dropouts, 59.70% have never been enrolled in schools, 26.23% quit schooling halfway, and 14.07% were deprived of education after graduation from primary or secondary schools (Hou, 2015).

#### **4.3 Shortage in quantity and quality of special education teachers**

On the one hand, there are fewer special education teachers in China. At present, there is still a high demand for special education teachers, who are increasing gradually but unsteadily in quantity (Peng, 2013). Investigation shows that although there are more and more teachers in each basic special education school with higher and higher student-teacher ratio (see Table 3)<sup>[1]</sup>, the number of them is lower than in other countries and cannot meet special education needs for the children (Lei, 2015). Furthermore, distribution of special education teachers is imbalance in gender (Wang, etc., 2011).



**Table 3:** Ratio status of basic special education teachers in 2001–2014 China

Year	2001	2002	2003	2004	2005	2006	2007
Ratio between teachers and schools	25.4	26.22	26.34	26.53	26.53	27.18	27.73
Ratio between teachers and students	1 : 9.93	1 : 9.27	1 : 8.93	1 : 8.98	1 : 8.62	1 : 8.33	1 : 9.21
Year	2008	2009	2010	2011	2012	2013	2014
Ratio between teachers and schools	28.04	28.39	28.87	28.97	28.93	28.50	28.68
Ratio between teachers and students	1 : 9.08	1 : 9.02	1 : 8.64	1 : 7.89	1 : 7.06	1 : 6.68	1 : 6.88

On the other hand, there is low quality of special education teachers. Investigation shows that special education teachers have poorer educational background, and there are fewer ones with bachelor and graduate degree (see Table 4)<sup>[1]</sup>. Especially, there are only 50 percent of teachers with special education diplomas or degrees (Zhang, 2014), and most of them are short of knowledge and abilities to provide special education (Lei, 2015; Wang, etc., 2011).

**Table 4:** Educational background of special education teachers in 2001–2014 China

Year	2001	2002	2003	2004	2005	2006	2007
Total	38,906	40,378	40,853	41,384	42,256	43,572	44,862
Full-time	28494	29,805	30,349	31,058	31,937	33,396	34,990
Graduate	30	/	48	77	60	101	123
Undergraduate	2,232	/	3,757	5,061	6,621	8,425	10,630
Associate bachelor	12,280	/	15,023	16,240	17,041	17,679	18,010
Year	2008	2009	2010	2011	2012	2013	2014
Total	45,990	47,466	49,249	51,189	53,615	55,096	57,360
Full-time	36,306	37,945	39,650	41,311	43,697	45,653	48,125
Graduate	219	270	405	482	614	703	846
Undergraduate	12,872	15160	17,479	20,012	22,480	25,068	27,833
Associate bachelor	17,772	17,697	17,612	17,335	17,665	17,569	17,473

#### 4.4 Poorer environment in basic schools

Poorer environment means less special educational investment and poorer infrastructure at Chinese basic schools.

On the one hand, investment in basic special education in China is not enough. Statistics shows that, despite more and more educational financial investment, quantity and ratio of special education investment was very low during 2001–2014 in China (see Table 5)<sup>[1]</sup>. Furthermore, financial investment has great differences in different regions and fields (Peng, 2013); and there is usually less financial investment in non-compulsory education (including preschool and senior secondary special education), west, rural and poor-economic regions.

**Table 5:** Financial investment of special education in 2001–2014 China (billion yuan)

Year	2001	2002	2003	2004	2005	2006	2007
Total education investment	4637.7	5480.0	6208.3	7242.6	8418.8	9815.3	12148.1
Investment in special education	13.0	14.9	16.4	17.1	23.5	24.6	26.2
Financial ratio of special education	0.0028	0.0027	0.0026	0.0024	0.0028	0.0025	0.0022
Year	2008	2009	2010	2011	2012	2013	2014
Total education investment	14500.7	16502.7	19561.9	23869.3	27696.0	30364.7	32806.5
Investment in special education	29.5	46.3	68.8	76.2	84.7	91.9	95.9
Financial ratio of special education	0.0020	0.0028	0.0035	0.0031	0.0031	0.0030	0.0029

On the other hand, there are poorer infrastructures in basic special education. Special education schools are significantly increasing in quantity, but their conditions are poor in townships (districts) (Peng, 2013); most of special education schools besides some in eastern China are short of teaching facilities and equipment (Zhang, 2014). In a word, quantity, quality and infrastructure of special education schools still cannot meet social and individual needs in China.

## 5 Strategies for basic special education in future China

Reflecting the achievements and problems of basic special education in China, we consider that it is very necessary to improve the ecology, and set up inclusive basic special education and lifelong teacher education for children with special needs.

## 5.1 Improving the ecology of basic special education

“Ecology” includes “soft” and “hard” environment of basic special education, especially including legal system, management mechanism, social support and identity, and infrastructure.

*Firstly, It is necessary to set up more complete legal system and management mechanism of special education.* Legal system and management mechanism are the “system assurance” of basic special education. Although China has published a lot of laws and policies of special education due to reform and opening to the world, the legal systems are still incomplete and short of operability (Li, 2012), and haven’t especially involved in evaluation standards on special education, special education schools and children with special needs (Kang & Lei, 2012). Thus, it is very imperative to improve the management system and mechanism and set up scientific evaluation standards of basic special education.

*Secondly, Increasing the investment and improving the infrastructure of basic special education.* Finance and infrastructure are the “material assurance” of basic special education. Although more and more finance investing in special education, it doesn’t meet the increasing and diversified needs of special education from society and individuals. The researcher consider that Chinese government should increase the financial investment and enhance the applied effectiveness in special education, and create learning environment without impairments (Wang, 2013). Thus, it is very necessary to increase the financial investment and improve the infrastructure of special education school, especially in western rural regions.

*Thirdly, Increasing social support and identity of basic special education.* Basic special education needs not only “system” and “material” assurance, but also “feeling” assurance. At present, China has not set up complete social support system for special education, basic special education is short of sufficient support from families, community and individuals, and basic special education, special education teachers and children with special needs have low social identity (Zhang, 2014). Thus, it is very important to set up “family-community-school-society” support network (Zhao & Wang, 2013) and “humanistic special education”, where everybody needs, concerns and shares basic special education (Zhang, 2008).

## 5.2 Setting up inclusive basic special education

“Inclusion” means that every child has a fundamental right to education (UNESCO, 1994, pp. ix). At present, China should set up inclusive basic education system for children with special needs.

*Firstly, Setting up more and more high-quality basic schools for children with special needs.* In almost every country, inclusive education has emerged as one of the most

dominant issues in the education of students with special education needs; the field of special education has moved from a segregation paradigm through integration to a point where inclusion is central to contemporary discourse (Mitchell, 2010, pp. 121). However, there are less quantity and lower quality of basic special education schools in China. Thus, from integration to inclusion, China should set up more high-quality basic schools to meet diverse needs of children with or without disabilities.

*Secondly, promoting balanced development of basic special education.* Balanced development involves in eastern and western, rural and urban, general and special education, disabled and gifted education, genders, and different special schools. At present, basic special education has great imbalance in educational levels and types, regional distribution. Thus, it is very necessary to think more of the disadvantages and decrease the time and space differences of basic special education to make it possible for all children with special needs to share more and more fair and high-quality basic education.

### **5.3 Strengthening teacher education for children with special needs**

Teacher education is the key of training high-quality teachers for children with special needs and the “human assurance” of basic special education. In the future, China should further enlarge the scale and increase the effectiveness of teacher education for children with special needs.

*Firstly, Enlarging the scale of teacher education for children with special needs.* Investigation shows that there are at present 40 universities with special education degree programs, and enrollment of about 2000 bachelors, 120 masters and 10 doctors in China mainland and they are unbalanced in regional distribution (Li, 2015B); and special education teachers in rural basic schools have smaller chance of in-service training. It is very necessary to increase the admission enrollment of special education at Chinese universities and implement various in-service training for basic special education teachers.

*Secondly, Increasing the effectiveness of teacher education for children with special needs.* Basic special education needs not only the quantitative but also qualitative increase of the teachers. At present, there are simple focus fields, content, modes and short of network resources on special education degree programs in some universities; and pre-service and in-service training is short of pertinence and effectiveness. Thus, it is very necessary to enhance the flexibility, guidance and networking of teacher education for children with special needs in future China (Li, 2015B).

*Thirdly, setting up lifelong teacher education for children with special needs.* Lifelong education is a process of accomplishing personal, social and professional development throughout the life-span of individuals in order to enhance the quality of life for

both individuals and their collectives (Dave, 1976, pp.34). If the teachers work in the field of basic special education in their lifespan, they will need lifelong professional development and have to share lifelong teacher education integrated pre-service with in-service training. Thus, China should build a lifelong system of professional training for basic special education teachers (Bian, Teng & Zhang, 2012).

## Conclusion

In short, basic special education in China has made great progress in scale and quality. However, it has still less quantity and low quality and cannot meet the diversely special needs of children with or without disabilities. Thus, it is very necessary to improve the ecology (such as legal systems management mechanism and social support and identity), transfer integration into inclusion and set up lifelong teacher education of basic special education.

## Notes

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(reviewed twice)

Prof. Mgr. Shangwei Li  
 Institute of Rural Preschool Education Research  
 Yibin University  
 Yibin  
 PRC, 644007

# Relationship network as a basis for efficient problem solving in clients with specific requirements

(overview essay)

Jurkovičová Petra, Čekanová Tatiana

**Abstract:** *The article presents the current movement in the field of care for clients – persons with specific requirements included in the social services system or special education system. The paper presents the view of the basic philosophical and specified theoretical base for the use of dialogue and relationship networks as well as a practical example in form of an anticipation dialogue. In conclusion, the article provides reasons for efficiency of the application of anticipation dialogue in solving difficult situations of clients with specific requirements. Subsequently, recommendations for practice are specified considering the conditions specific for this client group.*

**Keywords:** *dialogue, networking, dialogical practice, client with specific requirements, anticipation dialogue.*

## 1 Introduction

In the system of care for persons with specific requirements, the conditions and approaches to solving various difficult situations are constantly changing along with the developing approach and view of the persons with specific requirements themselves. We, as professionals, increasingly arrive at the conclusion that the objectivized or generalized instructions and procedures are applicable in particular cases only to a limited extent, if at all. We find that the efficiency of solutions is linked directly to the particular persons and their individual perception and assessment of the situation. In order to increase the efficiency of work with clients in general and with clients with specific requirements in our conditions in particular, we need to realise the philosophic, theoretical and the resulting practical changes in the approach to working with people. For more than 30 years, the methodology of work with clients

has been shifting from the individual view to the so-called relational, multivoiced and dialogical one. This shift has been related to changes and challenges in the practical approach to performing supportive, counselling, therapeutic and similar activities provided for persons in difficult situations. At the moment, one of the most recent challenges in working with clients with specific requirements is the application of relationship networks (networking, network – dialogical practice) (Anderson, 2002; Trimble, 2002; Seikkula, Arnkil, 2013, Shotter, 2016, Barge, Little, 2008)

## 2 Relationship Network

Nowadays, the term of network is connected to multiple aspects, including new directions of functioning, working, sharing and making contacts. In recent years with Humanities, we hear more and more frequently about networking, relationship or social networks as well as network practices. This is a professional approach to solving problems of individuals with respect to the humanistic approach utilising the knowledge from constructivist, social constructional or postmodern approaches in psychology, psychotherapy or psychiatry.

In the areas of special education or social work, these approaches to solving client problems are still in their early days. However, some of the professional groups, especially the ones focused on psychotherapy, increasingly integrate the relationship- and dialogue-oriented philosophy and procedures into their work. The change is based on the opinion that the knowledge and understanding of professionals cannot continue being perceived as an objectively valid truth about the world and the functioning thereof, since there is no objectively given way or view of exploring the world and of evaluating it (Rober, 2002). People explore the world, objects and persons in relationships and as stated by McNamee (2004 in Pare, Lerner, 2004) this is rather an exploration of meanings and relational meanings in particular instead of a fixed valuation.

If we want to understand a client's problem and solve it efficiently, we need to perceive the client as a person as well as the client's problem or situation itself as multivoiced and relational. Increasingly, the psychotherapeutic system of working with clients has been applying the methods of working with a group of persons close to the client. Therefore the interest is focused on the opinion and view of all persons involved, related to the client, who are also the active and supported links in the process of solving the client's problem. In professional work with clients with specific requirements, i.e. in particular in social work and special education, the network-oriented dialogical practice (Seikkula, Arnkil, 2013) is not applied by professionals efficiently. However, as shown by several attempts carried out in individual projects (e.g. the "Guidance" project), perception of the client and his problematic situation as a relational and multivoiced phenomenon helps to find more constructive and



flexible solutions compared to the ones offered by the long-established system. As described by Seikkula and Arnkil (2013), the less common means of perception and communication regarding the client's situation or problem would bring less common but often more efficient and complex solutions.

In accordance with Shotter (2016) and Anderson (1997), the basis for change is the respect for diversity of views of a single problem and acceptance of the need of dialogue in order to recognize the nature of the problem as well as to find the solution suitable for the particular group of persons creating the client's relationship network.

## **2.1 Dialogue as the Basis for Creating and Maintaining a Functional, Potentially Healing, Relationship Network**

*Dialogue is the new relation. Not so much else is needed. (Seikkula, 2002, p. 284)*

Dialog is a way of being in language and relationship with others. (Anderson, 2002) In its fullest sense, dialogue is a particular kind of conversation in which participants engage with each other in a process of understanding, a process of learning how the other makes sense of something and the meaning it has to them. Through this process new understandings and meanings begin to emerge in the space between people. The process is what Anderson (2002) calls a mutual or shared inquiry or what Seikkula (2002) calls a "joint deliberation".

As Seikkula (2002, p. 265) suggests, "Dialogue becomes both the aim and the specific way of being in language."

When solving a problematic situation, dialogue becomes a significant part of the set of tools. As stated by Anderson (2003), more important than the product produced through dialogue was having a space for dialogue and participating in the process of dialogue. The opportunity to constantly evaluate what was heard and compare it with one's own view and opinion provides the freedom of reflexion and change in one's own problem perception. The dialogue and processes of internal and external voices of all participants enable a more complex view of the problem and at the same time unification of the language and meanings of the problem in the lives of individual persons creating the client's relationship network in order to become graspable and better understandable for everyone. The dialogue involves reflexive, intertwined process of listening, hearing and speaking. (Anderson, 2003) Having the opportunity to hear, reflect and shape the meaning of individual factors comprising the problem, we may arrive at the so-called "dissolving tidal waves" (Anderson, 1997), i.e. the contents of the problem to the point that we will stop seeing the problem itself and only the activities efficient in the given situation will remain.

Presence of the persons creating the client's relationship network is the result and at the same time a significant prerequisite for the dialogue, which may be healing (i.e. problem solving in our understanding). If there are several voices involved and the client's problem is discussed using the reflexions both of internal and of external monologue of all participants, it is likely that the varied views of the given situation will be respected. At the same time, if we create a space for personal meeting and dialogue among all the persons creating the client's relationship network in the given situation, the dialogue itself invites and requires of its participants a sense of mutuality, including genuine respect and sincere interest regarding the other. While at the same time, dialogue invites a sense of belonging and ownership (Anderson, 2003).

Especially in case of clients with specific requirements, it is almost always possible to identify the situation in question as a multi-issue and therefore also a multi-professional one. Many professionals from different areas participate in solving individual aspects of the problematic situation. In order to solve the client's problem efficiently, cooperation of the involved professionals is often necessary. However the differences among the systems individual professionals are operating in which significantly restrict or even disable the efficient continuity of care. As stated by Seikkula and Arnkil (2013, p. 16), "the contexts requiring involvement of multiple services are complex, however such complexity does not reflect the situation in the family itself. Efficient combination of varied components may stagnate even if the individual professionals perform their jobs well." Unless the problem areas correspond to the segmentation of the support system, there is a problem in coordination as well as resulting efficiency of the client care.

The dialogical approach utilising the client's relationship network consisting of close persons as well as professionals involved in the situation is one of the options how to challenge the system structures for greater flexibility. Anderson (2003) describes such situation as an attempt to understand by participating in and responding to what we think the other has said. Presence of several professionals along with the client and persons close to them has considerable impact on the rhetoric and language whereby the individual facts are described. The respect incited by the presence of individual persons in the dialogue enables to establish deeper mutual relationships and perceive the client and their problem as more personal. It also enables to make a distinction between responses such as questions to participate in the storytelling that in turn helps to clarify, expand and understand and responses-such as questions-that seek details and facts to determine things such as diagnoses and interventions or seek to guide the conversation in a particular direction.

Active and responsive listening, hearing and responding to client is not just a technique how to lead a dialogue, it's a way of being that invites a metaphorical space which is a gathering place for the relational process of dialogue (Anderson, 2003).

### 3 Anticipation Dialogue as One of the Forms of Network – Dialogical Practice

In the situations causing tension and uncertainty in the form of questioning the correctness of actions or the problem “diagnostics”, it is difficult to create space for an open, respectful and constructive dialogue. Each member of the client’s relationship network has an ideological base (including preconceptions, prejudices, experiences and anticipations) that is unique and that influences the construction of his/her view of the problem and the story about it (Anderson, 2003).

The dialogical approach aims at a different process—a process in which the potential resources of the patient and those nearest him/her start to play a more important role in determining how to proceed. (Seikkula, 2002) Every individual involved in the dialogue tries to reflect not only their own view of the issue but also to understand the views of others. Nevertheless, the client’s perspective is the most important and crucial one for the efficient solution.

When working with the client’s relationship network, we have to assume the conditions when the family and a social network system does not have an understanding or a language, however each member has their own. We are always working within a polyvocality. The challenge becomes how to invite and maintain room for each voice and in a way, that the descriptions and opinions develop into the joint process. Through the professionals participation, as Seikkula (2002) suggests, new language emerges for every participant of client’s network (Anderson, 2002).

In the situations addressed by Seikkula and Arnkil (2013) as multiprofessional, there are usually several parties trying to modify the actions of the client and their close ones. The professionals’ view focuses on the client from different perspectives and each professional tries to modify the client with respect to their own professional framework. In order to support such situations, the anticipation dialogue has been developed. As stated by Seikkula and Arnkil (2013, p. 34): “Between the participants, a dialogue may create mutual understanding, as a joint creation not possible to be reached by any of the parties alone.” During network sessions, we have to take into account that everyone present also exists in additional relationship networks. If talking to the client, we think about these additional relationships, the content, form and language of our dialogue will change.

However, the network sessions naturally tend to turn into monologues of individual participants, who usually “shout over each other” and try to enforce their own opinion. As stated by Seikkula and Arnkil (2013, p. 35): “When professionals are present, perceiving a particular issue from their own perspective (according to the focus of their work), they do not communicate only on the ‘issue itself’, however also on who they are when defining the issue.” Their mutual relationships are determined by the system established. For the client, the challenge for the network session with

subsequent effect is to define the mutual relationships in the “no man’s land”. These relationships have to be negotiated. For the utilisation of the client’s relationship network during sessions to have a healing effect and to be dialogical, it is necessary to install a certain structure and conditions for the dialogue.

An anticipation dialogue is based on working with two of the client’s network concurrently. At the same time, during a single session, the network of the close ones, family, acquaintances, etc. is present, providing information as well as support to the client on site and at home. Information from these persons as well as their reactions and ideas provide a varied view of the client’s current situation. In the case of clients with specific requirements, it is often the case that these persons who provide for services, care, independence of the client and improve their quality of life in general.

Along with this group, a network of professionals, specific experts coming into contact with the client and participating with them in solving individual areas of their issue, shall be present at the session. The network of professionals may be joined by practitioners who will be potential cooperators, whom the client’s problematic situation might concern in the close future.

Both groups of people comprise the client’s relationship network with regard to the problem or situation currently to be solved.

The key method of anticipation dialogue, as explained by Seikkula and Arnkil (2013, p. 17) is the “anticipation of the results of own actions”. All the information obtained by the process facilitator in form of an open dialogue first held with the client and their close ones and subsequently with the professional group, represent the answers for their assumptions on the change of situation. The problem is viewed from the perspective of close future (1 year) and all the solutions and procedures are proposed and planned with respect to the positive impact discussed. As stated by the authors (Seikkula, Arnkil, 2013), during anticipation dialogue, the clients first come across a situation when they are discussing the problem with professionals in a positive way. Jointly, led by the specific questions of the facilitator, they contemplate about how it would be if the situation turned for the better. Who and how has helped them or is helping them (the rhetoric corresponds to the transfer to the close future and view of the problem with the hindsight of one year). This way, the client and their close ones are able to express how they would like the situation to turn out, not talking about the particular steps to be taken in order to change something. They are speaking from the perspective of a positive change already having occurred. This tuning significantly influences the client’s frame of mind and their faith in healing and problem solving. The approach also significantly impacts the tuning of professionals to mutual cooperation and their ideas of possible changes in the systems they are working in, which they couldn’t see as flexible up to now.

The session results in planning the specific actions based on understanding of the needs of the client and their close ones, as well as on the actual possibilities of the

participating professionals. Since all the session participants are invited to mutual listening, hearing and responding, the language describing the issue is modified. This changes the “distance” between the professionals and the client, and brings a closer relationship originating, based on understanding and responsibility for the result. The relationship between individual professionals changes as well, since they can see the area of mutual cooperation and understand the reasons and actions of their colleagues better based on the respecting dialogue, which subsequently impacts their work (compare Trimble, 2002).

## 4 Recommendation

In these kinds of relationships and conversations the encouragement and possibility for transforming and newness are inherent. (Anderson, 2003) “Perhaps the (only) thing we should focus on in the very first meetings in a crisis is orienting ourselves to create dialogical exchange of utterances: How to listen, how to hear, and, what is most important, how to answer each utterance of our clients.” (Seikkula, 2002, p. 283) The aim of treatment should be to break the isolation of the client, which may originate in the moments when the client feels to be misunderstood, unaccepted or insignificant. Focus on the dialogue itself: How to create a language in which all voices can be heard, both the client’s and those nearest the client, at the same time (Seikkula, 2002).

Anderson (2003) provides several recommendations, the observation of which incites the creation of dialogical and relational approach to the client:

Be respectful – have and show regard and consideration for the worthiness of the other. It is communicated by attitude, tone, posture, gestures, eyes, words, and surroundings.

Be genuinely curious about the other and sincerely believe, that you can learn something from them.

Listen and respond with sincere interest in what the other person is talking about- their experiences, their words, their feelings and so forth. Listen, hear, and speak to understand.

Frequently, the language of professionals when identifying or describing the client and their problem, is de-personalized, technical and full of evaluations and “judgements”, which label and generalize the particular case excessively. Such communication method is based on the established means of evaluation, without necessity to comply with the classification of the client and their problem under the rules of the particular system. As explained by Seikkula and Arnkil (2013), the language is also

based on the need of individual professionals to anchor their position in their respective professional systems. This keeps the professionals at a certain distance from the client's problems, preventing them from entering the emotions and close relationship with the client. This is how the appropriate professional ways of behaviour towards clients used to be described and often continue to be nowadays.

However, if we consider the application of the client's relationship network as the support mechanism capable of finding new efficient methods of work by mutual dialogue, we have to assume the ability of the involved professionals to create and maintain an efficient relationship with the client. Thus, the level of distance is given by the ability to view the situation with hindsight and to reflect everything addressed during the session. An adequate hindsight enables to listen with respect and to ask questions with interest. It is no longer needed as a condition of objectification and diagnostics.

As we have described above, if we were to perceive the client and their problematic situation as a multi-issue and multi-professional one, the varied perception and less common description of the situation will provide more flexible possibilities of solutions than those which are generally used in the original systems. With respect to the communication traps the professionals working with clients with specific requirements are exposed to, Anderson (2002) recommends that the comments of professionals as participants were neither judgments nor veiled hypotheses; questions were not information tools or idea seeders (Anderson, 2002).

As Anderson further puts it (2003), give the other person time to finish. And give yourself a moment to think about what you are going to say and how you will say it. Do not look for or think in punctuations such as dialogical moments-significant, memorable, or critical moments. The whole or overall relationship and conversation is what counts and makes a difference. The most focus on the process, rather than on its content (Anderson, 2002).

The consequences for the practitioner who respects and believes in the client's reality are enormous. The typical hierarchical professional system and relationship dissolve into a more mutual and equal one (Anderson, 2002).

Hoffman (2002, p. 271) calls Seikkula's approach an "emphasis on speech rather than symptoms." This initial perspective concurs with Seikkula's notion that there is no way to make sense of one's experiences and to cope with experiences-to construct a rational narrative about them (Anderson, 2002).

## 5 Conclusion

Work with clients with specific requirements is very diverse, often including participation of several professional systems. The necessity of mutual interconnection of professional systems organized differently brings about the risk of inefficiency in

helping the client. In this regard, Seikkula and Arnkil (2013) write that “the confusion arises when the problems do not fall into pre-defined categories of specializations within the system”. In this respect, the authors provide a very fitting theory of so called “junk categories”, also described by Donald Schön (1973 in Seikkula, Arnkil, 2013). These are the categories of clients and their problems not possible to be classified in the systems as they are organized. According to the authors, in the case of clients with specific requirements, we could talk about the so-called multi-junk category.

Working with client’s relationship networks and application of constructive dialogue as described herein, minimizes such risks and creates space for efficient solution of the client’s problematic situation from the perspective of multiple professions. At the same time, it assumes the establishment of good bonds and relationships between the client and participating professionals based on the respectful language and understanding.

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Mgr. Petra Jurkovičová, Ph.D.  
Palacký University Olomouc  
Faculty of Education  
Institute of Special Education Studies  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: petra.jurkovicova@upol.cz

PhDr. Tatiana Čekanová  
Department of Special Pedagogy  
Faculty of Education  
University of Prešov in Prešov  
17. novembra 15  
080 01 Prešov  
Slovak Republic  
e-mail: tatiana.cekanova@unipo.sk



# Expressive therapy as a teaching instrument in an inclusive educational process

(scientific paper)

Kristýna Krahulcová

**Abstract:** *Expressive therapy is increasingly used in education and has a potential of becoming an instrument for successful inclusion of children, pupils, students and adults with specific needs. The paper focuses on defining the context (competences, limitations, instruments) of teachers in the area of using expressive therapy in the process of inclusion of children, pupils and students with special educational needs. The objective of the research study is to define the possibilities and limitations of expressive therapy within the competences of teachers with adequate academic degrees. The research study focuses on teachers preparing for their profession and teachers already using expressive therapy, and on their methods leading to successful inclusion in the educational process. The research study was of a quantitative design and was conducted by means of a questionnaire of an own design. The questionnaire was distributed to the respondents via email and social networks. The respondents were selected by means of deliberate sampling. The respondents were graduates from Special education with a focus on drama therapy, Faculty of Education, Palacký University in Olomouc, who are competent to use expressive therapy in the educational process, and teachers preparing for their profession, i.e. students of the same field of study already working in a practical environment. An interesting finding of the research was that although this field of study of a non-teaching focus, a number of graduates work in the area of education. The results of the research study suggest a range of expressive therapy instruments that can contribute to the inclusion of children, pupils and students with special educational needs.*

**Keywords:** *Expressive therapy, inclusion, children, pupils and students with special educational needs, educational process, teacher.*

## 1 Introduction

Inclusion of persons with specific needs has been a significant phenomenon for about the last 15 years. An effort to create such an environment, in which it is normal to be different, distinct or specific, has become the subject of many fields including special education. In the educational process, inclusion is facilitated by various instruments, methods or special education procedures. One of these instruments to help persons with specific needs join the society, in our case the educational process, is expressive therapy. Expressive therapy or art therapy has a great potential for working with group dynamics, it magnifies relationships, enhances the creativity and spontaneity of an individual, and has many other effects in the process of inclusion of students with specific needs in the society. The following text presents a research study focused on using these therapeutic-formative approaches in the educational process. It also points to some methods and possibilities that support successful inclusion.

## 2 Theoretical Bases

The following text defines the basic concepts used in the present research. It defines the expressive therapy, its classification and applications in the educational process. The author further summarizes the issue of inclusive education including relevant legal provisions in the Czech Republic.

### 2.1 Expressive therapy

Today, expressive therapy is a part of the system of Czech special education. It is an opposite to but at the same time a component of traditional verbally oriented therapeutic schools. It is one of the therapeutic-formative disciplines; therefore, it can be used in the educational process. It is built on expression, artistic expression (Valenta et al., 2014).

Artistic expression is an expression of inner feelings through means provided by various types of art. Therefore, in a broader sense, the term expressive therapy was previously identical with art therapy.

Expressive therapy can be defined as ways of deliberate purposeful interaction between two people, which brings elimination or mitigation of adverse problems or their causes, and results in changed behaviour, experiencing and physical performance. In this process, the main instrument is art (Muller, 2013).

According to the types of art, expressive therapy can be classified into five basic groups:

- Art therapy in a strict sense (fine arts),
- Drama therapy and theatre therapy (drama/theatre),
- Bibliotherapy and poetry therapy (verbal art),
- Music therapy (musical art),
- Dance and movement therapy (dance art).

Each of these expressive approaches has a system of methods and techniques, which help fulfil the goals of a specific individual or a group.

The objectives of all kinds of expressive therapy cannot be generalized. However, the author of the paper agrees with the definition of non-specific objectives provided by the significant Californian drama therapist Renée Emunah (1994):

- Increasing social interaction and interpersonal intelligence,
- Learning the ability to relax,
- Changing non-constructive behaviour,
- Extending the repertoire of roles for life,
- Learning the ability of spontaneous behaviour,
- And particularly, learning the ability to accept and understand one's own limitations and possibilities.

## **2.2 Inclusive education**

Following an approved amendment to the Education Act and the priority tasks in 2015, the Ministry of Education, Youth and Sports (MEYS) is systematically and intensively introducing inclusive education, by which an equal approach of all students in the Czech Republic to education is established. The objective of the process is to define positive conditions for the education of all students and to ensure appropriate support measures reflecting educational needs of all students in order to provide education primarily in the form of mainstream education. Planning and implementation of inclusive education is a process that involves the whole system of education and all learners. Inclusive education needs to be seen as a developing concept, which is based on the ideas of diversity and democracy (Finková, 2013).

In all tiers of the educational system, school authorities, schools, students, parents and the public, inclusive education is perceived as high-quality education, which not only enables an equal approach to quality education, but also fair and reasonable support with respect to various educational needs of students in order to use their study

potential as much as possible, eliminate any barriers and not to reduce educational requirements in any group of students.

### **Legislative framework**

Inclusive education of all students during the period of compulsory education, as stipulated by law, is currently seen as a developing process. The objective of this process is to create equal opportunities for education, to set the conditions for education, and to create a system of supporting special educational needs of students. Applicable legislation in the Czech Republic is based on the international Convention on the Rights of the Child and the National Education Development Programme in the Czech Republic, the White Book (2001), which is defined as a system project that formulates the basic ideas, general intentions and development programmes that should be applied in the development of the educational system (Lechta, 2010).

National strategic documents applicable in the Czech Republic in the field of education define the requirement to support the development of inclusive education, which provides an equal approach to education for all persons, while this cohesion model facilitates social integration. The conditions and learning content for inclusion and integration of children and students with special educational needs (SEN) for all degrees of schools is stipulated by Act No. 82/2015 Coll., Decrees of the Ministry of Education, Youth and Sports (MEYS) No. 72/2005 Coll. and 73/2005 Coll. as last amended, and the respective Framework educational programmes (FEP). ([http://www.msmt.cz/dokumenty/zakony\[online\]](http://www.msmt.cz/dokumenty/zakony[online])).

Amendment No. 82/2015 Coll. to Act No. 561/2004 Coll., on pre-school, basic, secondary, tertiary professional and other education (Education Act), came into effect on 1 May 2015 and the first changes came into force on 1 September 2015 (Překová in Bartoňová, Vítková, 2015).

Persons with special educational needs have the right to free provision of support measures by the respective school or school facility. Support measures consist of a set of organizational, personnel, and educational measures provided by schools to those students who need these measures in their education. The Act only defines a list of support measures, more details are stipulated by Implementing Decree No. 27/2016 on the education of students with special educational needs and talented students. Another applicable document is Decree No. 72/2005 Coll. (Amendment No 116/2011 Coll.) on the provision of counselling services at schools and school facilities.

Pursuant to this Decree, those responsible for the provision of counselling services, shall be the educational counsellor and school prevention methodologist, more frequently also the school psychologist and school special education teacher. Specialized counselling establishments shall include educational and psychological counselling centres and special education centres. Educational care centres have

been included in the network of counselling establishments since 1997; their activities are stipulated by Act No. 109/2002 Coll., as last amended. Decree No. 73/2005 Coll. (Amendment No. 147/2011 Coll.) on the education of children, pupils and students with special educational needs and the education of especially talented children, pupils and students stipulates the **compensatory measures** to be used in the educational process. These measures include the use of educational and special educational methods and procedures, provision of individual support in classes and in preparation for classes, provision of an assistant teacher. The decree also defines the **support measures** for students with special educational needs. ([http://www.msmt.cz/dokumenty/zakony\[online\]](http://www.msmt.cz/dokumenty/zakony[online])).

In the process of inclusive education, a significant role is played by the National Action Plan on Inclusive Education (NAPIV). The purpose of this document is to increase the degree of the inclusive form of education in the Czech educational system. Another objective is to prevent social exclusion of individuals as well as whole social groups and to support successful integration of individuals with disability or disadvantage in social, political and economic activities of the civil society. The measures and tasks of the National Action Plan on Inclusive Education reach beyond the realm of education and represent an important step towards the development of human resources in the Czech Republic (Ludíková, 2011).

### 3 Methodology of the research study

The research study was of a quantitative design and was conducted in spring 2016. The reason for the choice of the design was an effort to obtain as much objective data as possible during a short period of time, and clearly structured answers. Another reason is the author's intention to repeat the research study and extend the research sample for a subsequent study in the area of using expressive therapy in the process of inclusion of children, pupils and students with special educational needs. Therefore, the present research is considered a preliminary study, the objective of which is to map the area of expressive therapy in education.

#### Objectives of the research study

- To define the possibilities of teachers in the area of using expressive therapy in the process of inclusion of individuals with special educational needs.
- To define the limitations of teachers in the area of using expressive therapy in the process of inclusion of individuals with special educational needs.
- To define the instruments of expressive therapy used in the process of inclusion of individuals with special educational needs.

- To verify the functions of teachers in the area of expressive therapy facilitating inclusion in the educational process.
- To define the areas and working positions to be taken by teachers in the process of inclusion of individuals with specific needs.

### **Research assumptions**

RA1: Teachers with professional qualification use expressive therapy to support inclusion.

RA2: The most frequently used type of expressive therapy in the educational process is drama therapy.

RA3: The biggest limitation for teachers in the use of expressive therapy is insufficiently defined legislation.

### **Organization of the research study**

At first, the author defined the objectives of the research study and the research assumption. Then a questionnaire for teachers was designed. The questionnaire was deliberately made not too time-consuming. The items were operationalized for the purposes of the research study. The questions were specific and purposeful. During the next stage of the research, an electronic questionnaire was developed and distributed to the selected target group. The respondents were repeatedly addressed in several stages in order to obtain the highest possible body of data. The data were analysed and interpreted by means of graphs.

### **Data collection method**

The data collection method was a questionnaire of an own design, the purpose of which was a verification of the research assumptions concerning the instruments and competences of teachers in the process of inclusion. The questionnaire contained nine core items and space for the respondent's comments. The initial items focused on the occupational category of teachers including their degrees in the area of expressive therapy, and on the educational institution. The next part of the questionnaire focused on the use of expressive therapy to support inclusion of children, pupils and students with special educational needs, assessment of the effectiveness of various types of art therapy, their function in the process of inclusion, use of this type of support by teachers, and limitations of using expressive therapy in the educational process. Five items of the questionnaire were multiple choice, where the respondents selected one option, other items included assessment scales, and in the items focusing on the use of expressive therapy the respondents could choose more options. The reason was that expressive therapy can be used to serve multiple objectives and

purposes, and similarly, the limitations might have more specifics associated with an educational institution. The questionnaire was produced in an electronic form and distributed via email and social networks. A natural component was a declaration of anonymity of the data obtained.

### **Research sample**

The method of deliberate sampling included studying teachers who use expressive therapy as a method supporting the process of inclusion of children, pupils and adults with specific needs. The second group of respondents were graduates from Special education with a focus on drama therapy at the Faculty of Education, Palacký University in Olomouc, who work with expressive therapy in the area of education. These respondents were chosen deliberately due to their degree in therapeutic approaches and adequate competences in the use of expressive therapy in the educational process.

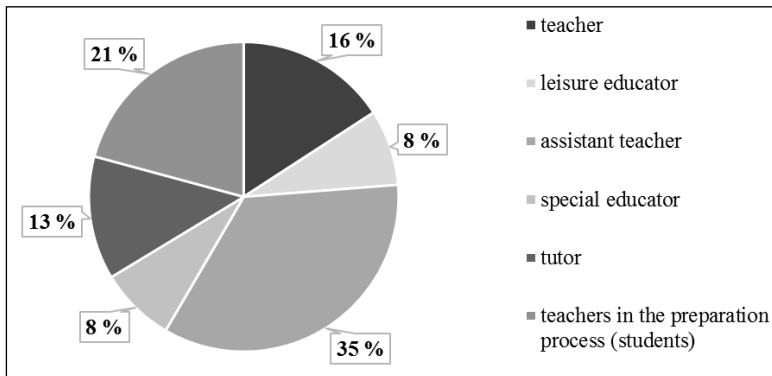
### **Inclusion criteria**

1. Teachers (teacher, personal assistant, leisure educator, special educator, tutor) who work with children, pupils and students with special educational needs,
2. Graduates from Special education with a focus on drama therapy at the Faculty of Education, Palacký University in Olomouc, or students working in a practical environment,
3. Profession within the resort of MEYS.

During the first stage, the questionnaires were sent to the emails of all graduates and those still studying. Regarding the fact that the response rate was not particularly high, the author decided to take a more personal type of distribution. This was done through social networks to specific persons. Here the response rate was massive. However, the number of completed questionnaires also results from the fact that many graduates do not work in the area of education. The resulting number of completed questionnaires is 63. In the framework of the research study, it is impossible to determine the precise number of distributed questionnaires, as they were sent in several stages. Regarding the anonymity of the data, it is also impossible to specify the number of respondents who do not work in education. However, the author registered 28 answers from specific respondents who do not work in the resort of the MEYS.

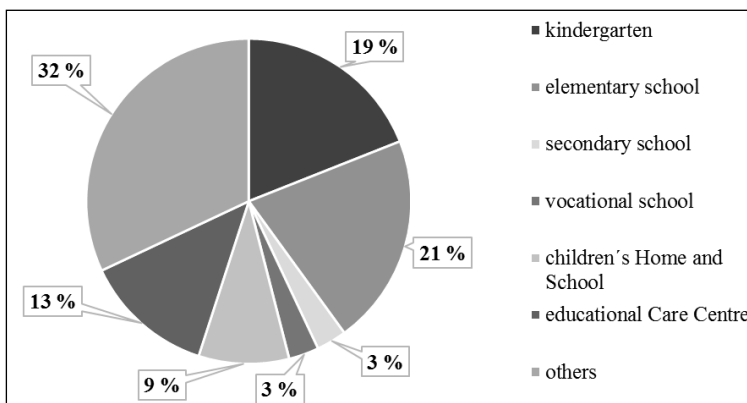
#### 4 Presentation of the results of the research study

The following section of the paper presents the results of the questionnaire survey by individual items of the questionnaire. For clarity reasons, the author chose graphical representation.



**Graph 1:** Work position

The first item of the questionnaire asked about the working position of the respondents. Naturally, the largest group consisted of special educators (22 respondents), followed by a group of teachers preparing for their professions (students) working in a professional environment (13 respondents). The third largest group were teachers (10 respondents). 8 respondents were tutors, 5 leisure educators, and 5 assistant teachers.



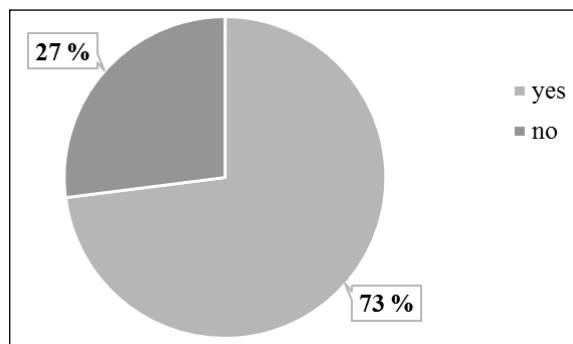
**Graph 2:** Institution

The second graph shows the institutions where the teachers work. 12 respondents reported kindergarten, 13 elementary school, 2 secondary school or higher profes-



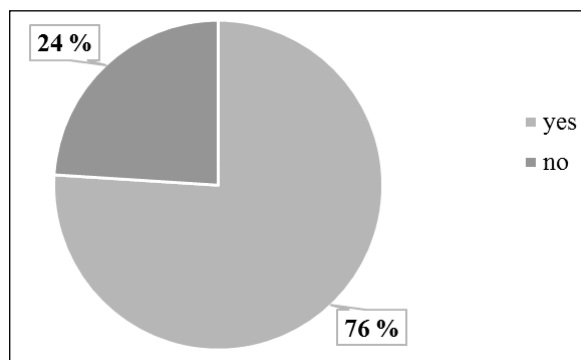
sional school, 2 vocational school or technical school, 6 children's home (also with school), 8 educational institute or educational care centre.

A total of 20 people work in different institutions. These included college or university, educational and psychological counselling centre, social educational centre, elementary school established under Section 16, interactive science museum, youth centre, Klokánek establishment, therapeutic community or non-profit organizations not included in the resort of the MEYS.



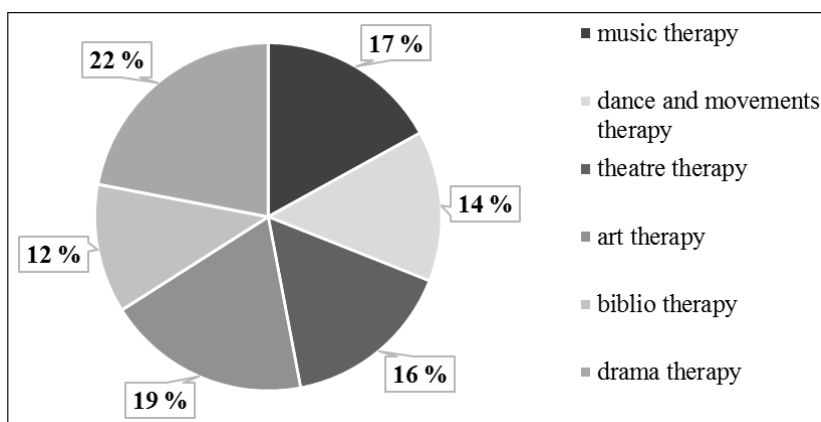
**Graph 3:** Degree in expressive therapy or psychotherapy

Graph 3 clearly shows that 73% (46 respondents) had an appropriate degree in the area of expressive therapy.



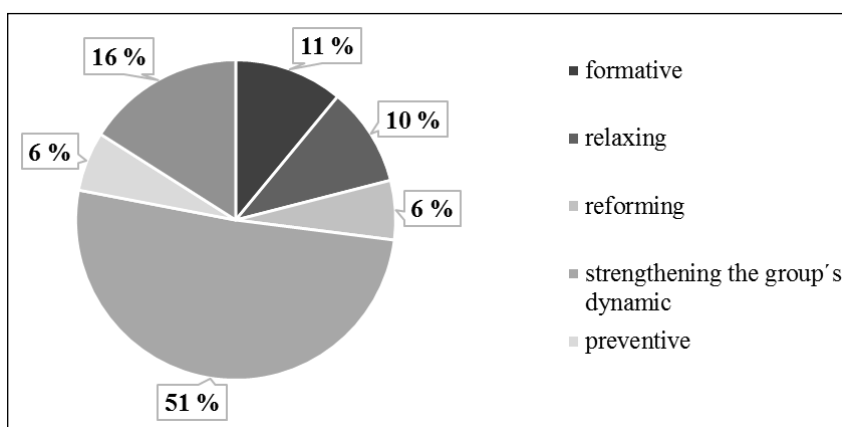
**Graph 4:** Using expressive therapy in my job

The next graph suggests that 76% (48 respondents) actively used expressive therapy in their work. The remaining 17 respondents did not use these therapeutic-formative approaches. It is interesting to note that 3 persons, although they did not have an adequate degree (see Graph 3), include these procedures in their educational activities.



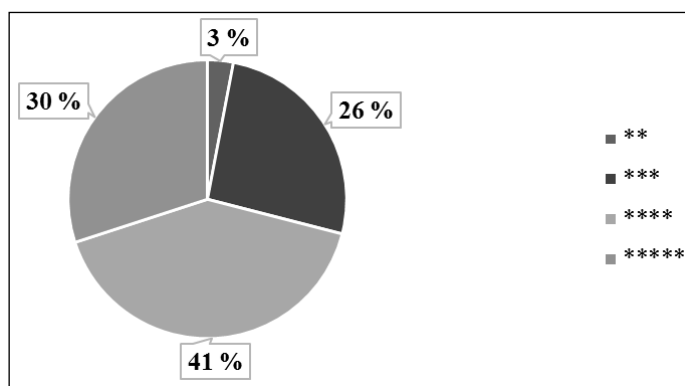
**Graph 5:** The most effective expressive therapy

In item 5 the respondents assigned points to various types of expressive therapy according to their opinion about their effectiveness in the process of inclusion of students with special educational needs. According to the respondents, the most effective was drama therapy, which was awarded a total of 329 points. Art therapy had 285 points, music therapy 261 points, theatre therapy 242 points, and dance and movement therapy 220 points. The respondents believed that the least effective was bibliotherapy, which scored 188 points.



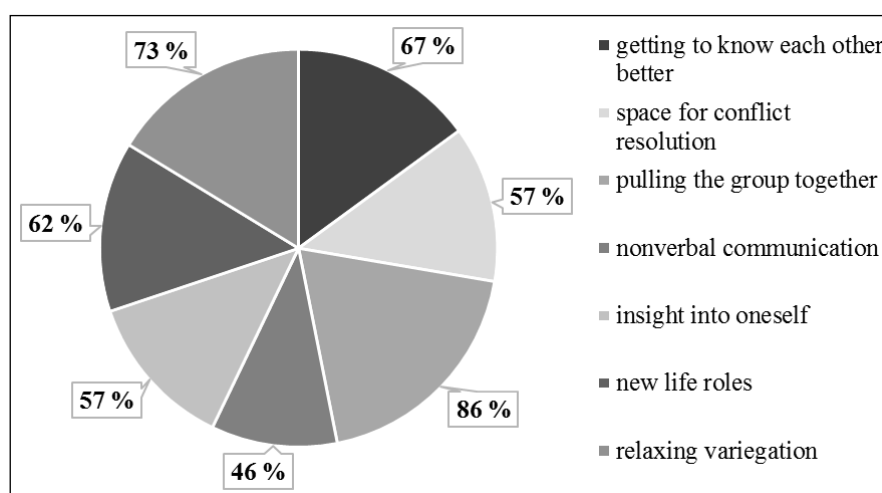
**Graph 6:** The function of expressive therapy in the process of inclusion

In item 6 the respondents selected the functions of various types of expressive therapy in the process of inclusion. More than a half of the respondents (51%) chose strengthening group dynamics. None of the respondents indicated an educational function.



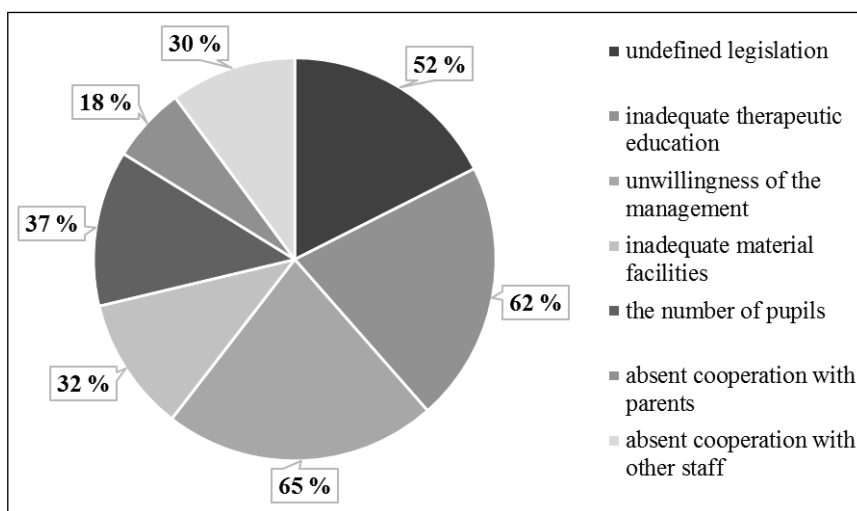
**Graph 7:** Effectiveness of expressive therapy in the educational process

In item number 7 the respondents were supposed to assess the effectiveness of expressive therapy by indicating a number of stars. None of the respondents indicated a negative assessment of one star. The effectiveness of expressive therapy in the educational process was assessed as very positive.



**Graph 8:** Possibilities of expressive therapy in the process of inclusion

Question 8 was a multiple choice item. The reason is that expressive therapy does not have a single defined objective. Therefore, the graph does not represent a 100% unit, but shows the percentages indicated by the respondents for individual functions. 86% of the respondents believed that the most important function of expressive therapy was pulling a group together, followed by relaxation functions, and getting to know each other better.



**Graph 9:** Limits of expressive therapy in the process of inclusion

The last graph No. 9 shows the limitations of using expressive therapy in the educational process. This was again a multiple choice item. The biggest obstacle to the use of expressive therapy was unwillingness of the management to include expressive therapy in the educational process and insufficient therapeutic education.

## 5 Conclusion

The research study confirmed the research assumptions that teachers with a degree in the area of expressive therapy used these therapeutic-formative practices to support inclusion in the educational process. Expressive therapy is most frequently used by special educators; specifically they use drama therapy methods and techniques. According to the respondents, the most important function of expressive therapy was to form the relationships in a group (strengthening of group dynamics). The most significant limitation of expressive therapy in the educational process appeared to be unwillingness of the management to include these practices, and insufficient education in the area of expressive therapy.

## Acknowledgements

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Mgr. Kristýna Krahulcová, Ph.D.  
Institute of Special Education Studies  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: Keenka@centrum.cz



# Determinants of digital inclusion in students with visual impairment in tertiary education

(scientific paper)

Vojtech Regec

**Abstract:** *The aim of the paper is to describe the selected determinants of digital inclusion in students with visual impairment in tertiary education. The research sample consisted of 54 students – respondents diagnosed with low vision, residual vision, practical and complete blindness from the Czech and Slovak Republic. By using mathematical and statistical methods, we have found that the visually impaired students evaluate the accessibility of electronic study materials in the first year of their university studies as worse compared to the visually impaired students in higher years. At the same time, by applying the Pearson product-moment correlation coefficient, we confirmed that there is a significant relation between the satisfaction of visually impaired students with the services of support centres at public universities and their expression of satisfaction with accessibility of electronic study materials.*

**Keywords:** *digital inclusion; student with visual impairment; tertiary education.*

## 1 Introduction

The concept of inclusion first appeared in the 1990's in Europe, in the context of the *Salamanca Statement's* education policy. Following the world conference in Salamanca, organized in 1994 by UNESCO and the Spanish government on the topic of *Special Needs Education*, with the goal "**Education for All**," the governments of 92 countries signed the resolution setting as their goal to achieve a fundamental political change towards inclusive education (Salamanca Statement UNESCO, 1994).

Unlike integration, inclusive education perceived this way no longer focuses on the educational issues of individual pupils or students or on the range of differences, but rather on the society, the group, the structure of the system where the educational

conditions and participation in the inputs into the heterogeneous study group should be organized jointly (Booth, Ainscow, 2007).

Development in the field of access to education in relation to human diversity is determined in summary by Scholz (in Svoboda, 2013) in the following five stages:

- **Isolation (exclusion)**, when a certain group of persons is fully excluded from the educational process based on the determined educational or social criteria;
- **Segregation (separation)**, in which a selective approach is applied to classification of persons with certain disadvantages into individual groups that are educated in special schools, segregated from the education mainstream;
- **Integration** providing the persons with a disadvantage an opportunity to be educated at a mainstream school based on fulfilment of determined criteria and with adequate support provided, aimed at adapting to the majority and at achieving the same results;
- **Inclusion** respecting the individuality of all persons by creating an educational environment that includes all people into society according to the same principle, taking into account the particularities of each individual;
- **Automatic inclusion**, which represents an ideal stage where the diversity of everyone is taken as a matter of course, as a normal and natural part of the society.

Therefore, the shift from integration to inclusion is not only a shift in terminology created in order to achieve political correctness, but also a fundamental change in the view of the issue. Under the conditions of universities and colleges, this represents the shift from the adoption of the standpoint that the obstacles are on the student's part, to adoption of the so-called *social model*, where the study barriers are inherent in the school structures themselves and in the standpoints of the society in general.

Differences in the comparison of integration and inclusion concepts in tertiary education are provided in Table 1.

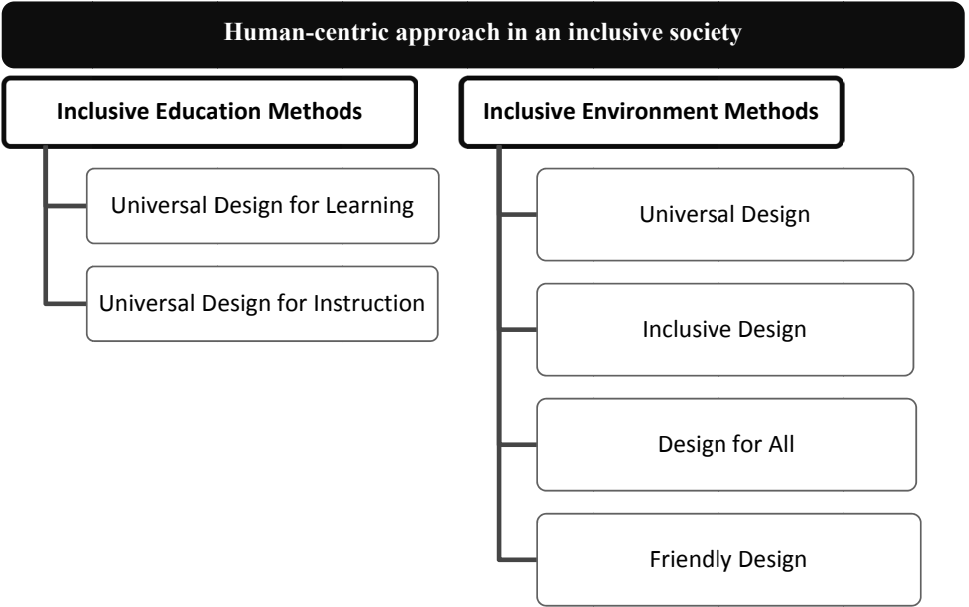
**Table 1:** Differences between integration and inclusion in tertiary education

	<b>Integration</b>	<b>Inclusion</b>
<b>Target group</b>	– Pupils and students with special needs	– All pupils and students
<b>Emphasis on</b>	– Specific needs of pupils and students; – Special educational programs and approach;	– Individual needs of all pupils and students; – Individual educational approach
<b>Position of the pupil and student</b>	– Pupil/student adapts to the majority	– Each pupil/student is accepted as an individuality



<b>Teaching strategies</b>	– Special teaching strategies usable exclusively for pupils and students with special needs	– Special teaching strategies involving techniques usable for all pupils and students
<b>Impact of environment</b>	– Pupil/student adapts to the environment – Partial adjustments to the environment (so-called accessible designing)	– Flexible and adaptable environment; – Overall change to the environment (so-called universal environment)

According to Čerešňová and Rollová (2015), inclusive education is focused on the application of human-centric approaches, where human beings and their values are the centre of the interest and are fully respected. Its main goal is to provide for the current needs of all persons participating in the educational process and at the same time to create inclusive environment in the minds of people as a great guiding principle for the development and future of the inclusive society.



**Figure 1:** Application of human-centric approaches in an inclusive society  
(Čerešňová, Rollová, 2015, p. 13)

**The so-called tertiary level educational process is one of the most complex processes in the teaching practice in general. High demands on the teaching quality**

**is reflected reciprocally in the level of demands placed by the university teachers on the students' learning performances.**

Recently, the Czech and Slovak Republic claim to adhere to the European university education standard, the obligations of which include the provision and mediation of equal involvement of specific needs of students into the university education.

Unlike the lower education levels, there are no “special” universities or colleges in the Czech and Slovak Republic, intended for and fully adjusted to educating students with special needs. Thus, the study usually takes place in form of individual or group integration. As mentioned by Vitásková et al. (2003), improvement of the university education for students with special needs is an integral part of the demanding long-term inclusion process, which, if successful should be concluded by the professional and social inclusion.

## 2 Visually impaired student in tertiary education

According to Slovak legislation (Act No. 131/2002 Coll., as amended, and Methodology for the Breakdown of Subsidies from the State Budget to Public Universities and Colleges for 2016 No.: 2015-23797/65260-3: 15A0), a student with special needs is an individual meeting at least one of the criteria from the classification system (Table 2).

**Table 2:** Classification of students with special needs at universities and colleges in the SR

A1	1 – Sightless student 2 – Partially sighted student
B2	3 – Deaf student 4 – Hard of hearing student
C1	5 – Student with disability of lower limbs
C2	6 – Student with disability of upper limbs
D	10 – Student with autism or other pervasive developmental disorders 11 – Student with learning disabilities
E	7 – Student with chronic disease 8 – Student with impaired health 9 – Student with mental illness

In a similar way (Table 4), individual categories are determined in the Czech Republic (Rules for Providing Contributions and Subsidies to Public Universities and Colleges of the Ministry of Education CR).

**Table 3:** Classification of students with special needs at universities and colleges in the CR

A	<b>Student with visual impairment:</b> <b>A1 – Partial visual impairment/using sight</b> <b>A2 – Severe visual impairment/using touch/voice</b>
B	Student with hearing impairment: B1 – Hard of hearing/using spoken language B2 – Deaf/using sign language
C	Student with physical disability: C1 – Disability of lower limbs (paraplegia) C2 – Disability of upper limbs (fine motor skills)
D	Student with specific learning disability
E	Student with autistic spectrum disorder
F	Student with other difficulties (mental disorder or illness, non-autistic developmental disorders, impaired communication skills, chronic somatic disease)

While it may seem at first sight that the aforementioned classifications strictly respect the medical view, the opposite is true. The medical viewpoint may be taken into account in this classification, however, as the input information only. The so-called **functional principle**, which represents a practical impact of the particular diagnosis on the working, educational or communication approaches and procedures chosen during the university studies, is much more important.

The primary purpose of the approaches and procedures chosen this way is to enable a correct graduation in the field of study and achievement of needed study, work or research results.

Lowenfeld (in Květoňová, 2007) specifies three basic restrictions caused by visual impairment:

1. **Limitation of the scope and diversity of experience** – severely visually impaired individuals are exposed to information deficit for a lifetime. This long-term deficit in meeting the need of visual stimuli may cause sensorimotor deprivation at the mental level;
2. **Limitation of mobility** – the person with more severe visual impairment has two options – either learning to cope with maximum dependence on a guide or starting to become independent through mobility training;
3. **Reduction of control of environment and oneself in the environment.** This last restriction is of social nature, expressing in the interpersonal relationships primarily.

As Litvak (1979) aptly points out, the sensoric disorder does not have to influence the whole development of personality and does not have to change and transform it radically. Požár (1997) states that the stable components of personality such as focus, abilities, temperament and nature, are only related to the visual impairment indirectly, or some of the features may express in a certain way due to the approach to the person or their impairment itself. In some of the cases, this relation is conditioned by deficiencies in the field of insufficient sensory learning and negative experience in the field of cognitive and orientation activities (e.g. fear of anything new, inappropriate parenting methods, long-term stay in a larger group of people other than family and last but not least, unsatisfactory experience in the effort to make contact with sighted persons). In this context, Květoňová (2007) states that under normal upbringing and education approach and corresponding social interaction, the core of personality should develop without any variations. Therefore, the impairment of visual functions is not an ultimate obstacle to building or developing a full-valued personality.

**Tertiary education of visually impaired students not only assumes but also necessitates the creation of suitable conditions considering their special needs.**

Minimization of the particular restrictions may be ensured by using the special compensating aids, adjusting the work environment, by erudition of teachers, adequacy of the work forms and methods. Teacher should be informed about the student's visual condition and about the nature of their impairment (sight functionality and possible use), about the impact of their visual condition on the visual functionality (sensitivity to light, colour recognition, font size), about the student's visual acuity; about the use of special equipment and compensating aids (dictating machine, computer, Braille writing equipment), about the procedures available to the student in their work (note recording system, entitlement for assistance), about the need to extend the time for work, about the need to verbalize their actions, about the preparation and adaptation of materials, etc. (Lopúchová, 2007).

From the position of a visually impaired student admitted to university studies, the following may appear as challenging:

- **Spatial orientation** (orientation in the university or college building/buildings, mobility in the university building or student halls of residence, in the canteen, in the library, etc.). The support measures to enable spatial orientation and mobility may include the aid of an assistant (at least for a certain period), navigation system in the building, maps on individual floors, etc.;
- **Getting to know the teachers and fellow students.** Possible difficulties in social contact resulting mostly from the unfamiliarity of the principles of social contact

with a visually impaired on the part of intact persons. The possible solution is to raise awareness of the rules of social contact (Květoňová, 2007).

The information deficit has its pitfalls in the access to information, which does not cause any issues to sighted persons (notice boards, door labels, sheets with consultation hours, dates of credit tests and exams, etc.). There is a solution available for these situations – publishing information on the websites; descriptions on doors and rooms in Braille. However, the difficulties concerning the availability of study literature and other visual information are more serious. The possible solution here is to digitalise the texts, which is being implemented by several specialized workplaces at universities and colleges. In addition, the content of lectures, references to graphs and images and the exams themselves are challenging. For lectures or workshops, we recommend borrowing the presentation in electronic form to the student; for exams, the text can be prepared in digital form. Verbal exams are usually not an issue.

The main institutions making effort to improve the aforementioned conditions include the **support centres**, which currently operate at several Slovak and Czech universities and colleges. Thanks to these centres, an increasing number of students with special needs can study at universities and colleges every year.

### 3 Research Background

The aim of the research is to describe the selected determinants of digital inclusion in students with visual impairment in tertiary education. We focused on the specifics in the field of subjective perception of electronic accessibility of the university environment in individual years of study. In order to clarify the purpose of support centres in the field of digital inclusion, we analysed possible significant mutual correlations concerning the student satisfaction with the services and the level of their satisfaction with the availability of study materials. Separately, from the visually impaired student's point of view, we monitored the differences regarding accessibility of university websites and electronic study administration systems.

#### Research sample

The research sample consisted of 54 respondents (students) with different degree and type of visual impairment, studying at universities and colleges in the Czech and Slovak Republic. The broader classification of respondents was differentiated (in compliance with the 10th review of the WHO classification) in the categories as follows:

1. Medium low vision (visual acuity 3/10–1/10);
2. Strong low vision (visual acuity 1/10–1/20);

3. Severe low vision/practical blindness (visual acuity 1/20–1/50 or bilateral concentric visual field constriction under 20 degrees, or monolateral constriction of the only functional eye under 45 degrees);
4. Practical blindness (visual acuity 1/50 – light perception);
5. Full blindness (no light perception).

For the purposes of mathematic and statistical data processing and interpretation of results, we used the following basic three-stage classification taking over the selected categories also from the special education terminology:

- Practical or full blindness;
- Residual vision;
- Low vision.

Table 4 below provides distribution of the research sample by the basic three-degree classification.

**Table 4:** Distribution of respondents – students by the degree of their visual impairment

Degree of visual impairment	Number of respondents (n)	Relative number (in %)
Practical/full blindness	18	33
Residual vision	21	39
Low vision	15	28
<b>Total</b>	<b>54</b>	<b>100</b>

Apart from the degree of visual impairment, we examined the preferences of respondents for using their senses when working with electronic information. We found that, apart from auditory perception, 13% of the respondents use the sense of touch exclusively and an additional 20% mentioned the sense of touch as one of the primary senses and sight as the secondary sense in using the assistive technologies.

The number of visually impaired students participating in the research study from the Slovak Republic was 14.8% lower compared to students from the Czech Republic.

**Table 5:** Distribution of respondents by countries (n = 54)

Country	Number of respondents (n)	Relative number (in %)
Czech Republic	31	57.4
Slovak Republic	23	42.6
<b>Total</b>	<b>54</b>	<b>100</b>

In terms of gender, we recorded a higher number of male respondents. When comparing the relative number, this difference amounted to 26%.

**Table 6:** Distribution of respondents by gender (n = 54)

Gender	Number of respondents (n)	Relative number (in %)
Female	20	37.0
Male	34	63.0
<b>Total</b>	<b>54</b>	<b>100</b>

### Research methods

For the purpose of identification of other specific aspects of e-Accessibility as well as the selected digital barriers from the position of visually impaired respondent (student), we used the questionnaire method. Replies from the respondents were obtained by a questionnaire, as a written method of asking questions and receiving written answers (Gavora, 2008).

For the research purposes, the questionnaire was created in several accessible electronic formats. When replying to the questions, the respondents could select the questionnaire in the form of online web form or text document in RTF, ODT or DOC formats. In order to ensure higher return rate of the distributed questionnaires, we cooperated not only with the universities themselves but also with workers and associates of non-government non-profit organizations (Slovak Blind and Partially Sighted Union, Training School for Guide Dogs, Tyflocentrum), providing consulting and other specialized services for individuals with visual impairment in the Czech and Slovak Republic.

### Research hypotheses

During our research, we established the following 3 research hypotheses.

#### **H1 Students with visual impairment in their first year evaluate the accessibility of electronic study materials at university worse than the students in higher years.**

Operationalized statistic hypotheses to the research hypothesis 1:

- H0 There is no statistically significant difference in the subjective evaluation of accessibility of electronic study materials between the visually impaired students in their first year of study and in the higher years.
- HA There is a statistically significant difference in the subjective evaluation of accessibility of electronic study materials between the visually impaired students in their first year of study and in the higher years.

**H2 There is a significant relation between the satisfaction of visually impaired students with the services of support centres at public universities and their expression of satisfaction with accessibility of electronic study materials.**

Operationalized statistic hypotheses to the research hypothesis 2:

- H0 At the level of significance 0.01, there is no significant correlation between the satisfaction of visually impaired students with the services of support centres at public universities and their expression of satisfaction with accessibility of electronic study materials.
- HA At the level of significance 0.01, there is a significant correlation between the satisfaction of visually impaired students with the services of support centres at public universities and their expression of satisfaction with accessibility of electronic study materials.

**H3 The subjective satisfaction rate of visually impaired students is significantly higher regarding the accessibility of the university website compared to the electronic study administration system.**

Operationalized statistic hypotheses to the research hypothesis 3:

- H0 There is no statistically significant difference in the subjective satisfaction rate of visually impaired students with the accessibility of the university website compared to the electronic study administration system.
- HA There is a statistically significant difference in the subjective satisfaction rate of visually impaired students with the accessibility of the university website compared to the electronic study administration system.

## **4 Results**

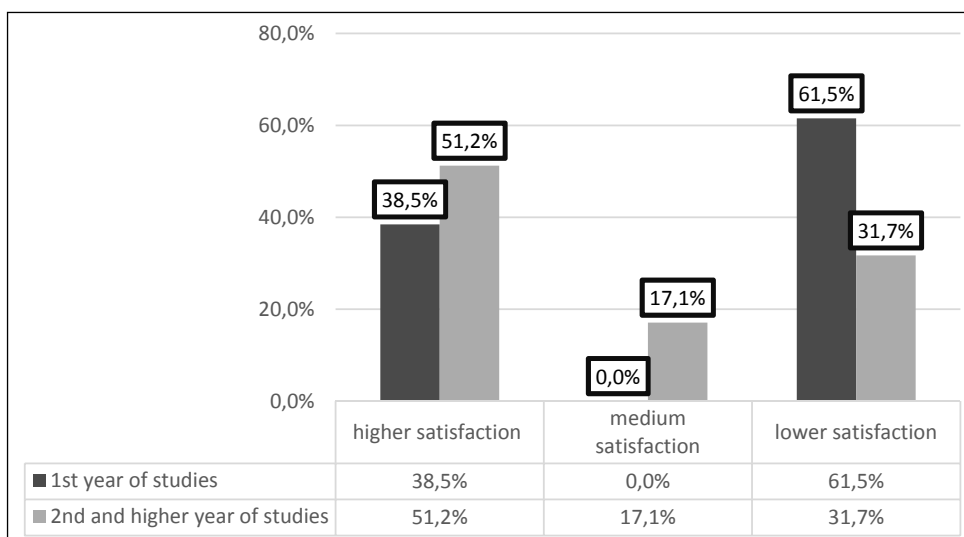
Hypothesis 1 test results.

***Students with visual impairment in their first year evaluate the accessibility of electronic study materials at university worse than the students in higher years.***

Based on the comparison of relative numbers, we may state that the subjective satisfaction rate of visually impaired students with e-Accessibility of electronic study materials increases with the increasing year of study at university or college.

These results do not have to prove automatically an improving level of e-Accessibility of the university study materials. The result may be explained by an improving ability in the field of utilising the assistive technologies and the increase of skills of the students in higher years to overcome digital barriers. This opens a question related to the task of support centres at universities and colleges regarding the cooperation with visually impaired students in overcoming the said digital barriers.





**Figure 2:** Comparison of the relative numbers regarding satisfaction with the accessibility of electronic study materials in the 1<sup>st</sup> year and the higher years of study

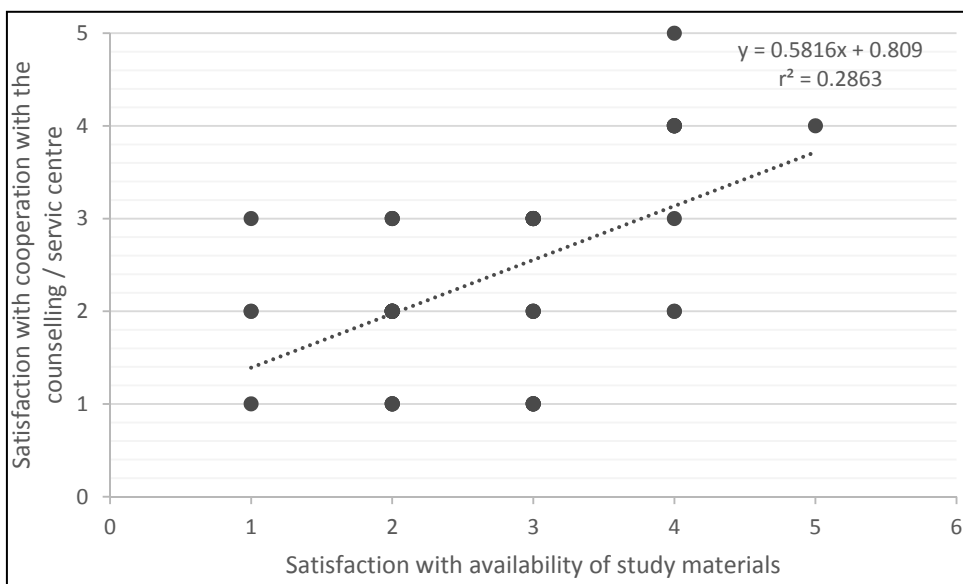
When comparing individual results between the 1<sup>st</sup> year and the higher years of study,  $\chi^2$  (after Yates' correction) achieved the value of 4.812, which is lower than the critical value (5.991) at the significance level of 0.05 (2 degrees of freedom). Therefore, we reject the alternative hypothesis and accept the null hypothesis.

**Conclusion:** Students with visual impairment in their first year **do not evaluate the accessibility of university electronic information worse** than the students in higher years.

Hypothesis 2 test results.

***There is a significant relation between the satisfaction of visually impaired students with the services of support centres at public universities and their expression of satisfaction with accessibility of electronic study materials.***

The rate of closeness of the relation between the variables was evaluated by using the *Pearson Correlation Coefficient* (Figure 3).



**Figure 3:** Illustration of the correlation between individual rates of satisfaction of visually impaired students at the public universities and colleges in the CR and SR

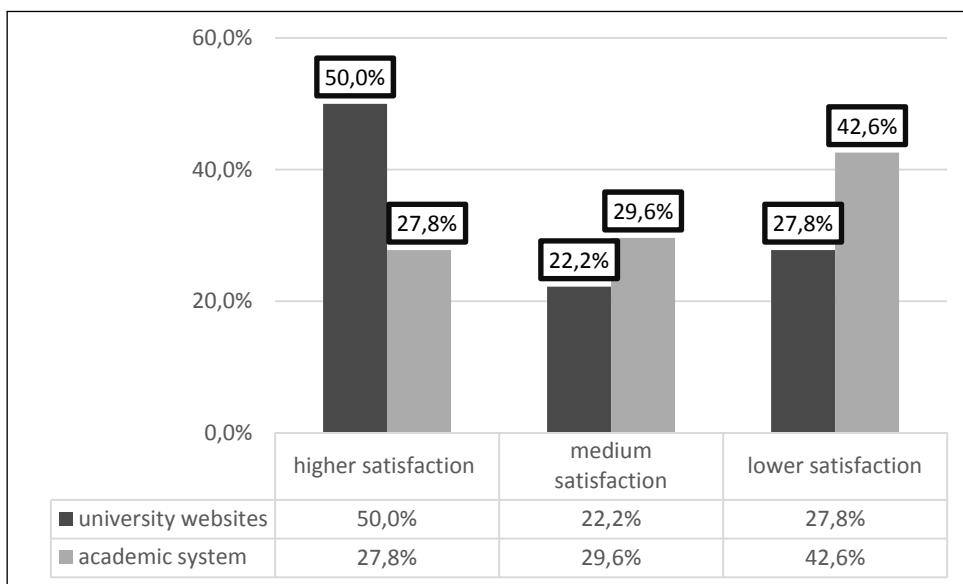
The correlation analysis results in the correlation coefficient of ( $r$ ) 0.535. Compared to the table value  $r_k = 0.361$  (at the significance level of  $\alpha = 0.01$ ), the calculated correlation coefficient value ( $r$ ) is higher. Therefore, we reject the  $H_0$  and accept  $H_A$ .

**Conclusion:** There is a **significant relation** between the satisfaction of visually impaired students with the services of support centres at public universities and their expression of satisfaction with accessibility of electronic study materials.

Hypothesis 3 test results.

*The subjective satisfaction rate of visually impaired students is significantly higher regarding the accessibility of the university website compared to the electronic study administration system.*

Based on comparison of the relative numbers, we may state that the highest discrepancy rate between the variables was evaluated at the higher satisfaction level.



**Figure 4:** Comparison of relative numbers in the satisfaction level among visually impaired students with accessibility of the university websites and the electronic study administration systems

Based on the results,  $\chi^2$  (after Yates' correction) achieved the value of 5.684 (Annex 13), which is lower than the critical value (5.991) at the significance level of 0.05 (2 degrees of freedom). Therefore, we reject the alternative hypothesis and accept the null hypothesis.

**Conclusion:** The subjective satisfaction rate of visually impaired students **is not significantly higher** regarding the accessibility of the university website compared to the electronic study administration system.

## 5 Discussion

Based on our findings, we may conclude that the academic workplaces providing support to students with special needs have a high potential in solving the issues of digital inclusion in tertiary education. In this context, the practical issue is to ensure the specialized services across all the universities and colleges in compliance with the strictly defined quality standards.

The process of elimination of the digital barriers impact is limited by the fact that the specialized support and counselling centres for persons with specific needs are not operating at all universities and colleges in the Czech and Slovak Republic. Therefore, we definitely recommend every university and college to actively cooperate

with an expert on information technology accessibility. Several extended electronic systems (e.g. IS Stag/Portal; Moggis, MAIS, AiS2, ISKaM; WebKredit) contain digital barriers preventing the visually impaired students from participating fully in tertiary education.

The experience from abroad clearly proves that there is no exact boundary between “admissible” and “inadmissible” fields of study for an individual with severe visual impairment. In this context, the story of a blind student (Cordes, 2010), who earned his Doctor of Medicine degree (abbreviation MD) at University of Wisconsin School of Medicine and Public Health represents a very positive example. Subsequently, he also earned the academic title, PhD. This example is a great challenge as well as acknowledgement that the inclusion of persons with health disability cannot be limited to rigid schemes determining which academic fields are permissible and acceptable for individuals with severe visual impairment.

## 6 Conclusion

Electronic accessibility affects the level of involvement of the visually impaired students in digital processes in tertiary education. The rapid and massive development of electronic processes (such as the academic information systems, digital catering and accommodation information systems, electronic educational and teaching systems, etc.) have brought potential benefits for the inclusion of visually impaired students within tertiary education. In this context, the **electronic platform** itself, having a high potential to meet the requirements of severely visually impaired students, is the key determinant. (Regec, 2015; Regec 2016)

It is not desirable for the universities and colleges to perceive the requirement for accessible electronic environment for visually impaired individuals as unfounded or “illegitimate”. Another widespread practice is the differentiation of the fields of study based on suitability, *acceptability* or *unsuitability* (*inacceptability*) for visually impaired individuals. As a result, the initiatives aimed at providing accessible electronic content in compliance with the requirements of severely visually impaired individuals (residual vision, practical or complete blindness) are being described as irrelevant. We consider the legitimisation and approval of digital barriers due to the focus of the field of study, assuming it to be unsuitable for visually impaired students in advance, as incorrect and contradictory to the inclusion policy.

## Acknowledgements

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(reviewed twice)

PhDr. Vojtech Regec, Ph.D.  
Institute of Special Education Studies  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: vojtech.regec@upol.cz



# Music therapy groupwork with special needs children: The evolving process

GOODMAN, K. D. (2007). *Music therapy groupwork with special needs children: The evolving process*. Charles C Thomas Pub Limited.

(book review)

**Reviewed by Yue Lu**

Professor Goodman, when the book was published, was an associate Professor of Music therapy at Montclair State University. Now, she is a professor focusing on music therapy education and training. She has much clinic experience as a music therapist and a special education teacher. Based on her previous research, she wrote this book to meet the realistic demands from people who need to conduct group music therapy with children with special needs.

The first chapter of this book presents a full view about one of the author's music therapy groupwork cases. It makes readers keep thinking of "Unanswered questions" and maintain those questions to other chapters. The second chapter reviews literature on assessment. It provides alternative ways for therapists to consider what appropriate assessment for each child is. With reference to assessment results, clinicians can determine the intervention plan. The third chapter is about how therapists determine the placement of children in music therapy sessions, individual or group ones. The author presents the nature of music therapy groups and describes four factors to be considered while recommending a child either an individual or a group music therapy. The fourth and the fifth chapters offer explicit steps for therapists to develop music therapy goals and objectives in group settings. There are 4 case studies to illustrate the process of formulating long-term goals and objectives. The author offers a very practical perspective of using appropriate language to establish group music therapy goals in different clinical settings. The sixth chapter introduces all the considerations in selecting and adapting materials for music therapy: vocal, instrumental, movement, listening and musical drama. Sample materials for children with different functional levels are listed in this chapter. Music therapy materials are introduced in the appendix after the eighth chapter as well. An important concept, Continuum of Music Response (CMR), has been presented for therapists to conduct

group music therapy sessions while anticipating different responses from different children in the group. The seventh chapter discusses all the variables of music therapy methods, especially practical strategies related to different population groups and suggestions linked to goals and objectives for all group members. The last chapter discusses the purposes of evaluation and provides three types of evaluation for group music therapy. The lack of music research in special education is emphasized again.

Although clinicians such as Nodrdoff and Robbins have done a great deal of groupwork since the 1970s, the literature regarding the theories and practices of group music therapy for children with special needs is still limited. This book can be very useful thanks to its logical structure and practical description for beginning therapists or educators who train students for group work with special children. In every part of the whole groupwork, based on a sequence of definition of concepts and theories, the author offers abundant case examples to illustrate the process of thinking and working step by step. As this book described, the key steps scheduled for the group music therapy could be concluded as follows:

1. Decide individual or group music therapy with 3 factors: development age, sensory profile and musicality.
2. Set goals according to the following 4 steps:
  - Step 1: A) Review of team information.  
B) Organization of ideas with the developmental grid.
  - Step 2: Evaluating group priorities.
  - Step 3: Evaluation priorities for group music therapy goals.
  - Step 4: Considering stumbling blocks.
3. Formulate objectives with quantitative criteria.
4. Choose appropriate materials to accommodate the developmental needs of the child in the group.
5. Consider methods linked to goals and objectives.
6. Complete a session plan.
7. Implement the session.
8. Measure the progress with 3 types of evaluation: weekly objective, weekly subjective and progress report.
9. Modify the treatment approach or revise the treatment plan as necessary.

The author always discusses possible questions in the practical settings and offers methods, perspectives and case examples of solution. This book can be used as a practice manual. Nevertheless, since this book was published in 2007, readers should realize that there are some changes of definition or classification of children with special needs and research progress as well.



Mgr. Yue Lu  
Department of Music Education  
Faculty of Education  
Palacký University  
Tř. Míru 113, Neředín  
779 00 Olomouc  
Czech Republic  
e-mail: moonluyue@qq.com



# Current approaches in drama therapy

JOHNSON, D. R., EMUNAH, R. (2009). *Current Approaches in Drama Therapy*. 2<sup>nd</sup> ed. Springfield, Illinois, U.S.A. ISBN 978-0-398-07847-8 (hard), ISBN 978-0-398-07847-5 (paper).

(book review)

**Reviewed by Jiaojiao Wu**

This second edition of *Current Approaches in Drama Therapy* was published in 2009, though not all approaches are included in this book, we are aware of the continued growth of profession and expanding the body of knowledge in the field of drama therapy. As the authors said, the rapid transformation of our local and global cultural environments will continue to challenge our creativity and flexibility in adapting drama therapy methods to the changing needs of clients and society. Each approach in this book is at the same time a unique set of ideas and methods, and a variation of the fundamental processes that underlie drama and psychotherapy. It will be through an active dialogue among these perspectives that our profession will continue to mature.

The approaches were selected on the basis of the fact that they have been taught and utilized at universities and institutes, presented at national conferences, and published in professional journals. Writing of each chapter including theoretical and conceptual premises, as well as case examples is authorized by the founder or a key proponent of that approach.

A total of three sections are included in this book. Section I provides a context for the state of the field of drama therapy. The first chapter describes the history and development of the field in North America. The second chapter discusses stages in professional development and theory building. A third chapter is about the current state of the field, which detailedly examines advances in clinical practice, especially over the past decade, emerging areas of interest, and challenges for the future. To articulate the similarities and differences among various methods, in section II, 14 specific current approaches to drama therapy, including the following: the integrative five phase model of drama therapy; role theory and the role method; developmental transformations toward the body as presence; comparing among ritual, theatre and therapy; drama therapy in collective trauma and intercultural conflict resolution;

narrative approach; omega transpersonal approach; psychoanalytic approach; the developmental themes approach; the enact method of employing drama therapy in schools; the stop-gap approach; John Bergman's creating therapeutic communities in prisons; rehearsals for growth, a therapeutic improvisational activities, particularly the use of interactive theatrical games; and performance in drama therapy, which offers many opportunities for personal growth. Section III describes related approaches, namely, the psychodrama, sociodrama, playback theater and theater of the oppressed, each of which has had significant influence on drama therapy practice despite their founders not identifying as drama therapists. Ultimately, index of drama therapy concepts and subject index are listed in the end of the book.

The book offers experienced practitioners and board certified trainers of drama therapy, as well as students and newcomers to the field, an articulation of theoretical and clinical approaches to drama therapy practice. This is therefore recommended as a basic text to construct the body of knowledge in the field of drama therapy. Simultaneously, we cannot ignore that, for the past few years, drama therapists enlarge the clients group in different kinds of settings, expand approaches to drama therapy, and focus more on assessment in the field.

Mgr. Jiaojiao Wu  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: joannahwu@gmail.com

# The child personality in the context of hearing loss

POTMĚŠIL, M. *Osobnost dítěte v kontextu sluchové vady*. Olomouc: Univerzita Palackého v Olomouci, 2015.

(book review)

**Reviewed by Jana Zvěďělíková**

The publication analyses and describes the issue of personality of a child with hearing impairment, currently often discussed topic in practice. In the psychological diagnosis of children with hearing impairment, it is usually not clear whether the result is caused by hearing loss (and with this hearing loss associated imperfect ability to read with comprehension), or by the cognitive abilities of the child. Therefore, the diagnostic results may be inaccurate. The aim of this publication is to adapt the test of personality for people with hearing impairments. The publication contains 227 pages and is divided into 12 chapters that logically follow and are interdependent. The basic theoretical information is found in the first six chapters. In following chapters we are deepening our previously gained knowledge about information of our work experience.

In the first chapter the author defines the theory of *Personality psychology*. He mentions different approaches to personality during history, describes personality traits, personality model called “Big Five” and its transformation in the development and translation into other languages. While the describing the personality he also comes to the concept of personality according to Eysenck and to the B-J.E.P.I. test. This test was in the context of this work used and adapted to the population of pupils with hearing impairment. After the theoretical frame of personality, the author gets to a reflection of personality in educational psychology. He focuses on the school psychologist’s view, the limitation of development of children with disabilities caused by the special schools environment and the need of boarding school life, from which the lack of alternating social roles and other aspects that affect the development of the person stems.

The second chapter discusses the pedagogical methods and specific issues of children’s diagnosis, which also includes communication and communication competence of children. The author mentions the basic overview of the main principles of

investigation in psychology, the requirements on psychologist working with children and the structure of the examination. Due to the defective hearing he emphasizes the need for effective communication, taking into account the specifics of personality traits and age of the child.

In the third chapter, the author describes *The ethical principles of psychology* and the ethic code of the American Psychological Association and compares it with the famous Code of Ethics of the Czech-Moravian Psychological Society.

The fourth chapter is called *B-J.E.P.I. – Eysenck's Scale*. The B-J.E.P.I questionnaire, as mentioned above, was adapted for this work. The formation of this questionnaire the author describes in the first chapter. This chapter describes a specific description of this instrument. He outlines the 1994 version, which is aimed at 9–14 years age group. He describes the range of extraversion – introversion, instability – stability (neuroticism), psychoticism and the lies score. He mentions the way of administration of the questionnaire and its adaptation for children with hearing impairments.

In the fifth chapter *Children with hearing impairment* the author describes the basic special education of people with hearing theory and its reflection in psychological practice. In connection with the characterization of the personality of a child with a hearing impairment and his self-image, he also emphasizes the need of being knowledgeable in the Deaf culture which is described here. He describes the principles of psychological diagnosis and intervention in children with hearing impairments case. He refers to the time factor, communication, the respect for preferred communication style, the clarity and respect for client's conceptual bank. Breaking of these principles may lead to wrong conclusions in psychological diagnosis. The author also deals with the theoretical basis of hearing impairment and its impact on the personality, the development of personality and the psychomotor development of children with hearing impairments, he mentions the issue of inclusive education. He also focuses on a family as a factor influencing the personality of a child with a hearing impairment not ignoring the concept of family from the perspective of children with hearing impairment. The chapter is enriched with the research carried out in the last four years. Specifically it is the research on the reflection of family relations and the research on the family position in value system. At the end of the chapter he introduces the targets and tasks of a psychological support for families with children with hearing impairment.

In consideration of the need to follow the principles of respecting the communication style in psychological diagnosis and intervention, the sixth chapter is devoted the *Communication for people with hearing disabilities*. He encounters two problematic areas from the perspective of educational psychology. The first problematic area is the communication as an adequate tool for diagnosis. The author asks whether the psychological diagnosis is not adversely affected by the communication competencies and the selected communication mode. The second area is the Communication

and its effectiveness in the educational process. Author also mentions a legal right to communicate in a sign language, that special schools meet, but has doubts about the level of control of sign language by the teachers as their tool for effective communication. He also defines an oral approach, total communication, bilingual approach, integrated communications approach in education and communication approaches for cochlear implant users.

The chapters from seven to ten are devoted to research. The chapter called *Research focused on the personality of hearing impaired children* describes the target of publication, which obtained data for editing B-J.E.P.I. personality test, the verification of modified version, comparing to the intact group and the subsequent explanation of some differences. Based on the results, the author elaborated standards for the population with hearing impairment and updated existing standards for majority populations. The adapted version has identical content like the original version, it differs only in linguistic adjustment. The author mentions the problem in the administration and in the results, which connects to the communication competences of individuals. He states a concrete example and a comparison of communication skills for people with hearing disabilities, namely hard of hearing and deaf individuals. He emphasizes that the evaluation of verbal-cognitive abilities of an individual must not be negatively impacted by their hearing defect on a language acquisition. The standardized B-J.E.P.I test and its limits for people with hearing impairments is presented here.

In the next two chapters, the author describes a *Method of data processing*, where he describes particular steps to create a questionnaire B-J.E.P.I.-SP (modified questionnaire for children with hearing impairment). He describes how to verify the reliability and validity of the test and research group, which was formed by students with hearing disabilities from special schools aged 9–15 years. The author received data that correspond to 85% of the population of children with hearing impairment in the Czech Republic. He presents here a research group a in graphical form. The next chapter presents results of the research, which confirms the reliability and validity of B-J.E.P.I.-SP test, thus confirming usefulness for diagnosing children with hearing impairments. All calculations are shown in tables supplemented with comments.

The last chapters are *Conclusion and directions of other research activities*. The author summarizes the targets of the work and presents its results.

The author in the publication provides new insights into the field of educational psychology. He represents the first diagnostic tool that allows you to test the personality of hearing impaired children. B-J.E.P.I.-SP test is valid and is reliable. The most accurate description of the personality of a child with a hearing impairment is very important for psychological and special educational intervention. This publication should be a very important component in all special educational centres for the hearing impaired people and all psychologists who work with children with hearing

impairments. This publication is an interesting material for students of psychology and special education. And that is not only because of its content, but also because of the fact that all chapters are enriched by the latest surveys of discussed problems.

Mgr. Jana Zvěďelíková  
Institute of Special Education Studies  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic



# Sound base of speech communication: phonetic and phonological description of speech

SKARNITZL, R., ŠTURM, P., & VOLÍN, J. (2016). *Zvuková báze řečové komunikace: fonetický a fonologický popis řeči*. Praha: Karolinum. ISBN 978-80-246-3272-8.

(book review)

**Reviewed by Lucie Šebková**

„Phonics is an interdisciplinary field that applies findings of other scientific branches in its research, and the results of phonetic research can be beneficial to these branches“, which is followed and presented in the publication. The text is to revise book overlapping to the field of speech therapy and surdopedia.

The publication brings a unique perspective on articulation, since it does not only acquaint the reader with the phonetic and phonological description of the language, but it also analyzes prosodic speech factors. You can hardly find a complete and detailed description of prosodic factors in the Czech literature, moreover, in terms of acoustics and psychoacoustics. From the perspective of contemporary speech therapy, which views its subject in the context of the pragmalinguistic trend which highlights the pragmatic level of communication, the chapters focusing on prosodic speech factors are very topical. The emphasis is put on the accent and speech rhythm, melody of speech, its physiological essence, perception and function. A melodic inventory of the Czech language is characterized as well.

The first chapter explains the basic sub-disciplines of phonetics and a relationship of phonetics and phonology in a historical context. According to the authors using of articulation phonetics and phonology can be found in speech therapy. The term speech therapy was probably coined before the literal translation of the English ‘speech therapy’.

Another chapter of the book is devoted to speech production in the anatomical and physiological description. Phonation system is simplified, one example may be the statement that “phonation system creates audible oscillations, ie sound” from the air coming from the lungs. I would recommend this part more itemize since the current theory on the origin of the voice is more complicated and is based on the histological structure of the vocal cords which consist of more than two parts. Here

we will also find terminological inaccuracies resulting from literal translation. For example: "The corners of the mouth are pulled up by the facial muscle, ie. the muscle of laughter." It is not a facial muscle, but the mimic one.

The aim of the third chapter is to show the relationship between objective acoustic and subjective psychoacoustic dimensions. The use of the knowledge of psychological disciplines in the perception of speech and voice is a challenging area which attracts an interest not only of professionals from various fields but also of the general public.

From the perspective of a speech therapist I also consider the fourth and fifth chapter of the book informational beneficial and enriching, not only the last chapters dealing with the prosodic speech factors. The fourth chapter summarizes the previous facts and features articulation, acoustic and perceptive description of the individual sounds not only of the Czech language. Characteristics of the initiation mechanisms in the production of speech sounds are interesting. The fifth chapter defines assimilation as well as co-articulation which is often an ignored concept, no matter how influential it is on the production of speech.

The publication titled Sound base of speech communication: phonetic and phonological description of the language is unique because of its current and comparative view on the issue. In my opinion it is intended for professionals of a broad spectrum of expertise. The book is written in the professional language; therefore it can be used and read as a study text.

Mgr. Lucie Šebková  
Institute of Special Education Studies  
Faculty of Education  
Palacký University Olomouc  
Žižkovo náměstí 5  
771 40 Olomouc  
Czech Republic  
e-mail: lucie.sebkova@upol.cz

# Information for authors



## Basic information about the JEP

*Journal of Exceptional People (JEP)* should be based on 2 times a year publishing period in both electronic and traditional – printed form. To guarantee professional standards of the Journal we have applied to the front of special needs teachers, psychologists, therapists and other professionals in the U.S., Finland, Spain, Slovakia, Hungary, China, Russia, Poland and other countries. Above mentioned scientific journal aspires to be registered into the international database of impacted periodicals (Journal Citation Reports).

*Journal of Exceptional People (JEP)* will provide research studies and articles on special education of exceptional people. This area covers individuals with disabilities and, on the other hand, gifted persons. The *Journal* will focus on publishing studies and articles in the field of education, social science (sociology) and psychology, special thematic issues and critical commentaries. The publishing language of the *Journal of Exceptional People* is to be English exclusively.

The periodical is going to be published since the year 2012 by the **Institute of Special Education Studies, Palacký University Olomouc, Czech Republic.**

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The list of literature and references to resources ought to follow these norms and directives: ČSN ISO 690 and ČSN ISO 690-2 or Publication Manual of the American Psychological Association APA.

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