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## **Journal of Exceptional People**

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# Introduction

Dear readers,

in front of you, you have a new spring issue of *The Journal of Exceptional People*, where our editors tried to include interesting articles about „extraordinary“ people. We strive for this selection to be varied and, as far as possible, to include contributions from the largest part of the world of special education. Our editorial team also aspires to continue to improve the quality of our magazine by the effort to maximize the inclusion of JEP in indexed databases of internationally acclaimed and reputable magazines.

In this issue, first we publish an article by the Nigerian author (Orim, S.) on the assessment of the literacy of children with special needs in his country. This is followed by the contribution of the Czech author K. Pančocha, which deals with the assessment of the complex behavior of children with special needs. The content of the following contribution by three Czech authors is the quality of life of these people in the context of their physical activity (Wittmannová, J., Klimešová, I., Piňosová, L.). The formation and process of identity of migrants is followed up in the study of Slovak author I. L. Lištiaková. The following interesting article introduces us the subject of addictions and dramatherapeutic interventions (Krahulcová, K., Štěpánová, B.). Emotional problems and behavioral disorders are described by K. Červenka from Masaryk University Brno (Czech Republic), who notes in this context the role played by the personality of professional workers working with these children with behavioral disorders. Physical and orthopedic problems in visually impaired people are described by K. Tománková, H. Majerová, V. Švecová and V. Regec (Palacký University, Olomouc, Czech Republic).

The development of adaptive functional education in children with intellectual disabilities is dealt with by the Chinese author X. Bo. Further article

of Chinese authors Li Yun and Zhang Guodong is named *Survey on Physical Education Student Teachers' Attitudes toward Teaching Students with Special Needs* and is focused on the investigation of interrelation between teachers and their students in physical context.

A number of professional scientific studies and review essays is ended by D. Kilduff from the Ostrava University (Czech Republic), which deals with the diagnosis of women with severe vision impairment.

12th issue of our magazine is concluded by two book reviews. L. Schwarz notes publications on structured learning, and M. Smolíková recommends reading a publication dealing with Asperger syndrome.

We just wish you a pleasant reading and believe that you can choose what you are most interested in in this selection of articles.

Have a nice spring

Pavel Svoboda, Jan Chrastina

# Evaluation of special needs education literacy for sustainable change in service delivery to persons with disabilities in University of Calabar

(overview essay)

**Orim, Samuel Orim**

***Abstract:** This study evaluates the level of special needs education literacy for sustainable change in service delivery to persons with disabilities in University of Calabar. It was guided by a research question, 180 Participants were randomly sampled from faculties and Institutes and open-ended questionnaire was designed, validated and used as instrument for data collection. Survey design and descriptive statistics were used as research design and statistical tool for data analysis. The findings reveal that majority of staff lack basic special needs education literacy; consequently, their services to persons with disabilities in different programmes in the University are inefficient. Based on the findings it was recommended among others that disability literacy awareness programme (DLAP) and blue print on disability should be developed, implemented and monitored as road map to ensuring fundamental literacy among staff in the University.*

***Keywords:** Special Education, literacy, disabilities*

## 1 Introduction

Exceptionality is a norm in human existence or society. Therefore, any society without persons with disabilities (PWDs) is an abnormal, not worthy of habitation. While people may not want to see persons with special needs particularly those with disabilities, the reality is that they are needed to make the society a balanced one. This is also applicable to educational institutions especially in this era of Inclusion, increased universal access to education and renewed agitations for equal rights to all citizens with or without disabilities.

Exceptionality as mother term in special needs education is significant deviation from the presumed norm in intellectual ability social and physical growth and development of humans in a particular society. This deviation has two ends, the

positive(giftedness ) and negative(disabilities).When a child is positively exceptional he/she is welcome, cherished and well educated by the society but if the child has disabilities he or she is at risk of not been welcome right from birth, educating such a child is moral consideration and a good will.

Such dispositions have trailed special needs education and its clients since its origin. Despite ability in disability, awareness on education of PWDs as champion by both international policies such as MDG, Inclusive education, Education for All, goal of SDGs and UN convention on Rights of PWDs they are still prone to discrimination, denial of rights and indifferent treatment. In university of Port Harcourt, a student with disability would have been denied admission if the court hadn't intervened. According to Ken (2014) similar cases abound in many other educational institutions.

In University of Calabar experiences and researches such as Ikpaya (1987), Obi (2012) persons with disabilities are admitted but do not receive the desired services or attention. Most times derogatory or uncomplimentary remarks are made on them without minding the psychological implications of such comments. Ozoji (2014) noted such disposition in the 21<sup>st</sup> century is outright expression of absolute lack of special needs education literacy(SNEL).The author further posits lack/ inadequate SNEL negatively influences the quality of service delivery to PWDs in the society generally and in schools particularly.

Okwudire (2007) argues that the rate of literacy of people determined the level of development of the society. Judging from the above, it could also be argued that a society/school with SNEL is developed, open, objective, and have scientific attitudes to SNE and its clientele. It is equally disposed to provide quality services to PWDs. In the context of this paper SNEL broadly means having basic and general knowledge about special education and its clients with emphasis on appropriate use of its basic terms and complimentary attitudes/ regards for persons with disabilities as well as awareness of simple causes, preventions and rights of PWDs in the society. Howard (2000) observed that the difference in quality of services provided for these clients in developed and developing societies is directly proportionate to the level Special needs education literacy among the people. The implication of this to Nigerians generally and staff of University of Calabar in this era of change is that concrete efforts should be made to be special needs education literate as condition for sustainable change in service delivery to persons with disabilities.

### **Sustainable Change in Service Delivery**

Sustainable change as one of the variables in the conference theme and topic of this study is a direct response to the present administration change initiative to reorient Nigerians on attitude to public service delivery and governance. Change entail a departure from the old approach to handling issues to a better way with focus



on national interest. Sustainable change therefore means new orientation to issues/ services without undermining the prospect of the future generation. It is the ability to hold to new and better orientation to public service matters over a long period of time without being conservative. In the context of this study, it is a well-planned and purposeful shift from the old pattern of thinking and handling of issues of disability/special education to being open-minded, objective and scientific in meeting the present needs of PWDs without compromising the possibility of a brighter prospect. It is a departure from pitying PWDs to empathizing with the clients.

In Heward (2000), change in disposition of the society to special needs education and its clients is directly related to the level of service delivery. The author further posits that poor level of service delivery in developing country like Nigeria is proportionate to how fast or slow the pendulum swings. Ikpaye (1987) observed that change in special needs education is slowly progressive and sustainable. It progressed through the era of extermination, ridicule, asylum, education and litigation. Each of these stages was preceded by many events, policies and laws. In terms of its nomenclature (name) it has witnessed to changes from handicap education to special education to a more refined, professional and inclusive name, special needs education. Even in description of the clients/categorization it has changed from using condition first approach (the deaf man or blind child) to person first approach (the man with hearing Impairment/child with visual Impairment). The former one was derogatory and saw nothing in the person apart from the disability but the later sees the human dignity /ability in the person despite his/her disability. Ozoji (2014) noted that the latter is expression of the level of special needs education literacy and it has proportionately improved the nature of service delivery to PWDs / contributes to the development of special needs education. The implication of this to staff in the university is that both personal, informal, cooperate and formal efforts should be geared towards special needs education literacy if improved services must be delivered to persons with disabilities in the university in line with global standards.

### **Special Needs Education Literacy**

Literacy in its traditional context means ability to read, write and do arithmetic which is commonly called 3Rs. In modern terms it expanded to include ability to effectively communicate using computer and related means. In this paper, special needs education literacy simply means basic knowledge about special needs education and its clients with emphasis on correct use/application of basic terms that facilitate understanding and communication in the field. According to Ozoji (2014), special needs education literacy “is ability to read and write special education. It is reading and writing using enlightened terms that correctly mirrors the situation of children with special needs, that leads to their proper understanding, that uplifts not debases

them, that is guided by denotative rather than connotative perspective, that corrects misconceptions, platitudes, axioms and traditions of elders about the children. Writings that employ discarded and discourteous terms/labels, that are pejorative of the children, that heighten their helplessness or handicaps cannot be considered literate by any academic standard. Such writings epitomize special education illiteracy irrespective of the professional calling of the writer.”

In broader perspective, special needs education literacy is:

- ability to know who has special needs
- ability to appreciate exception as norm in human society
- ability to empathize rather than sympathize/pity those with special needs
- knowledge of basic etiology of exceptionality
- knowledge of common categories of exceptionality in the society
- knowledge of basic preventive measures and rights of persons with disabilities.

According to Orim (2015) knowledge in the above parameters culminate in SNEL with corresponding improvement in service delivery to PWDs. For instance, if someone understands that it is only nature that can determine when/type of disability (possibility /otherwise) he/she will have a better dispositions/approach to PWDs and special needs education matters especially on issues that concerns education, employment and accessibility to environment.

Riechmann and Grasha (2010) study on special education literacy among teachers in developing nations reveals that in every 100 teachers only 5 of them are literate. The author further observed that teachers in rural areas are more special education illiterate than those in the urban ones. The implications of these findings are Nigerian teachers in both rural and urban are predominately illiterate. This trend speaks volume of services rendered to clients with disabilities both in school and the society. In a similar study among staff in Nigerian universities south---south Moor (2013) findings shows that special education literacy among academics is 35% and that of the nonacademic staff is 26%. As noted above such findings are expression of the nature of services students/ staff with disabilities receives in such academic society. Lynch and Hanson (2004) posits that such level of SNEL does not facilitate implementation of Inclusive education and achievement of goal 4 Sustainable Development Goals for persons with disabilities. In another study, the findings of Moon (2014) are contrary to others above, it indicated that special needs education literacy is 72% among teachers in most schools in America and Canada. The table below gives an insight into the level of special education literacy that can enhance better service delivery to PWDs and contribute to optimal development of special education.

**Table 1.** *Indicate people's level special education literacy*

Special needs education literacy	Special needs education illiteracy
Persons with disabilities	Disabled persons
Inclusion	Exclusion
Scientific approach to disabilities and its causes	Superstition approach to disabilities and its causes
Focused on ability despite disability	Focused on the disability despite ability
Special needs education or education for persons with special needs	Education for the handicapped
Empathy	Sympathy/pity
Use person' first approach (e.g. children with learning disabilities)	Use condition first approach (e.g. learning-disabled children)
Regular school	Normal school
School for children with learning or visual impairment	School for the blind/deaf
Have positive attitudes	Have negative attitudes

Sources: Adaptive from Hunt & Marshall (2005), Ozoji (2014)

## 2 Statement of Problem

One of the major problems associated with Special needs education and its clientele is misconception about the field, misapplication/use of basic terms that would have enhance understanding and communication among professionals and non-professionals as well as indication of the level of special needs education literacy as a condition for sustainable change in service delivery for persons with disabilities (PWDs) in the society particularly among university community. The clients are derogatorily and uncomplimentary labeled, remarked and described. If these remarks are associated with the uneducated they could be excused on grounds of their level of reasoning and understanding but it is common to see or hear those who are educated treat or react to disability issues with contempt and disregard. This becomes serious when PWDs try to acquire formal education at higher level or try to gain employment.

They are denied admission, employment, other basic rights and treated indifferently. These dispositions are to a large extent expression of the level of special needs education literacy. Such stereotype, connotative and uncomplimentary attitudes whether in developed or developing society influences the quality of service delivery and by extension thwart the development of special needs education and related services. It is against this background of this study which is designed to evaluate the level of special needs education literacy among staff in University of Calabar.

### 3 Purpose of the Study

The main thrust of this study is to evaluate the level of special needs education literacy among staff in the University of Calabar.

### 4 Research Question

The study was guided by a research question framed thus:

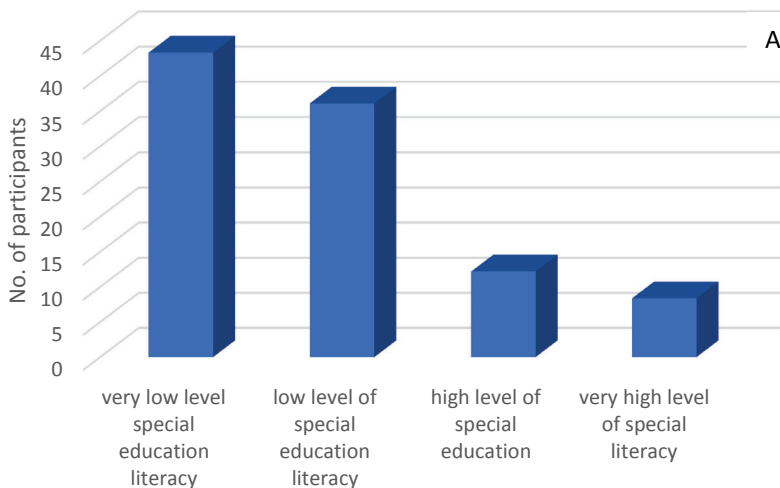
What is the level of special needs education literacy among staff in the University of Calabar?

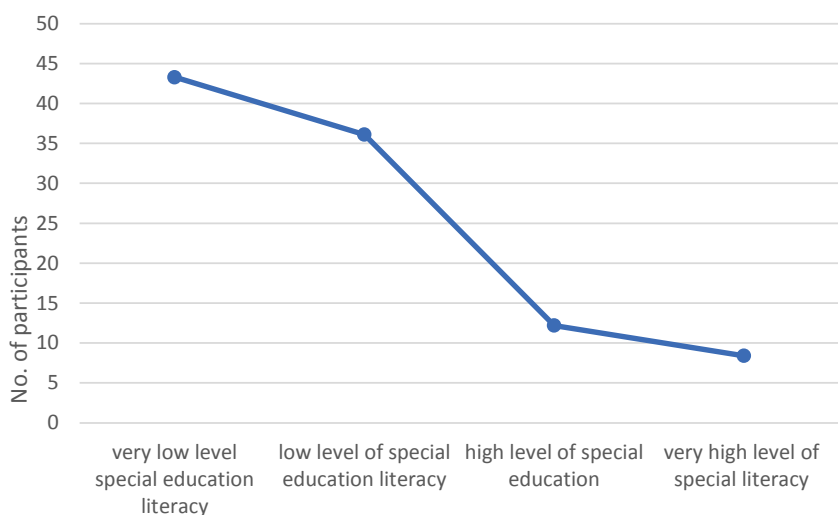
### 5 Methodology

The study adopted survey design, 180 teaching and non-teaching staff were randomly sampled from across faculties and Institutes. A four-response scale Questionnaire with 15 items was designed by the researcher, validated by experts in special education, educational measurement and used as an instrument for data collection. It had reliability index of 0.81 which was considered good enough to be used for the study. The researcher administered the instrument personally to the participants whose contacts were gotten from their general offices and informed ahead of time through email and social media. Descriptive statistics were used to analyse data from the field.

### 6 Presentation of Result

Figure 1A and B shows participants responses





Results in figure 1a & b above indicates that 78 (43.3%) of staff have very low level of literacy, while 65 (36.1%) have low, 22 (12.0%) have high and 15 (8.4%) have very high literacy. From this result it is obvious that majority of staff of the university of Calabar are special education illiterate unlike few who are literate. One hundred and forty (143) participants substantiate this who responses fall within very low and low in the response scale as against 37 that fall between high and very high scale. The implications of this is that there can hardly be any substantial and sustainable change in service delivery to persons with disabilities in the university in line with Federal government change initiative.

## 7 Discussions of Result

The main thrust of study is to assess the level of special education literacy as a condition for sustainable change in service delivery to persons with disabilities in University of Calabar. The study reveals that majority of staff are not special education literate consequently there cannot be any marked improvement in the provision of and delivery of services to the target population. This current study is in affirmation with Anderson (2009) whose research on special education literacy among teachers in most developing societies indicates that only 5 out 100 are literate. This study is also corroborated by that of Yinka (2015) study on special needs education literacy among university staff in south –south Nigeria which indicates that 65% and 75% of academics and non-academics are illiterate. On the other hand, it is at variance with Heward (2000) whose study shows that 72% of teachers in developed countries like America and Canada are special education literate. This is primarily among other

reasons why special education and related services in these countries are developed and are adequately and promptly provided.

Considering the high level of illiteracy among highly esteemed members of academia it is worrisome that in the 21<sup>st</sup> century the effect of globalization is yet to influence this aspect of national life as critical as it is. The implication of the findings of this research is that academia is sympathetic, pitiful, bias and unscientific in their disposition to persons with disabilities instead of being empathic and scientific. A society with sympathetic perspective to disabilities matters sees provision of services to these clients as a moral/act of good will while empathetic one is legally committed to providing needful services. Westson (2016) noted that such society makes conscious efforts, policies and programmes to educate and empower those disabilities to the extent of their ability. Furthermore, this study shows that PWDs in Nigeria and University of Calabar particularly will not be able to compete with their peers globally and they will be consequently ranked very low in the global community of persons with disabilities. Again, it is an indication that Nigeria is not prepared to achieve global dream (SDGs) for persons with disabilities.

## 8 Conclusion

History has shown that disability has been and will remain an integral part to complete. Based on this deliberate and institutionalized effort should be made to provide needed services to PWDs in line with global policies and conventions. Nigerian Universities as major agent of national development should formulate policies on this subject matter to improve the literacy level of staff to enhance their capacity for the provision of quality services. This has become imperative now that PWDs has a role to play in socioeconomic development of nation as shown in the 2016 special Olympic and the task of achieving SDGs as the change agenda of the Federal government. Based on the findings of this study it is recommended among others that:

- Disability literacy awareness programme (DLAP) should be formulated implemented and monitored in schools.
- Stakeholders' particularly special educational professionals should take advantage of increased usage of social media to educate the public on disability matters.
- Persons with disabilities(PWDS) organizations should have robust informative and educative programmes to improve the rate of literacy on the subject matter among the public
- Government should provide legal frame work that will enhance legislation and litigation on special education and its clients rather than having window dressing laws on disability.

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- (reviewed twice)

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# Teaching complex behaviors with acoustic guidance

(overview essay)

Karel Pančocha

**Abstract:** *Misunderstanding of the principles of behavior and the overuse of aversive stimuli are common to many educational situations, including teaching complex behaviors to children with special education needs. Derived from behaviorism and studied by experimental analysis of behavior, applied behavior analysis uses dozens of evidence-based methods and techniques to teach new complex skills to variety of learners. This literature review presents selection of published studies of teaching complex behaviors by successive approximations and differential reinforcement. Teaching with Acoustic Guidance (TAG) method, which uses shaping as its major component, proved to be an effective intervention across educational settings. Examples from seven studies focusing on TAG application in general and special education settings are discussed.*

**Keywords:** *Applied Behavior Analysis, TAG, acoustic guidance, shaping, differential reinforcement*

## 1 Introduction

Behavior analysis is a science studying the principles of learning and behavior. (Cooper et al., 2014). The application of behavior analysis finds its use not only in therapeutic applications for individuals with special needs, but in the widest range of educational settings. Education is a planned and institutionalized learning process, however, shall not be perceived narrowly as school based. On the contrary, education shall be viewed broadly as a continuous lifelong journey (Peters, 1972).

As the goal of education is to change behavior of learners (so as to be able to perform certain tasks and avoid others), the study of human behavior provides the necessary information about the conditions, under which people are likely to learn and behave in certain way (Alberto, 2003). Education is an activity that can take many

forms (ex. formal, non-formal and informal) and is characterized by sets of behaviors labeled as learning and teaching. Teaching as any activity performed to bring about learning (Jarvis, 2010) regardless of the topography of the behavior. Learning, on the other hand, could be defined as behavioral changes, which are results of change in the environment of the learner (Vargas, 2013).

We could imply that learning may happen without teaching, simply because of changes in the immediate environment of the learner. However, teaching occurs only when it results in learning (on the side of the student). Despite this conceptual knowledge in education, many concrete educational activities are not designed with this fundamental distinction in mind. As Vargas (2013, p. 4) points out “Unfortunately, presenting is not teaching. You could present a brilliant lecture in an empty room.” As teaching is far more than transmitting information, teachers can benefit from training in applied behavior analysis to be better able to understand, predict and ultimately also effectively change socially significant behaviors of their students (Vargas, 2013).

Application of behavioral principles and techniques in educational settings has been researched since the 1960s. As described by Snow and Brooks (1974), behavior modification techniques research focused not only on problem behaviors, but also on educational achievements in schools. In the following decades, researchers studied many different strategies and techniques used in education that were derived from applied behavior analysis. For instance, research on academic achievement in schools proved the efficacy of peer tutoring with home-based reinforcement (Trovato and Bucher, 1980), the positive academic achievements and lasting effects of the Comprehensive Application of Behavior Analysis to Schooling (CABAS) has been analyzed by Selinske et al. (1991). Tackling problem behaviors in educational settings has been the focus of ABA research, as shown for example in the study of schoolwide intervention programs for prevention of bullying and positive behavior support (Ross and Horner, 2009).

Despite the positive research findings and wide range of applications of ABA principles in education, behavioral intervention has not become part of many teacher training curricula. This may be one of the reasons for the overuse of punishment and aversive stimuli in schools. As Skinner (1953, p. 405) pointed out “... the positive reinforcers available to schools and colleges are often used as the basis for conditioned aversive stimulation in the form of a threat of failure or dismissal.”

With better understanding of behavioral principles, education shall focus more on the use of strategies based on positive reinforcement, as stated by Vargas (2013, p. 10) “the only postcedents that build behavior are the positive ones.”

## 2 Teaching with Acoustic Guidance (TAG)

One of the successful strategies building new complex behaviors is based on the process of differential reinforcement and successive approximation. The term shaping, coined by B. F. Skinner, has been used to describe it. It has first appeared in Skinner's article entitled *How to teach animals* (Skinner, 1951). Shaping procedures have been naturally part of teaching for thousands of years. However, it has not been scientifically described prior to Skinner defining it (Peterson, 2004). Since that time, it became an integral part of many behavior analytic teaching strategies, including clicker training and educational packages such as TAG (TAGteach International, 2016).

Before first experimental studies involving shaping were conducted with human subjects, substantial amount of research accumulated in the animal world. Clicker training, i.e. the use and effects of an acoustic stimulus as a conditioned reinforcement in shaping procedures has been investigated in animal training (Gillis et. al., 2012; McCall and Burgin, 2002; Pryor et al., 1969). Following the success in teaching complex behaviors to animals, it slowly entered the human world and is currently used independently or as a part of educational packages such as TAG. TAG developed into a teaching tool that uses shaping extensively, next to other behavioral principles and procedures including task analysis, positive reinforcement, chaining and prompting. One of the main features of TAG is the use of acoustic stimuli to mark correct behaviors. It developed from a clicker training and is currently used in many educational situations and settings (Fogel et al., 2010).

## 3 Methods

We examined research articles on the use of TAG published in peer review journals within the last seven years. A literature search was conducted using online electronic databases (EBSCO, Medline, ProQuest and PsycINFO) and Google Scholar with 2010 year of article limitations. The key words used in the search for selection of articles included "TAG" and "TAGteach", "acoustic guidance", "tagger", "terminal behavior". Only empirical research articles in the English language with clearly described research methodology using own data collection and analysis were selected.

Despite the growing body of literature including book chapters on TAG (Holdamsbeck and Pennypacker, 2015; Gabler, 2013; Vargas, 2013) only seven studies on TAG were found published in peer review journals. These studies focused on the use of TAG in different teaching situations and with different populations. Four studies focused on behavioral coaching of high school football players, novice golfers and young dancers (Quinn et. al. 2015; Harrison and Pyles, 2013; Fogel et al., 2010, Stokes et al., 2010), two involved the use of TAG in teaching children with Autism

Spectrum Disorders (Persike et al., 2014; Pineda et al., 2014) and one study examined the use of TAG in teaching medical university students (Levy et al., 2016).

## 4 Results and Discussion

Most of the researchers studying applications of TAG argue that traditional teaching approaches rely heavily on aversive procedures. Teachers and coaches focus their attention on the behavior that is performed incorrectly and do not make use of teaching strategies based on the principles of operant learning (Levy et al., 2016; Quinn et al. 2015; Fogel et al., 2010).

Fogel et al. (2010) studied the use of TAG in a golf player with no previous experience with golf. The aim of the training was to teach a behavior not existing in the repertoire of the learner, i.e. swing with a golf club. Four out of five skill sets have been successfully taught within seven training sessions. This study is one of the very few that examined TAG only, without any additional interventions.

The next study (Stokes, et al, 2010) focused on high school footballers and evaluated the effects of several behavioral coaching strategies on line-pass blocking. Treatment conditions included descriptive feedback only, descriptive feedback combined with video feedback, and finally the two previous interventions together with TAG. The blocking behavior has been task analyzed and five participants with below the normative pass blocking performance were selected for the study. Video feedback and TAG were found to be the most effective procedures as all the players reached above the norm performance. On the other hand, descriptive feedback only did not result in increase of pass blocking behavior. Unfortunately, it is not easy to separate the effects of TAG from the other interventions, and therefore evaluate the unique effects of TAG. The second football study (Harrison and Pyles, 2013) focused on tackling behavior of three high school players. Again, two procedures were combined. Verbal instruction and TAG have been implemented with focus on successive approximations of the terminal behavior. The low performance at baseline increased sharply during shaping sessions and generalized to tackling of live ball carrier following terminal behavior acquisition. This study exemplifies the possible generalization of behaviors learned by TAG to natural environments.

Dancing skills have been taught with the use of TAG to four young students. Quinn et al. (2015) used a clicker as a conditioned reinforcer for successive approximations of three dance movements – turn, kick and leap. The necessity of pairing of the conditioned reinforcer (tagger) with other reinforcers is well described here. Due to the young age of the participants (6 to 9 years) more elaborate process of pairing the clicking with existing conditioned reinforcers was needed. Token economy had to be introduced after clicking sound proved not to be reinforcing by itself in the younger participant. In congruence with the previous studies, large improvement in

the target behavior occurred after the implementation of TAG training in educational settings.

Two studies examined the possible use of TAG with children with Autism Spectrum Disorders (ASD). The first study (Persicke, et al., 2014) showed that TAG may be used not only to build new behaviors, but also in reducing problem behavior, i.e. toe-walking. A four-year-old boy with ASD has been successfully taught an incompatible behavior to toe walking with the use of acoustic conditioned reinforcer. The second study involving children with ASD (Pineda et al., 2014) suggested that TAG may be a feasible method for teaching children with ASD to participate in neurofeedback training. However, this study lacks important information about the target behavior, implementation of TAG procedures and subjects involved.

The last study (Levy et al., 2016) implemented TAG in university course and compared TAG teaching of two surgical tasks with classical approach using demonstration alone. Twelve participants were allocated to the treatment group and twelve to a control group. Clicker has been used as the conditioned reinforcer to mark the correct execution of each step. Even though the final speed of the performance was similar in both groups, the treatment group outperformed the control group in the precision of the behavior learned.

One of the most important strategies that must be well implemented during TAG sessions is shaping. It is recommended to be used in instances, where the target behavior is not part of the repertoire of the learner. The two important skills to be learned by the practitioner are differential reinforcement, which means that reinforcement is delivered in instances of behavior increasingly closer to the terminal behavior and successive approximation, i.e. gradual change of the criterion for reinforcement. The behavior further away from the terminal behavior is being faded as it is not reinforced any longer (Cooper et al., 2014).

Prior to any shaping, the teacher must be able to clearly specify (1) the terminal behavior – what TB shall the student perform and currently lacks in her repertoire, (2) initial behavior – behavior that is already in the repertoire of the student and shares some important properties with the TB (ex. topography, force, rate, etc.) and (3) intermediate behaviors to be reinforced on the way towards TB (Alberto, 2003).

All the above-mentioned studies except Pindera et. al (2014) clearly described the initial behavior, called Point of success in TAG terminology. Terminal or target behavior to be shaped and task analysis that clearly marked intermediate behaviors to be reinforced were also presented. This corresponds with the BID (break it down) rule and Tagpoint selection in TAG methodology (Fogel et al., 2010).

Task analysis included as few as four (Harrison and Pyles, 2013) to maximum of ten steps in Stokes et al. (2010). When performing task analysis and selecting the points of success, it is necessary that practitioners follow the WOOF criteria. That means each step or approximation must be well defined (W), observable and

measurable (O), teachers shall focus on one aspect of the behavior at a time (O) and step described by five words or less (F) (Quinn, et al, 2015).

Another necessary decision for the practitioner is the selection of a device emitting a brief, distinct and uniform audible stimulus, i.e. the Tagger (TAGteach International, 2016). Different devices have been used based on the environmental properties and noise levels. Fogel et al. (2010) used clicker as the tool to deliver immediate feedback and marked the correct form of each step of the behavior being shaped. In more noisy environments a bullhorn siren has been used as the audible stimulus following correct execution of the target behavior (Stokes et. al., 2010). Harrison and Pyles (2013) shaped with the use of megaphone beep to indicate skill completed correctly.

Some of the studies also followed the so called three-try rule (Quinn et al., 2015; Fogel et al., 2010), which means moving the learner quickly forward in case an approximation point has been reached. However, it also means the learner shall be redirected to easier task in case he is not successful in tagpoint production for three successive times. Finally, majority of the studies recommended TAG training for the practitioners (teachers, coaches, etc.) prior to implementing TAG in their teaching.

## 5 Conclusion

Teaching with acoustic guidance seems to be a promising method originally developed for teaching the general population and may find its application in wide variety of educational situations including special education. It is based on the principles of behavior elaborated by B. F. Skinner and relies heavily on correctly applied strategies of (1) successive approximation towards the terminal behavior and (2) differential reinforcement. These two strategies are the main components of shaping, which may be used in teaching difficult and complex tasks to variety of learners, including those with special education needs.

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# Impact of physical activity on quality of life in Czech older adults

(scientific paper)

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**Abstract:** *The present study was conducted to evaluate the relation between the subjective perception of quality of life and the level of physical activity and its frequency in elderly people. The study recruited 58 elderly volunteers aged 65–89 years (23 male, 35 female). All subjects were in good health without medical treatment and living independently. We used the questionnaire Subjective Quality of Life Analysis – SQUALA and The International Physical Activity Questionnaire – IPAQ-short. The present work showed positive increase in the subjective perception of the life quality with realization of physical activity twice a week and more.*

**Keywords:** *active ageing, elderly, IPAQ, SQUALA*

## 1 Introduction

In recent years, there has been much convincing evidence of the positive impact of regular physical activity (PA) on health and the related quality of life (QOL) of older people. It has been scientifically proven that regular PA helps to lead an independent life as it reduces the risk of falls and fractures; the symptoms of anxiety, depression; overall reduce the risk of premature death and health constraints as a consequence of heart disease, diabetes, osteoarthritis and some types of cancer (Nelson et al, 2007; U. S. Department of Health and Human Services, 1996). Despite these facts, older people still belong to the least active age group within the society (Guthold et al., 2008). We consider different factors as the main attributes of QOL, but all experts agree on one of them and it is autonomy. The model of QOL for the older people of Sarvimäki and Stenbock-Hult (2000) lists next to autonomy such elements as the sense of well-being, meaning and value. Heun et al. (1999) extends the research to a confirmed list of predictors that positively affect the level of satisfaction in old age: good health, lack

of depression, marriage, independent living, social involvement, and the absence of alcoholism. The decline in the QOL of older people is often associated with a loss of autonomy. Older people themselves usually base their life philosophy on life optimism, the presence of the significant others, and their own activity. PA is indicated as the main stimulus for increasing older people's self-sufficiency and autonomy. Due to these findings, the paper presented is dealing with the evaluation of the QOL of the elderly in relation to the amount of the PA performed and its frequency.

### **Aims**

The main aim of the study is to evaluate the relation between the subjective perception of QOL and the level of PA and its frequency in elderly people. Subsequent goals are:

- (a) To present the gathered data from IPAQ-short questionnaire dealing with realization of PA.
- (b) To evaluate the subjectively perceived QOL by results from SQUALA questionnaire.
- (c) To evaluate the suitability of the questionnaires used for field research.

## **2 Material and Methods**

### **Research sample**

Participants were voluntaries recruited at municipal clubs located at Brno region and at the Czech Tourist Club. The exclusion criteria were age under 60, being institutionalized, suffering from a physical or mental illness that would have limited their ability to respond to the questionnaires. A total of 58 subjects, 23 male (39.7%) and 35 (60.3%) females aged 60–89 years old were included in this study.

All data gathering was done personally face to face, each participant was instructed about the goals, the methods of research, the way in which the results were processed and interpreted and, in particular, about ensuring anonymity. The study was performed according to the principles established in the Declaration of Helsinki and approved by the Ethical Committee of the Faculty of Physical Culture Palacký University Olomouc. Written informed consent was obtained from all participants.

### **Physical activity**

The level of PA done by participants was assessed by validated self-reported the International Physical Activity Questionnaire (IPAQ-short questionnaire) (Craig et al., 2003). The short form of the IPAQ questionnaire covers three specific activities. These are walking, moderate-intensity activities and vigorous intensity activity level, frequency (measured in days per week) and duration (time per day) are collected separately for each specific type of activity. In addition to the measure of intensity of

the PA carried out, the IPAQ-short questionnaire also obtains general demographic data from the respondents (gender, age, education, occupation, residence, height, and weight /BMI calculation/, habits, smoking, lifestyle, dog ownership, and participation in organized PA lessons).

This questionnaire identifies the movement activity and inactivity realized in the last seven days and categorizes individuals as inactive, minimally active and HEPA active (health enhancing physical activity; a high active category). The criteria used follows the current findings that 30 minutes of moderate exercise activity performed in most days during the week has a key preventive role in cardiovascular disease, type 2 diabetes, obesity, and some cancers.

Based on the IPAQ-short questionnaire, the energy output (MET-minutes/week) of each participant was calculated.

According to the PA levels, the participants were divided into three categories:

- Inactive: those individuals who do not meet criteria for categories minimally active or HEPA active;
- Minimally active: 3 or more days of vigorous activity of at least 20 minutes per day; or 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day; or 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week;
- HEPA active: vigorous-intensity activity on at least 3 days achieving a minimum of at least 1500 MET-minutes/week; or 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week.

## Quality of life

For the data gathering on QOL, the SQUALA questionnaire (Subjective Quality of Life Analysis) was used (Dragomirecká et al., 2006). Authors of questionnaire (Dragomirecká & Škoda, 1997) understand the quality of life as overall perception of the satisfaction or dissatisfaction of an individual throughout his life, while satisfaction with different aspects has varying importance. The original French version of the questionnaire contained 23 items pertaining to the external and internal realities of everyday life. We use the standardized Czech version of the questionnaire SQUALA (Dragomirecka et al., 2006), which is reduced in two items (politics and religious beliefs). The results of the current 21 areas are expressed in the form of partial scores and overall score of quality of life and as five dimensions (see Table 1). The partial score of individual areas is given by the product of the importance score which is rated by the respondent on a five-point scale from 0 = insignificant to 4 = necessary and a score of satisfaction, which is scored on scale 1 = very disappointed to 5 = completely satisfied. Partial scoring is displayed as a QLF profile, the overall

score is the sum of all partial scores. The domains are (1) abstract values, (2) health, (3) close relationships, (4) leisure time and (5) basic needs (Dragomirecka et al., 2006). The SQUALA questionnaire is widely used in medical, social, pedagogical or psychological fields in the Czech Republic.

**Table 1:** SQUALA – summary of dimensions and items

Dimensions	Items
SQUALA 1 (SQ1) Abstract values	Feeling of safety, Equity, Freedom, Beauty and Art, Truth
SQUALA 2 (SQ2) Health	Health, Physical Self-sufficiency, Wellbeing, Self-care
SQUALA 3 (SQ3) Close relationships	Family relationships, Love, Sexual life
SQUALA 4 (SQ4) Leisure time	Sleeping, Relationships, Relaxation/resting, Hobbies
SQUALA 5 (SQ5) Basic needs	Environment/living condition, Money, Food

### Statistical analysis

Descriptive values are shown as mean, mode, median, frequency, standard deviation, minimum, maximum, coefficient of variation, skewness and kurtosis. Analysis of Variance (ANOVA) and post-hoc Scheffe's test were performed to analyse data. All analysis were performed using the StatSoft CR s r. o. STATISTICA 12.0 and values of  $p < 0.05$  were considered to be statistically significant.

### 3 Results

The structure of the interpretation of the results is analogous to the goals set in our research. Firstly, we present the data obtained from the IPAQ-short questionnaire. Secondly, the descriptive statistics of the whole research in the SQUALA questionnaire based on partial scores and dimensions is presented and the last section consists of evaluation of the influence of the PA level and frequency on subjective perception of the QOL.

Data collected with IPAQ-short questionnaire are shown in Table 2.

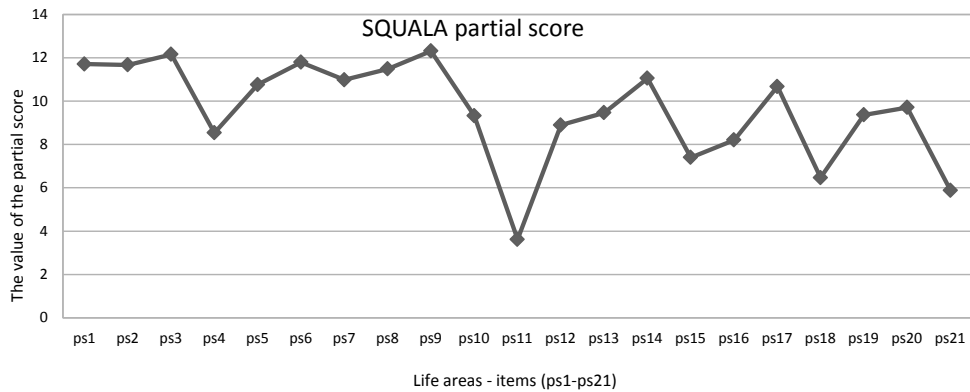
**Table 2:** Analysis of IPAQ

	Categories	Number of participants (%); N=58
PA Frequency	0 – No PA	13 (22.41%)
	1 – Once a week	21 (36.21%)
	2 – Twice a week	13 (22.41%)
	3 – Three times and/or more a week	11 (18.97%)
PA level	Inactive	16 (27.59%)
	Minimally active	24 (41.38%)
	HEPA active	18 (31.03 )

Notes: PA frequency indicates the number of days of the week in which participants were engaged/ not engaged in intense or moderate PA.

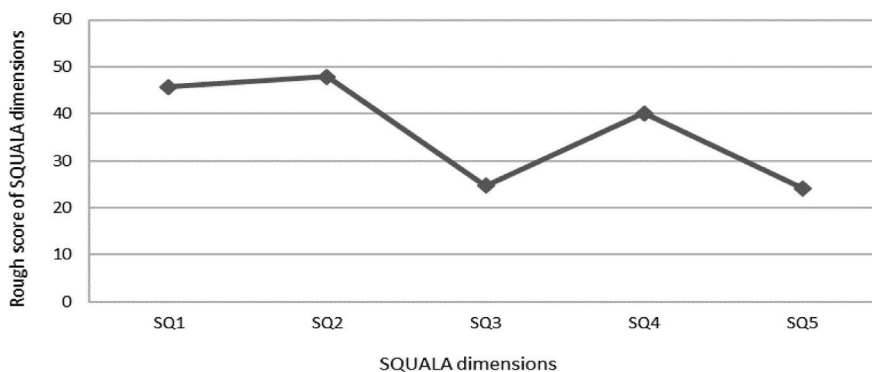
*Analysis of SQUALA questionnaire:* The graph of partial scores (Figure 1) clearly shows the lowest rated area ps11 (3.62) „sexual life“. The average maximum values of the partial scores are already more balanced, the highest value of the item ps9 „take care of itself“ (12.31) followed by ps3 „mental well-being“ (12.16). Others, high importance and satisfaction, are attributed to areas of ps1 „health“, ps2 „physical self-sufficiency“, ps6 „family relationships“, ps8 „children“ and ps14 „safety“. The SQUALA dimensions scores (Figure 2) shows as the highest dimension SQ2 „health“ (47.84), the attribution of a very low value to the SQ3 dimension „close relationships“ (24.74) is unexpected. One possible cause may be the fact that the SQ3 dimension includes, among other things, the ps11 „sexual life“, whose rank was the lowest. Respondents expressed the least satisfaction with the SQ5 dimension „basic needs“.

**Figure 1:** *The partial scores of SQUALA questionnaire*



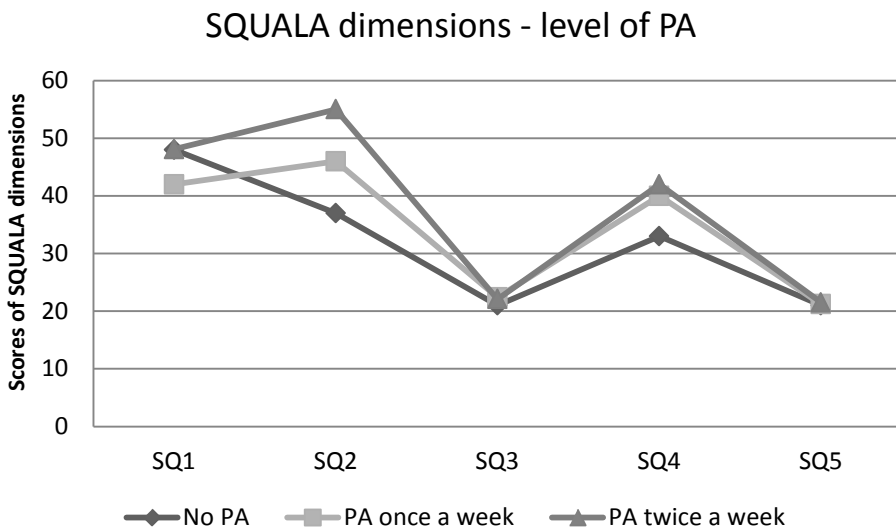
Notes: SQ1 – Abstract values, SQ2 – Health, SQ3 – Close relationships, SQ4 – Leisure time, SQ5 – Basic needs

**Figure 2:** *The dimensions of SQUALA questionnaire*



*The relation between the subjective perception of the QOL and the level of PA and its frequency:* According to the calculated energy output level (MET-minutes/week), participants were divided into three categories: inactive, minimally active and HEPA active (Table 2). Figure 3 shows scoring of each SQUALA dimension depending on the PA level. All respondents similarly, regardless of the level of PA, rated the dimensions Abstract values (SQ1) and Close relationships (SQ3). For the Leisure time (SQ4) and Basic needs (SQ5) dimensions, the differences in the evaluation of the groups of respondents categorized as minimally active or HEPA active are diminished. Participants inactive feel less satisfied in their leisure time (SQ4) and basic needs (SQ5). The HEPA active participants evaluate at the health dimension the highest (SQ2) and close relationships the lowest (SQ3). The participants minimally active find the abstract values (SQ1) as the most satisfactory dimension and basic needs (SQ5) as the lowest. The Scheffé's test showed statistically significant difference between participants minimally active and HEPA active in dimensions Health (SQ2) and Leisure time (SQ4) at  $p \leq 0.01$ . With increasing PA level, the satisfaction with Health dimension increases and increasing intensity of PA also corresponds with the subjective evaluation of increased satisfaction with the respondents' leisure time. A statistically significant difference was seen both in the results of group inactive and group minimally active as well as group HEPA active.

**Figure 3:** *The SQUALA dimensions in inactive, minimally active and HEPA active groups*



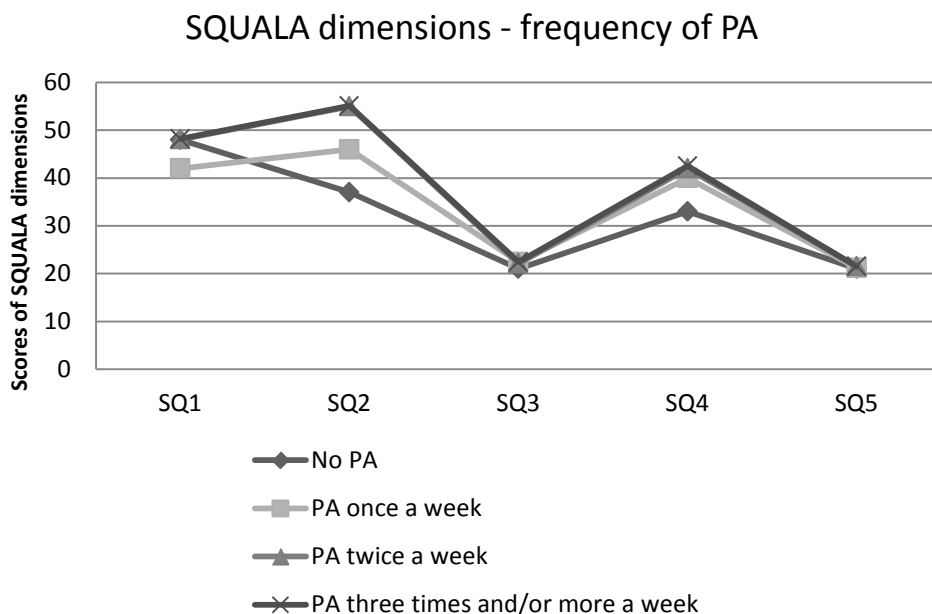
*Influence of PA frequency on the subjective perception of the quality of life SQUALA:* After the distribution of the research group according to the PA frequency, we

obtained four categories: 0 – no PA, 1 – PA once a week, 2 – PA twice a week and 3 – PA three times and/or more a week (Table 2). The data analysis showed that there is a very small difference in the QOL of the participants in category 2 and 3 (participation in PA twice a week and more) and their ratings in all dimensions of SQUALA are among the highest (Figure 4). The participants who belong to category 0 showed the lowest satisfaction with the QOL in all SQUALA dimensions, except dimension Abstract values (SQ1) (feeling of safety, equity, freedom, beauty and art, truth).

We found statistically significant differences in Overall score (QOL\_SUM), Health (SQ2) and Leisure time (SQ4) (Scheffe’s test;  $p \leq 0.05$ ). In other dimensions of the SQUALA (SQ1 – abstract values, SQ3 – close relationships, SQ5 – basic needs), the statistically significant difference at level  $p \leq 0.05$  did not occur.

The values referring to the Health dimension (SQ2) clearly showed that the highest evaluation of the quality of life was perceived by the members from categories 2 and 3, these were most satisfied with their health. The lowest values in the health dimension were found in the participants categorized no PA. In the Health dimension, a statistically significant difference occurred between the categories 1 and 2 and 3 ( $p \leq 0.01$ ). The same situation was shown in the Leisure time dimension (SQ4) at the  $p \leq 0.01$ .

**Figure 4:** Frequency of PA



## 4 Discussion

For the data gathering on QOL, the SQUALA questionnaire was used. This tool is understandable and suitable instrument to gather the data and interpret findings in the Czech environment. We have seen a disadvantage in the prevalence of use of instruments created by WHO such as WHOQOL-OLD and WHOQOL-BREF (The WHOQOL Group, 1998; Dragomirecká & Bartoňová, 2006) or SF-36 measure (McHorney, Ware, & Raczek, 1993; Andresen et al, 1999) in the past decade and insufficiency to easily compare the data with other research work. Comparison of results on SQUALA questionnaire and WHOQOL-BREF or OLD (Whoqol Group, 1998) are not available, due to lack of international use. The SF-36 and WHOQOL-BREF comparison with a huge sample  $n=11.440$  in Taiwan population sample was done in 2001 by Huang, Wu, & Frangakis (2006). The findings underline the result that questionnaires measure different constructs: the SF-36 measures health-related QOL, while the WHOQOL-BREF measures global QOL. Clinicians and researchers should carefully define their research questions related to reported outcomes and select which instrument they should use.

The level of PA was measured by questionnaire IPAQ-short version (Craig et al., 2003). The pitfall of this method in our research is the participants' age. The IPAQ questionnaire is fine-tuned and verified in Central European conditions only on a sample of the population aged 15–69 (Sigmund, Sigmund, Mitas, Chmelík, Vašíčková & Frömel, 2009). Use in a sample of persons over 60 years old is a pilot, and the results are comparable with precaution. The data collection influence understanding the terms high and moderate intensity PA and decision making which of the PA activity belong to certain level of intensity (with the increase of age and dependency respondents tend to perceive as high intensity PA many of moderate and even low intensity activities) (Prachařová, 2013). Our goal was to re-evaluate the used methods and find an inspiration in sufficient latest research projects.

The “Healthy People 2010” recommendation (USDHHS, 2000) for intensive PA is walking or moderate PA for at least 30 minutes at least 5 times a week, or intensive PA 20 minutes at least 3 times a week. In our research, a recommendation for an intensive PA was met by 19% of respondents. These findings fully correspond to the results of the Pelclová et al. (2008), where the criterion for intensive PA implementation reached 20.3% of participants at the age of 55–69 years. We attribute our “good” results in HEPA active with sample of respondents aged from 65 to 89 years old to selecting active seniors living independently in their homes, also the QOL satisfaction highly correlated with independency.

The present study showed significant difference between the realized PA and subjective perception of the QOL. Similar conclusions, rewrote as recommendations, were drawn by World Health Organization recommendations (WHO, 2010).



The WHO (2010) compared the impact of PA directly on the subjective perception of health. From our research, we can also generate results focused on SQ2 (health dimension). We find a statistically significant difference between minimally active and HEPA active groups. In terms of frequency, a statistically significant difference occurred in two relations: between individuals performing no PA of moderate and higher intensity (category 0) and those who perform the PA of the respective intensity at least twice a week (category 2). Positive correlation was also seen in the relationship between members of category 0 (without PA of the given intensity) and category 3 (PA 3x and more per week).

If we look back at the relationship between the PA intensity and the subjective perception of the quality of life of the overall SQUALA score (QOL\_SUM), we find no significant difference at any of the PA intensity levels, in contrast to the frequency of PA performed. The statistically significant difference was confirmed in the relationship between category 0 (without PA) and those who perform PA twice a week (category 2) or PA three times and/or more a week (category 3).

Similar findings related level and frequency of PA as in dimension Health (SQ2) we can see in Leisure time dimension (SQ4). SQ4 consists of items such as Sleeping, Relationships, Relaxation/resting, and Hobbies. The suggestions to improve adherence in regular placement of PA in daily schedule of the elderly is often connected simply with a suggestion “to find (PA) activities to love to do with others” (Růžička et al., 2013).

## 5 Conclusion

The main objective of the study was to evaluate the correlation between the level of PA performed and the subjective assessment of the QOL. The PA's level divided the research group into three groups. HEPA active members rated four of the five SQUALA dimensions above the rest of the sample, except the dimension SQ3 (close relationships). On the other hand, the inactive PA members had the opposite effect, in the SQ2, SQ4 and SQ5 scores were the lowest. A statistically significant difference was found in the dimension SQ2 (Health) between members belonging to inactive and HEPA active, and SQ4 (Leisure time) between groups inactive, minimally active and HEPA active.

If we consider a “PA level” as PA frequency in relation to the average values of the overall score (QOL\_SUM), the statistically significant difference occurs in two relationships. It occurs between participants performing no activity (category 0) and a) those performing the PA at least twice a week (category 2), and b) those in category 3 (PA three times and/or more a week). The involvement of participants in PA less frequently than twice a week has no effect on perceptions of QOL. On the other

hand, when performing PA twice a week and more frequently, a positive increase in subjective perception of the QOL occurs in the sample examined.

QOL measurements presented by 5 dimensions of SQUALA questionnaire showed the Health dimension (SQ2) as subjectively highest perceived. On the other hand, the subjectively poor QOL dimension was perceived dimension of Close relationships (SQ3), which we assume is affected by the item Sexual life, scored significantly lowest.

Participants in groups 2 and 3 (PA performed twice a week, and three times and/or more a week) according to PA's influence on QOL perception, evaluated all SQUALA (SQ1–SQ5) dimensions higher than other respondents performing PA less frequently. The statistically significant difference between participants performed at least twice a week and categories without PA showed only the dimensions SQ2 (Health), SQ4 (Leisure time) and overall score (QOL\_SUM).

The goal for future research is to re-evaluate the used methods and find some inspiration for the creation of a research project with widely used instruments.

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# Migration as an influencing factor on identity formation

(overview essay)

Ivana Lessner Lištiaková

**Abstract:** *The process of identity formation may be influenced by multiple factors. The study focuses on migration as one of these influencing factors. In a qualitative study, the researcher focused on the process of identity building and reconstructing after migrating from one country to another. It provides an analysis of the processes of adaptation in the new environment that people identified and could reflect upon after their experience of migrating from their countries of origin. Factors of age, language and culture in regard to attaining their new personal identities are considered. Migration is viewed from a perspective of an individual. The goal of the study was to capture personal reflections individuals on the process of their adaptation in a new environment. Data was collected by semi-structured interviews and processed through phenomenological analysis. The results pointed to questions of defining home, accepting or rejecting the local language and applying various ways of adaptation depending on age. The study provided insight into the topic and confirmed the importance of considering individual experience of individuals when analysing migration issues. The results of the study will further be used in creating educational and therapeutic programmes for people with the experience of migration.*

**Keywords:** *migration, identity, adaptation, home, language, culture*

## 1 Introduction

Self-perception consists of relatively stable personality traits. On the other hand, it is also created by a dynamic process of self-reflecting and re-creating self-image based on interactions with the environment. People gain and create their identity – personal, gender, social (age, family status, or family roles), national, local, cultural, religious, socio-economical, racial, language, professional, or political.

Identity represents a set of cognitive, behavioral and affective aspects of a person, based on which a person perceives their own existence, such as who they are and where they belong based on their attitudes and values. Personal identity includes life goals, values and beliefs in the area of career, relationships, or spirituality. Cultural identity relates to culturally and ethnically influenced values and practices. Searching for personal identity is the main issue for adolescents, whereas protecting cultural identity becomes important in case of migrating or being a minority population group (Schwartz et al., 2013).

Ting-Toomey (2005) elaborated on the identity negotiation theory that describes changes in identity and factors that influence it depending on social and cultural environments. She talks about the search for overlaps in belonging to a certain social or cultural group and in having a personal identity. It happens in intercultural and interpersonal communication.

Schwartz et al. (2013) studied acculturation of young adults of the first and second generation of immigrants in the United States dependent on their status and process of creating personal identities. The results across all ethnic groups suggested that individuals who were in the phase of social moratorium kept their cultural heritage as well as accepted American cultural practices and values. However, individuals who were in the phase of diffusion of personal identity were not identified with neither the values their original nor the new culture/country.

Identity formation is a natural process influenced by various life events, both significant and every-day ones. Massive changes in identity can be observed during and after overcoming psychosocial crises that are often connected with social rites of passage serving as supportive mechanisms; e.g.: school enrollment, employment changes, marriage, child birth, or retirement. Such changes are naturally connected with the life cycle as described by Satir (1991).

In case of forced identity changes, (e.g. loss of a family member, trauma, natural disasters, wars, or employment loss) natural rituals in the society are missing – probably with the exception of funerals. It is counted on with coping thanks to resilience of people (Antonovsky, 1996; Ťulák Krčmáriková, Kováčová, 2016). However, healthy coping mechanism may be substituted by maladaptive mechanism such as developing addictions – drug, alcohol or work addictions. Crises that a person was not able to cope with may lead to psychosomatic problems or social-emotional difficulties (behavior disorders, neurotic issues, or depression).

Migration as a life event may cause positive or negative emotions. It may belong to positive factors of influencing identity changes. For example, it can contribute to higher flexibility. However, it may cause negative distress. It may even be perceived as traumatic. The adaptation to migration depends on the characteristics of the event such as reasons, process, way of leaving, settling in the new country, conditions and

supportive mechanisms, barriers in the system, surroundings, close environment, personality and previous experience.

The results of Ascher's study (1989) suggested that adolescents who migrated at the age older than 11 years experienced the event as highly stressful because they were also going through changes in forming their personal identity. Tartakovsky (2013) mentioned that most of migrating adolescents is fully employed by their effort to survive – meaning learning the language and creating social networks; and in case of involuntary migration also by physical survival. If migration is voluntary, young people have chance to enrich their identity by cultural elements of the new country and to create a new concept of their own identity with a possibility to belong to both cultures. Migration therefore contributes to improving flexibility and supports mental and social wellbeing.

## **2 Goal of the study**

From the position of the author as a helping professional in therapy and education, the goal of the paper is to emphasize the need of psychosocial support of people before, during and after the process of migration with the focus on reconstructing and developing their personal identity. The goal of the study was to gain insight into the situation of migration and the process of adaptation in the environment of the new country. Through a self-reflective view of an individual on the process it was possible to discuss identity changes based on the migration process. The results of the study will be later used in creating and performing support programs for people in the process of migration and adaptation periods.

## **3 Research participants**

The study was based on an interview with a female participant (P1), who reflected upon her own situation as well as described and commented on experiences of other people who have the experience of migrating and they presented their views in a public discussion focused on this topic. Data from the interview is complemented by information from informal talks and additional research questions (P2) and case studies from the practice of the author (P3). The participants are described in Table 1.

**Table 1:** *Description of the participants*

Participant	Current age	Age at the time of migration	Gender	Migration route	Description
P1	22	15	female	Iran - > Slovakia	migration for parent employment
P2	31	30	female	Slovakia - > Germany	migration for a partner
P3	40	40	male	Slovakia - > England	migration for work

## 4 Research methodology

Qualitative methodology was chosen for the study based on the need to understand personal experiences of the participants. The interview with P1 was audio-recorded. Data collection was conducted through a semi-structured interview. The questions of the interview were focused on describing the strategies of adaptation in the new environment after participant's migration. Other collected data was based on field notes of the author. Collected data was processed through phenomenological analysis, coded and categorized. The interpretation of the categories is provided in the results section of the paper.

## 5 Results and discussion

P1 is a 22-year old woman from Iran who moved to Slovakia with her whole family (mother, father, older brother, younger brother) at the age of 15. From her own reflection of the situation we learned that her main effort after the arrival to the country was to fully merge with the new environment, not to stick out, accept her new identity and to get rid of her original one. She tried many ways how to fit in, which is natural in adolescence, however, the need was even stronger based on the effort to overcome the feeling of being different. Later, she found her identity in accepting who she was with keeping her original cultural/national identity and with gaining a feeling of belonging to the new environment.

P2 is a 30-year old woman from Slovakia who left the country to follow her partner to Germany, his country of origin. She has been in the new environment for a year and she is experiencing an "identity crisis" and a feeling of frustration connected with it. She identified several reasons: 1) loss of social status – from a profession in her field in the country of origin, she became an unqualified part-time worker in another field; 2) language barrier; 3) cultural barrier – as a foreigner she does not feel accepted by the social environment; 4) limited social contacts.



P3 is a 40-year old man who left Slovakia in order to go to work in England. He worked manually and did not speak the language of the country at all. He was isolated from all social contacts. After three months, schizophrenia occurred (note: it is necessary to consider factors of mental vulnerability predispositions), based on which he returned his country of origin.

From the interview, several key categories (C1-C5) were identified, which are connected with forming and reconstructing personal identity (Table 2).

**Table 2** Description of identified categories

Category		Description
C1	Home	Perception of a place or concept where/when a person experiences a feeling of belonging
C2	Language	Knowledge of language of the target country as a means of adaptation
C3	Work	Changes in professional orientation influenced by migration
C4	Strategies of adaptation	Strategies of conduct of behavior and processing of emotions when reconstructing one's own identity
C5	Cultural negotiation	Comparing culture of the new and the original country and effort to find individual balance

One of the key questions of the study was to describe the concept of home (C1). P1 mentioned her own experience and commented on what other participants of the public discussion mentioned. She said that home, mainly for older people with the experience of migration, is not a particular place in a certain country. However, it is a place where: a) people have their family, b) people feel welcome, c) people know it there. People need to be surrounded by loving others who create a safe environment and this does not depend on a mutual cultural consonance. At first, home is the country of origin. After a while of living in the new place (and the length of the period is very individual), home is in the new country and home is in the country of origin. For P1 it took two to three years to start feeling like at home in the new country (C1, C5).

It is interesting to observe the reactions of inhabitants of the new country when they react to the migrants' statements of the country being their home. They are surprised that people can consider home a certain place even though they are not proficient in the language or the culture is vastly different. It is the unacceptance of the environment that makes people who migrated not to feel at home. P1 said: *"When I was a teenager I did everything just to fit in. I did everything that Slovak teenagers did, but I did not feel fully accepted. And I do not think it is necessarily connected only with the Slovak culture ... it is more based on age ... as teenagers we are not sure about our identity anyways. We are not sure who we are and when we move it may or may not be even more confusing for us. For me it was confusing"* (C5).

People who lived in several (or many) places are not able to answer the question of where they are from. The answer is not so simple, or actually, the question is not correctly posed. It is necessary to substitute it with more specific questions depending on the real interest, such as: Where were you born? Where do you live? Where have you lived? What languages do you speak? What country was your passport issued by? Where were your parents born? Where did you go to school? Even though in many national European countries the answer for all these questions is the same, it is not so for many people. The pressure that the environment creates and poses on a person to identify the concept of home (C1) as a fixed place may lead to feelings of differentness and may shake the definition of one's personal identity (C4, C5).

The feeling of belonging in the new country can be supported by moments of friendly contact with the local inhabitants. That is possible when people who migrated speak the local language (C2). According to the research participants, learning the language contributes to raising mutual respect and understanding. Thus, it belongs to one of the basic adaptation strategies (C4) and means of identity reconstruction.

P2 comments on her process of migration and adaptation: *"The decision to leave the country was very straightforward for me and was convinced from the first moment. I knew that the beginning would not be easy. I was often visited by frustration, which sometimes lasted for days, or weeks; and even now it is still tuned in with 'my office hours'. It became regular... The perceived identity crisis manifested because of the change in my social status (C3), I felt it that way. But later, cultural and language barriers climbed on the top (C4). I accept this challenge; change is life (C5) and I am determined to the essence of being and to take care of myself."*

When people move to another country, on one hand, they are trying to find positives there, but suddenly they start realizing also the positives of their country of origin which they were not aware of before or they were overlooking because they considered them normal/natural and they are not present in the new country, for example. On the other hand, they sense aspects that were missing in their culture of origin and they would like to transfer them there (C5). Influenced by the evaluation of pros and cons of both cultures, reflecting upon them, identity of a person changes. Awareness is raised and various ways of functioning and thinking are developed.

The mentioned results are based on experiences of migrants who left their countries legally and after certain time of planning, even though their reasons might have been different (economical, political, or personal). Migration happened based on a decision of one family member or as a consensus of the whole family, or their compromise and some members had to adjust. Even though the migration into another country was "without major problems", the identity of the individuals went through certain shock and reconstruction.

In the ideal case, migration brings enrichment and has positive influence on identity building. However, migration may cause strong distress. People may feel the distress during migration or during the adaptation period in the new environment. Distress can be caused by the feeling of loss of safety, loss of home, loss of roots, fear of change, change of social status, limited social contacts, or superficial relationships in the new environment. The situation of migration may even be connected with trauma, which happens mainly in cases of illegal migration (forced to leave home, physical and mental strain, or life threats), but may be present in cases of legal migration as well. Distress can lead to mental and psychosomatic problems, such as depression, neurotic disorders, even psychoses.

Supporting the process of identity reconstruction in the new environment seems to be an important demand towards professionals in helping professions such as social workers, therapeutic pedagogues, psychologists, or therapists). The question remaining are the language and cultural competencies of these professionals for working with people migrating from different countries. From this regard, methods of work that do not require language skills, such as art or nonverbal techniques used in expressive therapies (art therapy, drama therapy, music therapy, etc.) provide space for expressing the needs of individuals, sharing experience and offer psychosocial support in the period of adaptation to the environment. The research results will therefore be implemented in creating support programs for people who experienced migration.

## 6 Conclusions

As a result of the processes of migration and adaptation to the new environment, various changes in person's identity are caused. Based on the research interviews, several relating areas were identified. These areas included: the concept of home, overcoming language barriers, changes of social and professional status, using adaptation strategies and cultural negotiation. The goal of the study was achieved by providing insight into the topic. The results of the study will be applied in planning programs for supporting the process of adaptation and identity reconstruction.

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# Selected dramatherapy techniques and their effect on addicted clients in detoxication ward

(scientific paper)

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**Abstract:** *The present paper describes the effect of selected dramatherapy techniques on addicted clients in a detoxication ward. The paper focuses on four specific techniques. The mask, the metaphor, the symbol, and the puppet. The authors of the paper investigated the patients' feelings evoked by these techniques, what the patients were thinking, and whether they gained any deeper experiences. In the paper the authors reflect on the suitability of these techniques in the environment of a detoxication ward in Olomouc.*

**Keywords:** *Dramatherapy, addiction, detoxication ward, dramatherapy techniques, mask, puppet, metaphor, symbol*

## 1 Introduction

In 2009 the authors were offered to join a team of volunteers and to attend a detoxication ward in Olomouc. In the ward the volunteers delivered dramatherapy interventions (referred to as DI). The authors became interested in working with the clients and started to explore dramatherapy aimed at addicted persons. On the basis of the authors' experience gained in the course of several years of active participation in dramatherapy sessions in a detoxication ward, they noticed a lack of dramatherapy techniques using artistic materials or masks. This fact motivated them to carry out a research study aimed at these types of techniques. After each dramatherapy intervention a feedback session took place with the participants, but in the author's opinion, the reflection was rarely satisfactory in terms of the effect of the technique on the participants. On the basis of these findings, the authors decided to explore the techniques in detail.

## 2 Mask, symbol, metaphor and puppet in dramatherapy

To achieve its objectives, dramatherapy uses various theatrical and dramatic means. The basic dramatherapy technique is improvisation. This is because improvisation reflects (unlike structured play) the client's internal state (Valenta, 2011). According to Majzlanová (2004) other techniques include **mimic and speech exercises, dramatic play, verbal play, role play, scenario, myths, stories, working with a text, storytelling, make-up, masks, puppet or hand puppet play, movement, pantomime, playing with objects, and drawing**. There is a great variety of means and techniques. Other authors suggest different types of classification.

*Masks* are often associated with a ritual. The use of masks (and ritual) in dramatherapy has a prominent position. Masks are used for a wide range of purposes. Most often, they are used as a tool of disassociation and 'anonymization' of the characters (Valenta, 2011).

In dramatherapy, this can be achieved especially by masks on the face and face colours. The mask is deliberately used to search for expressions, achieve reflection of the soul, release tension, or gain experiences. The mask can be used as a relaxing or occasional technique to liven up a dramatherapy session, sometimes as part of dramatherapy intervention, or as a separate technique with its own story, course and gradation. (Majzlanová, 2004)

Working with the mask in dramatherapy aimed at addicted persons is also referred to by Boháčová (2009), who emphasises the therapeutic value of the mask. In history, the mask was used for a complete transformation. Gradually, it moved from the sacral sphere into play (theatre). The mask is part of play, in which the principle of 'as if' is induced, thanks to which the client can enter or exit the world of fiction. The mask has a venturing and protective function. It is a vehicle of non-verbal communication. In the first place, the mask is not what it represents but what it transforms. In dramatherapy, masks conceal something but at the same time expose something.

The word *symbol* originally comes from the Greek word 'symbolon', which means a mark that presents visible signs of invisible reality. Symbolic thinking can be seen all around us. In literature, paintings, speech, fairy tales, myths and rituals. Things become symbols when they are linked with an emotion and evoke this emotion whenever these things are seen (Wollschläger, 2002).

In therapy, symbols can be represented, for example, by symbolon cards. These cards can be used as a means of expressing emotions, situations or relationships that are difficult to show for the client. Working with symbols is a process that brings numerous alternatives and ways; each time the course of the process is affected by the group and its dominant energy. Regarding the fact that symbols open topics that are sometimes difficult to open, the therapist-client relationship is of great importance (Olejníčková, Růžička, 2013)

The *metaphor* is an approach used in many therapeutic systems. The significance of the metaphor in dramatherapy is described by S. Jennings (1994) who claims that creating a distance will bring us closer. By using metaphors, the clients can circumvent or overcome their internal blocks or barriers and behave in an authentic way. Polínek (2015) describes the use of metaphors in gestalt therapy with elements of dramatherapy as a suitable technique when the clients find themselves in a stalemate and are unable to deal with the situation. The metaphor brings endless opportunities.

The *puppet* has its magical significance. The clients speak for the puppet and at the same time for themselves. The puppet provides a degree of safety and distance from the problem and the clients' own vulnerability. In this way, the clients are more accessible and willing to react to stimuli, accept and modify their approach or behaviour, and learn empathy and tolerance (Majzlanová, 2004).

According to Majzlanová (2004) puppets or hand puppets in dramatherapy serve the purpose of motivation, establishing contact, presentation of educational principles, rules of drama play, playing a situation or dialogue – as part or an element of a story in different dramatherapy techniques. She also emphasises an important aspect – the clients choose the puppets on their own. Already during the process of manufacture of the puppets their communication improved and the clients established a certain relationship with the puppet, which also improved their willingness to play with them.

Tomanová (2003) emphasises the process of manufacture of the puppets. She describes one of the possible techniques of using the puppet. According to the author, the first stage of the technique is preparatory. The clients think about their puppets, choose materials and actually produce the puppet. The puppet has its own story, character and form. The clients often project something of their own into the puppet. Then the second stage of the technique comes. The clients introduce their puppets and search for a partner to complete the introduction. The final part is an introduction to the remaining clients. In the third stage the creations are analysed including sharing and reflection of the manufacturers.

Jennings (1994) refers to using life-size puppets made primarily of boxes, paper, cardboard and cloth. They are usually led by two persons. These puppets provide their leaders with a greater degree of identification with the puppet.

### **3 Research objective and research questions**

Long before the research, the team of authors had been interested in the effect of dramatherapy techniques in DI on the patients' opinions. In each intervention the authors received verbal feedback from the patients, but this feedback was never verified by an additional method. Therefore, the authors were not sure about the way

the patients perceived the interventions. The authors defined the main and partial objective of the research.

**Main objective of the research: ‘**

*To identify the reactions (behaviours) of patients in a detoxication ward in Olomouc to selected dramatherapy techniques.’*

**Partial objective of the research:**

*‘To identify how selected dramatherapy techniques affect the opinions of persons addicted to alcohol and methamphetamine during their stay in a detoxication ward.’*

Based on the objectives mentioned above, the author defined the following research questions:

**RQ1:** What emotions were evoked in the patients after using the techniques?

**RQ2:** What is the benefit of DI for the patients in a detoxication ward?

**RQ3:** What is the change in the patients’ emotions after completion of DI?

**RESEARCH TECHNIQUES**

**Technique No. 1 CARDS**

The author used Dixit board game cards. These are cards that evoke various associations.

**Course of the technique:**

The Dixit cards are dealt out in front of the clients. The task of each client is to pick a card that represents the client’s current state, is close in some way, or is interesting for some reason.

This is followed by a short imagination, during which the clients meet the card in their thoughts. The therapist leads this imagination session in a verbal way. During the imagination the clients focus on how they perceive the card through the five senses.

After the imagination session they write or draw the following on the paper:

- What they see on the card. (VISION)
- What they smell from the card. Does it produce a smell or not? (SMELL)
- What they hear from the card. Is it just silence? (HEARING)
- What they feel when they touch the card. (TOUCH)
- What their card tastes like. (TASTE)

The clients name the card.

Each client shows the card to the group and says the name of the card. Then the client places the card on the floor in front of the therapist. The cards form a ‘line’ in front of the therapist.



This line divides the room into the auditorium and the stage. The auditorium is the therapist's part. All clients stand in the auditorium. The task of each client is to play their card by means of movement. The clients come to the stage one after another and perform the card by means of movement. After that they return to the auditorium.

The clients return to their places. Now they have an opportunity to redraw the card to be happy with it. (Add something or redo the card completely). The purpose is to feel well with the card. If the clients are happy with the card, they need not redraw it. Then comes the sharing and reflection phase.

### **Technique No. 2 METAPHORES**

#### **Course of the technique:**

The therapist explains to the clients what a metaphor is. In the group they recall famous metaphors. For example: *'Life is like a box of chocolates, you never know what you are going to get.'* (Forrest Gump) The clients' task is to think about the word 'LIFE' and make up four metaphors.

These metaphors must begin with: Life is like...

- Metaphor 1 – the clients compare life to food or drink.
- Metaphor 2 – the clients compare life to a geometric shape.
- Metaphor 3 – the clients compare life to interaction between people (for example: joint breakfast, arguing, etc.)
- Metaphor 4 – the clients make up their own metaphor about life.

The next step is as follows. If the clients are interested, they present their metaphors to the group. In the whole text, the clients identify four words that are most important. The clients use these words to write a story. The stories are read in front of the group. Sharing and reflection

### **Technique No. 3 MASKS**

In this technique the author used usual sturdy paper masks. In a gentle way, the author indicated the eyes, nose and mouth not to attribute any emotions to the mask. At the beginning the participants coloured the mask and wrote on it from both sides according to the instructions and then attached a skewer. Some of the clients used an adhesive tape, some did not. In the research, the purpose of the mask was to provide a distance. The task for the participants was to think about their own personality, their qualities, skills, about what they like or what they dislike. The development of the mask was preceded by short activities that helped the participants grasp the topic in various ways. This was the statue technique and systematic classification of thoughts.

### **Course of the technique:**

The clients are given A4 papers and pencils. The clients are asked to divide the papers into four boxes. Then the following questions are asked and answered:

**Box 1** – What I like, my interests.

**Box 2** – What I dislike, my fears.

**Box 3** – What I value about myself.

**Box 4** – What I would like to change about myself.

(This technique was used first to make the participants think about themselves. These people often need an order and structure.)

This was followed by the main statue technique.

### **Statue**

- First the clients are explained what to expect.
- Then they are asked to walk around the room. First the clients think about the first box. They choose one thing that was written in the first box on the paper and think about its form.
- On the therapist's clap of the hands the clients freeze as a statue that represents the thing or emotion. They remain as a statue for 2 seconds. The therapist claps again and the clients start moving.
- In this way, the clients 'sculpt' four statues. One statue for each box.

The objective of the technique is to touch the topic physically. To establish a link between the thoughts and the body.

### **Mask**

The therapist gives the clients white masks and instructs them to choose two things that characterize them (they can choose from a list). The clients portray one thing (part) on one mask (drawing or words), the other thing on the other mask. Whether the masks are different, both positive or both negative is up to the clients.

### **Appearance**

This is the final part of the technique.

- The therapist divides the space into the stage and the auditorium.
- All clients stand in the auditorium.
- Each client goes 'on stage' facing the audience. Then they put the mask on their face and say: 'This is me' – the client stays in the position for 5 seconds, then turns over the mask and says: 'This is also me' – and stays for another 5 seconds.
- After that the client returns to the auditorium.

This is followed by the sharing and reflection phase.

## Technique No. 4 PUPPETS

### **Course of the technique**

The clients are provided with various materials and objects: wire, paper, newspapers, scissors, adhesive tape, glue, skewers, wax crayons, etc.

The clients make a puppet that represents a thing or a person that they are thinking about. On a piece of paper the clients write the name of the puppet, what it likes to eat, where it lives, what it likes doing. Then they present their puppets to the group. This is followed by the reflection phase.

## **4 Research methodology**

The authors chose a **qualitative approach** based on specific methods that they wanted to use in the research. They focused on the clients' opinions and feelings during DI, and on what the clients think about DI. The authors assumed that in the case of a quantitative approach the quality and accuracy of the responses could vary considerably. Therefore, they decided to approach the patients directly.

The qualitative approach allows a detailed analysis of a research problem. The research questions and research objectives may be revised and changed. In addition to the research questions, the researcher also formulates hypotheses and new decisions. The researcher meets new people and works in the field. Various notes are made all the time. The researcher tries to take advantage of each piece of information (Hendl, 2016).

### **4.1 Triangulation**

helps improve the validity of the results. This is a more difficult procedure for the researcher but provides greater quality. There are several types of triangulation. However, these types are further classified. A system of classification is presented by Hendl (2016), a different system by Miovský (2006), another one by Švaříček, Šedová (2014). These systems of classification are similar.

For the purposes of the present research the **methodological triangulation** was selected. This type of triangulation may be characterized as follows:

*'The same phenomenon is analysed by different methods and the outcomes are compared.'* (Chrastina, Ivanová, 2010, p. 158, Table 1)

The importance of methodological triangulation is described by Miovský (2006). This approach can be used to identify any differences between various methods. The ways that they complement each other, overlap or contradict.

## 4.2 Description of the research sample

The research participants were recruited by means of **deliberate sampling**. According to Miovský (2006) this is the most common sampling method. A predefined criterion is used to deliberately recruit individuals who meet this criterion or a set of criteria and at the same time are willing to participate.

The research sample consisted of addicted patients staying in a detoxication ward in Olomouc. In most cases, the patients were addicted to alcohol and non-alcoholic substances. The group of participants consisted of both men and women. Specifically, they were four women and three men aged 16 to 70 years. The length of their stay in the detoxication ward was at least four weeks.

The authors defined the inclusion criteria with respect to the main and partial research objective. The criteria were as follows:

- The participant must be present in all four DIs;
- During the treatment process, the participant must stay in the detoxication ward in Olomouc;
- The participant must agree with the research study by signing an informed consent form, in the case of participants younger than 18 year their parents' consent is required;
- The participant must be addicted to alcohol, methamphetamine or marijuana.

## 4.3 Data collection methods

The data collection method was the interview, observation and an additional method using the participants' diary.

### Observation

The observation was carried out in the patients' meeting room. This room is also designed for all joint therapies, sessions and joint meals. For better clarity of information and notes during observation, the authors developed a record sheet, in which they immediately wrote the results of observation. During observation, the authors focused on verbal and non-verbal communication and the participants' behaviour. This was participant observation, which means that the interventions were in fact led by the authors.

### Interview

The data collection method was the interview. The questions of the interview were derived from the research questions. The questions were divided into two parts. The first part included questions aimed at the intervention techniques. This part included five basic questions for each technique. The other part consisted of additional questions relating to leading DI sessions and dramatherapy in general. The additional

questions were included in the interview on purpose. The researchers wanted to make sure that the participants are not influenced by the way the interventions are led. They were interested in the participants' opinions about DIs in the detoxication ward. The interviews took place in the participants' rooms. The interviews were always attended by the questioner (author) and the participant. The interviews took place after completion of all four interventions. The interviews lasted for 20 to 30 minutes.

### **Diary**

The third data collection method was an analysis of the participant's diary. The authors attended the ward only once a week. In this way they used the time that the participants had between the interventions.

The techniques investigated by the authors could reveal a personal memory or an important idea that the participants did not want to share. Some ideas are better written on a piece of paper than spoken about. For the team of authors, these diaries were extremely important. This is another method by means of which the authors confirmed their assumptions. The diaries helped understand the participants' experiencing.

## **4.4 Data analysis methods**

For the purposes of the research, the open coding method was used to analyse the interviews and diaries. The general principle of this approach is a breakdown, classification and rearrangement of the information obtained. Basically, the text is broken to units that are named by the researcher. After that the researcher works only with the names (Švaříček, Šedová, 2014).

The authors followed the method described by Švaříček. The authors read the text carefully sentence after sentence and gradually classified the text into **units**.

Šedová (2014) states that a unit might be a word, sentence, paragraph or a sequence of words. Each unit is then assigned a **code**. *'In selecting the code one must ask what the sequence shows, what phenomenon or theme it represents.'* (Švaříček, Šedová, 2014, p. 212). The codes are constantly referred to, revised and reworked as necessary. An author who uses the method of open coding must know the meaning that each code signifies.

As written above, the re-written text is broken to units. These units are assigned codes. The authors used the Microsoft Word programme. In this programme they made a comment for each unit and specified the code. These codes usually took the form of a word or a sentence.

After that the authors used the axial coding method, which follows open coding. The aim of this method is to group the codes by their internal phenomena and meanings. This is performed by means of comparing, searching and identifying

relationships (Miovský, 2006). The authors developed a table including codes and example units for better clarity.

The results were summarized using the method of secondary interpretation. According to this method, the researcher analyses the material again (Švaříček, Šedová, 2014).

The data collected by means of **observation** were included in a single table developed in the Microsoft Excel programme.

## **5 Data interpretation**

### **5.1 Secondary interpretation – interviews**

The results suggested that the participants did not describe specific feelings. Instead, they expressed their feelings by means of thoughts. The authors asked about the participants' feelings, some of them answered but most of them did not.

#### **Technique No. 1 Cards**

This technique had a different effect on each participant. Some participants became absorbed, some focused solely on the card, some were surprised by the technique. This technique made the participants think about their lives, about themselves and their addiction. The pictures on the cards made the participants expose their souls. Only one of the participants thought about the significance of the card as such. The participants' thoughts during this technique were based on their themes. In most cases, the participants thought about their lives. Their thoughts during this technique were linked with their lives. Some of the participants understood the significance of the present, some emphasised their future without addiction, some thought about the past and what they had lost. One of the participants did not make an association. Instead, the participant thought about the card as such. For most of the participants this technique was beneficial. After this DI, the participants often returned to the themes they had thought about. The success of the technique was confirmed by the fact that some of the participants were interested in trying this technique with different cards.

#### **Technique No. 2 Metaphors**

This technique focuses more on thinking and is not as spontaneous as the card technique. This requirement had an effect on the participants' feelings. Some of them were nervous and did not know how to create a metaphor. For other participants this technique was entertaining. For some it was a creative challenge. As suggested by one of the participants, a significant factor was the mood of the participant during DI. This technique specifically focuses on the theme of life. Most of the participants thought about their lives. About the past or the present. This technique supported

group dynamics. In the group, the participants read their metaphors/thoughts about life. The participants had an opportunity to think about ways that the reader thinks about life. In most cases, the participants were enriched with the thoughts of other participants about life. In this way, the technique was beneficial also for those who failed to create a metaphor. For some of the participants the thoughts were so strong that they returned to them. Other participants forgot about their metaphors and thoughts right after DI. The participants suggested trying the technique with a different word. For example addiction.

### **Technique No. 3 Masks**

This technique evoked various emotions in the participants. Some of them thought that this technique was great. On the other hand, some of the participants were not so excited. During this technique the participants thought about themselves, about their lives, about their faces, and about the others. The things that the participants thought about included themselves and their faces. What their faces look like under the influence and when they are clean. This technique was rather non-verbal, which was welcomed by some of the participants. They had an opportunity to draw their qualities. In this way they exposed a little of themselves to the others. The participants returned to these thoughts. At the end of the interview they pointed out that more time would have been appropriate, and also complained about other patients who disturbed the technique by loud conversation.

### **Technique No. 4 Puppets**

In most of the participants this technique evoked pleasant feelings. The participants described their emotions such as it was fine, I enjoyed it, I was in a good mood. The participants' puppets usually represented something close, in several cases it was directly the habit-forming substance, some puppets represented specific problems. During this technique the participants thought about their own creations and the puppets of others. The thought associated with this technique related to life in general, life without addiction, the participants' personality.

### **Additional questions**

Five of the seven participants have not experienced dramatherapy before. The leading role of the therapist was assessed positively by everybody. The participants used words such as 'nice', 'fine' or 'great'. They liked the fact that they were not forced to carry out activities. That each activity was voluntary. The overall assessment of dramatherapy in the ward was positive. Some of the answers suggested that dramatherapy was something new that provided relaxation and entertainment. (Laughter relieves tension). The dramatherapy techniques supported group dynamics. The participants appreciated the voluntary nature of the activities and joint agreements that created

a safe environment. They also assessed dramatherapy as creative, which allows the participants to face their problems and themselves in an easier way.

## 5.2 Answers to the research questions

### **What emotions were evoked in the patients after using the techniques?**

The participants did not name their emotions and feelings. They rather compared their emotions to their thoughts. According to the respondents, a crucial aspect is the mood of the participants during DI. Different people like different ways of working. For this reason, the techniques evoked various emotions. Some of the participants felt joy and described their emotions with entertainment. Others who dislike drawing and using materials did not enjoy the technique. In each technique the participants felt different emotions.

### **What is the benefit of DI for the patients in a detoxication ward?**

DI is beneficial for the patients in a detoxication ward in many ways. Firstly, it is a type of activity not led by medical staff in a white coat but a volunteer. It is a type of therapy unknown to the patients. It is presented in a friendly way, which is not typical for a detoxication ward. In the course of DI, the patients are not forced into activities. If any of the techniques is unpleasant, they may decide to quit. As a result, they need not be nervous and wait for example for 15 minutes before somebody else finishes (as is usual in group therapy – author’s note). It is up to the patients whether they want to express themselves.

Dramatherapy uses group dynamics. However, group dynamics needs to be built inside the group. By means of short and entertaining games the patients relax, forget about their problems for a while and are themselves for the moment. This was appreciated by many of the participants. The patients in the group looked at each other from a different perspective. They saw themselves as somebody who likes fun and who is creative. They saw themselves as somebody who has gone through some life and who is unique. Not just as alcoholics and drug addicts.

A safe environment encourages even those who are less talkative to open up. To speak about their life and addiction.

### **What is the change in the patients’ emotions after completion of DI?**

Most of the participants consider DI positive. They reflect on their mood as follows: *‘better mood, problems forgotten, laughter, releasing internal tension.’*

## 5.3 Interpretation of results

The objectives defined by the authors were as follows:



### **Main objective of the research:**

*‘To identify the reactions (behaviours) of patients in a detoxication ward in Olomouc to selected dramatherapy techniques.’*

The participants’ responses to these techniques were mostly positive. The participants were relaxed and learned something new about other group members. In a playful way, they encountered their problems and their life. This was also appreciated. Although the technique might not be interesting for everybody, the benefit of the intervention is watching others.

### **Partial objective of the research:**

*‘To identify how selected dramatherapy techniques affect the opinions of persons addicted to alcohol and methamphetamine during their stay in a detoxication ward.’*

The techniques investigated by the research study really help the participants think about themselves, their lives, their thoughts. The formulation of the task itself urges reflection. In most cases the participants named their thoughts. They thought about their addiction, their life, their relatives, and about themselves.

The results of the research confirmed the suitability of application of these techniques in a detoxication ward. Volunteers should not be afraid to try out more creative DI techniques. A significant aspect is to include suitable warm-up techniques. There are always some patients who dislike the technique. Even in such case, however, it is beneficial for them to sit and watch. Observations suggest that persons addicted to drugs engage with a greater amount of energy and spontaneity than persons addicted to alcohol and medicine.

## **6 Discussion**

In this part of the text the authors consider the limitations of the research study. They assess the results of the research and propose practical recommendations.

### **6.1 Limitations of the study**

Although the aim of the research was achieved, the author noticed several limitations of the study that could have affected the results.

The main limitation is the insufficient number of similar studies in the Czech Republic. Research studies on this issue in a similar environment that the author compares have only been carried out in the detoxication ward in Olomouc.

Another limitation considered by the author is the time of DI in the detoxication ward. DIs were carried out between 4 and 5.30 pm. During this time of the day the patients are tired, often hungry before their dinner, and their moods vary depending

on the previous programme. The time of DI has not been changed so far. The detoxication ward has a strict daily regimen.

Another limitation might be a negative atmosphere in the group. Internal conflicts. Some of the participants might have been affected by the problems of other patients. One research participant was sad because the mother of one of the patients had died. The participants need not have concentrated on the technique during the implementation of the research.

The results might have also been affected by the method of observation. The authors led DI personally and wrote down the findings after completion of DI.

Last but not least, it is important to take into consideration that the research was carried out only in a single detoxication ward in Olomouc. The research team believe that this is a considerable limitation. The authors would be very much interested in patients' reactions in other detoxication wards in the Czech Republic.

## 6.2 Practical recommendations

During the implementation of the research the authors thought about possible ways of using the results in a practical environment. This primarily relates to practical findings.

The research participants appreciated the combination of movement techniques and quiet techniques (in the sitting position). The research team recommend that various dramatherapy techniques should be used.

Dramatherapy uses various types of cards. Usually they are symbolon cards. The author prefers the Dixit board game cards, which proved to be a suitable tool for use in drama therapy interventions. They represent objects into which patients can easily project their current state and their own thoughts. The authors recommend these cards as a possible means of dramatherapy.

The clients in a detoxication ward are diverse. Mostly they are older persons with various diagnoses. These persons need not necessarily know terms such as 'metaphor'. The authors believe that each therapist should take these details into account.

In addition to unknown terms, the clients often asked what the technique was good for and what its aim was. The therapist should also be ready for these types of questions. The patients are interested in the techniques but sometimes do not see the sense of playful activities.

The authors also believe that the patients should be offered not only artistic methods of expressing their thoughts and feelings, but also writing. For some drawing may be stressful, which might have a negative effect on other activities. The research participants appreciated various possibilities of expression.

A positive aspect was the thematic link between warm-up and the main technique. In this way, the patients were prepared for the main technique. This was a common thread of DI.

## 7 Conclusion

The authors tested the effectiveness of selected techniques with persons addicted to alcohol and methamphetamine. The research team concluded that these techniques were applicable in a detoxication ward. It is however recommended to revise the warm-up techniques that precede the main technique. The research suggested what the patients thought about dramatherapy. Dramatherapy is an important element of treatment in a detoxication ward, introduces new approaches, group dynamics, entertainment, and releases tension in the group. The main data collection methods included the interview, observation and an additional method using the participants' diary. This was the basis of the methodological triangulation approach. The data achieved were analysed using the open coding method, followed by axial coding and secondary interpretation.

The authors believe that the present research study enriches the theoretical background of the issue, improves the position of dramatherapy in the healthcare sector and highlights the significance of this form of therapy in a detoxication ward.

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# Personality centered approach to education of children with emotional and behavioral disorders: intervention through the eyes of educational professionals from residential educational facilities

Karel Červenka

***Abstract:** This paper explores the role of personality-centered approach to education (Helus, 2009) in the intervention in children with emotional and behavioral disorders (EBD). Selected findings of the author's qualitative research, the participants of which were educators from residential educational facilities, are also presented in the text. The author compares research findings concerning the so-called personality-holistic approach of educational professionals to these children with the personality centered approach to education defined by Helus. The research focused on their professional experience and their opinions regarding children with EBD.*

***Keywords:** Emotional and behavioral disorders; special needs education; children with EBD; child centered approach; intervention; educational needs.*

## 1 Introduction

The aim of this paper is to find an answer to the question of what role can personality centered approach to education play in intervention in children with emotional and behavioral disorders.

Our main starting points will be the Helus' (2004, 2009) definition of personality centered approach and selected findings from qualitative research, which show personality focused tendencies in approaches of educational professionals from educational facilities. This text therefore follows loosely the conclusions of the research monograph (Červenka, 2016) in which these findings were analyzed and where the specific concept of intervention in children with emotional and behavioral disorders (hereinafter referred to as «EBD») described in the interviews by participants.

Helus' (2004, 2009) book *Child in Personality Centered Approach*<sup>1</sup> is far from addressing the issue of educating children with EBD. On the contrary, it is a general educational book oriented on education of *all* children. Students of special needs education focusing on children with EBD to whom we give the Helus' book to study keep asking what is the use or inspiration of his book in their field.

The answer can be very simple: simply because *they are primarily children* whose behavioral disorders hinder proper development. But even such a simple answer deserves a broader explanation, to which the following text is devoted.

## 2 Aim of children education and personality centered approach to education

Helus' (2004, 2009) personality centered approach to education applies to *all* children. If we wish to apply this concept to the situation of children with EBD, it is necessary to find areas of shared interest between the approaches of general education and special education. The common goal is undoubtedly the goal of education: maximizing the individual's development potential. However, there are differences in the means used.

According to the Salamanca declaration, education is the right of every child. Similarly, it is their right to have "the opportunity to achieve and maintain an acceptable level of learning". The statement also takes into account that "every child has unique characteristics, interests, abilities and learning needs" and that education systems and programs should allow for "the wide diversity of these characteristics and needs" (UNESCO, 1994).

The *wide diversity of the characteristics and needs* of the child does not necessarily include only the characteristics typically associated with childhood (e.g. the identity crisis in adolescents<sup>2</sup>). It may also include special characteristics related to emotional and behavioral disorders (e.g. fixed behavioral patterns, disturbed relationships with peers and teachers)<sup>3</sup>. These characteristics carry specific educational needs with them.

The notion of education may relate not only to "knowledge and learning", but also to "acquiring social and other skills, spiritual, moral and aesthetic values and desirable relationships to other people and to society as a whole, to emotional and other development [...]". Thus, education focuses on both the personal level of development and integration of the individual into society (Bílá kniha, 2001, p. 14-15). Understanding education as "just teaching knowledge and listening to orders" is an oversimplification: "The teacher understands socialization issues and provides

<sup>1</sup> There are two editions of the same book, the latter has been extended and reworked.

<sup>2</sup> Cf. Erikson (1999).

<sup>3</sup> Cf. Bower (1981).

education as a comprehensive integration into society and application to it.” (Helus, 2015, p. 107)

The means to this end should include, *inter alia*, “ensuring a fair access to educational opportunities” in the sense of free choice of path and institutions to education, and “the creation of adequate educational opportunities and forms for all by their capabilities, requirements and needs” (Bílá kniha, 2001, p. 17). General education and special needs education often differ in the ways and means of ensuring this equitable approach. Education of children with EBD in which “there is segregation (exclusion of an individual from his or her natural social environment and placement in a school facility for institutional or protective education<sup>4</sup>) using an intervention” would be an example. In other special needs education disciplines, intervention is directed primarily at mainstream schools. (Vojtová, 2008, p. 20)

The personality centered approach is one of the paths to the educational goal. Zdeněk Helus understands the concept of personality centered approach as an approach that treats the child “as a personality in its emergence and development”, while the “tendency to develop as a personality” is understood as natural and essential to every child (Helus, 2009, p. 259).

Advocates of the personality centered approach understand that all children have a tendency to develop; towards ever higher stages of development; to integrate into interpersonal relationships and to be (in various ways) in mutual trust with other people; to become a man or a woman; to realize and update their potentials; to shape their self-concept and to express their identity; to have control over their lives, to be who they want to be and to achieve the goals that give their life purpose and bring them joy (Helus, 2009, p. 259–260).

In addition to enumerating the children’s developmental tendencies, Helus (2009, p. 108) lists four personality qualities that are specific to the child and refer to what is “an important internal prerequisite for a child’s personal development”: a) open-minded experiencing (accompanied by the risk of vulnerability); b) reliance (accompanied by the risk of disappointment in others); c) developmental direction (accompanied by the risk of deformation), and d) a wealth of development opportunities (accompanied by the danger of them getting wasted).

With these prerequisites of personal development “the child turns to the educator” and the educators base their educational activities on them (Helus, 2009, p. 123). This, however, requires “an educator who understands this tendency, takes it seriously, helps it in a proper way, and provides support and counseling” – such an educator applies a personality centered approach to the child (Helus, 2009, p. 259-260). The

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<sup>4</sup> It may also be another facility (not only for the exercise of institutional or protective education) – for example, a center for counseling care, which is a preventive educational facility, and a two-month stay in its boarding department is based largely on formal volunteering of the child.(see Zákon 109/2002 Sb.)

role of the educator lies in helping the child to use his/her potential to grow to adulthood (Helus, 2004, p.80). As I will show later, similar attitudinal tendencies towards EBD children do exist among educators.

The child should be approached with the awareness of the importance of the development aspect. This is how we concentrate more on how personal “qualities originate and evolve – whether they are inhibited or deformed in their origin and development.” From this perspective, “the child is a personality in the dynamism of its constitution (origin)” (Helus 2004, p.86).

### 3 Emotional and behavioral disorders as a barrier in the child’s life path

The issue of emotional and behavioral disorders is primarily addressed in terms of its manifestations (aggressive behavior, conflicts, etc.), which are perceived as a negative deviation from social, age-related and other norms (cf. Pokorná, 1993). Common trends in approaches to “problem” behavior are well documented by the statement that “teachers often respond to behavior rather than the need the child expresses in their behavior, which may lead to deterioration in case of problematic manifestations” (Ayers, Clarke & Murray, 2000, p. 63). These approaches to EBD help in basic orientation in the situation. However, in isolated form they do not say much about the child’s educational needs (cf. Vojtová, 2008), and they do not even focus our attention on these needs. However, from the point of view of the educational effect on the child, it is not enough to base one’s response only on the phenomenal aspect of the issue, from the description alone.

This is why we understand emotional and behavioral disorders as a specific barrier to the child’s life path (see Vojtová, 2010; Kaufman & Landrum, 2013) – as a factor that *inhibits* or even *deforms* development of the personality qualities of the child.

This approach to EBD is taken into account, for example, in the definition of emotional and behavioral disorders of the American National Mental Health and Special Education Coalition (1992), which, in addition to normative comparison of the child’s manifestations (differences) with external standards, takes into account the dimension of a perspective, i.e. the consequences of the situation for the child’s life career:

(i) The term “emotional or behavioral disorder” means a disability characterized by behavioral or emotional responses in school so different from appropriate age, cultural, or ethnic norms that they adversely affect educational performance. The educational performance includes academic, social, vocational, and personal skills. Such a disability



- (A) is more than a temporary, expected response to stressful events in the environment.
- (B) is consistently exhibited in two different settings, at least one of which is school-related; and
- (C) is unresponsive to direct intervention in general education or the child's condition is such that general education interventions would be insufficient.
- (ii) Emotional and behavioral disorders can co-exist with other disabilities.
- (iii) This category may include children or youth with schizophrenic disorders, affective disorders, anxiety disorders, or other sustained disorders of conduct or adjustment when they adversely affect educational performance in accordance with section (i).

For a deeper understanding of the situation of a child with emotional and behavioral disorders, we will use Goffman's (1986) theory of stigmatization. The author sees it as a special social process that can lead to the *exclusion* of a stigmatized person from *full social acceptance*. In this case, the stigmatized person is "reduced in our minds from a whole and a normal person to a tainted, discounted one" (Goffman 1986, p. 3). This has real consequences: for example, people are less friendly towards the stigmatized person, reluctant to help, or, in the extreme case, they seek to physically destroy him/her<sup>5</sup>.

A typical reaction to a stigmatized person is discrediting, but Goffman (1986) points to other types of reactions. One of them may be the reaction of *the wise*, which he divides into two basic groups: 1) persons who are related to the stigmatized person through social structures (relatives, friends); and 2) persons who come into contact with the stigmatized professionally (Goffman, 1986). Reactions to the stigmatized can be interpreted as understanding or supporting (Červenka, 2013).

*The wise* professionals are key to this paper, because, for example, educational professionals from educational facilities (special educators, educators) can play such a role. Their professional position and experience is an opportunity to get acquainted with the situation of EBD children and to adopt a personality centered approach to the intervention process. Their actions may provide a counterbalance to depersonalizing effects<sup>6</sup> that emotional and behavioral disorders bring to the child.

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<sup>5</sup> Cf. Z. Bauman (2003) writing about holocaust this context.

<sup>6</sup> Helus (2004, pp. 153–158) presents several *depersonalizing attitudes towards the child*: a) the child as a material, an object of manipulation; b) the child as a threat, a burden; c) the child as a compensation for own educational deficiencies; and d) being blinded by the child – protectionist reductionism. In the context of emotional and behavioral disorders, it is essential to emphasize the second of the depersonalizing attitudes – the child as a threat and burden.

## 4 Methodology

Qualitative research, the findings of which I rely upon in this paper, was focused on the experience of educational professionals from residential educational facilities and their approach to children with EBD. The research was conducted in 2012-2015. The process of intervention in children with EBD constituted my framework of interest.

The main thematic areas were represented by the following questions: a) What importance do the educational professionals attribute to their relationships with the children with whom they work? b) What are the essential circumstances of the intervention relationship (sources, barriers)? c) What educational needs of children with EBD are considered by education professionals to be essential?

In view of the research objectives, a qualitative method was chosen and the dominant technique of collecting data material was a deep semi-structured interview with a total of 15 participants – educational professionals. In order to address the ethical dimension of the research, informed consent was required before the interviews. Participants were selected through a deliberate selection, its main criteria included diversity of their professional experience. The choice took into account the criterion of “generalizability of cases to theoretical assertions rather than to populations or universes” (Bryman by Silverman, 2005, p. 118). Diversity of the data was ensured by the variety of facilities in which the participants were active (facilities for institutional or protective education: diagnostic institutions, children’s homes with schools, educational institutions, counseling care centers). In addition, this variety was ensured by a variety of professional positions and roles (facility managers, special education teachers – ethopedists, teachers, educators). In addition to the interview technique, the data was collected through three pre-research group interviews and field notes.

The collected data material was analyzed on an ongoing basis from the position of an ethnographic approach (cf. with Emerson, Fretz and Shaw, 1995) and was conducted at two levels – at the level of *open coding* and *focused coding*. Most of the topics and findings that emerged from the analysis were published in two research monographs (Červenka, 2014, 2016).

## 5 Personality-holistic approach of educational professionals

I formulated the concept of *personality-holistic approach*<sup>7</sup> while analyzing the data (see Červenka 2016), when I noticed in many participants’ (educational profession-

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<sup>7</sup> Using this very concept rather than an established concept (person centered approach – Rogers, the personality developing education – Jedlička) was an effort to emphasize that I refer to the tendency towards a certain interventional concept that were captured in qualitative research and which may not exactly correspond to various established theoretical concepts. The notion of personality-holistic approach should also underline those of its features that can be counterbalanced by the effects of stigmatization and labeling, or be a counterbalance to the tendency

als) testimonies their attitudes towards children as *persons who have problems* rather than *problem person*. It was a manifestation of the approach that we could refer to as a *holistic view of the personality*.

These attitudes did not appear to be of explicit nature in the data material. Similarly, the personality-holistic approach cannot be considered as an approach in the true sense of the word, but rather as attitudes or attitudinal tendencies, which were to a large extent common to many research participants. The research findings are not generalizable for the entire population of educational professionals from residential educational facilities. They show, however, that these attitudes tend to occur and that they attributed importance to them in the intervention process (Červenka, 2016).

I shall begin with two excerpts from interviews in which the participants expressed their attitude beyond the narrow view of children being perceived only *through* their problem:

One participant (P7) characterized children with EBD as follows: “**they are not any different**, *it is just that they had a little different ... they had a different regimen, different rules... They need to be treated a little differently...*” (P7). Similarly, another participant (P6) characterized the children with whom she works (i.e. children with EBD) as follows: “*What kind of children do we have here? Well, I'd rather say **we have kids here**. [...] They are not inmates to me, **they are just children**. To me, they're like everybody else. .. I think they're not much different from ordinary children. .. It's just kids undergoing puberty.*” (P6)

One of the key topics that emerged from the analysis of the data material was the relationship and the role it may play in the intervention process in children with EBD. For example, the role of a relationship as an instrument and prerequisite for a successful intervention lies in personal relationships between teachers and children. The relationships must be frequent, long-lasting, and often intense (“*It is almost like we live here with the kids.*” P6), while experiences from stressful situations are often shared. These relationships are opportunities for the educators to get acquainted with the child in different contexts, with the child's situation and perspective. This is in itself an opportunity for educators to become *the wise* (cf. Goffman, 1986) and to approach the child as a personality with a variety of characteristics, including those associated with “problem” behavior (“*They are little rascals, but we are still quite fond of them.*”<sup>8</sup>). (Červenka, 2016)

The tendency to personality centered approach was also apparent from the partner-like and child-respecting approach, which was illustrated in a statement by

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to reduce the personality of a child with EBD to those attributes associated with the “problem”. (Červenka, 2016)

<sup>8</sup> This is a reconstruction of the sentence used during an informal interview that concerned education of children with ADHD.

participant P2a, when he perceived the following situation as a success: «*when the child becomes our client*», defining as a client a person “*who actively enters into [intervention, counseling] relationship*”.

Participant P12 spoke about **relationship**, the essence of which he defined as a partnership, not between an educational professional and a client, but rather **between human beings**. He also described this form of relationship explicitly as a need of children with EBD: “... *although we do not really allow the children to call us by our first names, we actually do have that kind of relationship. [...] . . . that there is no institutional barrier, what I represent, I am simply a human being. Yes, I think this is what they need a lot. Being accepted perhaps as a partner, as an adult to adult, because I'm there for them, rather than they for me.*” (P12)

The statements of the participants that I interpreted as a tendency towards a personality-holistic approach, suggested the existence of an informal, although not clearly articulated, shared norm, which I termed *imperative to respect the child and help him/her* (Červenka, 2014).

## 6 Personality centered approach to education through the eyes of educational professionals

Now I will interpret excerpts from research interviews through the optics of four prerequisites for the personality development of the child (open-minded experiencing, reliance, developmental direction, wealth of developmental possibilities) as defined by Helus (2009). With their help (Červenka, 2016) I described the basic parameters of the aforementioned personality and holistic approach.<sup>9</sup>

### 6.1. Open-minded experiencing

Open-minded experiencing is “linked to the desire to have something common with other people, to be interested, to explore, to ask and answer, to look forward to what comes, to learn new things and to show it” while “the disposition of the child to open-minded experiencing is essential and the priority task in early care is to bring about, empower and exploited this open-minded experiencing”. The child should experience kindness, beauty, truth, order and human interactions (Helus, 2009, p. 108).

Although the child tends towards open-minded experiencing, circumstances that will present obstacles may occur. An example may be flooding the child with “perceptions and experiences that he/she cannot process psychologically.” (Helus, 2009,

<sup>9</sup> We should keep in mind that the four assumptions formulated by Helus (2009) have characteristics of analytical categories that do not exist in the reality, at least not in such an ideal, pure form, but are rather mixed and intertwined in different ways. Similarly, the needs of the child will interweave, as each of them can also respond to multiple developmental prerequisites.

p. 108-109). There is an apparent overlap to the field of emotional and behavioral disorders here.

If something prevents the child from experiencing open-mindedness, he/she should have close relatives who he/she trusts unreservedly, providing him/her with protection and support and preventing his/her traumatization (Helus, 2009, p. 108-109).

Let us summarize the above by asking what needs of the child can be associated with the prerequisite of open-minded experiencing? What *needs to be done* if the natural tendency of the child to an open experiencing is blocked? What does the child need for an open-minded experiencing?

From how Helus (2009) defines the assumption of open-minded experiencing, we can deduce for example the following needs: the need for a secure and trustworthy space; the experience of goodness; the need to have a sense of belonging with others, to experience social acceptance and the feeling of being important to others, etc.

For open-minded experiencing, the child needs a **secure and trustworthy space** and **unreserved trust** (at least in some) other people, it needs **to experience interest of another person in him/her**.

A common topic in the interviews was trust in the lives of children with EBD, especially when the child lost trust in other people after a bad experience of disappointment. The participants then spoke of the **need to restore the child's trust in other people** and, since trust in others is linked with self-confidence, to teach the child to trust others and self. A relationship between the teacher and the child built on trust can be a means to restore the trust of the child in others: "*... that the child will start perceiving, experiencing, believing and trusting that the care he/she receives can be fair.*" (P8a)

Trust was also seen by the participants as a prerequisite for the intervention relationship between the teacher and the child and the open communication in it:

*"The trust allows me to play a clean game, so to speak. [...] . we really can be straightforward with each other.[...] I believe it is essential in life, because as long as I trust myself, I trust others."* (P12)

The participants spoke of opportunities that they provide to the children **to let them express their emotions safely**: "*As soon as they engage in the life of the facility where they form relationships with the teachers and the wardens, and vice versa, this is when they start receiving emotional support, too.*" (P4)

Participant P6 considered emotional needs and described the opportunities for the child to express their emotions in the relationship between the teacher and the child: "*Many children [...] are emotionally deprived [...] Some kids come back from school and want to be fondled. [...] Some bigger kids come to shake hands. [...] Some just need to talk. Some nod to greet us. [...] This is what they miss. And what they need.*

[...] *Every child has someone, be it a teacher, a warden, no matter who, assistant teacher, who is a little closer to them.*" (P6)

To experience the desire to *have something in common with other people*, the child needs to feel part of the community, which refers to the need for experienced solidarity, they need an opportunity to feel being a member of the community, to receive social acceptance (in contrast to the effects of stigmatization) and the experience of positive self-perception in relationships (cf. Vojtová, 2010)<sup>10</sup>, which is closely related to the interest shown by others in the child.

Participant P6 has spoken about **accepting the child for who he/she is**: *"I am interested in you and ... I am not condemning you."* (P6) Participant P1 stressed the need to **be sensible and empathetic towards the child** in the interview: *"It requires huge attention, huge empathy, to make the little person trust you. ..."* (P1)

Helus (2009, p. 109) writes about the five experiences (goodness, beauty, truth, order, human-to-human interactions) that the child needs to be provided. For example, the need to **experience goodness** through the importance of a good deed should strengthen the child, "no matter what happens" (ibid.)

In this context, it is worth mentioning two concepts that explicitly appeared in the interviews: **"a trace of a good man"** and **"a positive flash of light"**.

The first one was used by the participant P3 in considering the effectiveness and visibility of the results of interventions in children with EBD: *"... if we give it to the child ... just that life can be different, [...] only a trace of a good person, just a trace of someone respecting them that exists in this world."* (P3)

The other concept appeared in the statement of the participant P2a: *"You know, we are still using such a starting point – that there was some kind of a positive flash ... of them meeting people and being in an environment where they feel good. And we think that children can carry it on in their lives going forward."* (P2a)

## 6.2 Reliance

In the positive sense of the word, reliance is "based on the ability of a child to commit to another person, to rely, to trust." The other person does not abuse "the child's reliance, but on the contrary, meets it halfway, lovingly." The child then has the chance to draw "stimuli and strength to develop personally" from the other person (Helus, 2009, p. 110).

Reliance loses its positive meaning when the child loses its respect to and trust in the other person, and when disappointment sets in. For the child's reliance, the risk

<sup>10</sup> Věra Vojtová (2010) focuses on several dimensions of school life in her questionnaire, aimed at preventing problem student's behavior. One of these dimensions is the student's position in school (school status) and the associated issue of self-perception of the child in relationships, which is an important factor for the resilience to or development of the problem behavior of the student.

of disappointment in others is one of the “serious life losses of childhood and youth, with serious, lasting consequences”. (ibid. p. 108-110)

The assumption of reliance relates to issues of relationship, trust and safety, but also to the need to feel solidarity with others and from others, the need to rely on someone, with which trust in others is closely related to, so that the child can rely on them (see the *resting in trust* above). Here, the area of open experiencing mingles with the area of reliance – the participants’ actions can often influence both.

More importantly, there is a need to *be able to draw from the personality of the other person*, which affects the research topic of the relationship between the child and the teacher as a means of intervention. This topic was mentioned by the participant P2a: **“The only educational ... and effective educational method is the personality of the educator. [...] And we need [...] to convince them that the person, the educator or the personality they met with, somehow addressed them, enriched them, has given them some impulse to their future life.”** (P2a)

Participant P12 considered mutual reliance with the child (the ability of the teacher to reveal his/her own vulnerability) as a way to show the child his/her good intentions and offer the child an opportunity for open communication. At the same time, this attitude points to the teacher’s desire to define the relationship as a partner, and the willingness to risk refers to the teacher’s sense of professional responsibility: *“... that you believe [the child-client] and he can hurt you ... but on the other hand, I let him hurt me rather than his parents later. Let him try it, see what it results in in this institution, when I can teach him, because I’m less emotionally involved, rather than letting him do it, with all consequences, in the world outside. Yeah, if he needs to go through it, it better ... happen in this environment.”* (P12)

### 6.3 Developmental direction

The child’s demands *direction*, which is evident in the fact that “it always wants something, strives for something, evolves, goes somewhere with his whole life”, and which is “a basis of [...] everything.” They head towards adolescence and adulthood – towards biological, psychological and social maturity; to self-concept and authentic self-expression; to independence – looking for ways to cope with reliance and how to get rid of it, they learn to take responsibility and to live an autonomous life (self-discipline, education) (Helus, 2009, p. 112).

From the above, various needs can be deduced, such as the need to have the opportunity to learn autonomy, to develop autonomy, independence and accountability.

For example, the participant P8a spoke of the fact that the personality and experience of the child are at the center of the intervention process and the development of the child is perceived as a success: **“For me, the first priority is how they feel here [...] for me, the success is that the child begins to experience, to perceive and begins to appreciate self. [...] To me, the stage when the child begins to flourish, become**

**self-confident and listen and work on self-development, is the significant phase, a priority.”** (P8a)

Implicit targeting for development has also been mentioned by the participant P3 when she talked about trying to **toughen up the child**, instead of trying to adapt the child to his environment, break them: *“And we do not want to break anyone at this age, right? These are immature children. [...] We want to toughen them up. And we can only toughen them up positively.”* (P3)

## 6.4 Wealth of development opportunities

The wealth of the child’s potentialities means the following personality qualities: “to be happy; to feel the love and sympathy of others and to respond to them with own manifestations of affection and sympathy; to emancipate oneself from the narrowed view of things and to try to see wider and deeper connections; to make an effort to cultivate one’s own self-esteem and to be oneself in a nobler way; to accept the challenges of open future and to pursue one’s goals; to take responsibility and to cope with difficulties.” (Helus, 2009, p. 113)

In terms of the wealth of the child’s potential to develop, there is always a risk of it being wasted (Helus, 2009). This developmental premise is associated primarily with the need of the child to have an open perspective of the future and a quality of life in adulthood (cf. Vojtová, 2008). Many children with EBD are not trying to change their life situation, although they would want it (the *will to change*) because they have no idea of an open future and do not believe in change (*belief in change*) (Červenka, 2017).

The need for open perspectives was one of the resulting topics of the research I referenced here. In addition to the need for (positive) setting of boundaries, the need for open perspectives and identities was identified in the data material as a need that the participants – education professionals – perceived as essential. The need to set boundaries and open up perspectives is related to the need to have a role model. It can be the role model who gives the child a conception of boundaries (what should or should not be done) and also suggests the direction for the future (Červenka, 2016).

An example of thinking about future perspectives is a snippet of an interview with the participant P6 who spoke about making a clean break, turning over a new leaf as a way to help the child out of past problems and as an opportunity for a new beginning: *“I will punish him and that’s the end of the story. [...] And I mean I do not just punish [...] we speak about it, we discuss it to take some lessons from it, but **then we make a clean break and we start all over again.** I cannot tell him in two months ... something like: I do not want to talk to you, I don’t trust you because two months ago you disappointed me. Bang on about it and throw it back in his face, what was ... and what actually is no more. **Because our children have a lot of problems here and they would never get rid of them.**”* (P6)



## 7 Conclusion

In the very conclusion to this paper, we should answer the introductory question – *What can be the role of personality centered approach to children with emotional and behavioral disorders?*

The educational process relies on the characteristics of the child, it derives from them the educational needs of the child, and the educator plans the child's education accordingly.<sup>11</sup> For example, needs such as open-minded experiencing, emancipation to adulthood, opportunity to develop towards adulthood or the fulfillment of individual potentials stem from developmental characteristics (cognitive, emotional, social) (cf. Helus, 2009). In addition, children with EBD should also take into account the characteristics associated with behavioral disorders that act as a barrier to their personality development (Vojtová & Červenka, 2015). This is related to the specific educational needs of the child which the educator should respect and aim to fulfil in the intervention in children with EBD.

The concept of the personality centered approach to education is a beneficial stimulus not only for the theory, but also for the practice of educating children with EBD. This is an approach that highlights factors essential to the development of the personality of the child and shows the directions going forward. At the same time, however, it prevents us (not only special-education) educators (and it is essential in the context of emotional and behavioral disorders) from forgetting that children with emotional and behavioral disorders are mainly children. Children, whose behavior is also subject to problematic manifestations with complicated consequences for them and people around them. While Helus' concept of personality centered approach puts the child at the focus of interest, the individual development assumptions are always defined in the context of the child's environment – therefore so much emphasis is put on socialization, relationships with others, the role of trust in others, reciprocity and other needs. Perhaps this is because, in many cases, these children are no different from other children other than they have not been given opportunities and support for proper personality development in their lives.

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<sup>11</sup> Cf. the three steps of the concept of informed intervention in children with EBD (Vojtová & Červenka, 2011).

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# Movement and orthopedic problems based on postural instability in visually and hearing impaired people

(overview essay)

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**Abstract:** *This article proposes a literature review about the movement and orthopedic problems based on postural instability in visually and hearing impaired people. Visually and hearing impaired people are a potentially weakened target group with regard to the genesis of various orthopedic problems as well as morphological and structural foot deformities. The foot has an important functional relation within the lower limb and body. The paper clarifies the causes, mechanism of development and results of these problems. The article is supplemented by personal statements of the impaired on the occurrences and manifestations of specific pathologies in their daily lives.*

**Keywords:** *visual impairment, hearing impairment, posture, stability, balance, foot*

## 1 Introduction

Postural stability is the active holding of the body segment against the action of external forces to maintain an upright posture (Winter, 1995). It is actively managed and controlled by the internal forces, through the central nervous system (Vařeka, 2002). Posture can be affected by various factors. The neurophysiological effects belong among psychological factors and effects of the internal environment (different diseases) (Véle, 1995). Age affects postural stability; for example, a study shows that older footballers, aged 25 years and over, have a better postural control compared to younger footballers, aged under 25 years (Gosselin & Maltby, 2011). Holding the balance is achieved and maintained through a comprehensive set of sensorimotor system control that includes sensory input from the eyes, proprioception and the vestibular apparatus. These three sources of information to be sent to the brain as a nerve impulse from special nerve endings are called sensory receptors. The balance is the ability to maintain the center of gravity of the base. A properly functioning

system of balance allows people to determine the orientation with respect to gravity, determine the direction and speed of movement and perform automatic setup posture and stability in different activities and under different conditions (Shumway-Cook & Woollacott, 2001). The foot has an important functional relation within the lower limb and body. It constitutes an important supposition for maintaining the balance while standing, walking and in other derived movements (Votava, 2002). The function of the foot is static (bearing) and dynamic. The foot is illustrated as a “tripped model”, when the healthy foot with well-developed arches is supported only in 3 points (calcaneal protuberance, 1st metatarsal head and 5th metatarsal head). A healthy foot has a metatarsal head when laid on the mat and contributes roughly equally to transfer body weight. Plantar scrolling (unwinding) in healthy feet is the transfer of the pressure (center of pressure) through the lateral beam, from the 5th metatarsal head toward the 1st metatarsal head (Riegerová, Přidalová, & Ulbrichová, 2006). The primary function of the foot is to create a solid base and an equal distribution of excessive burdens of the lower limb while walking, and to reduce the energy intensity of walking while moving the body forward (Gross, 2002). The function of the foot is conditioned by its anatomical structure, which is contingent on the organization of the bones into two foot arches (longitudinal and transverse). Longitudinal vault is contingent on the higher medial arch which is created by three medial beams connecting talus, ossa cuneiformia, the 1st to 3rd metatarsus and phalanges of the first to third toes; it is employed during dynamic loading. Transverse vault is conditioned by the shape and organization of ossa cuneiformia (cuneiform bones) and proximal metatarsals. Its role is to provide protection to soft structures in the sole of the foot and partially absorb forces created when body weight is transferred. From the phylogenetic point of view, similarly to vertical pater, the vault is a young structure, and therefore labile and relatively easily vulnerable. Its disorders belong to the most common orthopedic defects in general. Static defects of the forefoot (hallux valgus, digitus quintus varus, hallux varus, hallux rigidus, digiti malei, digiti hamate, digiti Hippocratici) occur most frequently. Pain occurs frequently in the heel and in metatarsals. The typical defects of the foot vault are flat longitudinal vault (pes planovalgus), transverse flat foot (pes transversoplanus), and hollow foot (pes cavus; pes excavatus) (Riegerová, Přidalová, & Ulbrichová, 2006). The structure and function of the foot are adjusted to an appropriate distribution of body weight while standing and when moving in a gravitational field, the flexibility and shock absorption during movement, as well as a huge source of receptors necessary for the proper management of posture and motor on the principle of cybernetics (the principle of biological „locomotive computer“) (Müller, 2011). The causes of static deformities are long-term anomalous position of the foot, permanently applied tension, pressure on a certain part of the foot, or disproportion between the load and the resistance of the body (Matějovský, 2002). The foot is a shock absorber and sensory equipment.

The weight of the body is borne mainly by the inner half of the foot, while the outer half maintains stability (Riegerová, Přidalová, & Ulbrichová, 2006). Balance disorders often manifest themselves as uncertainty when walking. Uncertainty is expressed by a wide step, uncertain feelings while walking, rigidity and clumping. The symptoms are enhanced by finger paresthesia, sensory disturbance of lower limbs, and atactic movement due to the increased muscle tone of lower limb (Mumenthaler, 2008).

## **2 Visual impairment**

Visual impairment has been described in a variety of contexts, in the concepts of functional blindness, partial blindness, low vision, and expressions such as visually defective, visually handicapped, visually impaired (visually disabled), or visually limited. In recent decades, the diversity of terminological expressions has reflected a tendency to use the term impairment (Florian and McLaughlin, 2013). Definitions of visual impairment may vary across agencies and programs. Some definitions focus on the measures of acuity, while others focus on more functional descriptions (Randall et al., 2000). There is no unified consensus concerning the terminology of visual impairment, it is practically defined by the experts who use it (Sardegna et al., 2002).

### **2.1 Categorization of visual impairments**

World Health Organization (WHO) defines 4 levels of visual function, according to the International Classification of Diseases – 10: normal vision, moderate visual impairment, severe visual impairment and blindness. But in fact, moderate visual impairment combined with severe visual impairment are grouped under the term “low vision” (WHO, 2017). Thus, we can define the following categories: Normal vision: is defined as a decimal acuity equal to or better than 1.0 (Valberg, 2008). Low vision (moderate visual impairment, severe visual impairment): Alberta (1998) specifies low vision as the visual functioning of someone for whom eyeglasses, contact lenses, medical treatment, or surgery cannot correct vision to the normal range. The person with low vision may experience more types of vision problems as overall blurred vision (diabetic retinopathy), loss of central or center vision (macular degeneration), loss of peripheral or side vision (glaucoma, stroke). Blindness: refers to total blindness (in which there is a total loss of vision), to no light perception, or to particular visual limitations (Jones, 2013). In addition to the classification of WHO, we mention the following categories used in Czech and central European literature: low vision, partial sightedness, blindness and binocular vision impairment. The category of partial sightedness is located on the boundary between low vision and blindness. Binocular vision impairments often mean partial or total loss of stereoscopic vision and binocular depth perception (Kosikowski & Czyzewski, 2010).

The following text will continue with orientation and mobility in the context of visual impairment. We will also focus on the structural, morphological and pressure foot changes based on postural instability in visually impaired persons.

## **2.2 Contemporary research on movement and orthopedic problems**

Orientation can be understood as the ability to use one's remaining senses to understand location in the environment at any given time, and mobility is the facility of movement. Orientation and mobility may be defined as the teaching of concepts, skills, and techniques necessary for a person with a visual impairment to travel safely and efficiently through any environment and under all environmental conditions and situations (Jacobson, 1993). For a blind person, every movement which demands spatial orientation, and every inadvertent movement, is a targeted and conscious motion. The transfer in space requires constant concentration on and confrontation with the forms imagined with the perceived experience. Many activities in the training of spatial orientation and independent movement are necessary to fix at the level of perfectly mastered skills, or even habits. When an individual loses their eyesight, they experience feelings of fear, usually in the space of the unknown. An impaired person is trying to overcome the fear of space during the training by conducting an independent movement. Some learned movement patterns may not be desirable (incorrect posture, tilting forward, etc.) (Wiener, 1986).

A person with a visual impairment uses the entire body to receive information of various kinds (compensation factors: tactility, hearing, smell, echolocation ability). In subjects, the sense during the touch of the foot allows them to check the quality of the surface, changes in the terrain, and other effects (Jesenský, 2007). The use of neuromuscular mechanisms of memory then continues with multisensory connections between the senses, the ability to form an idea of their body in a movement in space, and the already mentioned role of the touch of the foot. An exhaustive constant focus on any activity is connected with a separate independent motion. The loss of vision and the response to changes in perception are also an integral part of the human brain plasticity. An ability to respond to the state of transformation, it is associated with a number of other areas, and affects the overall perception of individuals with visual impairment in the context of the specifics of the imagination (Majerová, 2016).

The foot changes and the postural instability in visually impaired persons can be seen from the contexts of orientation and mobility, the receiving information, the role of the touch of the foot, the plasticity of the brain, etc. Let us continue with current research. Due to the theoretical-critical resource analysis, we found various studies aimed at our topic. The objective of the study of Halleman, Ortibus, Meire, & Aerts (2010) was to demonstrate specific differences in gait patterns between those with and without a visual impairment. They performed a biomechanical analysis of the



gait pattern of young adults ( $27 \pm 13$  years old) with a visual impairment ( $n = 10$ ) in an uncluttered environment and compared it to the gait pattern of age matched controls ( $n = 20$ ). The results showed that even in an uncluttered environment, vision is important for locomotion control. The differences between those with and without a visual impairment, and between the full vision and no vision conditions, may reflect a more cautious walking strategy and adaptive changes employed to use the foot to probe the ground for haptic exploration. The development of normal postural reactions that oppose the force of gravity and maintain the body's balance during exercise and rest is possible due to stimulation of the labyrinth and the labyrinth's cooperation with proprioception, vision, touch, and hearing (Nakajima, Kaga, Takekoshi, & Sakuraba, 2012). Vestibular receptors receive impulses related to the position of the head in space and generate reflexes that play a key role in basic motor responses; for example, maintaining head and body posture. Due to this complex process, we have, *inter alia*, a sense of control over the moving body and its orientation in space (Greenwald and Gurley, 2013).

### **2.3 Personal statement of the visually impaired**

A 21-year-old respondent with congenital visual impairment (practically blind) reports suffering from vertigo sporadically. She was diagnosed with glaucoma and aphakia and she also undergoes treatment at allergology, cardiology and endocrinology (thyroid gland). When describing her lifestyle, she mentions not using coffee and nicotine at all and using alcohol occasionally. She regularly uses immunosuppressive drugs and eye drops, other types of medicine rather occasionally. She does not perform any sport activity of a more intensive nature; she performs only common everyday movements (e.g. walking from work, walking up the stairs, housework, and physical activity up to 30 minutes per day). The respondent subjectively evaluates her motor coordination as normal. Overcoming differences in elevation represents a problem for her, for example, when walking down the stairs or on an uneven surface, as she experiences instability and even a guide's assistance does not improve the situation. With respect to the sense of direction, she mentions being able to move on her own (with a stick) in a familiar environment; in an unfamiliar environment, with a guide's assistance or a classmate's help. Spatial vision (stereoscopy) is not involved, due to residual vision considerably out of focus, and compensated by the processing of hearing stimuli. She feels that her posture is getting worse, she starts feeling discomfort as well as muscle tension and stiffness, which is accompanied by tiredness and occasional pain. Among orthopaedic defects, she suffers from scoliosis.

### **3 Personal statement of the hearing impaired**

A hearing impairment is very variable. Hearing impairments can be divided according to the time of the beginning of hearing loss, the level of spoken speech or the degree of hearing loss. People with a hearing impairment can be called the deaf, persons with residual hearing and hard of hearing.

#### **3.1 The classification of hearing loss according to the time of beginning of hearing loss**

Hearing loss may be congenital or acquired. Congenital hearing loss is a hearing loss which develops in the time of pregnancy. The child is born deaf or hard of hearing. Most children with hearing loss are hard of hearing. Children who are hard of hearing communicate by spoken speech and use hearing aids. Some children with severe hearing loss have a cochlear implant. Deaf children communicate in sign language because they do not hear spoken speech (America Speech-Language-Hearing Association, online). The causes of congenital hearing loss can be genetic and non-genetic. Non-genetic factors are, for example, infectious diseases, low birth weight or maternal intoxication during pregnancy (America Speech-Language-Hearing Association, online).

#### **2.2 The classification of hearing loss according to the level of spoken speech**

According to the level of spoken speech, hearing loss can be prelingual, perilingual and postlingual. Prelingual hearing loss begins during pregnancy or in the first months of the child's life. Children with prelingual hearing loss do not hear spoken speech and they cannot learn spoken speech naturally. These children do not have psychical problems that may be caused by hearing impairment. Perilingual hearing loss begins in the time of learning spoken speech. This is a period between 3 and 5 years of life. Postlingual hearing loss occurs at the time when the child can use spoken language. This child does not have any problems with communication by spoken speech (Tarcsiová, 2010).

#### **3.3 The classification of hearing loss according to the degree of hearing loss**

When we search degrees of hearing loss we can find medical terms such as normacusis, hypacusis and surditas. Lejska describes normacusis as a degree when a person does not have any problems with communication and their auditory threshold at an audiometric examination does not exceed the intensity level 20 dB (Lejska, 1994). Hypacusis (hard of hearing) can be divided into hypacusis conductive, hypacusis sensorineuralis, hypacusis mixta and hypacusis centralis (Lejska, 1994). Hypacusis conductiva means a hearing loss when the outer and middle ear are damaged. Potential causes of conductiva hearing loss are wax buildup, ear infection, a foreign object

lodged in the ear, ruptured eardrum, and structural malformation of parts of the ear (Betterhearing, online). Hypacusis sensorineuralis means a hearing loss when the inner ear is damaged (Lejska, 1994). Sensorineural hearing loss includes trauma to the head, ototoxicity, genetics, illness and aging (Betterhearing, online). Surditas (deafness) is the most severe case of hearing loss. Surditas means that the person cannot hear voices and cannot learn spoken speech naturally (Lejska, 1994).

### **3.4 The classification of hearing loss according to the type of hearing impairment**

In special education results, we can find a description of people with different cases of hearing loss. We can term these people as deaf, hard of hearing, those with residual hearing and those with profound hearing loss. A deaf person cannot hear and understand spoken speech (Potměšil, 2011). Hearing loss begins in the pre-, peri-, or postnatal period. The child either cannot use spoken language or spoken language is very difficult for them. They communicate in sign language (Tarciová, 2010). People who are hard of hearing have substantial difficulties with hearing spoken language. These people use hearing aids or cochlear implants (Tarciova, 2010). We can classify those hard of hearing by using the categories of mild, moderate, severe and profound hearing loss. People with mild hearing loss can hear sounds louder than 40 dB: "Someone with mild hearing loss may have minimal or no issues communicating in quiet, in one-on-one settings, or with only a couple of people. But they tend to have difficulty hearing softer environmental sounds as well as some conversations, especially in noisier environments, at a distance, in larger-group settings, or over the phone." (Betterhearing, online). People with moderate and severe hearing loss have substantial difficulties with hearing spoken language. These people may use hearing aids or listening advices (Betterhearing, online). People with profound hearing loss probably cannot hear any speech or some loud sounds. They often use hearing aids or cochlear implants. They communicate in sign language (Betterhearing, online).

### **3.5 Contemporary research on movement and orthopedic problems**

The development of normal postural reactions that oppose the force of gravity and maintain the body's balance during exercise and rest is possible due to stimulation of the labyrinth and the labyrinth's cooperation with proprioception, vision, touch, and hearing (Nakajima, Kaga, Takekoshi & Sakuraba, 2012). Vestibular receptors receive impulses related to the position of the head in space and generate reflexes that play a key role in basic motor responses; for example, maintaining head and body posture. Due to this complex process, we have, inter alia, a sense of control over the moving body and its orientation in space (Greenwald & Gurley, 2013). Research results between normally hearing children and severely to profoundly hearing impaired

children at the age of 6 to 10 years showed a significant difference in two static balance skills. There was a significant difference in static balance skills of standing on one leg on a line and standing on one leg on a balance beam with eyes closed (Jafari, Malayeri & Rezazadeh, 2011). The static and dynamic balance performance of deaf children with and without cochlear implants was studied by Ebrahim, Movallali & Jamshidi (2016). They studied 85 children with congenital and early acquired bilateral profound sensorineural hearing loss and normally hearing children at the age of 7–12 years. They used the balance subtest of Bruininks-Oseretsky Test of Motor Proficiency. The results showed the total score, especially the total score of children with cochlear implant, was significantly lower than that of the control group. The control group had a better balance performance than the implant group in all of the items. The findings suggested that deaf children, especially those with cochlear implants, are at risk from motor and balance deficits. Livingstone and McPhillips (2011) conducted a similar survey, which examined motor skill deficits in children with partial hearing. They studied three groups of children: 1) a partially hearing group; 2) a non-verbal IQ-matched group; 3) an age-matched group. Children with hearing impairment had a bilateral hearing loss > 60 dB. The results showed that the MABC score (Movement Assessment Battery for Children Score) of the first group was significantly lower than those of both comparison groups; the children in the first group had particular difficulties with balance. Kegel, Maes & Baetens (2012) dealt with the influence of vestibular dysfunction on the motor development of hearing-impaired children. They tested children with unilateral or bilateral hearing impairment >40 dB at the age of 3–12 years. They used MABC – second edition and VEMP (vestibular evoked myogenic potential). The results showed that “balance performance on MABC-2, clinical balance tests, as well as the sway velocity assessed by posturography in bipedal stance on a cushion with eyes closed and in unilateral stance differed significantly between both groups. Wilson, Garner & Loprinzi (2016) pointed out the relationship between hearing impairment and balance. They used the data from the 2003-2004 National Health and Nutrition Examination Survey and detected that sensory impairment was associated with perceived difficulty of falls and functional balance, because participants with a single sensory impairment had 29% reduced odds of having functional balance and their reported difficulty with falls increased by 61%. Wolter, Cushing & Madrigal (2016) implemented a pilot study about relationships between hearing impairment and balance. Their research group included children with unilateral sensorineural hearing loss and children with normal hearing. They were tested by Bruininks–Oseretsky (BOT-2). The BOT-2 test score showed that balance ability was significantly worse in children with unilateral sensorineural hearing loss.

### 3.6 Personal witness of hearing impairment

A 30-year-old respondent with congenital hearing impairment of perceptual type (residual hearing) reports suffering from vertigo several times a day. When describing her lifestyle, she mentions not using coffee and nicotine at all, using alcohol occasionally in small amount, and using medicine irregularly, rather occasionally. Twice a week, she performs a rather intensive (maximum heart rate of 65-80%) active sport activity for more than 30 minutes. In her case, vertigo occurs in relation to a specific situation, namely the change of body position. The respondent also mentions suffering from feelings of uncertainty and deviating from her body's balance several times a day. The respondent has difficulty with overcoming differences in elevation; in particular, she suffers from vertigo when rising up. In spite of that, she considers her motor coordination normal and problem-free. However, she describes her postural habits as bad, and further specifies her everyday problems as a feeling of discomfort, muscle tension and stiffness, often even muscle fever, overall tiredness and pain. Among orthopedic defects, she suffers from cervical kyphosis and lumbar lordosis related to a mild pelvic deviation.

## 4 Conclusion

Visually and hearing impaired people are a potentially weakened target group with regard to the genesis of light, medium or hard morphological and structural foot deformities. The foot has an important functional relation within the lower limb and body. The function of the foot is static and dynamic. In addition, stability problems in people with hearing impairments are not rare, as adequate postural stability requires the integration and evaluation of visual, vestibular and somatosensory information. Research shows that 30%-70% of people with hearing impairment have problems with balance. The foot requires increased attention not only as the final link in affect mechanism chain of daily load, but especially as the executive body apparatus and an important input feedback factor. This feedback should perform a support function, not a limit function, for all-purpose and optimal development of the impaired person. The genesis of deformities is supposed on the base of postural instability, which is subsequently reflected in the change of the center of pressure. The movement of the center is reflected in plantar pressure redistribution and consequently, depending on the duration, causes the genesis of foot deformities. Surprisingly, this problem is not thoroughly examined and processed in Czech or foreign literature. Healthy body posture and gait have unimaginable importance in the terms of quality of life and social integration of the individuals. Throughout the lives of impaired persons, spatial orientation and movement in space as well as upright body posture training

require to be taken care of. The effect of health restrictions extends to all spheres of human existence, making it rather difficult, especially in the education process.

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# A case analysis on the curriculum development of adaptive functional education for children with mental retardation in mainland China

(overview essay)

**Xu Bo**

**Abstract:** *The cultivation of social adaptability is an important part of education for children with mental retardation. The curriculum of adaptive functional education is guided by the relevant theories of social adaptation, it is an extremely important part of the curriculum of education for children with mental retardation, its basic idea and operation flow are suitable for curriculum development in a wide range of fields. Taking a specific case as the basic starting point, this paper introduces a common method of developing this kind of curriculum for special educators in mainland China. The specific steps include the definition of curriculum concept and scope; the formation, analysis and evaluation of the curriculum objectives; the formulation of teaching objectives; the design of relevant teaching materials and supporting schemes, and so on.*

**Keywords:** *Curriculum development, adaptive functional education, activity analysis, teaching materials*

## 1 Introduction

The mental retardation is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains. Three criteria must be met: deficits in intellectual functions; deficits in adaptive functioning that result in failure to meet developmental and socio-cultural standards for personal independence and social responsibility; onset of intellectual and adaptive deficits during the developmental period. Among the three criteria “intellectual function” is relatively stable. While the “adaptive function” has a considerable degree of plasticity, without ongoing support, the adaptive deficits limit functioning in one or more activities of daily life, such as communication, social participation, and independent living, across multiple environments, such as home,

school, work, and community(American Psychiatric Association, 2013), so it is the emphasis of education.

In a broad sense social adaptability is about the same as adaptive behaviors, while it refers to interpersonal or social skills in a narrow sense. Social adaptability has always played an important role in the definition of mental retardation and in the process of education. It and academic development are the two main lines in the design of curriculum for children with mental retardation(Deng Meng, Lei Jianguhua, 2006). It includes a series of conceptual, social and practical skills. The assessment and education of social adaptive behaviors must take into account the natural and social ecological environment of students with mental retardation and the limitations of cognitive development level and individual age characteristics, and collect information through multiple channels(Wei Xiaoman, Wang Peimei 2004).

Adaptability refers to the harmonious relationship between children with mental retardation in the real society and the environment, and this kind of coordination is achieved through education to improve its function. The adaptive functional education refers to the cultivation of the ability to adapt to the environment for children with mental retardation in some planned and step-by-step processes (Zhang Wenjing, Xu Jiacheng, 2002). It is the special education theory and operation mode that takes the social adaptation skills of children with mental retardation as the educational contents, aims to cultivate their abilities to adapt and participate in normal social life.

## **2 The meaning and characteristics of the curriculum of adaptive functional education**

There is a lot of literature on the“curriculum”, and many different opinions on the definition of the curriculum. The diversity of curriculum definitions can be broadly grouped into the following three categories: making the curriculum as a discipline, a kind of activity, or all the disciplines, all the activities that conducted by the teachers(Fiona, Tracey, Barbara, Junghwa, 2017); making the curriculum as an objective or a plan(Oliva, P, 2005); making the curriculum as a learner’s experience(Foshay, 2000). The curriculum of adaptive functional education is an important type of curriculum in the field of education for children with mental retardation.

### **2.1 Meaning of this type of curriculum**

The curriculum of adaptive functional education is guided by the relevant theories of social adaptation, it aims to promote individual adaptation, family adaptation, school adaptation, community adaptation or occupational adaptation. Its curriculum form is often a life-based, ecological comprehensive curriculum.

## 2.2 The core ideas and characteristics of this type of curriculum

The curriculum of adaptive functional education pays attention to the practical content in the students' learning and life. Its core ideas and characteristics are as follows (Zhang Wenjing, 1998):

The purpose of the adaptive education: to promote the individual adaptation, social adaptation, occupation adaptation of the children with mental retardation;

Taking functional education as the means: to teach them the most useful things, the most effective things, and to promote the ability of adapting to the functional things;

Taking individualized education as its principle: to develop individualized education and teaching plan, to implement individualized education services;

Taking normal children's physical and mental development as the clues: with the order and rule of physical and mental growth of ordinary children as the standard;

Providing support and assistance: the establishment of support system, this system will promote the implementation of education and teaching, operation, and make the effectiveness of education;

Making use of life in nature normal environment to create the environment for the needs of children with mental retardation: teaching activities placed in the children's natural, normal life;

Promoting the integration of teaching activities: to choose the types of core curriculums, to enhance students' learning of life, to emphasize the reality of learning problem.

The curriculum of adaptive functional education has many forms of expression, among them the evaluating types can be used as the content and basis of educational diagnosis and evaluation, they can provide guidance for the formulation of individual education programmes, and reveal the degree or content of the support assistance for students and the teaching content. The development of adaptive functional education curriculum is in the ascendant in mainland China. Under the guidance of the relevant theories of the adaptive functional education and the curriculum development, the author takes the case child's „ elevator using „ as the object, and introduces in detail a common operating method for the development of this type of curriculum by special educators in mainland China.

## 3 The basic information of the case child

Wang X, male, born in 1999, with moderate mental retardation. His sensory perception ability is good; coarse and fine movement ability develops well; he can carry on simple oral communication, can use the body language commonly used in his daily life; generally speaking, his mood is relatively good, when the mood is not very

stable, likes to clap hands to express his anxiety; cognitive skills such as memory, classification, problem-solving, etc. are poor; interpersonal skills, family skills, community use, leisure skills, etc. are also bad. He lives in the downtown area of a lift apartment, his parents' cultural level is very high, the relationship of the family members is very harmonious, and they attach great importance of the details in life to educate their child. Wang X could identify eleven numbers from 0 to 10; numbers 11 to 20 can sometimes be identified correctly; waiting, observation and color recognition ability are good. He is conscious of taking an elevator, but he cannot be carried out independently, in many cases, verbal advices or physical assistances are required. His parents are also very much in the hope of making him have the ability under the guidance of the school teacher and others.

## 4 Methodology

This study mainly adopts the method of case study, mainly through observation, interview, evaluation and other specific methods to collect data. First of all, defining the idea and scope of use of the curriculum. Secondly, by using activity analysis method and taking common children of the same age as reference, the target behavior is analyzed in detail, and the activity analysis table of individual goal behavior is obtained. Then with the behavior activity analysis table as the basic clue, the parents, the school teachers (especially the teacher in charge of the class), the life teacher, the classmates were interviewed. At the same time, the author evaluated the case child himself and analyzes the various factors and their interaction in his elevator using environment. Finally, according to the information collected to refine the individual educational objectives of the case, analyze his educational needs, and on these basis, design related courses and support strategies for the case child to form a systematic adaptive functional education curriculum for target behavior.

In order to protect the individual privacy, this article does not contain any specific names, any pictures or names about schools or institutions related to the boy. Furthermore the most salient feature of the case study approach is the true story that describes the objective world, and most of them use inductive methods in a objective manner. Therefore, the materials obtained by the case method can also be scientific and accurate, and have high literature value. To a large extent the research of education is a process that cannot be replicated accurately. So if the typical cases that occurring in this process are analyzed and studied deeply and meticulously, including collecting the background of the case, specific materials, the results of the investigation and interviews, and the assessment and reflection of the persons concerned, describing truthfully the “story” that happened in the process. The process and the results themselves have great literature value, so we can use them to compare the similar cases (Maňák, Švec, Švec, 2005).

## **5 The idea and scope of this curriculum**

Curriculum development can be defined as the systematic planning of what is taught and learned in schools as reflected in courses of study and school programs. These curricula are embodied in official documents (typically curriculum “guides” for teachers) and made mandatory by provincial and territorial departments of education. The primary focus of a curriculum is on what is to be taught and when, leaving to the teaching profession decisions as to how this should be done (Limon E. Kattington, 2010). It contains series of steps, such as making sure what educational purposes should the school seek to attain, judging what educational experiences can be provided that are likely to attain these purposes, thinking about how can these educational experiences be effectively organized, deciding how can we determine whether these purposes are being attained (Ralph W. Tyler, 1988). There are a lot of models about the curriculum development, in this article the objective-oriented model is the main one.

### **5.1 Basic idea**

The curriculum idea is about the basic perception and core concept of curriculum, it is the soul and support of all the links that follow the course operation. It will profoundly affect the breadth and depth as well as presentation of the curriculum objectives, curriculum content, curriculum organization and implementation or the development and utilization of curriculum resources. This curriculum intends to adopt the theory of adaptive functional education, that is, to make the children to adapt to the environment, and to enhance his function in adapting to the social life, according to the characteristics, the basic ideas of this curriculum are as follows:

This curriculum must be able to meet the individual needs of the student;

This curriculum must be able to develop the ability of the student to improve his ability to adapt to the environment;

This curriculum must improve the life quality of the student..

### **5.2 Definition of the application scope of the curriculum**

The application scope of curriculum mainly refers to the limitation of time, place, situation, object and so on. It is one of the important viewpoints of curriculum development and application. The terrain where the case child lives is mainly the mountain, the urban population is very large; the buildings are generally very high; residents mainly take elevators up and down the floor. The correct use of elevators is one of the basic abilities to meet the needs of local urban life, to improve the quality of life and meet their needs of traveling.

This course is only designed for the student to take the elevator. In his life, all the major fields of taking the elevator involved: his home, his grandfather and aunt's

community, the hospital and large shopping malls and supermarkets near his home. The elevators in these places are not the same style, but the basic abilities to use the elevators for a person are the same. So in order to avoid repeated discussion, in this course, we do not consider the different places, they are discussed in a unified manner.

## **6 Analysis and evaluation of the behavior objectives of the curriculum**

The objective-oriented model of curriculum development makes the goal as the foundation and core of whole process, it bases on the determination, realization and evaluation of the curriculum objectives. It places particular emphasis on behavioral objectives. That is, stating the curriculum and teaching objectives in the form of concrete, actionable behavior to point out the behavior changes of the students after the end of the course and teaching process. Its basic characteristic is the accuracy, concreteness and maneuverability of the objectives(Zhang Hua, 2000).

For a normal 8 years old child, who was born in the city, through daily observation and learning, he has learned to use the elevator. But due to their inherent obstacles, the children with mental retardation often have a lot of difficulties in color discrimination, digital identification, hand eye coordination, patiently waiting, and cannot use of the elevators independently. Therefore, it is necessary to make detailed analysis of the relative activities, in order to help them complete the activity through some small steps. The specific analysis way is as follow:

The first step: according to the process of the activity itself, “using elevator“ is subdivided into three sub activities: „getting into the elevator“, „taking the elevator“ and „getting out of the elevator“.

The second step: observing the activities and procedures of the elevator using for ordinary children of the same age. Sum up the above three sub-activities to their typical behavior requirements, and describe them with specific behaviors.

The third step: check every behavior in the description list and judge if it is necessary for Wang X, and determines the necessity of action. In the case of having no influences on the adaptive factional outcome, then delete the items that irrelevant, beyond his present ability level or not so urgent. The details are as follows (Li Baozhen, 1997):

**Table 1:** Activities analysis of the case child's elevator using

Activities analyses	Necessity check		remarks
	necessary	unnecessary	
Find the elevator entrance	√		
Move quickly to the elevator entrance		×	Not urgent
Notice the arrow symbol of “↑” “↓”	√		
Press the arrow symbol of “↑” “↓” with the right posture and strength	♀		As long as he can achieve the goal
Wait quietly at the elevator entrance	√		
Walk into the elevator quietly and quickly	♀		Needs prompt
Notice the digital keystroke screen	√		
Press the number key for the right floor with the right posture and strength	♀		Reduce difficulty
Find the right place to stand	√		
Identify the hazards in the elevator		×	Beyond present capacity
Wait quietly in the elevator	√		
Use the alarm button		×	Beyond present capacity
Keep an eye on the current floor number	√		
Notice the floor indicator number he wants to reach	√		
Friendly interact with other people in the elevator		×	Not urgent
Waiting for the elevator door to open	√		
Help others as much as he can		×	Beyond present capacity
Line up and quiet to walk out of the elevator	√		
Immediately leave the elevator, do not look back	♀		Needs prompt
If doesn't get out in time, press the button “Open the door” quickly	♀		Needs prompt

\* instructions:

1. “√” indicates the behaviors that they are necessary to be reserved directly.
2. “♀” indicates the behaviors that they are necessary to be retained, but to be adjusted.
3. “×” indicates the behaviors that they are exceeding current capacity or not urgent.

The fourth step: adjust the selected behavior items to meet the requirements of Wang.

The last step: summarize the behaviors necessary for Wang in the three kinds of activities, and evaluate his ability to use elevators in normal life situations in many

times and different situations. The results are shown in the following table: Summary and evaluation of Wang elevator's behavioral objectives.

**Table 2:** *Evaluation and result summary of the case child's elevator using*

Proper behaviors	Date and result of assessment				Actual behaviors	Instructional strategies
	12.6	12.7	12.8	12.9		
Find the elevator entrance	3/3	3/3	3/3	3/3	☆	⊕
Notice the arrow symbol of “↑” “↓”	3/3	3/3	3/3	3/3	☆	⊕
Press the arrow symbol of “↑” “↓”	3/3	1/3	1/3	2/3	conducts wrongly 4 times in 12 tests for not enough concentration	Oral cues; picture description
Wait quietly at the elevator entrance	1/3	1/3	1/3	1/3	Frequently claps hands hard, and runs with the noise “e, e, e, e...”	Verbal cues; limb assistance
Walk into the elevator quietly and quickly	3/3	3/3	3/3	3/3	☆	⊕
Notice the digital keystroke screen	3/3	3/3	3/3	3/3	☆	⊕
Press the number key for the right floor	1/3	2/3	3/3	1/3	Often presses other numbers, for example: 4、5、6	Accurate identification of the numbers 0 to 9
Find the right place to stand	3/3	3/3	3/3	3/3	☆	⊕
Wait quietly in the elevator	1/3	0/3	0/3	1/3	Sometimes claps his hands or touches others with the noise “e, e, e...”	Verbal cues; limb assistance
Keep an eye on the current floor number	0/3	1/3	0/3	0/3	Often looks around	Verbal cues; digital identification
Notice the floor indicator number that he want to reach	0/3	0/3	0/3	1/3	Often doesn't look or has no response after seeing it	Color perception; verbal cue
Waiting for the elevator door to open	3/3	1/3	3/3	1/3	Sometimes wants to break off the door by hands	Verbal cues; limb assistance



Line up and quiet to walk out of the elevator	3/3	3/3	3/3	3/3	☆	♠
Immediately leave the elevator, do not look back	1/3	2/3	0/3	1/3	After getting out of the elevator, he likes to turn back to see the door before leaving	Physical assistance; verbal tips
If does not get out in time, press the button "Open the door" quickly	0/3	0/3	0/3	0/3	Totally cannot	Create some scenes; verbal cues; body assistance

\* instructions:

1. "☆" means the actual behaviors are consistent with the proper behaviors;
2. "♠" means conducting independently without any assistance.
3. "Proper behavior" refers to the behaviors required by the environment and the reference frame are the children at the same age; "actual behavior" refers to the case child's real behaviors in the daily life.
4. The denominator of the score in the table indicates the number of times the evaluations are made, and molecule means the times that the actual behaviors are in conformity with the proper behaviors. For example: "1 /3" means that Wang conducts successfully one time in three tests.

## 7 Developing teaching objectives

The development of teaching objectives is an important step after educational diagnosis and evaluation. Objectives exist in many forms, ranging from highly specific to global and from explicit to implicit. There is debate over the merits and liabilities of objectives in their varied forms. Those objectives that they are most useful for identifying the intended cognitive outcomes of schooling, for guiding the selection of effective instructional activities and for selecting or designing appropriate assessments. Other types and forms of objectives may be useful in different ways (Lorin W. Anderson, David R. Krathwohl etc., 2001).

The analysis and evaluation of behavior objectives for Wang 's elevator using is devoted to find the starting point of the teaching, and lay a foundation for the future teaching. According to the above assessment table, it is not difficult to find that the following aspects should be further improved, so these aspects are extracted as teaching objectives:

Being able to click the buttons of "↓"、"↑" exactly;

Being able to wait at least 3 minutes quietly at the elevator entrance and inside the elevator;

Being able to accurately point out the right figure from 1 to 10;

Being able to gaze at display screen for at least one minute;

Being able to go out after the door of the elevator is open;

Being able to press the opening button accurately;  
Being able to quickly leave the elevator and do not look back.

## **8 Design corresponding teaching materials and related support**

### **8.1 The corresponding teaching materials**

The direct purpose of designing teaching materials is to better achieve the intended teaching objectives. After the case student's individual education program about using the elevator was determined, we can design corresponding text materials for use by relevant personnel, besides carry on teaching around a given objective in real situations where elevators are actually used. For example, we can design textbooks for student to use elevators, design teachers' manuals for teaching, design exercise books that help the student understand and master the important and difficult aspects of the textbook, or develop auxiliary materials represented by pictures, audio, video, etc.

All educational materials must be designed in accordance with the relevant norms. In the aspect of developing content and procedure, we must consider the ability of the case student, the conditions and limitations provided by the environment, and the established teaching idea and goal. Take the compilation of student's textbooks as an example, we should pay attention to the integrity and reasonableness of its structure, consider the logical order of arrangement, pay attention to the consistency between concepts, take into account the readability and science. At the same time, the previous study and life experience of the case student should also be considered (Wang Binhua, 2000).

As some researchers have pointed out "the special education curriculums have the function of the soul and the commander in the teaching, and they are generally used for educational diagnostic evaluation, individualized education plan formulation, design and implementation of teaching activities, teaching evaluation, curriculums go through the whole process of teaching." (Zhang Wenjing, 2008). After a period of teaching, the curriculum table above can be used again to assess the situation of Wang, to test the effect of teaching and revise the teaching, or to provide the basis for the follow-up teaching and assessment.

### **8.2 The related support**

The "support" is one of the important concepts of education for children with mental retardation. It is a resource and strategy to enhance personal development, education, interest, and well-being, and to strengthen the individual's function. The development of adaptive behavior is the result of the interactions between the individual and the environment. The cultivation of individual adaptive behaviors cannot be separated from the supports and assistances from the environment, it needs for the

related people and things to cooperate. According to the actual situation of Wang, the author develops the following supported program:

Teaching staff: mainly contain father, mother, aunt, grandfather, grandmother, class teachers and other related persons;

Teaching places: It is mainly the community elevator rooms that Wang often goes through before and after school;

Cooperation among the persons: the major educators need to closely cooperate, implement the life oriented teaching principles, and some activities like numbers identification can also be used in math or games classes.

## 9 Reflection about the study

This article mainly adopts case study, because of this kind of research does not use the probability sampling method, the study of a typical case is not to infer the results to the population sampled from them, but to illustrate what a case might look like in such a phenomenon. So the purpose of the study is to show and explain, so that people who have similar experiences achieve the purpose of promotion through identification, rather than confirmation and inference. Although the investigation, description and analysis of case adaptive functional education curriculum is only a concrete example, the authenticity of this article is only for a case, in different time and space background, all teachers have differences in the preparation of adaptive functional curriculum, but also have some commonality. In the case of following the relevant research norms, the results of the study can make people with similar experiences achieve the purpose of promotion through reading, experience the resonance of common problems or identity. So even if personal experience is different, the similar purpose can be achieved as long as he agrees with the authenticity of the case I present.

## 10 Conclusion

Developed to this point, the author provides a relatively complete example of developing the curriculums for adaptive functional education for the case children with mental retardation. In fact, in the field of social adaptation, such as self-care, family life, self-guidance, etc; or the teaching field of daily language, daily mathematics and other subjects; or a wide range of areas such as language rehabilitation, motor rehabilitation, artistic rehabilitation, etc. We can draw up very detailed curriculum plans for case students, case classes, case schools, and even schools in a wider area by reference to the similar idea and operating procedures above.

The general principles of curriculum development for adaptive functional education are as followings: individualization, designing courses based on individual

children-based needs; functionality, facilitating the development of adaptive functional abilities in the process of children-environment interaction; dynamic, basing on the ability of the children with mental retardation to develop constantly; ecology, the preparation and implementation of courses in the normal natural and social ecological environment.

The general steps of curriculum development for adaptive functional education are as followings: determining the idea of curriculum; analyzing the environment and target activities; analyzing the behaviors required in the environment; assessing students' current abilities; drawing up teaching objectives; forming teaching strategies and procedures.

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# The awareness and visual diagnosis of women with severe visual impairment as a main factor in the choice of delivery methods in childbirth

(overview essay)

Mgr. Daniela Kilduff, Ph.D.

**Abstract:** *This article is focused on factors which influence the choice of delivery options of women with visual impairment (VI), investigating the connection between the information women have and how prepared they feel, as well as their attitudes (direct or indirect) to delivery methods. This article emphasizes the necessity of sexual education, adequately modified for pupils with visual impairment from preschool to age 18/19. Sexual education, containing all necessary elements combined with education within the family is the cornerstone of an expectant mother's awareness, and her feeling of competency in parenthood. This emphasizes a respectful attitude to women with visual impairment. The author points out the possible connections between recommending C-sections to these women (from the expectation of progressing the visual impairment during childbirth), and ongoing unsuitable delivery techniques. The article includes international studies showing that there are women with visual impairment who can give physiological birth without any changes in their visual diagnosis (if certain conditions are met). The practical part of this article includes the case-study of a woman who was able to deliver naturally even after two previous C-sections with no change in her visual diagnosis.*

**Keywords:** *Woman, Visual Impairment (VI), Pregnancy, Awareness, Competence of Women, Childbirth Preparation, Physiological Childbirth, Natural Childbirth, C-section, Respect, Maternity, Parenting*

*Motto: "Childbirth plays an important role in the life of a woman. It is the one fundamental moment that a woman will always come back to in her thoughts. The way it happens will be projected into her relationship to herself, to her baby, partner and to the whole society. Childbirth is not only a physical matter that the woman should survive, and it should not be a painful sacrifice. Instead, childbirth should*

*carve deeply and positively into the soul of each woman and child. During the birth, not only the child is born, but a mother is born and a new family is created. Birth can be a strong and happy experience for the woman, that will stay in her heart forever. This is why it is the obligation of society to create the conditions for woman and child so that the new mother would feel supported in her maternity role, and that the child would get a dignified and loving welcome.*“

Anna Kohutová

## 1 Introduction

To conceive a child with her life partner is part of the natural instinct of the woman. This is the same for women with visual impairment (VI), they need an open future and a strong emotional bond through the parenting role. After analysing the current information resources accessible, we see that the area of pregnancy, delivery preparation, delivery and maternity of women with VI is still not dedicated enough attention in Czechia. The situation is not helped by the myths that still exist about the sexuality of people with VI, and prejudices against these women's competency to give birth and be a parent. Simultaneously, among these women (and women *in general*) the feelings of incompetency to deliver a baby are rising, especially due to a lack of information, and the impact of the woman's surroundings. The whole delivery process *and* bonding has a huge effect on the woman's psyche. But a tendency towards C-sections is rising in modern society. Apart from possible complications for woman and child during the C-section, another consequence is separation of the child from the mother, which can cause post-natal depression and disrupt the natural lactation process. Women with VI are primarily recommended to deliver through C-section, and in following pregnancies C-sections are strongly recommended. Meanwhile, in current research and practice it is shown that there are women with some visual diagnoses existing who *are able* to give physiological childbirth without any subsequent changes in their visual diagnoses, even when giving birth *after* previous C-sections. A wide range of factors must be considered, the essential being; visual diagnosis, physical/psychological readiness, and the provided external conditions.

## 2 Definitions of the terms used

It is important to define the essential technical terms which used. Firstly, “a person with visual impairment“, is someone with low vision (moderate, or severe which means being able to count fingers at six meters or less) or blindness (profound:



counting fingers at less than 3 meters, near-total: at 1 meter or less, or total: no light perception) according to WHO.<sup>1</sup>

Next, physiological and natural childbirth: physiological, also called “normal“ is, according to WHO, defined as, „spontaneous in onset, low-risk at the start of labor and remaining so throughout labor and delivery. The infant is born spontaneously in the vertex position between 37 and 42 completed weeks of pregnancy. After birth, mother and infant are in good condition.«<sup>2</sup> ICM<sup>3</sup> call normal childbirth a unique dynamic process, when the physiology of the fetus is reacting reciprocally with the mother (with the goal of mother and baby to be safe and healthy).

Natural childbirth is defined as “a childbirth which starts and is going spontaneously without any external intervention. It is according to the woman’s instincts. It is happening at homelike environment. The staff interfere minimally and keep an intimate atmosphere, respecting her intuitive attitude. They are open to her wishes and demands, which support the positive emotions and contributes to the childbirth without any stress or fear“. (Štromerová)<sup>4</sup>

### 3 Information resources accessible to women with low vision or blindness

*“Childbirth is a natural female ability, and the right of the woman is to be informed about this ability.“*

*Anna Kohutová*

A woman with low vision or blindness, as well as a woman who is able to see, creates her imagination about her childbirth step-by-step based on the obtained information.

#### 3.1 Media

From research (Paulíková 2013, Kilduff & Kohutová 2017, Kilduff 2018, Kavalírová, Liška a Vondráčková 2015) we see the main information resources for people with low vision/ blindness are internet and TV. Easy and greater access to specific information means internet prevails against TV. However, there is a risk of finding incomplete information or misinformation, and of being influenced by traumatic labour stories that leave woman uncertain or scared from childbirth. It is also difficult to search specifics if one is unaware of their existence, e.g. information about possible ways of delivery, the delivery wish, prenatal courses etc. Many blind women join net

<sup>1</sup> International Classifications of Diseases WHO, 2006 [online].

<sup>2</sup> Definition of natural birth. [online].

<sup>3</sup> International Confederation of Midwives: Keeping birth normal. [online]

<sup>4</sup> Štromerová, Z. Přirozený porod [online].

conferences, like “Mamina Mimina“, to share experiences and recommendations on maternity and parenting.

Printed publications exist on this topic<sup>5</sup>; a brochure from the Okamžik Association, a few technical articles (Kilduff & Kohutová 2017) as well as including a few theses (accessible online). Apart from this, women with VI are left to rely on mainstream literature which does not cater for the specific aspects of delivery preparation and delivery itself, nor for parenting as a woman with VI.

### 3.2 Family

Some women with VI obtained the aforementioned information from their families. However, questions about this topic, including sexuality are usually not answered enough (Škutová, 2008, Kubátová 2013). In extremes, they are taboo, in spite of the natural interest of children with VI.

### 3.3 Sexual education of children with VI at schools

There have been a few researches mapping the realization of sexual education in schools and the subjective preparation of children for relationships and future family life in the last 15 years or so. Škutová (2008), engaged in research about sexual education at preschool and primary school ages, and shed light on the limited understanding of sexual education among teachers, and the tendency to leave this responsibility on parents.

Míka (2015) discovered that more than 80% from 64 children with VI with an average age 17.5, consider sexual ed. as very important and helpful. Paulíková (2013) points out that almost 30% of her respondents with average age 14.65 received this information too late. Some topics girls were interested in, like caring for a newborn, were completely neglected. So do young girls with VI get the full, correct and current information about delivery preparation, and possibilities connected to their visual diagnosis?

There *is* a noticeable shift in this area, with pregraduate future sexual ed. teachers. We can expect that the quality of sexual ed. in school is increasing as teachers' interest increases. Children are led to open communication, and express their opinions and interests. In addition, spreading the information about the life of people with VI helps to bust the myths about these people and their needs.

### 3.4 Prenatal courses

Special prenatal courses, as well as information about maternity and breastfeeding is still very limited. Specialized courses dedicated directly to couples with VI, are offered by Tyfloservis, but only occasionally (Kavalírová, Liška et Vondráčková, 2015).

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<sup>5</sup> In enlarged print or audio format

### 3.5 The Department of Health

The right to give birth naturally, or physiologically should not be possible to take away. The only reasons to do so would be medical complications, or contraindications. Women with VI are primarily recommended C-sections in Czechia. As mentioned above, this should be recommended by an ophthalmologist when normal childbirth could have an adverse effect on visual acuity. Ophthalmologists worry about the expulsion phase of delivery, when during ineffective pushing the pressure inside the woman's head could cause a progression of her VI.<sup>6</sup> This is not recommended by WHO because of their studies, and the reasons form a list of harmful effects for all women, especially for women with VI (Bosomworth et Bettany-Saltikov, 2006; Kopas 2014). A woman should follow her own feelings<sup>7</sup>. Controlled forceful pushing instructed by the medical professionals is not recommended. It is advised to give birth in an intuitive and vertical position, and while the head is crowned the woman should be let to exhale deeply and calmly, to breathe and not to push. It is questionable, whether the ophthalmologist who recommend C-sections are informed about WHO recommendations, and how much their C-section tendency is effected by their own awareness of practises in many Czech hospitals. To what extent do ophthalmologists expect a passive attitude to childbirth from a woman with VI? How much do they expect that she will not be informed about the physiology of the delivery process? How is it taken for granted that the woman is afraid of childbirth? It is truly necessary to always recommend a woman with VI/blindness (having thus far experienced a naturally developing healthy pregnancy) a C-section?

*"I don't remember already if my gynecologist informed me about the possibility to deliver the baby normally, nobody else was informing me about this possibility or of a natural childbirth."* (A blind respondent from Kilduff & Kohutová, 2017)

Let's consider the connection between marking pregnancy as a high-risk one a priori, based on VI alone, and (with other factors mentioned above) the C-section recommendation:

*"My pregnancy was labelled as high-risk, even though it was going completely normally."* (Kavalířová, Liška & Vondráčková, 2015, p. 18)

*"Me... my pregnancy was called "high-risk", and there was no other reason, just my visual impairment."* (in Viktorová, 2014, p. 40)

<sup>6</sup> In Czechia it is still common in many places to practice controlled forceful pushing: Valsalva's maneuver. The expectant mother has to put her chin on her chest, inhale deeply and push for up to 20 seconds while holding her breath and closing her eyes. Then she must quickly inhale and repeat this 3 times consecutively.

<sup>7</sup> According to the National Institute for Health and Care Excellence. [online]

*“Put simply, there are two worlds existing – the world of pregnant women where the women are naturally trusting, naive, merry, scared, uncertain and, desiring a healthy baby. Aside from this world is the world of doctors, based on medical knowledge, the cool-headed application of methods, a desire to help, the fear of a wrong diagnosis, pressure from legal responsibility, and time-pressure. The core of consultation is how to connect these two worlds and aim for meaningful, clear and effective communication.” (Odent in Labusová)<sup>8</sup>*

*“A patient has the right to obtain all information from their doctor, to be able to decide if he/she agrees with the course of action or not. If there are more alternatives, or if the patient asks for alternatives, they have the right to be informed about them.” (Haškovcová in Zobancová, 2006, p. 18-19)*

*Every expecting mother should receive all the information about the process and possible risks about the C-section, to be able to sign the consent. (Kavalířová, Liška et Vondráčková, 2015).*

*“It is essential for all expecting mothers to be informed about the benefits of the natural childbirth and complications of C-sections.” (Dr. Yap-Seng Chong, Singapore State University.)<sup>9</sup>*

#### **4 Other factors effecting the feeling of competence and towards childbirth for women with VI**

The natural desire and right of a woman with VI to deliver as naturally as possible, is very often strongly confronted with the experienced or shared reality. According to Máslová (in Labusová 2011) childbirth nowadays is traumatic for many women in general “which leads to fear about other childbirths, as well as leading to a feeling of theft, melancholia, and nightmares. All of this has a strong negative impact on breastfeeding. Rigid maternity ward atmosphere, and obtrusiveness of the invasive style of directing childbirth, are felt like a rape of these women as well as the automatic separation of mother and newborn after childbirth”.<sup>10</sup>

For women with low vision/blindness, it is even more difficult because of other factors, which are; low access to information, a lack of quality informative resources about this topic, and also a limited understanding of the content of sexual education in family and school (compare Škutová 2008, Paulíková 2013, Míka 2015). The lack

<sup>8</sup> Labusová, E. *Prenatální diagnostika: Dojít k vlastnímu rozhodnutí*. [online]

<sup>9</sup> This comment, while directly about voluntary C-sections in many countries and not in Czechia, is fully applicable to our discussion as it brings to light not only the trend towards C-sections worldwide, but also the risks. C-sections are three times riskier than normal birth [online]

<sup>10</sup> Labusová, E. *Poporodní deprese: Duševní porucha, nebo přirozená reakce?* [online]

of information about the physiological childbirth processes, plus the transforming of sexual themes into taboos, causes a lower feeling of confidence regarding childbirth and maternity and therefore creates a fear to trust the women's own body during birth. (ICM, 2014).<sup>11</sup> Women with low vision, and women with blindness, can also feel scared due to their previous negative memories associated with hospitals and those shared by other women with VI, and as well from prejudices against the woman's ability to care for the newborn. The woman can feel distance, disrespect, and disapproval, she can face many uncomfortable questions, and even prejudices against her legal capacity can sometimes manifest (see Kavalírová, Liška & Vondráčková 2015, Kilduff & Kohutová 2017, Viktorová 2014). More factors include, orientation in a new environment negatively influenced by VI (Zobancová 2006), plus stress and a lack of emotional support from a personal midwife or family members who perhaps could not arrive in time to make sure the woman's birth wishes are followed and that she is experiencing a respectful attitude during that challenging time.

## 5 Delivery of women with VI who have already experienced C-sections

It is common practice that women who have given birth already by C-section are recommended again C-sections for the next births. However, according to some studies (Neri, A – Grausbord, R – Kremer, I – Ovadia, J – Treister, G. 1985; Landau, D. – Seelenfreund, M. H. – Tadmor, O. – Silverstone, B. Z. – Diamant, Y. 1995; Prost 1996) as well as concrete cases of women with VI (see further) the fact is shown that women with VI are able to deliver physiologically *even after* the C-section before, if the inner and outer conditions are met. They are able to give the normal birth *even without* changes in their visual diagnosis.

### 5.1 A case-study of a woman with severe low vision

The case study below is written as a childbirth story, which is shortened (due to capacity) and the full version is available from the author (who has been given the respondent's permission to share it).

#### 5.1.1 Goals of the qualitative research

The main goal was to describe the third delivery of one woman with severe low vision.

**Partial goal 1:** Find out about the conditions and the process of the third (and physiological) delivery, which occurred after two previous C-sections, and which was recommended again by the ophthalmologist to be done by C-section.

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<sup>11</sup> International Confederation of Midwives: Keeping birth normal [online]. [online]

**Partial goal 2:** Find out the state of VI progression possibly caused by physiological delivery.

**Partial goal 3:** Find out the subjective feelings of the woman from the start of the delivery to the end of the postnatal period.

### 5.1.2 Characteristics of the research sample

The research sample was chosen intentionally based on relevant attributes, which were VI and childbirth by C-section and subsequently the physiological childbirth. The respondent was one woman with VI giving birth for the third time at age 35.

The visual diagnosis: left eye total retinal detachment at age 6 months, since then amaurosis, and the right eye, myopia gravis. After the first childbirth she had 15 dioptres and during the third pregnancy it was much more,<sup>12</sup> in addition, cataracts had appeared.

The respondent is a two-time mother after C-sections and the third pregnancy was recommended to be also by C-section by the ophthalmologist, each of whom stated a different level of risk of the progression of the VI towards blindness.

### 5.1.3 Data collection

The data was collected through interview and by obtaining the delivery story.

### 5.1.4 The delivery story called: VBA2C Miracle – spontaneous childbirth after two C-sections (shortened version)

“I didn’t have any imagination about having kids yet, but I knew already that I won’t be able to deliver spontaneously. Already at secondary school, I got the information from my doctors and parents that pushing during childbirth will probably make me blind, and since then I heard this information about blindness caused by physiological childbirth, and I heard it so many times that when I became pregnant I didn’t doubt the words of my eye doctor, that the C-section is the best choice. The risk was too big. So, after the first delivery by C-section, and then another one, and the third one was supposed to be the same. When I was in the sixth month of the third pregnancy, I visited a lecture of the delivery assistant, Anna Kohutová, called *Kind and Gentle Delivery by Operation*. There, my belief that to deliver physiologically is high-risk for me, developed its first crack. I came home and I read on the internet tonnes of studies, Czech and foreign discussions, and personal stories of mothers who were giving their birth spontaneously, even though having myopia gravis, or retinal detachment. I surprisingly found out that I’m not able to find even one study, or one story about retinal detachment after physiological childbirth. It doesn’t mean that it doesn’t exist, but I wasn’t able to find it. I realized that I have to make a decision

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<sup>12</sup> Subjectively felt, the woman did not know the exact amount of dioptres.

about what I want to believe in, because after consultation with three eye doctors, I got three different opinions about the amount of risk about my visual impairment progression. I decided to believe that the physiological childbirth is safe for my eyes and that I am able to prepare for it in three months.“

#### 5.1.4 Evaluation of the partial goals

**Evaluation of goal 1:** Based on studying the research findings, investigating the experiences of women with VI, consulting a potential visual diagnosis progression with three ophthalmologists when each of them stipulated a different degree of risk of blindness, the respondent decided to delivery physiologically, vaginally. The rapid delivery which had been planned to take place in the maternity hospital, happened spontaneously at home.

**Evaluation of goal 2:** The progression of the VI towards blindness did not occur thanks to the natural childbirth (unlike the controlled type). The respondent did not feel any change of the visual acuity, even after a many months and up to the writing of this article.

**Evaluation of goal 3:** The respondent described her immediate feelings as follows:

*“I am a mommy of three wonderful children. A fresh, three-time mother. Now I’m holding my son in my arms, we experienced a beautiful natural childbirth. Maybe I’m so taken away by it all and enthusiastic because I know how childbirth can be, and so I’m even more grateful that I could experience a natural childbirth.“*

## 6 Conclusion

The aim of this article was to make a view into this issue of women with VI, the delivery preparation included, accessible. The article acquaints the reader with different ways of delivery and points out possible risks associated with C-sections. The author of this article is realizing fully that each case is individual and specific and no way of childbirth is ideal for all women, in view of; the woman’s uniqueness, possible complications during pregnancy, VI diagnosis, and arrangement of inner and outer conditions. The case study proves that even a woman with severe VI is able to deliver not only physiologically, but *completely naturally*, with no subsequent progression of her visual diagnosis, even after previous C-sections.

But, the main requirements are:

- a higher level of information available including all topics within sexual education
- a sufficient awareness of the expectant mother about the physiology of the delivery, the phases, and possible recommended ways of childbirth
- the mental and physical preparation of the expectant mother, and her pro-active attitude to the delivery

- support of the environment, the partner, family, delivery assistants or dula, respectful and kind staff in the gynecology department, in the maternity hospital, staff who know the needs of women with VI, including the ways to communicate with them
- organising the ideal outer conditions, as much as possible, for physiological or natural childbirth – support of the natural position using gravitation, no time-pressure, and providing intimate surroundings (soft lights, etc)
- the absence of simultaneous health complications.

In the case that physiological childbirth is not possible, it is important to support the *bonding* of mother and baby as much as possible, which is the necessary prerequisite for activation and continuation of lactation and prevention of postnatal depression.

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# Survey on Physical Education Student Teachers' Attitudes toward Teaching Students with Special Needs

(overview essay)

Li Yun, Zhang Guodong

**Abstract:** *With the implement of revised Regulations on Education for Persons with Disabilities on May 1, 2017, more and more students with special needs will be educated in general schools in China. As a psychological tendency, attitude affects the behavior to a certain degree (Zhang Hong-tao & Wang Er-ping, 2007). As physical education teachers in the future, PE student teachers' attitude toward individuals with special needs will affects their behaviors to some extent. In order to predict the reserve of primary and secondary school PE teachers, it is necessary to investigate the attitudes of PE student teachers toward students with special needs. The survey was carried in three universities, Beijing Normal University, Shaanxi Normal University, and Southwest University, and the participants are freshmen and senior students majored in physical education. Out of the 485 participants that responded, only 2 (0.004%) had taken special education courses, and none had taken adapted physical education courses. However, out of the 470 participants that responded, 173 (36.8%) have been around or studied with individuals with special needs. Results indicate that PE student teachers have more positive attitude to teach students with obesity, which followed by physical disabilities and other health impairments; the female had more positive attitudes than male. Especially, a statistically significant difference was found that attitudes toward obesity between genders,  $p < .05$ ; freshmen had a more positive attitude to teaching students with special needs in general PE class. A statistically significant different ( $p < .05$ ) was found between the PE freshmen and senior student teachers in attitude toward teaching students with obesity and students with other health impairments. A very high statistically significant different ( $p < .01$ ) was found between PE freshmen and senior student teachers in outcomes of teaching students with obesity in regular classes.*

**Keywords:** *student physical education teachers, students with special needs, attitudes, general school*

## 1 Introduction

At present, the population of individuals with disabilities is about 85 million in China. The educational situation remains at low level for many years. With the development of society and economy, this issue attracts more and more attention recently (Huang Zhi-cheng, 2003; Chen Shu, Luo Yong-hua, & Huang Yi-zhu, 2012). Equal rights for individuals with disabilities have become a focus in China (Deng & Manset, 2000). According to Deng and Manset, at least 210,000 new special schools are required to establish for meeting separate education of nearly 5 million children with disabilities. Currently, enrolling students with disabilities in general schools may be an enforceable approach. In addition, the State Council of China recently announced the revised Regulations on Education for Persons with Disabilities, which will be implemented on May 1, 2017 (REPD-2017: the revised Regulations on Education for Persons with Disabilities, 2017). It is a sound support for individuals with special needs to receive education and improve their educational level in mainstreaming schools. Article 17 in REPD-2017 stipulates that, in accordance with the provisions of the Compulsory Education Law of the People's Republic of China, if the individuals with disabilities can adapt to the ordinary schools life or can be educated in ordinary schools, they should enter the general school to accept compulsory education.

Inclusion confers many benefits in terms of socialization and curricular access, while brings challenges for teachers who may not be adequately prepared to teach students with special needs. Article 58 in REPD-2017 stipulates that "inclusion education refers to integrate the education of students with disabilities to the greatest degree into general education." In *«A Teacher's Guide to Including Students with Disabilities in Regular Physical Education»* by Martin E. Block (1994), we can also find the very like statement: "inclusion is the practice of educating all students, including students with disabilities, in regular education and regular classes" (p19–20). However, inclusion is a long time needed process. It is generally accepted that studying together in regular education and regular classes benefits for individuals with and without special needs.

For PE student teachers, the attitudes formed during training and education are likely to affect their behavior during their teaching careers (Hastings & Oakford, 2003). Another research argued that inadequate training regarding students with disabilities caused teachers to exhibit negative attitudes toward students with disabilities and toward the practice of inclusion (Subban & Sharma, 2005). In addition, Antonak & Larrivee (1995) think that teachers' negative attitudes toward students with disabilities created an expectation for low achievement for those students, as well as lowered social status for those students.

## **PE student teachers' attitude toward individuals with special needs**

Physical education is important to promote health-related lifestyle of individuals with and without special needs. A quality school physical education program can play a key role in individuals' health since it provides opportunities for participation in physical activity. But many students with special needs are not active included during physical education classes. With the increasingly included situation of students with special needs in general physical education classes, the role of PE teachers is very important in the development of PE programs for students with special needs in general physical education.

Shelley E. Taylor, Letitia Anne Peplau, and David O. Sears (1994) point that having direct personal experience with an issue gets us to think and talk about it more than if it is remote to us. So attitude-behavior consistency will be greater when we have direct experience with the attitude object than when we only hear about it from someone else or read about it.

The PE student teachers' attitudes will have an impact on the future educational process whatever they are negative or positive. Especially their attitudes toward teaching students with special needs appear to effect on students. Usually, these students have little or no experience in working with individuals with disabilities (Rizzo & Vispoel, 1992). Ajzen, the America researcher, in his theory of Planned Behavior states that an individual's experiences influence and molds one's attitude and actions towards others (Icek Ajzen, 1991). Rizzo and Vispoel (1992) also suggested that teachers with more experience working with students with special needs seem to have more favorable attitudes toward the students with special needs than did teachers with less related experience.

As future teachers, PE student teachers' attitude toward individuals with special needs will affect their behaviors to some extent. Research on their attitudes was for preparing future PE teachers to successfully integrate students with special needs into appropriate educational environments. In order to predict the reserve of primary and secondary school PE teachers, it is necessary to investigate the attitudes of PE student teachers toward students with special needs. Based on these, this study carried out for measure the attitudes that PE student teachers hold toward teaching students with special needs.

## **2 Methodology**

### **Participants**

The participants of the current study were purposive sampling, including freshmen and seniors at the Southwest University, Shanxi Normal University, and Beijing Normal University in China. PE student teachers participation in the study was voluntary.

Each PE student teacher signed and dated the informed consent form attached to the survey. All the participants were preparing to be mainstreaming teachers in all over the country. A total of 485 PE student teachers participated in this study, 80% (n= 393) were male and 20% (n=92) were female (see Table 1). There are 8.9% (n = 43) from Beijing Normal University, 45.6% (n = 221) from Shanxi Normal University, and 45.6% (n = 221) from Southwest University.

**Table 1:** Demographic information of the questionnaire sample (n = 485)

Variables	Category	Frequency	%
Gender	Male	393	81.0
	Female	92	19.0
Grade	Freshman	239	49.3
	Senior student	246	50.7
University	Beijing Normal University	43	8.9
	Shaanxi Normal University	221	45.6
	Southwest University	221	45.6

### Survey Instrument

Data were collected using the PEATID-III (Sherry L. Folsom-Meek & Terry L. Rizzo, 2002). For reflecting the composition of students with special needs in general schools of China, the labels of disabling conditions and demographic section were modified. The instrument was translated into Chinese and validated before data collection. According to expert comments, the original types of disabilities were adjusted to three types of special needs in this study (i.e., obesity, physical disability, and other health impairments).

The PEATID III questionnaire was composed of 12 items answered on a five-point Likert-type scale (i.e., 1 = strongly disagree, 2 = disagree, 3 = undecided, 4 = agree, 5 = strongly agree). It measured three areas: (a) outcomes of teaching students with special needs in regular classes (6 items); (b) effects on student learning (4 items); and (c) need for more academic preparation to teach students with special needs (2 items). Six items are positively phrased and six are negatively phrased. The negatively worded questions were converted to positive scores in the statistical analyses. Scale mean scores are based on the sum of the item scores. To derive proper scale means, the scores for statements that are negatively phrased are reversed (i.e., 5,6,7,8,9, and 10).

The outcomes of teaching students with special needs in regular classes was composed of: (5) would not be accepted by peers, (6) would disrupt harmony of the class, (7) would cause unfair burden on teachers, (9) would cause more work for the teacher, (10) should not be taught in regular classes as require too much teacher

time, and (12) should be taught in a regular class whenever possible (Folsom-Meek & Rizzo, 2002). If respondents scored low on this area, it would indicate that the outcome of teaching students with special needs in the regular classroom was not viewed to be ideal. If respondents scored high, it would indicate that teaching students with special needs in the regular classroom was viewed as ideal for the teacher or for the students. That is, respondents believed students with special needs should be taught in the regular classroom.

The effects on student learning represented students with varying abilities learning together in physical education (Folsom-Meek & Rizzo, 2002). These four items were: (1) both groups of students work together, (2) working together motivates students without special needs, (3) students with special needs will learn more rapidly in classes with peers, and (4) students with special needs will have more positive self-concept as a result of students being successful in regular classes. Higher scores would indicate that respondents viewed students with varying abilities as benefitting from learning together in physical education. A low score would indicate that respondents viewed students with special needs in regular classes with typical students as not benefitting from learning together (i.e. low positive self-concept, students not working together).

The need for more academic preparation to teach students with special needs includes two items to identify the need for more additional coursework and academic preparation. These two items were: (8) do not have sufficient training necessary to teach students with special needs, and (11) need more course work and training before feel comfortable teaching both students with and without special needs. Higher scores would indicate that teachers feel they do not need more academic preparation in order to teach students with special needs effectively. If respondents had lower scores on this area, this would indicate that teachers felt they need more academic preparation in order to teach students with special needs effectively.

### **Definition of Terms**

PE student teachers. In order to encourage more young people to being a teacher, the Chinese government implemented the Fee-Waiver Policy for teacher training programs in six normal universities that are supervised by the Ministry of Education, including Beijing Normal University, Shanxi Normal University, Southwest University, East China Normal University, Central China Normal University and Northeast Normal University from the year of 2007. The PE student teachers in this study are students who enrolled in Physical Education undergraduate academic degree programs in three of these six universities for professional educators whose training and education prepares them to teach.

### 3 Results

It is important that scales are reliable when selecting scales to include in the study. There are a number of different aspects to reliability. One of the most commonly used indicators of internal consistency is Cronbach's alpha coefficient. Ideally, the Cronbach's alpha coefficient of a scale should be above .7. (Julie Pallant, 2001). The Cronbach's alpha coefficient in this case is .906, so the scale can be considered reliable.

#### **The influence of experience with and without studying with individuals with special needs**

The participants have positive attitudes toward teaching students with special needs in this study. The average score of the three categories of special needs is higher than the average score of PEATID III (36). The mean to obesity is 42.03, which is the highest score, followed by the mean to physical disability (40.25) and the mean to other health impairment (39.92) (see table 2). Out of the 485 participants that responded, only 2 (0.004%) had taken special education courses, and none had taken adapted physical education courses. However, out of the 470 participants that responded, 173 (36.8%) have been around or studied with individuals with special needs. A t-test was conducted to look at the differences between the independent variable be around or study with individuals with special needs (be and not be around or study together) and the dependent variable PEATID III toward three categories of special needs. The result shows no statistically significant.

**Table 2:** Mean, Standard Deviation and T-test for categories according to experience

Categories of special needs	Experience	N	Mean	Std. Deviation	Std. Error Mean	T
Obesity	no	302	42.08	5.609	.323	.277
	yes	168	41.93	6.074	.469	
	total	470	42.03	5.768		
Other health impairments	no	302	39.87	5.128	.295	-.335
	yes	168	40.04	5.091	.393	
	total	470	39.92	5.115		
Physical disability	no	302	40.23	5.057	.291	-.147
	yes	168	40.30	5.236	.404	
	total	470	40.25	5.111		

#### **The differences between genders**

The differences between gender (male and female) were found in all three areas of PEATID III by t-test. The female attitude scores higher than male in general what-



ever toward teaching students with obesity, physical disabilities and other health impairments (see table 3). It means the female had more positive attitudes than male. Especially, a statistically significant difference was found in attitudes toward obesity between gender ( $p < .05$ ). The attitude of female was significantly better than male. The mean of the attitudes toward types of special needs from high to low were: obesity (male, 41.64; female 43.10), physical disabilities (male, 39.96; female, 40.87), and other health impairments (male, 39.71; female, 40.37). This means that PE student teachers, including male and female, have more positive attitude to teach students with obesity, which followed by physical disabilities and other health impairments.

**Table 3:** Mean, Standard Deviation and T-Test for variables according to genders

Variables	Gender	N	Mean	Std. Deviation	Std. Error Mean	T
Outcomes1	male	393	22.10	3.846	.194	-1.541
	female	92	22.77	3.235	.337	
Effects1	male	393	13.00	3.161	.159	-1.604
	female	92	13.58	2.829	.295	
Need1	male	393	6.53	1.212	.061	-1.553
	female	92	6.75	1.219	.127	
Total 1	male	393	41.64	5.828	.294	-2.206*
	female	92	43.10	5.233	.546	
Outcomes2	male	393	20.64	3.391	.171	-1.034
	female	92	21.04	3.224	.336	
Effects2	male	393	12.54	2.907	.147	-.322
	female	92	12.65	2.771	.289	
Need2	male	393	6.52	1.182	.060	-1.102
	female	92	6.67	1.130	.118	
Total 2	male	393	39.71	5.198	.262	-1.121
	female	92	40.37	4.530	.472	
Outcomes3	male	393	20.68	3.463	.175	-1.366
	female	92	21.22	3.116	.325	
Effects3	male	393	12.77	2.839	.143	-.426
	female	92	12.91	2.768	.289	
Need3	male	393	6.51	1.111	.056	-1.796
	female	92	6.74	1.088	.113	
Total 3	male	393	39.96	5.221	.263	-1.540
	female	92	40.87	4.478	.467	

Note. Outcomes= outcomes of teaching students with special needs in regular classes; effects= effects on student learning; need= need for more academic preparation to teach students with special needs. 1= obesity; 2= other health impairments; 3= physical disability, \*  $p < .05$

### The difference between freshmen and senior

The average score in PEATID III of PE freshmen is higher than the average score of PE senior student teachers. It indicated that freshmen had a more positive attitude to teaching students with special needs in general PE class. From a grade perspective, the participants, including freshmen and seniors, have a more positive attitude to teach students with obesity, which followed by physical disabilities and other health impairments (see table 4). A statistically significant difference ( $p < .05$ ) was found between the PE freshmen and senior student teachers in attitude toward teaching students with obesity and students with other health impairments. A very high statistically significant difference ( $p < .01$ ) was found between PE freshmen and senior student teachers in outcomes of teaching students with obesity in regular classes.

**Table 4:** Mean, Standard Deviation and T-Test for variables according to grades

variables	Grade	N	Mean	Std. Deviation	Std. Error Mean	T
<b>Outcomes1</b>	freshman	239	22.94	3.369	.218	4.173**
	senior	246	21.54	3.963	.253	
<b>Effects1</b>	freshman	239	13.39	2.762	.179	1.996*
	senior	246	12.83	3.392	.216	
<b>Need1</b>	freshman	239	6.45	1.136	.073	-2.179*
	senior	246	6.69	1.279	.082	
<b>Total1</b>	freshman	239	42.78	5.37		
	senior	246	41.07	5.975		
<b>Outcomes2</b>	freshman	239	21.04	3.056	.198	2.080*
	senior	246	20.41	3.610	.230	
<b>Effects2</b>	freshman	239	12.71	2.588	.167	1.075
	senior	246	12.43	3.136	.200	
<b>Need2</b>	freshman	239	6.47	1.129	.073	-1.556
	senior	246	6.63	1.211	.077	
<b>Total2</b>	freshman	239	40.21	4.723		
	senior	246	39.47	5.390		
<b>Outcomes3</b>	freshman	239	21.05	3.036	.196	1.749
	senior	246	20.52	3.713	.237	
<b>Effects3</b>	freshman	239	12.96	2.603	.168	1.252
	senior	246	12.64	3.019	.192	
<b>Need3</b>	freshman	239	6.56	1.071	.069	.158
	senior	246	6.54	1.148	.073	
<b>Total3</b>	freshman	239	40.58	4.538		
	senior	246	39.70	5.562		

Note. Outcomes= outcomes of teaching students with special needs in regular classes; effects= effects on student learning ; need= need for more academic preparation to teach students with special needs. 1= obesity; 2= other health impairments; 3= physical disability, \*  $p < .05$ ; \*\*  $p < .01$ .

## 4 Discussion

Article 44 and 45 in REPD-2017 stipulate that Normal Universities and comprehensive universities with a discipline of teacher education should set special education courses, so that students have the basic knowledge and skills of special education to meet the needs of the attendance of students with disabilities. In addition, it should increase the proportion of special education content and knowledge related in the ordinary teacher training, and improve the general teachers' special educational ability. While at present, collegiate physical education programs in most of universities of China have not supported introductory adapted physical education courses to promote competencies with regard to teaching students with special needs.

Although attitudes toward persons with disabilities have improved in recent years, negative attitudes such as social rejection and greater social distance still exist, and are recognized as barriers to success for people with special needs in social, educational, and vocational contexts. Most PE student teachers in the study agreed with including students with special needs in general physical education classes, but were only willing to accept students with mild special needs in their own classes.

PE student teachers' attitudes reflect some stereotype about individuals with special needs in social context. Differences between subgroups become more important than differences among individuals within categories as the basis of impression formation (Marilynn B. Brewer, 1996). Affected by the social environment, inclusive education still need a long time in China.

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# Structured teaching in practice: Applying the principles of structured teaching in standard school environment

TUCKERMANN, A., HÄUßLER, A., LAUSMANN, E. *Strukturované učení v praxi: Uplatnění principů Strukturovaného učení v prostředí běžné školy*. Praha: Pasparta, 2014.

**Reviewed by Lucie Schwarzová**

The publication presents one of the methods for the education and teaching of individuals with the autism spectrum disorder – Structured Teaching. The methodology, according to Čadilová, Žampachová (2008), is based on the TEACH program and Lovaas' intervention theory and thus on the learning theories and behavioral theories based on behavioral intervention (focusing on the modification of the external conditions of learning and conduct of the individual) and cognitive-behavioral intervention (focusing on the change of the person's way of thinking).

Cottini and Vivanti (2017, p. 21) provide the definition of autism as follows: "Autism is an organic disorder caused by genetic predisposition, which together with the risk factors in the environment result in modified development of the brain that manifests itself later on in disturbed cognitive development of various levels and consequently abnormal behavior." Říhová, Urbanovská and Pastieriková (2011) describe the autism spectrum disorder as a life-long disorder which critically impacts the whole development of a child. Čadilová et al. (2012) adds that the presence of the disorder substantially changes the life of not only the person with autism but his or her whole family. The autism symptoms may vary, however, they tend to be permanent. In cases of appropriate educational intervention it is possible to observe some reduction of the symptoms in several areas of development. The specific symptoms, the so called diagnostic triad, include an impairment of imagination, social interaction, and communication. The method of structured teaching is grounded in the development of strong features of the individuals with PAS as well as in eliminating the deficiencies caused by the diagnosis.

The publication may be viewed as a collection of tools for teachers and teaching assistants working with children with autism spectrum disorder who are educated in the main stream schools. In connection with the amendment of the education law which brought about some principal changes to the area of education of special needs students, there emerged the need to react promptly to the methodological support when applying the supportive measures specified in the regulation no. 27/2016 of the Code. One of the possible supportive measures is the modification of methods and forms of the teaching process where it is possible to include the use of structured teaching.

The team of authors of German nationality has longtime experience acquired through their therapeutic work with people with autism spectrum disorder as well as through the provision of counseling services to their teachers, close relatives, and friends. This fact runs throughout the whole work which can be practically utilized and applied by elementary school teachers who should be able to prepare various materials according to the instructions in the publication for educating children with autism. The original German edition of the work titled „*Praxis TEACCH – herausforderung Regelschule*“ was translated to Czech by Jitka Hakenová.

The publication is logically segmented into several chapters. The first one comprises the fundamental ideas of structured teaching and its use in the conditions of the main stream education.

The second chapter contains the theoretical anchoring of the structured teaching and takes a closer look at specific areas of the structure at school, i.e. structuralizing the space, time, tasks, and instructions. This part also includes numerous pictures depicting specific tips how the components of structure may be utilized in the class and when preparing various tasks. The structured assignments that are included respect the basic rule which sets the system of work moving from left to right and from top to bottom. A sub-chapter can be also found here that presents the aids for time organization and individual work.

In the introduction to the third chapter, the authors explain the term of a hidden curriculum which they view as a pitfall in a standard school. Furthermore, they focus on the general definition of the qualification and tasks of the teaching assistant. They also present a time-tested teaching aid, the so called “box that everyone needs to have”. It contains some fundamental materials for an immediate modification of teaching materials.

The fourth chapter targets the area of communication with a student with autism spectrum disorder. The practical recommendations and illustrations depict the act of asking for help, making decisions, and accessing communication.

Chapter number five suggests several ways how to announce the diagnosis and explain autism to the class. It includes a power point presentation of a student with Asperger’s, Max, who presents himself to the class through such presentation.

The last three chapters of the book explain the necessity of motivation in the teaching-educational process and the strategies of coping with changes during the day at school. The conclusion of the publication provides various references to specialized literature and information sources.

I would like to recommend this book to all teaching and counseling staff who work with children and students with autism spectrum disorder since it offers a number of useful and specific recommendations how to work with these students using the methodology of the structured teaching. The publication may be regarded as a collection of practical inspiration helping achieve the fundamental priorities of education, i.e. to provide the student with sufficient support for the development of all parts of his or her personality.

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# Sensory perceptual issues in Autism and Asperger Syndrome

BOGDASHINA, Ol'ga. *Specifika smyslového vnímání u autismu a Aspergerova syndromu*. Přeložila Helena ČÍŽKOVÁ. V Praze: Pasparta, 2017. ISBN 978-80-88163-06-0.

**Reviewed by Monika Smolíková**

Author of the publication, Olga Bogdashina, MA, PhD, is a co-founder, programme leader and lecturer at the UK branch of the International Autism Institute and associate consultant (Autism) to the European Institute of Child Education and Psychology (ICEP Europe). Since 1994, she has been the director of the first day centre for children with autism in Ukraine and the president of the Autism Society of Ukraine. In her research and practise, she deals with sensory-perceptual and communication problems.

In 2017 a translation of the publication of 2003, by Olga Bogdashina, has emerged in the Czech market, which has inspired, by its concept, two different worlds; that with autism and that without. Autism represents a way of existence of a still growing percentage of people around us. This publication explains some basic issues concerning manifestations of behaviour of people with autism and may, at least to a certain extent, acquaint people with everyday situations faced by people with autism.

Experts involved in the issues of autism spectrum disorders analyze manifestations of behaviour they can see and are able to evaluate them, but they do not focus on the experience of autistic people themselves. Olga Bogdashina has gathered a lot of information from people with high-functioning autism and Asperger's syndrome and has produced a very impressive publication that gives insight into the issue of sensory perception "from the inside". She uses research by leading professionals involved in autism research, as well as those who are the best autistic professionals and scientists in the field of autism – i.e. the people with autism themselves (such as Temple Grandin, Donna Williams, Liane Willey and Jim Sinclair). By linking this research along with her own studies and using personal practical experience, she pursues practical impact of deviations in sensory perception of people with autism.

She succeeds in motivating readers to think about how to use the strengths of sensory perception in people with autism and how to stimulate those that are weakened.

Thus, the question is to what extent the sensory perception is the cause of deviations in behaviour. This question is analyzed by the author in the publication and is supported by authentic testimonials and examples from the life of people with autism, which appropriately balances the expert focus of the text.

The publication is divided to nine chapters. In the introductory part, the author acquaints the reader with the general terms and with meanings of individual terms as she understands them, despite the fact these terms are seldom used in practice for the time being, or different terms are used in practice.

The first chapter focuses on the controversy between dysfunction and atypical sensory experience. This way she establishes a unique view of the fact that what works otherwise (for most people), can be an advantage and a positive phenomenon in a person with autism. Through examples from practice, the author declares that the cause of social and emotional problems has a perceptual nature.

The second chapter deals with the general concept of perception. Evaluated is the meaning of sensory experiences, described is the relationship and the process between the sensory stimulus and the result interpreted by our brain. The illustrations accompanying the text are fully “functional”; they can be used to check how visual illusions work or how to find a “blind spot” on our retina.

In the third chapter are defined sensory experiences that relate to autism. Determined phenomena are then evaluated in a complex way with the effort of maximum interconnection in individual areas of sensory perception and their impact in real life.

The fourth chapter deals with the perceptual styles of people with autism. This chapter, along with the following, fifth chapter on cognitive styles, provides the reader with a description of nonstandard sensory perception and its influence on the cognitive process and its own way of thinking.

The sixth chapter follows sensory differences. Here, characterized are atypical, but in people with autism common situations associated with sensory perception.

The seventh chapter evaluates the possibilities of therapeutic intervention. It deals with basic therapeutic approaches that can be utilized within the development of sensory perception of people with autism.

The eighth chapter deals with the sensory perception profile and contains a table, the so-called spectral graph, which serves to record the strengths and weaknesses of sensory perception. It is grouped into 20 categories that evaluate all 7 sensory systems (sight, smell, hearing, taste, proprioception, vestibular perception). In the end, the publication contains a free translation of the Sensory Profile Checklist Revised (SPCR, which includes 232 questions that serve as a complementary material to develop a sensory perception profile), a record sheet and a key to evaluate the method.

The chapters are supplemented with subsections with the title „What to Note“, the purpose of which is to identify and interpret some behavioural manifestations of people with autism affected by perceptual difficulties.

The last chapter evaluates the practical impact of sensory perception on the life of people with autism. The author emphasizes that, in order to create the right intervention method, it is necessary first to evaluate the perceptual deviations of each individual and to see how the person perceives the surrounding world; for example, how a person evaluates what he/she sees or hears. If we would be able to understand that our sensory perception would be different from that which people with autism do have it would be a basic prerequisite for the success of mutual co-operation of our perceptual worlds.

I am very pleased to recommend to readers a publication that examines the issue from several different angles and, by its nature, states that people with autism are the best professionals in the problems of autism. Although I would recommend the publication to a professional audience, even the parents of autistic children (especially in the more severe forms of autism spectrum disorders) will surely come into their own in it, and even those who have an interest and desire to get into the life of people with autism at least to a certain extent.

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# Information for authors



## Basic information about the JEP

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- Did the author use appropriate terminology?
- Are the sample and the methods used in scientific papers adequately described?
- Are the quantitative or qualitative methodology and interpretation of results reliable?
- Does the text have clear conclusions?

Formal criteria:

- Did the author comply with the standard division of the article (abstracts, keywords, literature...)
- Is the text clearly divided into chapters?
- Are the tables and graphs clear and understandable?
- Is the text not too long or too short?
- Is the list of used citation sources (literature) not disproportionately large?

**Recommendations – Editors conclusions**

- Text will be published
- Text will be published after minor modifications
- Text will be published after reworking
- Text will be reviewed again
- Text will not be published