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Editor's letter

We are glad to present to the readers the second issue of our joint scientific journal “SOCIAL WELFARE *INTERDISCIPLINARY APPROACH*” published by the universities of two countries – Lithuania and Ukraine.

Both of our universities provide active research in the field of disability studies, educational and social inclusion, psychology and physical rehabilitation. Šiauliai University and University “Ukraine” are creating inclusive educational environments and teach students with different types of disability. University “Ukraine” was the first Ukrainian University to offer an integrated type of education where 1400 to 2350 students with disabilities have studied in different years (with the total number of students up to 45'000). Together with colleagues from Great Britain, Canada, Germany and the USA, scientists of University “Ukraine” developed and implemented supports for students, known as the System of Accommodation and Support for students with disabilities.

According to the United Nations and the World Bank report (9 June 2011) more than one billion people worldwide experience some form of disability. Some 1.1 million children with disabilities in Central and Eastern Europe and the post Soviet countries are hidden away at home or in institutions, as the United Nations reported on 27 September 2011. These people face architectural, educational, and social barriers that often force people with disabilities to the margins of society.

Being the world's largest minority, people with disabilities did not have a specific global treaty addressing their needs and protecting their rights until the Convention on the Rights of Persons with Disabilities came into force on 3 May 2008. As of this printing, 153 countries signed the Convention and 106 of them ratified it.

Though both Lithuania and Ukraine have signed and ratified the Convention, only through fundamental changes of attitude in our societies towards persons with disabilities will their rights in practice, as guaranteed in the Convention, be realized. Implementation of the Convention is a long process and requires collaboration on the part of government, profile specialists, non-governmental organizations, and people with disabilities, including their families. In this case, scientists (i.e. sociologists, psychologists, and teachers) can take an active part in this process, researching social problems and finding ways to solve them.

The cross-cultural perspective and character of our edition allows us to investigate problems concerning people with disabilities from different points of view, and to get new ideas and new knowledge within the frames of wide scientific discussion.

In the second issue of the journal, the work of twenty-three researchers (eleven articles) is presented. The authors of the articles are from Italy, Latvia, Lithuania, Ukraine, and the USA. According to research topics the scientific articles are divided into four sections: “Social Challenges”, “The Development of Professional Competencies”, “Disability Studies”

and “Psychosocial Rehabilitation”. All articles are original research works oriented towards the possibility of implementation in many states. The peculiarities of intercultural and interdisciplinary collaboration are distinctive and we expect that in the future our research partnerships will be stronger and stronger.

The articles in the journal are presented in English. The journal is published twice a year. The June edition is published at Šiauliai University in Lithuania; the December edition is published at the Open International University of Human Development “Ukraine”. We believe, that our academic publication will be popular not only among Lithuanian and Ukrainian researchers, post-graduates, specialists, and students concerned with creating social welfare, but also will become known in Europe and other parts of the world. Our journal was included in EBSCO’s Academic Search Complete database and we will continue to strive for its inclusion in other prominent scientific research databases.

The Editors-in-Chief acknowledge the authors, the Editorial Board, the designer, the staff of the Publishing Office and everyone who has contributed to the publication of the journal “SOCIAL WELFARE *INTERDISCIPLINARY APPROACH*”. Special thanks are for our future readers. We will not be able to exist without you. By inviting you for collaboration with our social scientists, we believe in the meaningfulness and future of our work together.

*Editors-in-Chief Kateryna Kolchenko
and Ingrida Baranauskienė*



A REVIEW OF CURRICULAR APPROACHES AND QUALITY OF LIFE INDICATORS IN THE UNITED STATES FOR INDIVIDUALS DISPLAYING PROFOUND MULTIPLE DISABILITIES

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Abstract

During the last two decades in the United States, there has been an increase in research studies on two salient areas of interests impacting individuals with profound multiple disabilities (PMD): providing access to appropriate educational curriculums and enhancing overall quality of life. Despite this interest, attempts to link positive quality of life indicators and appropriate educational curriculum for students with PMD have not been explored. The purpose of this literature review is to identify articles related to curriculum issues, as well as those addressing the importance of skill acquisition activities that lead to an improved quality of life. Implications for establishing a potential link between quality of life assessment practices and current educational practices in the United States are addressed.

Key words: *profound multiple disabilities, academic curriculum, functional curriculum, quality of life, happiness.*

Introduction

In the past, a relatively limited amount of research in the United States has focused on the educational and functional needs of individuals with profound multiple disabilities (PMD). Individuals with PMD are those considered to be the most significantly impaired. In public schools, this small population of students encompassed children between the ages of three and twenty-one diagnosed with a combination of disabilities including: profound cognitive disabilities, severe physical impairment, substantial sensory difficulties and/or significant medical problems (Maes, Lambrechts, Hostyn, & Petry, 2007; Nakken & Vlaskamp, 2002; Sternberg, 1994). These students required pervasive levels of support while in school as their level of overall development peaked at approximately two years of age in all core areas of functioning (e.g., communication, social skills, mobility, self-help skills; Sternberg, 1994). Historically, teachers had minimal expectations regarding academic achievement of students with PMD (Agran, Alper, & Wehmeyer, 2002) and special educators often struggle with

determining appropriate methods to encourage active participation during academic tasks. Additionally, quality of life concepts, such as happiness and self-determination, were often disregarded when considering educational focus (Schalock, 2004). Recently however, the passage of several pieces of federal legislation in the United States has served as a driving force for increasing research conducted regarding two salient areas of interest: providing access for students with PMD to appropriate educational curriculums (Browder, Wakeman, Spooner, Ahlgrin-Delzell, & Algozzine, 2006; Clayton, Burge, Denham, Kleinert, & Kearns, 2006; Snell, Chen, & Hoover, 2006) and enhancing overall quality of life for these individuals (Green & Reid, 1996; Helm, 2000; Petry, Maes, & Vlaskamp, 2005).

In the United States in 1997, the enactment of the Individuals with Disabilities Education Act (IDEA) Amendments instigated a change in the curricular focus for students with intellectual disabilities. IDEA (1997) required that each state create an educational framework that would provide all students, including those with PMD, the opportunity to access, participate, and progress in the general education curriculum. Additionally, The No Child Left Behind Act (NCLB) of 2001, an education initiative focusing upon increasing performance for all public school children in the United States, mandated that states implement assessment procedures designed to monitor the achievement of all learners on academic standards drawn from the general education curriculum in core content areas (e.g., reading, math, and science; No Child Left Behind Act, 2001). To date, this was the first piece of federal legislation implemented in the United States that established the expectation that students with PMD should show progress on state standardized assessments (Browder & Spooner, 2006).

Just as the two aforementioned acts served to increase preparations and expectations for the academic achievement of students with PMD in the United States (Cushing, Clark, Carter, & Kennedy, 2005), additional federal laws laid the foundation for increasing emphasis on improving their overall quality of life. The passage of legislation such as the Developmental Disabilities Act of 2000, potentially served as an incentive to increase quality of life research in the United States for individuals, including those with PMD. Like previous legislation (e.g., IDEA, NCLB), this statute addressed the rights of persons with disabilities, particularly issues related to quality of life related concepts (Developmental Disabilities Assistance and Bill of Rights Act, 2000; Schalock, Bonham, & Verdugo, 2008). This legislation recommended that quality of life domains and assessments be considered during the development of support plans for individuals with disabilities (i.e., individualized education plans and transition plans; Schalock et al., 2008). Consequently, the concept of quality of life for persons with PMD is gaining prominence among several research groups, including those in the field of special education (Lancioni, Singh, O'Reilly, Oliva, & Basili, 2005; Schalock, 2004).

Notwithstanding recent legislation, low teacher expectations and uncertainty regarding appropriate instructional strategies has remained a barrier to the exposure of students with PMD to the general education curriculum (Agran et al., 2002). Presently however, special education researchers are beginning to concentrate efforts towards determining which educational strategies provide the most appropriate access and participation in the general education curriculum while also identifying and planning for adequate quality of life opportunities, as deemed individually suitable, for students with PMD (Green, Gardner, & Reid, 1997; Lancioni et al., 2005; Petry, Maes, & Vlaskamp, 2007).

Object of review: Due to the complexity that surrounds the issue of appropriate and meaningful instruction for students with PMD in the United States, the intent of this systematic review was twofold. Primarily, in order to investigate a potential link between teaching pre-academics/academics and quality of life, special educators first must understand the history and significance of educational programming for students with PMD. Therefore, this review briefly addresses historical and emerging strategies being used with students with PMD in

order to ensure their access to the general education curriculum. Secondly, literature that addresses quality of life concepts, the use of quality of life assessments, and application of quality of life strategies for individuals with PMD is examined.

Aim of Review: To provide a brief description of the historical and current curricula for students with PMD as well as definitions and discussion of key components of quality of life (e.g., happiness, self-determination). Additionally, a discussion of the importance of the assessment of quality of life concepts and an examination of current quality of life assessment practices (e.g., proxy versus self-report; subjective measures versus objective measures) will be presented. Finally, a discussion of the implications of this body of literature will be presented. This discussion will include suggestions for future collaborative quality of life and academic interventions research in the field of PMD in the United States.

Method of Review: A thorough search of electronic resources was conducted through the following electronic databases: Education Full Text, Education: A SAGE Full-Text Collection, ASSIA: Applied Social Sciences Index and Abstracts, ERIC, OVID, PSYCH Info, and Educational Research Complete. The descriptors used to identify articles were as follows: *profound multiple disabilities, significant intellectual disabilities, general curriculum, functional skills, academic skills, quality of life, assessment, happiness, classroom, subjective measurement, objective measurement, proxy, and self determination*. In addition, the reference lists of selected literature reviews that addressed topics related to education, quality of life, and severe disabilities were reviewed in an effort to collect a broad literature base (Browder & Xin, 1998; Davis, Young, Cherry, Dahman, & Rehfeldt, 2004; Lancioni et al., 2005; Maes et al., 2007; Nietupski, Hamre-Nietupski, Curtin, & Shrikanth, 1997). Finally, the published results from both an expert panel (Schalock et al., 2002) and from a Delphi study of experts (Petry, Maes, & Vlaskamp, 2007) in the field of quality of life for individuals with PMD were used.

The inclusion criteria used to determine whether a research article would be incorporated into the review involved the following: (a) published in a peer-reviewed journal between 1996 and 2011, (b) included at least one participant with the diagnosis of either severe or profound mental retardation, severe intellectual disabilities, significant cognitive impairment, or profound multiple disabilities (as defined by IDEA (2004)), (c) involved some measure for assessing either quality of life in isolation, quality of life in collaboration with happiness and/or self-determination, or access to or progress in instruction related to the general education curriculum, and (d) published in English. (see Table 1 for a summary of reviewed empirical studies).

Historic and Current Curricular Focus

Following the passage of the Education for All Handicapped Children Act (P.L. 94-142) in the United States in 1975, which mandated free and appropriate public education for all children, special educators were confronted with the challenge to create and implement an educational curriculum that was both appropriate and effective for students with PMD. In 1997, Nietupski and colleagues conducted a literature review that addressed the notion that the need to identify appropriate curricular content for students with PMD has been a central concern in the field of special education since its inception. Their review detailed the curricular shift in the United States from the developmental model of instruction to the functional model of instruction, as well as the implications of that curricular shift (Nietupski et al., 1997).

Developmental Curriculum: The enactment of P.L. 92-142 (1975) afforded all students with special needs, including those with the most severe disabilities, the right to attend public school in the United States. Unfortunately, although these students were entitled to a free and appropriate public education, there were no basic guidelines in place to educate them. The initial educational services created for students with PMD were adapted from

Table 1

Characteristics of reviewed quality of life (QOL) empirical studies

Studies	Participants (n)	Disability Label	Purpose	Outcomes
Campo, Sharpton, Thompson, & Sexton, 1997	60	Severe or profound mental retardation	Examine variables associated with QOL of people living in Intermediate care facilities	QOL scores of participants positively related to social and staff support, and high level of integrated activities
Davis, Young, Cherry, Dahman, & Rehfeldt, 2004	3	Profound mental retardation	Effectiveness of delivering a preferred item with vs. without interaction to indicate happiness	Happiness indicators higher during presentation paired with interaction
Green & Reid, 1999	5	Profound multiple disabilities	Evaluate a means to determine sources of happiness/unhappiness within the classroom	Behavioral definitions and observation system reliably identified sources of happiness/unhappiness
Green & Reid, 1996	6	Profound multiple disabilities	(a) attempt to reliably observe and validate definition of happiness and unhappiness (b) demonstrate if happiness could be increased by staff	(a) Were able to reliably observe indicators of happiness and unhappiness (b) Classroom assistants effectively increased happiness among participants
Green, Gardner, & Reid, 1997	3	Profound multiple disabilities	A replication of Green & Reid, 1996	Each participant experienced an increase in overall happiness indices
Green, Reid, Rollyson, & Passante, 2005	3	Profound multiple disabilities	Evaluate an enriched teaching program for reducing resistance to teaching and unhappiness	Resistance and unhappiness were decreased for participant during enriched teaching program
Ivancic, Barrett, Simonow& Kimberly, 1997	7	Profound multiple disabilities	A replication of Green & Reid, 1996	Increase in happiness indices for all participants
Lancioni, Singh, O'Reilly, Sigafoos, Didden, Oliva et al., 2007	9	Profound multiple disabilities	Evaluate the effectiveness of microswitch-based programs on indices of happiness	Seven of the nine participants showed an increase in happiness indices when using the microswitch-based program
Nota, Ferrari, Soresi, & Wehmeyer, 2007	141	Intellectual disabilities	Examine relationship between personal characteristics, self-determination, social abilities, and residential status/QOL outcomes	Basic social abilities and IQ scores were greatest predictors of membership in high or low QOL group
Perry & Felce, 2002	154	Mental retardation	Examine degree of correlation between self-report responses of persons with MR vs. those of staff responding on their behalf	Proxy results were not significantly correlated with self-reported views
Petry, Maes, & Vlaskamp, 2007	45	Profound multiple disabilities	Assessed content and structure of an item pool that contained items on QOL and related supports	Experts selected relevant QOL items: physical well-being, material well-being, social/emotional well-being, development and activities
Petry, Maes, & Vlaskamp, 2005	76	Profound multiple disabilities	Considered the general validity of basic domains of QOL theoretical models in relation to this population	Supports a multi-dimensional approach as a valid way to assess QOL
Schwartz, 2005	71	Intellectual Disabilities	Examined impact of parental involvement in relocation QOL for adult children with ID	Parents perception increased the QOL of adult children with ID and made relocation easier
Schwartzman, Martin, Yu, & Whiteley, 2004	2	Severe intellectual disabilities	Determine if the provision of preferred food item resulted in increase happiness in choice	Participants showed very little happiness indices throughout study, very little effect noted
Shelly, Davis, Waters, Mackinnon, Reddihough, Boyd et al., 2008	205	Cerebral palsy	Proxy reports used to determine the strength of association between functioning and QOL domains	For proxy-parent report, all domains of QOL were significantly associated with functioning except access to services
Singh, Lancioni, Winton, Wahler, Singh, & Sage, 2004	3	Profound multiple disabilities	Determine if caregivers could increase happiness without actively focusing on contingencies of happiness	Showed very clearly that the levels of happiness were increased during preferred leisure activities

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Jonna L. Bobzien

existing preschool curriculums (Browder et al., 2004). This curricular approach became known as the developmental model and was based on the assumption that the educational needs of students with PMD should focus on instruction at the student's mental age as derived from developmental assessments (Browder & Spooner, 2006). During these initial years of instruction, the readiness approach guided the education of these students. This approach to learning suggested that a child with a significant level of intellectual disability cannot learn academic skills until they have mastered more fundamental life skills, such as toileting and grooming and other personal care skills (Browder & Spooner, 2006). Although there was no research to indicate that mastering life skills is a prerequisite to learning pre-academic or academic skills (Browder, Spooner, Wakeman, Trela, & Baker, 2006), this curriculum was utilized by special educators for several years until Lou Brown and colleagues (1979) challenged the special education field to concentrate on a new curricular model known as the functional curricular model.

Functional Curriculum: The functional curricular model emphasized that education for students with PMD should focus on targeted skills needed by these students to function in daily life. Brown and colleagues (1979) proposed that appropriate instruction should include teaching a variety of skills that are required daily to function successfully in natural domestic, community, and vocational environments. In contrast to the developmental model, the educational goals based on the functional model were chronically age-appropriate. In addition, these age-appropriate functional skills were taught within the environment in which they naturally occurred to address generalization of the learned skills (Browder & Spooner, 2006; Burcroff, Radogna, & Wright, 2003). By the early 1980s, educators in the field of PMD were creating the first functional curricula, focusing on four skill/curricular domains: community, recreation, domestic, and vocational (Browder, Spooner, et al., 2006). Examples of functional skills curricular goals included teaching currency calculation skills necessary to complete a purchase, improving capacity to follow a vocational related work-list, or increasing one's ability to interpret and utilize a public transportation schedule. Following over a decade of targeted functional skills instruction, the curricular focus for children with PMD in the United States is shifting again, moving from a functional skills model approach toward a model that emphasizes access to the pre-academic and academic components of the general education curriculum (Browder et al., 2007).

General Education Curriculum: With the passage of IDEA (1997), the focus of learning changed as special educators were mandated to provide all students appropriate access to the general academic curriculum. The notion of access to the general education curriculum referred to adherence to "curricular standards, content and materials that are similar to those of their classmates without disabilities" (Cushing et al., 2005, p. 6). With the subsequent passage of NCLB (2001) and IDEIA (2004), the notion of teaching these students academic (e.g., reading comprehension, mathematical calculation) and/or pre-academic skills (e.g., pre-literacy and pre-numeracy) has received renewed attention (Browder, Wakeman et al., 2006; Downing, 2006; Spooner, Dymond, Smith, & Kennedy, 2006). With the increased emphasis for students with PMD to access, participate, and progress in the general education curriculum, the shift in curricular focus has become an area of widespread and sometimes contentious debate in the field of special education in the United States (Browder et al., 2009).

Despite renewed attention, regrettably special educators are struggling to generate and implement effective educational strategies to teach academic content to students in the United States with PMD. A survey of special education teachers conducted by Agran and colleagues (2002) found teachers felt that not only access and participation in the general education curriculum was inappropriate, but also that students with PMD should not be held accountable to the same standards as their non-disabled peers. Furthermore, Agran et al (2002) indicated

that teacher's inability to determine the potential benefit to their students was one of the primary reasons stated as to why access to the general education curriculum was inappropriate.

To address uncertainty regarding pre-academic/academic instruction for students with PMD, Browder, Gibbs, and colleagues (2007) developed a list of potential benefits of this curricular focus for students with PMD. According to Browder and colleagues (2007; 2009), the potential positive results included: (a) improving post school outcomes (e.g., adult competence, independence, self-determination), (b) increasing special educator's expectations of student achievement, (c) providing educational instruction opportunities that are equivalent to those offered to age-appropriate, non-disabled peers, (d) embedding functional skills instruction in pre-academic and/or academic activities drawn from the general education curriculum, and (e) increasing opportunities for social interactions with their peers without disabilities. Additionally, it can be posited that students with PMD who are taught pre-academic and/or academic content may also experience an overall increase in self-determination and self-esteem. Consequently, these increased feelings of self-efficacy have the potential to lead to an overall enhanced quality of life (Guess, Benson, & Siegel-Causey, 2008), thereby providing a compelling rationale for pre-academic/academic skills instruction.

Definition of Quality of Life

The term quality of life encompasses multiple facets and can refer to the aspects of one's well-being (e.g., physical function), social interaction, and cognitive functioning. Also, quality of life can refer to aspects associated with one's environment and relevant life areas (Green & Reid, 1996). When translated into its component parts, "quality" refers to the association of human values, such as happiness, health, and satisfaction, while "of life" refers to crucial components of human existence, such as expressing and becoming self-determined (Schalock et al., 2002; Shelly et al., 2008). Historically in the United States, the concept of quality of life was primarily utilized in the field of PMD as a sensitizing notion that guided practitioners to acknowledge what individuals with disabilities valued and desired (Schalock, 2004). At present, the term quality of life for persons with PMD is being utilized as both a unifying theme and as a social construct (Schalock et al., 2008). Quality of life indicators provide a unified foundation in the United States on which programs and services designed to enhance the well-being of individuals with PMD are built. Additionally, quality of life indicators serve as a powerful tool for eliciting positive programmatic and societal change (Schalock, 2004; Verdugo, Schalock, Keith, & Stancliffe, 2005). Although experts and researchers (Green & Reid, 1996; 1999; Maes et al., 2007; Petry et al., 2007; Schalock, 2004) have posited the importance of focusing on quality of life for individuals with PMD, there continues to be debate in the field as how best to define and measure the concept of quality of life.

Recently, several experts (Petry et al., 2007; Schalock et al., 2002) in the fields of quality of life and disabilities research collaborated and established eight core principles that defined relevant indicators of quality of life for individuals with disabilities. These were: emotional well-being (happiness), interpersonal relations, material well-being, personal development, physical well-being, self-determination, social inclusion, and human rights. The key components of these principles, based on individual choice and as much individual control as possible, are applicable to all people irrespective of gender, race, social class, or level of disability (Reiter & Schalock, 2008; Schalock et al., 2002). Although the same general principles associated with quality of life are viewed as important for all individuals, differences may exist in the value given to each of these principles based upon an individual's level of functioning (Campo, Sharpton, Thompson, & Sexton, 1997). Consequently, many researchers (e.g., Campo et al., 1997; Patrick, 1997; Petry et al., 2005; Reiter & Schalock, 2008) argue that although the eight core quality of life principles have been found relevant and applicable for

the majority of individuals, these principles should be translated into more concise indicators that reflect the unique needs of people with PMD. For example, Patrick (1997) proposed a conceptual model that emphasized environmental modification, independence, and increased opportunity as key principles for measurement of quality of life for people with PMD. Additionally, others have recommended that emphasis should focus on happiness as a key component for measuring the quality of life of individuals with PMD (Green, Reid, Rollyson, & Passante, 2005; Lyons, 2005; Petry et al., 2005).

Happiness: The definition of happiness established by Green and Reid (1996; 1999) is the most widely accepted definition in the field of PMD in the United States (Green & Reid, 1999; Green et al., 2005; Petry et al., 2007; Schwartzman, Martin, Yu, & Whiteley, 2004). Green and Reid (1996) suggest that happiness is characterized as “any facial expression or vocalization typically considered to be an indicator of happiness among people without disabilities (e.g., smiling, laughing and yelling while smiling)” (p. 69). Additionally, specific behaviors such as clapping, hand wringing, hopping in wheelchair, arm waving, singing, dancing, and head twirling have been considered as indicators of happiness among people with PMD by other researchers (Lancioni et al., 2005; Singh et al., 2004; Yu et al., 2002). For individuals who demonstrate extremely low levels of functioning, less conventional indices of happiness may include: a change in muscle tone, increased opening of eyes, a change in arousal level, or change in physiologic measures such as heart rate (Ivancic, Barrett, Simonow, & Kimberly, 1997). Although happiness constitutes only one unique element of the overall quality of life concept, it is a distinctive feature because it is a multifaceted construct that involves various components (e.g., personal well-being, pleasure, and satisfaction; Helm, 2000; Lancioni et al., 2005). Given that happiness elements are embedded throughout all quality of life components, the significance of this indicator for persons with PMD cannot be diminished when assessing quality of life (Crocker, 2000; Schwartzman et al., 2004).

Despite the view that happiness is tied directly to positive quality of life, researchers in the United States have conducted few studies investigating the potential correlation of happiness and quality of life among individuals with PMD (Green & Reid, 1999; Helm, 2000). This inattention may be due in part to the belief that although happiness is an accessible and prevalent element of quality of life for people with PMD, it is in essence a private event that may not be amenable to direct study (Crocker, 2000; Green & Reid, 1999). Green and Reid (1999) further stated that individuals with PMD may lack sufficient communication skills to either articulate their level of happiness or to relay what stimuli exposure promotes happiness. To illustrate this logic, people with functional verbal repertoires are able to increase their level of happiness simply by requesting a desired object or stimuli. Conversely, individuals with PMD may not have access to preferred stimuli because they are unable to communicate their preferences effectively (Green & Reid, 1996).

Current Quality of Life Assessment Practices

Over the past 20 years in the United States, techniques for assessing the satisfaction of people with PMD regarding various aspects of their lives have grown considerably. Consequentially, the role of quality of life assessment has expanded to include a “conceptual framework for measuring personal outcomes and a social construct that guides program practices and quality improvement” (Schalock et al., 2008, p. 181). Due to this increased integration of the quality of life concept into program practices, an increasing number of pediatric quality of life instruments have been developed making it difficult for researchers and clinicians to determine which instruments or assessment techniques, if any, are the most appropriate for individuals with PMD (Davis et al., 2006; Green & Reid, 1996). Typically, quality of life assessment tools (e.g., Life Experiences Checklist, Comprehensive Quality of Life Scale) rely on an individual’s evaluation of their satisfaction and/or happiness in those areas of life that are

applicable and relatively important (Bertelli & Brown, 2006). Given that individuals with PMD rarely demonstrate typical happiness indicators, it is significantly more difficult to determine the level of satisfaction and happiness of these individuals. As a result, determining which quality of life measurement approach to use with this population poses a real challenge.

Verdugo and colleagues (2005) stated that current approaches being used in the measurement of quality of life can be characterized by several key premises. Primarily, quality of life assessments are multidimensional in nature and involve investigating both core quality of life domains and individual indicators, such as happiness (Verdugo et al., 2005). Second, typical quality of life tools are methodologically plural and use both objective and subjective measures. The use of this multivariate design enables researchers to calculate the manner in which personal characteristics and environment relate to a person's quality of life (Verdugo et al., 2005). Finally, in current practice with people with PMD, quality of life measures tend to be questionnaire or interview-based and are designed to be completed via self-report (Hatton & Ager, 2002). However, due to the fact that many individuals with PMD are not capable of independently responding subjectively, for example by answering direct questions, the reliance on self-report raises a number of methodological issues.

Proxy vs. Self-Report: Traditionally, quality of life instruments have measured indicators of happiness for individuals with disabilities through self-report techniques (Green & Reid, 1996). When assessing the quality of life of persons who have significant communication deficits, one of the first priorities to address is how to alter the delivery method of the assessment to encourage self-report. These methods may include simplifying the questions and responses or utilizing alternative or augmentative communication devices (Verdugo et al., 2005). Despite frequent efforts to make quality of life measures accessible to all, situations remain in which utilizing self-report measures is not appropriate (Nota, Ferrari, Soresi, & Wehmeyer, 2007). For example, alternative data collection methods may be necessary if respondents, such as those with PMD, have impairments that significantly impact their ability to answer cognitively complex questions or if respondents have no functional communication (Nota et al., 2007). Frequently, in an attempt to include individuals with PMD, who cannot participate independently, a knowledgeable proxy is asked to respond to quality of life questions on behalf of the individual (Bonham, Basehart, & Schalock, 2004; Green et al., 1997; Lyons, 2005).

In measuring the quality of life of individuals with PMD, questions arise as to whether the use of proxy report is reliable and valid (Lyons, 2005; Perry & Felce, 2002). A number of researchers (e.g., Campo et al., 1997; Perry & Felce, 2002; Petry et al., 2005) have attempted to evaluate the accuracy of proxy-participant agreements on quality of life concepts such as happiness. As a result, there are conflicting views as to the validity of utilizing proxy reports. Several researchers (e.g., Ross & Oliver, 2003; Schalock et al., 2002) maintain that since the concept of quality of life is essentially an intensely personal experience, a proxy answering on another's behalf cannot accurately convey the person's own perception of his or her life. Perry and Felce (2002) found that quality of life assessment results reported by a proxy who was familiar with a person with PMD yielded conflicting results when compared to the self-reported quality of life assessment results given by the actual individual with PMD. Conversely, a number of researchers (e.g., Cummins, 2001; 2002; Petry et al., 2005) have determined proxy reports to be valid as a means of interpreting another individual's quality of life. For example, Schwartz (2005) demonstrated evidence of consumer-proxy agreement when she compared the self-report answers obtained regarding quality of life of adults with intellectual disabilities with proxy answers obtained from the individual's parents. Due to the equivocal nature of research findings, little rationale has been provided to support the use of proxy respondents nor negated the value of proxy respondents in assessing the quality of life concepts of individuals with disabilities (Perry & Felce, 2002).

Despite the paucity of research supporting the utilization of proxy respondents, the use of this alternative method to measure quality of life continues to be employed. Since individuals with PMD often communicate through small, hard to notice behavioral signals, the adoption of alternative methods of data collection appears to be necessary in order to include these individuals in quality of life research (Perry & Felce, 2002; Petry et al., 2005). Verdugo and colleagues (2005) stated that when necessary, quality of life data for individuals with PMD should include both proxy data about the individual, as well as self-report data that can be gathered wherever possible. The resulting data from these two sources should be analyzed separately and then tested directly to determine the degree of agreement between self-reports and proxy responses. This direct comparison would assist in determining if proxy data can be interpreted accurately (Verdugo et al., 2005). Finally, in situations where proxy respondents must relay information on behalf of an individual with a significant disability, the subjective results of such measurement techniques must be clearly identified as another person's perspective (Hatton & Ager, 2002; Schalock et al., 2002).

Subjective Measurement vs. Objective Measurement: One of the major points of contention in current quality of life research is whether it is possible to objectively measure the quality of life of individuals with PMD or if quality of life is largely a matter of subjective appraisal (Perry & Felce, 2002). By definition, quality of life is a multi-layered construct, composed of subjective (self-report) and objective (observed) indicators; therefore, both are necessary to measure an individual's quality of life (Petry et al., 2005; Verdugo et al., 2005). Although subjective appraisal has been a key component of quality of life research for the general population, objective assessments have dominated quality of life research in the field of PMD (Perry & Felce, 2002).

Objective measures that are observable, such as laughing and smiling, are often used when assessing the quality of life of individuals with PMD because it is assumed that one cannot truly ascertain the subjective feelings, or emotions, of another (Helm, 2000). However, since happiness also can be viewed as an innately private event, some behavioral studies (e.g., Perry & Felce, 2002, Campo et al., 1997) investigating people with PMD have primarily relied on subjective measures. From a behavioral perspective, subjective measures must be used because one could never reliably know another's level of happiness or what initiates feelings of happiness, unless it was relayed directly to us (Helm, 2000). Consequently, a barrier to measuring subjective quality of life of individuals with PMD is that the concept must be inferred by means other than self-report (Cummins, 2002). Ideally, researchers should attempt to measure both subjective and objective indicators simultaneously when assessing the quality of life of individuals with PMD (Schalock et al., 2008). By measuring both subjective and objective indicators on the same item, many of the problems associated with focusing only on either subjective or objective measures, which are typically not highly correlated, are eliminated (Bertelli & Brown, 2006; Schalock et al., 2008). Therefore, one of the most pressing needs in this field of research is in the development of assessment strategies that can evaluate subjective dimensions of quality of life in addition to the more traditional, objective dimensions (Campo et al., 1997).

Current Quality of Life Assessment Research

Although research exploring the quality of life of students with PMD is limited (Lancioni et al., 2007; Shelly et al., 2008), there is a small, but crucial body of research pertaining to increasing happiness indices among adults with PMD. In 1996, Green and Reid introduced research concerning the measurement of displayed indices of happiness. Green and Reid conducted a single subject, alternating treatment design study regarding the use of a structured stimulation program, Funtime, on a group of adults with PMD. This program

involved exposing participants to a variety of stimuli ranging from highly preferred to least preferred, as determined by systematic preference assessments. The participants were exposed to the stimuli intermittently for 1-min to 3-min during a 10-min activity session as both happiness and unhappiness indices were recorded through systematic observations. Findings from this study (Green & Reid, 1996) indicated that the stimulation sessions in which the participants were exposed to preferred stimuli elicited greater measurable indices of happiness than sessions involving non-preferred stimuli. To further their research, Green and colleagues (1997) replicated this study utilizing a group of three adults with PMD participating in a day treatment center. Once more, the Funtime stimulation program was initiated and the results indicated that each participant demonstrated increased indices of happiness when engaged in activities encompassing predetermined preferred stimuli (Green et al., 1997).

Ivancic and colleagues (1997) conducted a similar study in which they sought to increase indices of happiness for adults with PMD. However, instead of presenting participants with items deemed favorable through preference assessments, the highly preferred stimuli items were based on the classroom staff's judgment. Using a single subject, ABAB reversal design, Ivancic et al. systematically observed seven adults with profound intellectual and motor disabilities as they engaged in staff selected activities. Results for this study were variable, in that an increase in happiness indices during activities containing highly preferred stimuli for only four of the seven participants (Ivancic et al., 1997).

Recently, Davis and associates (2004) further extended research in this area by conducting a single subject multi-element design study to determine which classroom condition produced the highest percentage of happiness indicators among three adult participants with PMD. The three conditions included: standard classroom programming, social interaction with the participant, and social interaction plus a preferred item or activity. Observers recorded happiness indices during one 10-min session, three to five days a week for each condition. Results revealed that all three participants demonstrated substantially higher indices of happiness when engaged in the social interaction/preferred item combined condition (Davis et al., 2004). As the results of these studies suggest, increasing the happiness of individuals with PMD is an obtainable goal when attempting to improve one's overall quality of life. Although somewhat speculative, this knowledge might assist practitioners and educators in the field of PMD as they create and implement strategies and interventions aimed at supporting this population.

Potential Contribution of the Current Review and Implications for Future Research

Historically, the majority of research conducted with individuals with PMD examined variables that affected skill acquisition with little attention to assessing the individual's quality of life (Davis et al., 2004). Bertelli and Brown (2006) stated that although some researchers (e.g., Hatton & Ager, 2002) assert that assessing persons with PMD regarding their quality of life is not possible because they lack the cognitive skills to give meaning to the concept, there is little empirical evidence to support this claim. In actuality, even in the cases of the most severe impairments, researchers have been able to obtain information regarding emotions and feelings from individuals with significant disabilities in such a way that it allowed satisfaction in life to be perceived (Bertelli & Brown, 2006). The major reason to apply quality of life concepts to research in the United States for individuals with PMD is to determine if increasing these concepts enhances their satisfaction and overall well-being (Schalock et al., 2002). Typically, the daily routine of a person with PMD is characterized by frequent, extended periods of direct care interactions followed by shorter periods of independent activities (Lyons, 2005). These direct care interactions are primarily associated with functions of daily living and self-care routines. For children with PMD, these extended periods of direct care interactions generally

occur in a school setting (Lyons, 2005). The potential for many individuals with PMD to spend a substantial amount of time involved in non-stimulating self-care routines may lead to a lessened sense of well-being and satisfaction. The resulting dilemma facing researchers in the United States is how to accurately and efficiently assess quality of life indicators in persons with PMD and utilize the resulting information to drive appropriate educational programming. Despite the possibility that these individuals experience a decreased sense of quality of life due to an apparent lack of time spent engaged in enjoyable activities, few empirical studies suggesting methods to increase the quality of life of individuals with PMD exist in the United States (Lyons, 2005; Ross & Oliver, 2003).

This systematic review may have been the first to introduce the importance of attempting to establish a link between teaching pre-academic/academic skills and increasing overall quality of life for students with PMD. As this review demonstrates, while past research on improving the quality of life for individuals with PMD has focused on teaching leisure skills or functional life skills, none to date have centered upon teaching pre-academic/academic skills. Medical and technological advances continue to benefit individuals with PMD by revolutionizing health care and intervention services (Maes et al., 2007). Consequently, the overall quality of life for these individuals is being influenced as well. As a result, quality of life, or the satisfaction one feels with his or her life, has gained increased recognition in the United States in the fields of health science, psychology research, and to a lesser degree, education.

In the past, it was assumed that since individuals with PMD displayed low levels of functioning, they must have poor quality of life (Lancioni et al., 2007; Shelly et al., 2008). Recently, research (e.g., Reiter & Schalock, 2008; Singh et al., 2004) has demonstrated that although this notion may be true in some cases, is not representative of all individuals with PMD and thus must be investigated. Additionally, there has been a paradigm shift among some experts in the field of PMD in the United States in that research now focuses on the capabilities of people with disabilities rather than their deficits (Green et al., 1997; Reiter & Schalock, 2008; Shogren, Wehmeyer, Buchanan, & Lopez, 2006). This change in outlook from a deficit perspective to a competence-based perspective, may allow for positive perceptions of the individual's overall capabilities, regardless of the severity of the individual's disabilities. This way of thinking encourages practitioners to place greater emphasis on the development of individual's strengths instead of focusing on deficit remediation (Shogren, et al., 2006). Focusing on and enhancing the strengths and capabilities of these individuals may afford them greater opportunities to have meaningful participation, community inclusion, and positive educational outcomes (Perry & Felce, 2002; Shogren, et al., 2006).

To date, there is a scarcity of quality of life assessment tools (e.g., The Life Satisfaction Matrix, Quality of Life Index, and Evaluation of Quality of Life Instrument) that are appropriate to administer to individuals with PMD (Ross & Oliver, 2003). Future research in the field of quality of life in the United States should continue to address issues connected to the lack of valid measurement tools to assess the quality of life of individuals with PMD. The debate between researchers regarding the use of proxy versus self-report remains a key point of contention as many feel that proxy reporting is not a reliable or valid method of collecting quality of life data (Verdugo et al., 2005). However, in order to prevent the exclusion of individuals who may not be able to self-report due to a lack of functional communication skills, the use of proxy respondents should continue for people with PMD. In addition, quality of life measurement tools must continue to utilize a multi-dimensional approach that encompasses both objective and subjective measures (Schalock, 2004). The exclusive use of one measuring method will inevitably exclude this population thereby ignoring their views and opinions which, in the past, have attributed to gains in the areas of mental health and behavioral health for individuals with PMD (Perry & Felce, 2002; Reiter & Schalock, 2008).

Another implication for future research in the field of PMD in the United States is the dearth of research that applies quality of life concepts to educational reform. Quality of life assessments can, and should, be used as a criterion against which to evaluate the effectiveness of special education programming (Lancioni et al., 2007; Lyons et al., 2005; Reiter & Schalock, 2008). As such, by identifying classroom activities and procedures that result in an increase in student quality of life indicators such as happiness and self-determination, educators could begin to adapt and design skill acquisition activities to make them more enjoyable for the student (Brown, Gothelf, Guess, & Lehr, 1998; Green & Reid, 1999; Green et al., 2005; Guess et al., 2008). Using quality of life indicators could possibly increase the ability of special educators to successfully address two major factors in the lives of students with PMD, decreasing the potential unpleasantness of school while increasing skill acquisition, happiness and self-determination.

Potential Review Limitations

Because of the nature of this explicative literature review, there are limitations that should be noted. One possible limitation may be the omission of empirical or research-to-practice articles written prior to 1996 and works presented through non-literary methods (e.g., conference presentations, expert forums, etc.). Another possible limitation may be the exclusion of articles outside the parameters of the original ten descriptors (i.e., *long-term outcomes, unhappiness, preference, and self-report*). A final limitation is the fact that there is a dearth of research that applies quality of life concepts to educational reform. Quality of life assessments can be used as a criterion against which to evaluate the effectiveness of special education programming (Lancioni et al., 2007; Lyons et al., 2005; Reiter & Schalock, 2008).

Conclusions

1. This investigation may have been the first to explore the existence of a potential link between teaching pre-academic/academic skills and increasing overall quality of life for students with PMD in the United States.

2. Individuals with PMD represent one of the most challenging populations facing service providers attempting to assess and apply both appropriate instructional procedures and quality of life concepts (Green et al., 2005). Given limited levels of functioning, potential complex health needs, and increased dependency on others, evaluating their quality of life is an inherently complex task (Petry et al., 2007). Consequently, despite support from some researchers and experts in the field (e.g., Green & Reid, 1996; Schalock et al., 2008), the use of quality of life concepts has yet to be fully integrated into current educational practices in the field of PMD in the United States.

3. Future research demonstrating a possible link between teaching pre-academic/academic skills and improved quality of life for students with PMD has the potential to positively influence special education professionals and practitioners. As a result, the overall concept of quality of life for students with PMD would be more valued, respected, and encouraged by educators as they strive to develop appropriate and effective educational programming in the United States for these students.

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CRITICAL DISCOURSE FOR SOCIAL INTEGRATION OF CHILDREN WITH DISABILITIES WITHIN THE CONTEXT OF HUMAN RIGHTS

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Abstract

The process of social integration of the people with disabilities has already been implemented for two decades in Lithuania. However, Ruškus and Mažeikis (2007) note, that only critical analysis of ideas of social integration of the people with disabilities helps to determine whether the situation of the people with disabilities in nowadays Lithuania is changing essentially or merely formally. While analyzing the educational system in Lithuania little attention is paid to the change of the system in the perspective of human rights. From the point of view of Oliver (1996), talking about the social integration of the people with disabilities first of all means talking about human rights. Rix and co-authors (2010) note that human rights being universal are inseparable reference to social integration. The authors mentioned above reveal that talking about human rights has an emancipating power for the groups of society that undergo social exclusion. The education system often creates limitations for social integration of the people with disabilities, indicating the limited opportunities of the children with disabilities to achieve academic success. Human rights are the system of values and ideas, which refers to the desire to eliminate conflicts and reconcile opposites. Speaking about human rights is very important, because the idea of social integration of the people with disabilities in Western Europe and the USA began with the human rights movement in the middle of the 20th century. Ife (2001) prompts people of various professions and social statuses to discuss human rights actively; otherwise human rights remain only a formal declaration. The daily theoretical and practical talk about children's rights is very important, because violations of children's rights are not readily visible.

Key words: *discourse, disability, social integration, human rights, children's rights.*

Introduction

Social integration of the people with disabilities has already been implemented for two decades in Lithuania. Obvious results to enjoy have been attained – the establishment of day care centres, renovation of many secondary schools, by implementing at least minimal environment adaptation elements for the people with disabilities, and by the issue of laws. Distinct indicators of the change of public attitude towards the people with disabilities can be

noticed. However, the issue of social integration of the people with disabilities in Lithuania remains problematic. Barton (2001) points out the need for continuous analysis of social integration, because social integration is a socially constructed phenomenon. Ruškus, and Mažeikis (2007) point out the methodological guidance for the critical analysis of ideas of social integration of the people with disabilities which would assess whether the situation of the people with disabilities in nowadays Lithuania has changed substantially or merely formally. From the point of view of Rioux (2002), the problem lies in the fact that the people with disabilities often have the right to a service, but not to a social participation. Ruškus, and Mažeikis (2007), Gerulaitis (2007) indicate that social presence is often hidden under the goals of normalization, adaptation, rehabilitation, and socialization. LR Law on Social Integration of the People with Disabilities (2005) reveals social participation goal, as one of the imperatives of social integration. The concept of social participation sees the society as cooperative systems, the members of which create the schemes of interdependence and the attempts to use the opportunities offered by the environment to improve their own role and position in the society (Ruškus, 2005). The Convention on the Child's Rights, published in 1989, according to Jonynienė (2005), not only stresses the right of the children to the protection and welfare, but also participation is defended for the first time.

At school, as one of the most important areas of social integration, the idea of social participation is only declarative. The research by Ališauskienė (2005), Miltenienė (2005), Gerulaitis (2007) performed in Lithuania showed that there is a serious lack among teachers and parents', children and teachers', parents and children's cooperation schemes in secondary schools, which would allow to respond to the special needs of children, which would lead children with disabilities to participate actively in school life, which would develop positive socialization space of children. According to Duoblienė (2009), the discourse perspective allows to notice the entrenching ritual practices, which eliminate the awareness, criticality, and reflection of the representatives of education and school communities (ibid). It is very important to talk about the social integration of the children with disabilities in the aspect of human rights, because as noted by Barton and Tomlinson (1984), special education is strongly expressed in the social interest.

Lithuania ratified The United Nations Convention on the Rights of the Child in 1995. The "School for All" concept is declared in the Long-Term Development Strategy of the Republic of Lithuania, in the provisions of 2003-2012 of National Education Strategy of the Republic of Lithuania, in the Law on Education of the Republic of Lithuania. Other European countries also follow this concept. "School for All" is a school where every student receives adequate attention and services, depending on their individual needs. The concept of National Policy of Child Welfare, approved by The Seimas of the Lithuanian Republic in 2003, shows the aim to enable every child to grow up in the family, by developing the infrastructure of social and education services. In this sense the provision that every child has the right to go to the nearest school is important. This provision is declared by LR Education (2011, amending Act) and LR Special education (1998) laws. From the point of view of Jočienė and Čilinskas (2005), Lithuania has a proper legal framework, which requires people and the law to respect human rights. However, according to the authors mentioned above, Lithuania lacks continuous focus on human rights issues, and because of the lack of public awareness and motivation, human rights issues remain a formal declaration, rather than the norm. The research of Jonynienė (2005) shows that from the point of view of specialists on children's rights (92 per cent of respondents), children's rights legislation is not properly implemented.

This article on children's rights comes from the perspective of human rights so that children's rights are an integral part of all human rights system (Bačiulienė, & Zaborskis, 2004). Sagatys (2006) notes that the concept of the child cannot be radically separated from the general

human perception. Although there are obvious differences in the psychological, sociological, biological and legal circumstances, childhood should be perceived as a certain stage of human development according to each child's individual characteristics. The European Convention on Human Rights does not distinguish the rights of children as of a special social group. In this sense, it should not be talked about the rights of the child's autonomy but about the rights of differentiation, when the children have all common human rights and freedoms, which, taking into account their interests determined by physical, emotional and mental immaturity, may be extended or curtailed. This implies a child's – a privileged subject's – position; accordingly the children may have such rights, which are not specific to adult (ibid). In this sense, the United Nations Convention on the Rights of the Child is an important international document, which commits governments of the countries and all adults pay special attention to the child in the process of his/her biological and social development.

The aim of this article is to reveal the discourse of human rights for children with disabilities within the context of social integration.

Methods of investigation: a theoretical analysis of the discourse.

The discourse refers structured knowledge and universal awareness which are reflected in the public "speaking and writing". According to Leonavičius, & Keturakis (2002), the discourse can be understood as a thinking architecture, determined by cultural, social, and political circumstances, which regulates awareness and ways of expression. The discourse as "framework", "cognitive schemes" expresses strategic efforts of certain groups of people to show, form a common understanding of the phenomenon, which legitimates and motivates a collective action (Howarth, 2000). According to Telšienė (2005), not only spoken or written text is important in the analysis of the discourse, but also the generating, transferring, and interpreting figures, also the direct or historical contexts enabling and limiting the discourse. Critical provision is important for the analysis of the discourse. The base of critical provision is to deconstruct constraints, the factors of violence, exploitation and other factors of power, with the formulation of reflective approach to conformist traditional theory at the same time; which uncritically restores current society (Valantiejus, 2004). The analysis of critical thought often takes place by reflecting personal and professional experience. However, proponents of critical thought offer not to be limited with reflections, but are for the discourse analysis, which makes the social contradictions and ambivalences comprehended clearer (Rossiter, 2005; Fook, 2001).

Discourse analysis is important, because as noted by Ife (2001), formal legal documents cannot be identified with the implementation of human rights. Formally, Lithuania has the entire necessary legal framework, which creates preconditions for the realization of human rights in the situation of disability (Strolaitė, 2002; Juodkaite, 2003; Vitkauskas, 2009). There is a lack of critical analysis, which would allow activating the issue on human rights, as the interplay of the power mechanisms of public awareness, inadequate regulations, and methods of activity.

The imperative of social integration within the concept of children's rights

Special attention to children's rights was actualized in 1924, for the first time in the world the first Declaration on Child's Rights has been declared in the League of Peoples (supplemented in 1959). As the focus on child's rights was increasing, it was concluded, that there is a need for a new special document, because the declaration was more of declarative moral character, then the law has required (Bačiulienė, & Zaborskis, 2004). Therefore, the Convention on Child's Rights, published in 1989, is the first international document, which fully covers the rights of the children, including the children with disabilities. (Promoting the rights <...>, 2007). The Convention became effective in 1990. There are almost 50 rights of children in the Convention

(Bačiulienė, & Zaborskis, 2004). At the beginning of the 20th century children did not have any rights – they were totally dependent on the adults. At the end of the century children's rights are not only declared, but also internationally recognized and protected by a legal document – the Convention on Child's Rights, adopted in 1989 by The General Assembly of the United Nations, which has been ratified almost in all 192 countries of the world (except the USA and Somalia) (Jonynienė, 2005). Children have many rights, belonging to all people, but they also have some exclusive rights, while the part of universal rights, assigned to children, gets additional aspects. It is recognized that a mentally or physically disabled child has the right to live a full life (Article 23). Sagatys (2006) notes that the main problem of the conceptualization of the rights of a child is that “problematic are both the lower and upper limits of the rights of the child”, (page 21). Morita (Sagatys, 2006) distinguishes between two different types of children's rights: the right to protection and the right to autonomy. The autonomy of children's rights is the problem which is actively discussed by the specialists on the child's rights. Some believe that the present-day manifestation of the autonomy in children's rights is nothing more than a symbolic act (Sagatys, 2006). In the child protection system there is a strongly expressed discourse of child's right to protection, on the grounds that contacts and relationship is more important for children than isolated privileges, given on behalf of “rights” (ibid). Despite the different approaches to child's rights above, the publication of the Convention was a very important decision on the political level. In 1990 the children issue was integrated into the list of political issues for the first time at the meeting of the world leaders in New York (Bačiulienė, & Zaborskis, 2004).

On 5 January 1992 Lithuania joined the Convention on the Child's Rights of The United Nations of 1989, which was ratified by the Seimas of the Republic of Lithuania on 3 July 1995. The Seimas of the Republic of Lithuania adopted children's rights Protection Framework Act on 14 March 1996. This law ensures children's fundamental rights, freedoms and responsibilities and the rights and freedoms protection guarantees in Lithuania.

According to Jonynienė (2005), in 1994 Lithuania started to develop the Child's Protection Services system: in 2000 the Child's Rights Protection Act of the Republic of Lithuania was adopted, the Adoption Service under the Social Security and Labour Ministry (2000) and Children's Rights Ombudsman Institution (2001), Family, Children and Youth Department (2002), which is responsible for co-ordinating the child and youth protection policy, were established.

In 2002 The Act of the framework of the Republic of Lithuania child's rights was improved and the General Regulations of Child's Rights Protection Service were approved, under which the local child protection services implement the fundamental provisions of the Convention on the Rights of the Child, carries the protection of child's rights, protects the rights and legitimate interests in accordance with the laws, organize and supervise the care of parentless children, represent the child's rights and legitimate interests in the courts, organize crime prevention work with the child's parents, and perform other functions assigned to them (the United Nations Convention on Children's Rights Implementation Report, 2004).

Strengthening the protection of child rights at the municipal level the law of the extension of the articles 7, 8 of the Republic of Lithuania local municipality act was adopted on 24 September 2002, by which children and youth rights protection, instead of being assigned to (self-limited) municipal function, since 1 January 2003 became a national (transferred to municipalities) function, which is given a special purpose grants from the state budget every year in order to be implemented. At the level of the municipality, the structural unit of the municipal administration in charge of the protection of child's rights and legitimate interests is the local child's protection service. According to the ruling of the Republic of Lithuania of 17 December 2002, the main job of the Offices is concerned with child's care setting and

enforcement, adoption issues. They also play a key role in organizing and coordinating inter-agency cooperation at the municipal level, when dealing with the variety of child and family issues, gathering statistical information about children. The competence of the Offices is their responsibility to interpret and participate in the variety of child's rights (violence against children, juvenile involvement in illegal employment, etc.), as well as the organization of social care for these children. The Offices, in accordance with their competence, provide methodological support to the municipal bodies concerned with child's protection employees; consult parents, teachers, educators and children themselves to protect their rights, protection (care), adoption and prevention of violations of rights (Vitkauskas, 2009).

There are around 100 non-governmental organizations and foundations, which protect children's rights and represent their interests in the Republic of Lithuania. The most active ones are: "All the Children of Lithuania", the Federation of Caritas, UNICEF (The United Nations Children's Fund), Lithuanian Fund for Children, the community of people with mental disabilities „Viltis" ("Hope"), the department of Lithuania of the World Medical Association "For the life", Lithuanian children's rights organization „Gelbėkit vaikus" ("Save the Children"), Lithuanian Paediatric Society and the other (Bačiulienė, & Zaborskis, 2004). One of the most important organizations in the framework is the United Nations Children's Fund – UNICEF. The Lithuanian National Committee for UNICEF (founded in 1993) performs a variety of international and national social, health and education programs in Lithuania, raises funds (for example, by distributing postcards) to support destitute children. After the ratification of the United Nations Convention on the Rights of the Child by the Seimas of the Republic of Lithuania, UNICEF strives to help the Government to implement cross-border commitments to protect children's rights and to guarantee their safety, to consolidate the institute of children's rights not only legally but also to ensure its implementation (Vitkauskas, 2009).

Brocklehurst (2004) indicates the following points of the Convention on the Rights of Child (1989), which require all children's social integration – 2, 3, 7, 9, 17, 23, 27, 28, 29, 30, 31. Failure to implement these items or their ignorance refers to children's social disjuncture from the society.

The problem of harmony between disability and human rights

Disability has a coded reference to the semantic constraints. Human rights refer to such person's powers as freedom, dignity and autonomy. According to Gustavsson (1999), the people with disabilities are often entitled to a disability. This provision forms the passivity of people with disabilities, weakens the sense of responsibility, the emphasis of the disability (as a weakness) continues to support the prevailing society stereotypes of polarization to both healthy and the disabled. The scholar points out, that modern society, which is highly motivated to achieve the integration of the people with disabilities, should learn to accept the right to ability and autonomy of a person with disability as well as of a person without disability. This means that there is an aim to create favourable conditions to realize the unveiled human potential and strengths; that self-determination right is granted to the person to choose resources, control one's living conditions, act freely and independently in the social environment of one's life.

Sometimes the disability of a person and the ratio of his/her right are distorted, when regarded in the guidance of some interests. For many years the Association of the Blind of the USA has been fighting with the Federation of Flight for the right for blind people to sit next to the exit of planes. Flight rules require that a person sitting in such a position would be able to understand the visual guidance and could evaluate the exit lanes located outside the plane. Some airlines allow blind people to sit near the exits, while some require the traveller to see in order to be able to read the safety rules placed in the pocket of a chair, printed on a sheet of cardboard. It is based on the grounds that a blind person at a given moment is likely to block

the output or cause a security risk. The organization of the blind treats it as discrimination, as in any other case, for economic reasons, no restrictions are applied to passengers seated near the exit e.g., not to drink alcohol. Also, there are no other actions taken to improve the safety of passengers, e.g. to seat a specially prepared staff near the exits, or not to seat anyone and leave more space for all passengers; to widen the aisles near the exits etc., because they have no utility. These arguments suggest that not safety but the economic benefits are key factors, and therefore the restrictions for the blind can be regarded as discrimination (Hallahan, & Kauffman, 2003).

The issue of human rights is generally a complicated issue, especially when talking about the situation of the disability. For example, in the situation of disability, the right of an individual to live and the right to life already become problematic in the period of pregnancy. Vanier, regarded as the professor of humanism of the 20th century, expresses regret, because France legalizes abortion during any month of pregnancy, when a woman realizes that she is pregnant with a disabled child (2006). Even though there is a published explication, explaining that “the protection under the Article 2 of the European Convention on Human Rights is applied only on the life of a recently born human being” (Sagatys, 2006, p. 29), there seems to be no end to the discussion regarding the termination of pregnancy when it turns out that the child will be born with a disability.

Lastauskienė (2004) acknowledges that there is a lack of discussion about the people with disabilities as a person of law in various documents. The author states that because of an inadequately clearly defined situation, a question naturally arises – how much a person with disability is the person of law, how much of public favour, and how much of favour. Lastauskienė (2004) remarks, that there are many pleasant, ideal, and unrealistic notions in the international legal documents, which are usually treated as objectives, moral guides, but not as strict legal categories. Both the moral and socioeconomic human rights are characterized by uncertainty, as they are formulated on the level of capability (the person’s potential ability to perform), but not of the subjective right (for the defence of which the court may be applied for). According to Lastauskienė (2004), the implementation of the rights of the people with disabilities is aggravated by the fact that the rights of the people with disabilities are approached as universal and undivided, which makes them abstractly defined.

The conceptualization of the social model of disability has determined the becoming of the question of human rights into a public political discourse. The social model of disability perfectly advocates on the issue of the rights of the persons with disabilities. A lot of talking about the human rights is integrated in the social model of disability. The conceptualization of the disability as an expression of an interaction of a personal and social environment refers to the importance of the quality of the interaction of people, to the necessity of the harmony between the human and the social environment. The social model of disability provides a scientifically methodological explanation as to why people with disabilities cannot be discriminated, segregated, stigmatized, restrained, humiliated, or humiliated because of their handicap.

Individual’s equal rights and opportunities desecration within the context of education system

Dumont (2002, p. 98) distinguishes two equality theories: the “liberal” egalitarian, and the “socialist”. The concept of “liberal” egalitarian theory refers to an ideal equality, the equality of rights and opportunities which is logically related to the maximum freedom of every single person. There are many talks about equal opportunities as a criterion which characterizes equality. In the education system, the principle of equal opportunities would mean that all children should have the same capabilities, since different capabilities determine different learning, and, later, establishment in the society. As Bitinas (1996) observes, no one can measure what are the opportunities of a particular individual and in what extent are they

actualized. It is well known, that every person during his or her lifetime actualizes only a small part of their potentialities. Under such conditions, the idea of equal opportunities promotes the unfounded requirements for the society, or even the attitude of a dependant. Margaret Thatcher called this principle “the right to be unequal” (cit. Ashford, 2003). Rioux (1999), Belanger and Garant (1999) discuss about the right to be different, which means that the difference of a person is not a reason for his/her discrimination against the law. Belanger and Garant (1999) call this principle the positive discrimination. The legislation should promote the recognition and respect for the individuality of a person with disability. People are not less equal simply because they are different. The state is committed to promoting schools, employers, and the government service to acknowledge the abilities of the people with disabilities.

Even more negotiable is the issue of the equality of the result. Not all people are capable of achieving equal results. It is realistic to seek that the law would guarantee the equality of income, but it is impossible to require guarantee for the equality of assets by law. Two equally earning people usually accumulate a different amount of wealth in the time-span of a few years, because one of them was possibly more frugal, the other one more improvident, one of them used the money in a more rational way, the other without much planning, and so on. The “socialistic” equality theory refers to the factual equality, which is realizable, for example, by abolishing the private property. From a logical view, the move from the law to the fact is made by simply reinforcing the requirement: considering that the principal equality is not suitable any more, there is a demand for a “real” equality. However, in a perspective of such a transition, there inevitably lies discontinuity, a profound shift in orientation. On the ground that in the respect of the use of property the citizens are not equal, the attribute of the individual – private property – is taken from him or her, and, in such a way the field of freedom of the individual is constricted. In the educational system, the appropriate education of a child with disability does not necessarily mean education which determines the maximum learning results. In the education system, there are many children without disabilities who also do not reach the maximum learning results due to various problems related to the lack of motivation or social issues (Hick, 2009).

Realistically, equality is defined only by the criterion of the equal rights of the society. This criterion means that it contradicts discrimination towards gender, race, nationality, or any other (also towards disability) basis, that is, it guarantees the implementation of the fundamental human rights in the education of the society and other fields. As Bitinas (1996) observes, there remains a significant gap in the education, regardless of the country’s economic development, between equal rights and equal opportunities, which the society does or does not undertake to fill in such a gap. General basic education is rendered in every public school of Europe. To provide equal opportunities would mean to dedicate further additional training and education for every single child which meets his or her individual needs. In such a way the costs of education would increase significantly. Even the most prosperous nations do not take on to fill the gap between equal rights and equal opportunities. However, as Bitinas (1996) writes, social justice supplements the parameter of educational equality. Its essence is that the society renders the additional opportunities to educate their members who are the victims of the biological or social development. Practically, all of the members of the society agree that the children with disabilities need additional help, supplementary material and pedagogical expenditure, in order to be integrated into the society. Only the ways and forms of providing such help are discussed; the most rational use of the material and pedagogical resources in order to reach the most optimal results.

As the American experience shows (Hallahan, & Kauffman, 2003), in some cases it is very difficult to determine whether an individual attribute of the child matches the programmes of special education and the courts often have to make the final decision. The programmes of

special education are often assigned to children whose parents disagree. Most often these are the parents whose children have a mild level of disability. These parents think that the special education does not help them, but, conversely, believe that it only discriminates and stigmatizes. Parents want their child to receive education which is adequate to his or her needs, and which would not needlessly stigmatize and would allow him or her to be taught in general education schools and classes. The legislation, which regulates education, recognizes the parents' and children's right to such an education. In some occasions, the parents believe that a special education programme assigned to their child is unsatisfactory. In 1982, the parents of a deaf girl applied to the court. They claimed that their daughter could learn more if only a sign language interpreter would be appointed to her. Nevertheless, the court decided that the adequate education of a deaf child does not necessarily mean the education leading to maximum learning results. Seeing that the school has drawn up an individual programme of the special education services, which she executed in the same way, and even better as her classmates, without disabilities, the school system has accomplished the statutory duty to ensure appropriate education. By following the thoughts outlined by Haug (1999), it could be stated that in similar situations dealing with integrated education as described above, social justice should be the most important objective, which could ensure a success in learning by the means of the opportunities of social participation for every single child. Unfortunately, too much attention is paid to segregative compensation in the integrated education; therefore, the goal of democratic participation is retouched as the essential imperative of the integration.

The inversion of the concept of social integration and the human rights

The trajectory of the development of the social integration theories is pointed with the aim to deconstruct the power mechanisms which would allow the people with disabilities to become the full-fledged partners of social relationships and the participants of social situations. According to the post-modern viewpoint, the power is generated from the versatile interaction of humans (Žydzūnaitė, 2002). Ruškus & Mažeikis (2007) refer to the fact of a disabled person becoming the member of the society as a partner, creator, and an agent, outlines the essence of social integration. The intersection of the conceptualization of social integration and human rights is reflected in the figure drawn by the authors of the article (Fig. 1).

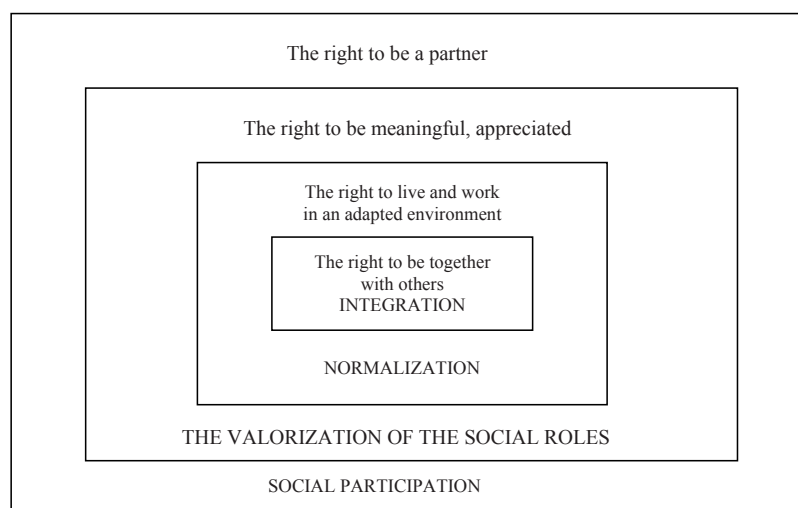


Figure 1. The theoretical prospects of social integration and their correlation with human rights

Still, there are ideas of social integration that experience particular inversions in the context of modern society which prevent them from realizing the intended goals of the theoretical level. In Kunc's (1992) opinion, one of the fundamental ideas of integration is violated in the modern society – the belonging to a community, the opportunity to enjoy the fullness of being together with other people. In Vanier's (2006) viewpoint, the base conception of social integration is belonging. Vanier, titled as the humanist of the 20th century, pays exceptional attention to the concept of belonging which refers to the idea that the experience of the person with a disability belongs not only to a particular community, but also to the humanity, the universe, the earth, and to everyone alive. Professor Vanier has created a special website (<http://appartenance-belonging.org/en/>) in order to socially promote and develop the philosophical basis of the idea of belonging.

The belonging to a community is a birthright of every human. Nonetheless, in Kunc's point of view, the people with disabilities can belong to a community in the modern society, if they deserve it with their achievements in apprenticeship, work, or other fields (Fig. 2). Gribačiauskas, and Merkys (2003) grasp this problem by analyzing the situations in the schools of Lithuania, where the teachers have a negative attitude towards every child who is potentially bad at learning.

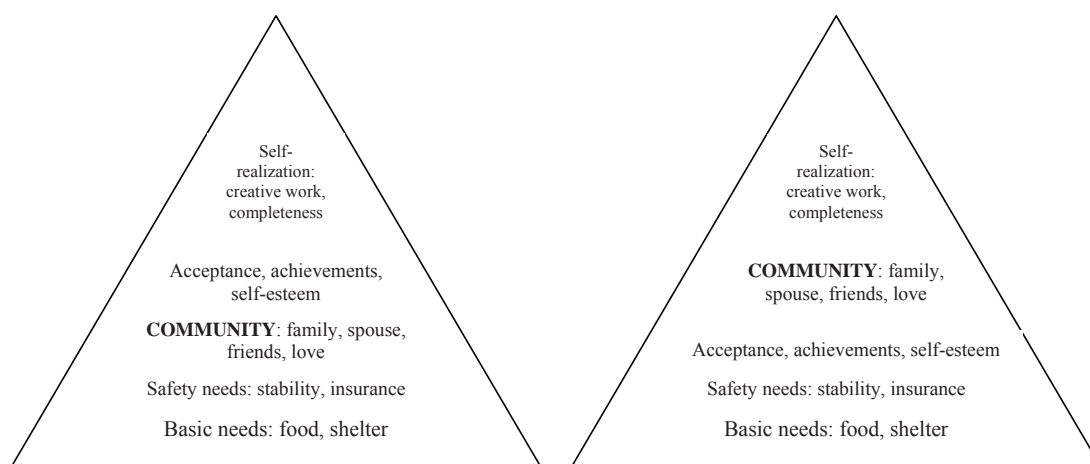


Figure 2. The inversion of Maslow's hierarchy of needs (Kunc, 1992)

Phillips (1992) calls such a situation “try harder”, in order to become worthy of social integration. To become worthy of social integration means to adapt, normalize, rehabilitate with the aims to get as close as possible to the existing norms and standards.

Conclusion

The implementation of the idea of social integration strongly depends on the ability to grasp and deconstruct the power relation. It is impossible to evade the power relation. It can only be reflected (Duoblienė, 2009). Discourse is the means which draws attention to the fact, that in addition to the externally relatively easily articulated social practices there are also extraordinary practices or discourse practices during the analysis of which the more complete mechanisms of the functioning of society are revealed (Foucault, 1998; cit. Leonavičius, & Keturakis, 2002). Human rights are the discourse which helps to deconstruct the power relation.

Children's rights are the integral part of the system of human rights. Discussing the children's rights in the perspective of the human rights is a reference to the meaningful reconstructions of the childhood phenomenon (Juodaitytė, 2003), when the child is treated as an equal member of social relations “here and now”, but not as one preparing to become

an adult. Children's rights obligate to the special attention to the authentic needs of the child, whereas in the perspective of the human rights, children's rights obligate to the partnership of the child and the adults, which extremely fail in real life.

There is an imperative of social integration, visibly coded in the concepts of human rights and children's rights. It is essential to discover the harmony between the social philosophizing about the rights and the actual legal basis for the realization of human rights. Human rights are not exclusively the object of law and legal system. Human rights are the dimension of public consciousness and the quality of human relations.

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ACCESS TO PUBLIC SCHOOL EDUCATION FOR STUDENTS WITH DISABILITIES: UNITED STATES AND UKRAINE

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Abstract

Although Ukraine and the United States developed their education systems under different contexts and histories, both struggled with providing access to public school education for students with disabilities. This article describes the different paths each country took leading to the development of access to a public school education for students with disabilities. Implications for Ukraine are detailed.

Key words: *Disability education, disability law and policy, access to education, children with disabilities.*

Introduction

Ukraine and the United States developed systems to educate children with disabilities under very different contexts. However, both countries resolved to educate children with disabilities.

Research Aim: The aim of this article is to compare how access to public school education for students with disabilities developed in the United States and Ukraine and to discuss implications for Ukraine.

Importance of Topic: To illustrate two examples of how children with disabilities are educated, consider the following case scenarios, one from Ukraine and one from the United States. Both reflect how these students were educated.

Sergi, Ukraine, 2011

Sergi was a brilliant student who was paraplegic and used a manual wheelchair. He grew up in a rural area outside of a major Ukrainian city. Although he was verbal and bright, he was not allowed to attend public school because he had a physical disability and required a wheelchair. Sergi's mother attempted to enroll him in public school, but school administrators stated that they could not educate a child with a physical disability, primarily because transportation was not available to get him to get to school, the teachers were not trained, and the building was not accessible. Discouraged, Sergi's mother had no recourse

but to provide home-schooling. When he was old enough to exit secondary school, Sergi was not allowed to take the required exit exams. Sergi felt a sense of isolation from other people. It was extremely difficult for him to navigate around his home because of narrow doorways, ridges from one room to the next and steps to exit his home. Some of his family members were embarrassed about his disability.

Anna, United States, 2011

Anna was born with no hands below both elbows. When she was 3 years old, her parents enrolled her in preschool, where she received occupational therapy to help her accommodate for the disability. In elementary school, she was fully included in a classroom with children who did not have disabilities. Anna rode the school bus daily to and from school. Her teacher met annually with a team of professionals, including Anna's mother and the occupational therapist, to individually assess Anna's progress and plan her education for the upcoming year. This team met throughout Anna's school career. A major challenge for Anna was when she received electric "hands" and had to learn how to use them. During this time, Anna received intensive therapy to functionally use the electric hands. When Anna was 18, she graduated from high school with her peers and was accepted to attend the local university.

What are the differences between these two scenarios? Sergi, from Ukraine, was excluded from school and experienced difficulty with mobility, around his home and in the city. Despite his mother's acceptance, other family members were not as accepting of Sergi's disability. Anna, from the United States, was also disabled physically, although her disability did not affect mobility. Anna was included in preschool and was fully integrated into classrooms with students who did not have disabilities throughout her schooling. Anna benefitted from public school because her teachers, parent and therapists met annually to discuss her progress and to plan an appropriate, individualized educational program. Sergi was unable to benefit from a public school education. Anna's teachers and therapists were held accountable for her learning. Teacher accountability was absent in Sergi's case.

Methodology: Based on current and historical data sources from the United States and Ukraine, the authors investigated and described qualitatively how laws affecting the education of children with disabilities developed and how access to education for students with disabilities is structured. Using a theoretical framework adopted from Turnbull and Turnbull (2000), they analyze how political policy and social issues affect the foundations of law affecting children with disabilities.

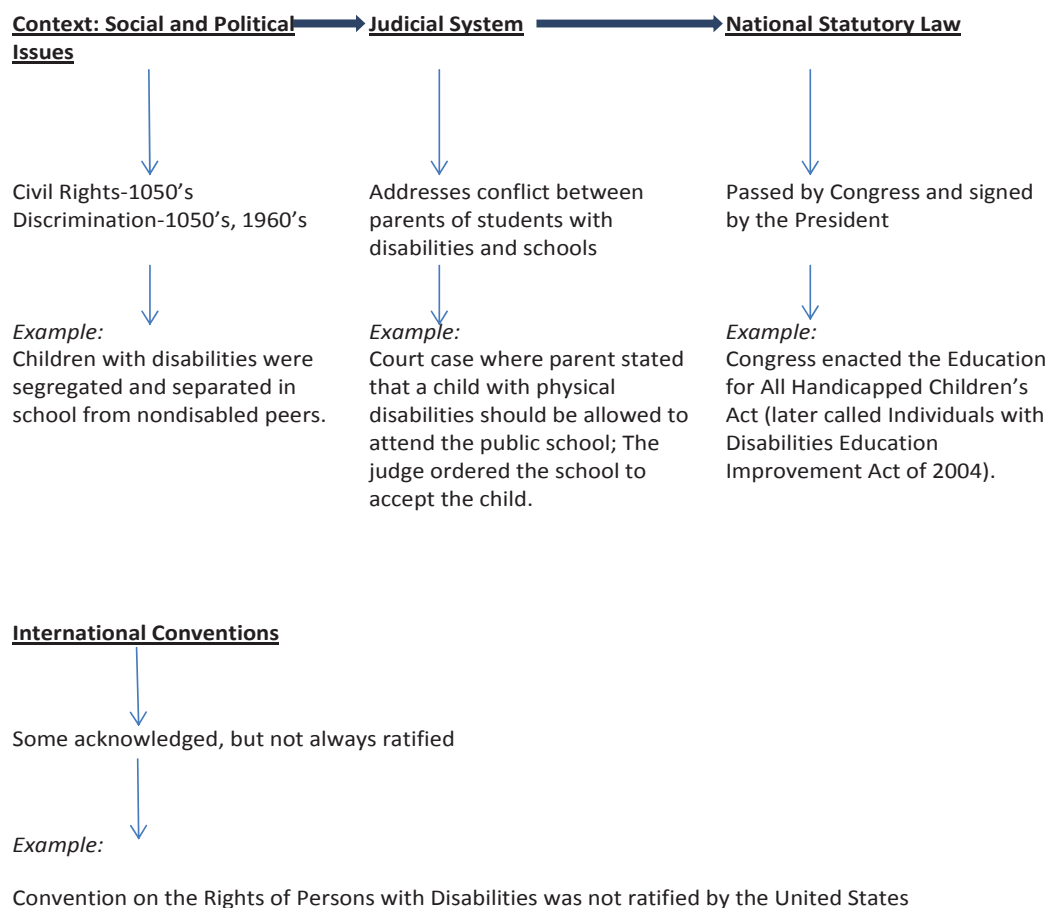
Data and Analysis: United States

How Law Developed

Turnbull and Turnbull (2000) put forward the idea that all educational issues were a reflection of political policy and social issues that in turn formed the foundation of federal law. In the United States, political policy and social issues resulted in conflict that was addressed by the judicial system and ultimately influenced federal statutory law. Figure 1 illustrates how laws protecting students with disabilities developed in the United States.

Educational services for students with disabilities in the public schools of the United States evolved over a period of 50 years. During the 1950's and 1960's, many children with disabilities were educated in special, separate schools or institutions. This exclusion was a reflection of political policy and social issues focused on educating students with disabilities in separate facilities. After several years of political upheaval and social unrest, the United States judicial system rendered decisions, building on cases involving racial discrimination,

that addressed discrimination in the education of children with disabilities. Case law formed the foundation of federal statutory law passed by the United States Congress mandating that children with disabilities receive a free appropriate public education. Federal statutory law passed by Congress ensured access to public school education for all children with disabilities.



*Figure 1. United States**
How Legal Protections for the Education of Children with Disabilities Developed

*Note: The United States system for development and implementation of law is complex. This figure is illustrative and simplified to show how the education of children with disabilities developed.

Access to Education for Students with Disabilities

There were three prominent factors in the provision of access to public school education for students with disabilities. These included the formation of parent advocacy groups, the movement for access to integrated public schools for African American students, and enactment of federal statutory laws guaranteeing access to public school education for students with disabilities.

Parent advocacy groups influenced access to the public school system for students with disabilities. The United States initially prohibited students with disabilities from receiving an education in the public schools. Special residential facilities were created to house students with disabilities separate from the public school system. At the same time, individual states enacted

and enforced laws that required children to attend school. These compulsory attendance laws were in place throughout the United States by 1918 (Yell, 2011). Between the early 1900's and late 1960's, the majority of states were allowed to exclude students with disabilities from public schools because it was felt that these students were unable to benefit from an education. However, because parent advocacy groups urged access to public schools for students with disabilities, some schools permitted these students to be educated in the school, although they were separated or segregated from other students. Despite the effort to educate some students with disabilities within the public schools, most students with disabilities were not successful, often failing classes, dropping out, or being expelled by the school (Yell, 2011). Beginning in 1922 with the founding of the International Council for Exceptional Children, organized parent advocacy groups challenged states within the United States judicial system so that their children could access public education. These parent and professional advocacy organizations were created throughout the United States. Many actively promote the rights of students with disabilities today.

In addition to parent advocacy, the civil rights movement of the 1950's and 1960's sought access to public schools for African American children and this movement formed the foundation of legal action taken to secure public school education for students with disabilities. During this time, laws prohibited African American students from attending the same schools as white children and separate schools were implemented. Supporters stated that separate schools for African American students were equal in quality to schools for white students. In 1954, the United States Supreme Court ruled on an important case, *Brown v Board of Education* (1954), which stated that separate schools for African American students were not equal and, therefore, violated the 14th Amendment of the US Constitution. The 14th Amendment assures that all citizens have equal protection under the law and the right of due process. The right of due process means that every citizen in the United States can challenge a governmental decision that affects their rights. Excluding an entire race of students from public education because of an "unalterable characteristic" or a personal characteristic that could not be changed, was unconstitutional. By denying equal protection, African American students were denied equal opportunity for an education. The rationale used to support this case stressed that segregation of an entire group of students was humiliating, resulted in negative consequences, and denied equal educational opportunity. The reasoning used by this important court case became the same argument used for the inclusion of students with disabilities in public schools.

During the 1970's, case law began to focus on access of students with disabilities to public schools under the constitutional right of equal protection under the law. Two significant court cases, *Pennsylvania Association for Retarded Citizens v Commonwealth of Pennsylvania* (1972) and *Mills v D.C. Board of Education* (1972), resulted in granting students with disabilities access to an education within the public schools. In the *Pennsylvania* case, a state's association for citizens with mental retardation and parents of children with mental retardation challenged the fact that their children were not allowed to attend public school. By denying these students access to the public school, the judges ruled that they were denied due process and equal protection and schools were ordered to educate these students. The *Mills* case was similar, but involved seven students with behavioral disabilities who were excluded from school. The judges ruled that, regardless of severity of the disability, students with disabilities were entitled to a public school education.

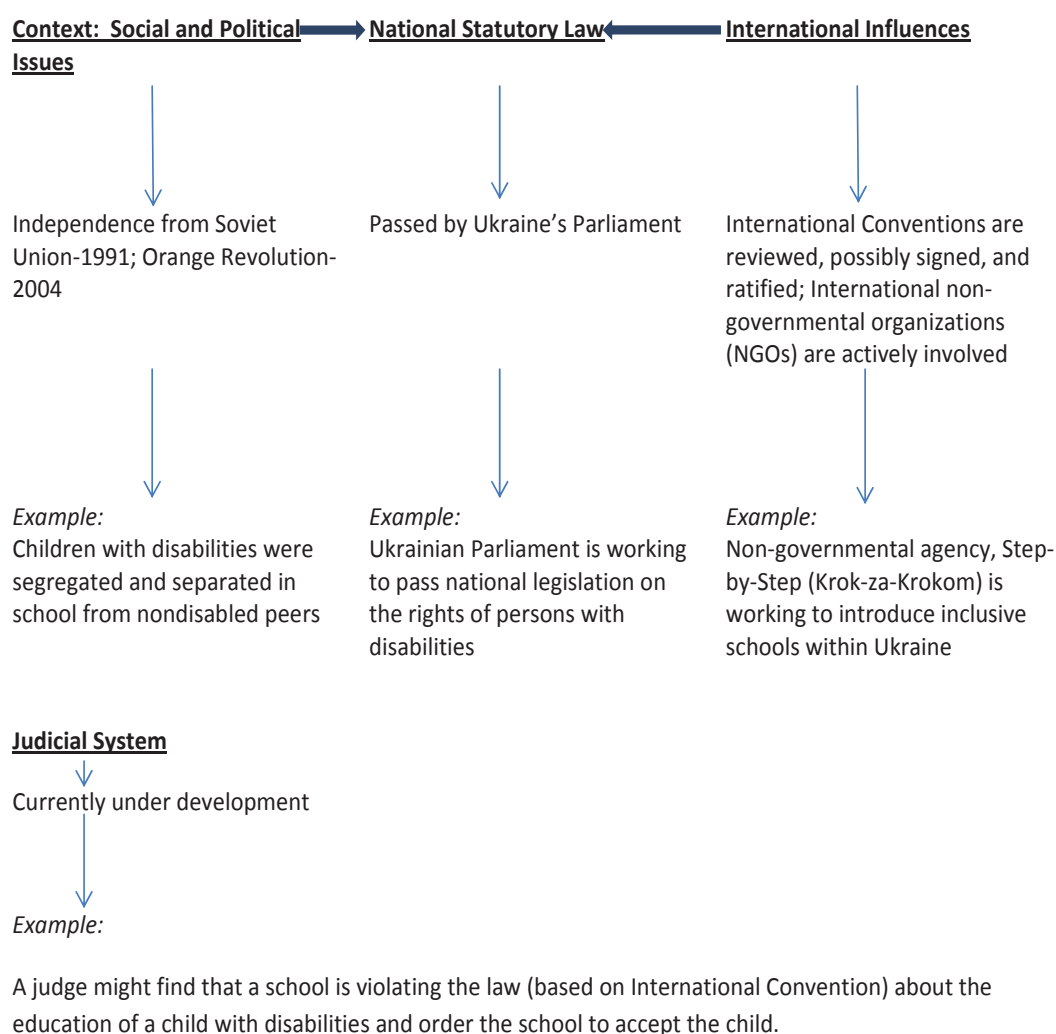
As a result of these judicial case law decisions and subsequent court cases, the United States Congress began to create federal statutory laws for all states mandating access to a public school education for students with disabilities. In 1975, the United States Congress passed the Education of All Handicapped Children Act (currently called Individuals with Disabilities Education Improvement Act of 2004). The law, based on a strong message from

advocacy groups and case law, recognized that millions of children with disabilities did not have access to a public education, and those who were educated within public schools did not receive an appropriate education. Congress recognized the need to provide schools with an incentive to serve students with disabilities. This law financially supported states in providing an education for students with disabilities between the ages of three and twenty-one. Among other principles, the law stipulated that any child with a disability, regardless of severity, had a right to a free appropriate public education within the public schools in the least restrictive environment.

Data and Analysis: Ukraine

How Law Developed

Education for students with disabilities in Ukraine evolved in a different manner than the United States. Figure 2 illustrates how laws protecting students with disabilities developed in Ukraine.



*Figure 2. Ukraine**
How Legal Protections for the Education of Children with Disabilities Developed

*Note: The Ukrainian system for development and implementation of law is complex. This figure is illustrative and simplified to show how the education of children with disabilities developed.

Ukraine's history of Soviet domination influenced how children with disabilities were educated. From the early 19th century through the 1970's, Russia (and then the Soviet Union) provided segregated educational services for children with disabilities, primarily sensory disabilities. In 1991, after independence, Ukraine experienced significant social and political upheaval, moving from a rigid and predictable society to one with more freedom and fewer guaranteed social protections. The economy progressed from a centrally planned one to a free market. Consequences included high unemployment and a growing gap between rich and poor (UNICEF Ukraine, n.d.). In developing centralized or national laws within the fast-paced social and economic upheaval, Ukraine was influenced by international convention and international non-governmental agencies. Case law developed at the same time or after national law in Ukraine. It is difficult to locate examples of case law dealing with conflict over the education of children with disabilities and their right to an appropriate education. The authors assume that because societal change (i.e., independence) happened quickly that the judicial system was not fully implemented, funded, fair, or sensitive to conflict issues involving children with disabilities and their right to an appropriate education.

Ukraine's social and political context reflected turmoil after independence from the Soviet Union in 1991 and again in 2004 during the Orange Revolution. International conventions and an influx of international non-governmental agencies influenced Ukrainian national laws. Evidence does not suggest that internal conflict resolved by a fully functional judicial system formed the foundation of Ukrainian law to protect and educate students with disabilities, as in the United States (Ukrainian Helsinki Human Rights Union, 2006, 2009).

Access to Education for Students with Disabilities

Although Ukraine educated students with disabilities (mostly sensory disabilities) since the early 19th century, special education typically was provided in separate, segregated schools, similar to the United States in the 1950's and 1960's. Some children, especially in rural areas, did not attend school. In 1995, Ukraine ratified the European Convention on Human Rights, which provided social protection for people with complete, partial, or temporary disability, but these protections did not extend to education. In 2009, Ukraine ratified the United Nations Convention on the Rights of Persons with Disabilities (Interfax-Ukraine, 2011, United Nations, n.d.). Laws are currently changing in Ukraine to align consistently with the United Nations protocol, including an emphasis on equal protection in education and a mandate that educational institutions provide educational services to disabled people at an equal level to other people. In addition to national laws that have been influenced by international convention, many international non-governmental agencies (NGOs) have actively pursued inclusive education in Ukraine. For example, the Ukrainian Step-by-Step Foundation promotes and advocates for equal access to high-quality education for children with disabilities (International Step-by-Step Association, n.d.). The work includes training of teachers, inclusion of children with disabilities, education for minority children and child abuse programming. In addition, the Canadian-Ukrainian Project (n.d.), led by the Canadian Centre on Disability Studies, is implementing pilot projects over a five-year period (2008-2013) focusing on inclusive education within Lviv and Simferopol (Inclusive Education for Children in Ukraine, n.d.).

Despite these strengths, development and implementation of laws protecting children with disabilities and promoting inclusion in school settings has been inconsistent. Most children with disabilities remain segregated in special schools or are not in school. UNICEF (2007) reported that there are limited opportunities for children with disabilities outside of special schools and that many children with disabilities do not attend school. A report prepared by Ukrainian NGOs (2009) stated that the general educational system is not able to integrate

children with disabilities. According to the Ukrainian Helsinki Human Rights Union (2007), as many as 45,000 of Ukraine's 122,600 children with disabilities were placed in rehabilitation institutions. It is clear that *access* to appropriate and inclusive education is not available to most children with disabilities in Ukraine.

The judicial system in Ukraine does not appear to have influenced national legislation about the education of children with disabilities. Although national law provides for an independent judicial system, it has not yet been fully developed and funded. There have also been allegations of corruption and inefficiency (Ukrainian Helsinki Human Rights Union (2006, 2009). However, at least one court rendered a decision about access to education for a child with disabilities (Ukrainian Helsinki Human Rights Union, 2010). The case occurred in 2008 and involved the right of a child with a physical disability to an electric wheelchair so that he could access education. In this case, a District Administrative Court in Kyiv invalidated the Cabinet of Ministers Resolution 1015 where children with disabilities were deprived of the right to an electric wheelchair until the age of 14. The specific case involved a 7-year old child who was unable to use an electric wheelchair to obtain school lessons. The court found that Resolution 1015 conflicts with the Laws on the Fundamental Principles of Social Protection for the Disabled as well as the United Nations Convention on the Rights of the Disabled.

Results and Conclusions: Ukraine

The United States reflects a history of dramatic change within the past 50 years in educating students with disabilities. Ukraine is in a position to avoid mistakes made by the United States over the past 50 years and benefit from this experience. First and foremost, Ukraine may wish to consider developing a well-defined and funded infrastructure to support the education of students with disabilities that is consistent with the Convention on the Rights of Persons with Disabilities. This infrastructure might include both federal laws and financial incentives. Second, Ukraine may wish to begin focusing on assessment of individual student learning using evidence-supported instruction for all students with disabilities. Specific suggestions follow.

1. Disability could be clearly defined using nondiscriminatory assessments. Disability is more than sensory deficits, i.e., deaf, hearing impaired, and blind. The Convention on the Rights of Persons with Disabilities indicates that disability results from the interaction between people with impairments and the attitudes and physical barriers that block full participation in society (United Nations, n.d.1). The Convention also suggests that disability is not considered a medical issue, but results from interaction between the person and society. Based on more descriptive definitions of disability and nondiscriminatory assessments, Ukraine could develop a clear understanding of the number of persons with disabilities. This number could be used to allocate resources.
2. Ukraine might consider building financial incentives into the federal laws so that schools are supported in educating students with disabilities. In the United States, a finite amount of money is allocated to educate students with disabilities. Monies are then allocated to individual states based on the number of students who have disabilities and the number of teachers who work with these students. Schools write grants to the state showing how monies will be spent in order to receive funding. For example, a school district might have 400 students with disabilities and 20 teachers who are employed to work with these students. The school district might receive \$9000 (or the Ukrainian equivalent) to supplement the cost of hiring each teacher and \$500 (or the Ukrainian equivalent) to supplement the cost of educating each student with disability. Thus, the school district would receive \$380,000 (or the Ukrainian equivalent) from the federal government via the state to support the education of students with disabilities. With these funds, however,

the legal obligation to follow the law would be mandated. In the United States, 5% of funding must also be used for education and support of teachers to educate students with disabilities. In addition, the use of these funds would be monitored both by the federal government and the state.

3. Parents must have the right to challenge decisions about the education of their children with disabilities. This due process right serves as a balance of fairness to the system of education. If a school district does not appropriately provide for the education of a student with a disability, like the scenario of Sergi at the beginning of this article, the parent could challenge the school within the judicial system and the court would render a fair, unbiased decision.
4. Programs for students with disabilities should be individualized and reviewed at least annually by all professionals working with the student, including the parents. This group of people would then discuss the student's learning and plan an appropriate program for the next year.
5. Ukraine is in the enviable position of working with several international non-governmental agencies (NGOs) to develop programs to educate students with disabilities. These NGOs should be embraced because they provide best practice models internationally for educating students with disabilities.
6. It is important that schools assess the learning outcomes of students with disabilities. This assessment should then be used to guide future instruction.
7. Ukraine may wish to develop policies and procedures for schools to follow in the referral, evaluation, eligibility determination, and educational program placement for students with disabilities. Policies and procedures provide guidelines for schools and a means for determining if the school is providing the student with an opportunity for educational benefit. Policies and procedures protect the school and the child.
8. Ukraine may wish to develop procedures assuring that parents provide input into their child's education. Procedures could address issues of parent consent for a child's placement in special education, parent notice of meetings about the child and the outcome of these meetings, parent rights to challenge school district decisions, and parent access to student records and the confidentiality of those records.

Both Ukraine and the United States were challenged in providing access to public school education for students with disabilities. The United States achieved full access while Ukraine is still moving toward full access. Therefore, Ukraine may be in a position to learn from the trials and errors of the United States in the past 50 years of ensuring that students with disabilities have access to an education in the public schools despite different contexts, history, and legal system development.

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INSTITUTIONAL SUPPORT MECHANISMS IN VOCATIONAL COUNSELLING FOR ADOLESCENTS WITHOUT A VALID FAMILY SUPPORT

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Abstract

In many countries the concept of institutional support in vocational counselling for risk group youngsters has rather wide understanding and interpretation. Presented theoretical and practical Christian issue reveals a profile, as much as possible close to the Model of Vocational Counselling for teenagers without a valid family support. The needs that are common to this group of youngsters have special characteristics, and in this way could be described as special needs. To these special needs and necessities are added those deriving from the ways of management of living in a community, when this is based on the pedagogical methods of the so-called self-government. Therefore, the role of institution and institutional support plays significant role in the successful integration process of teenagers without a valid family support into the labour market.

Key words: *institutional support, Christian community, vocational counselling.*

Introduction

Theory and practice applied in the community of Città dei Ragazzi presents educational action carried out by Msgr. J. P. Carroll-Abbing (1965), the main issue of which is support, assistance and love for youngsters coming from different parts of the world. Community of Città dei Ragazzi actively exists in Italy since the Second World War. At the same time Christian Community as a type of institution must cherish values and serve for at-risk youngsters as a family. It supposes some specific characteristics of institutional management, contacts with environment, selection of high skilled staff.

Analyzing scientific reviews (Friesen, 1981; Marinelli, & Dell Orto, 1999; Sharma, 2005; Stott, 2009; Merton, 2010) it is obvious that talking about institutional support in vocational counselling the main attention is paid to the person's motives, his/her maturity for choosing occupation, culture and family traditions, but there are not enough studies about

institutional support in the process of vocational counselling. Especially, talking about closed type institutions that belong to determinate ideological backgrounds. The youngsters who live in Christian community of Città dei Ragazzi, have no valid family support: family is almost completely non existent, due to the death of one or both parents, for separation or divorce, for juridical problems, abandonment of the family, or for economic-social conditions such as poverty, being a refugee, social disadvantage. Youngsters that are brought up in Città dei Ragazzi Community could be assessed as having different special educational needs, because before their placement to the institution all of them have experienced social, emotional and cognitive deprivation, some of them have health problems. These indications let consider them as youngsters whose process of development must go under specialists' care.

As Christian paradigm says, "work involves assisting others in working through their life issues" (Friesen, 1981), it means that any job is valued and meaningful. It means that institution being of closed-type at the same time must keep and coordinate relations with the society into which members of community would be integrated.

Youngsters (7–18 years) living in Community of Città dei Ragazzi, pass through first two phases of vocational development (Table 1).

Table 1

Stages of vocational development

VOCATIONAL	AGES	GENERAL CHARACTERISTICS / DEVELOPMENTAL TASKS
Crystallization	14–18	Developing and planning a tentative vocational goal
Specification	18–21	Firming the vocational goal

Career development theory (<http://taracat.tripod.com/careertheory1.html>)

As it was mentioned earlier, closed type institution and its rules are significant concerning the age of youngsters who are living without sufficient support of family. At this age family plays a significant role discussing and getting acquainted with different jobs and possibilities of further education. That is why the role of educator in closed type institution is important and significant, consulting vocational challenges and forming child's personality, as well.

High-skilled, conscious educator with specialized knowledge, feeling a great passion for education is capable to meet a great number of needs of the youngsters who are in situation of insufficient support of their families. Educator who makes difficult choice and individuates himself in this situation must be open to the general and individual needs of the teenager and community, to serve, taking essential factors in developing youngster's personality, strengthen his inner sources for future life. In such situation structure, operation and management of community life must secure adequate and efficient vocational counselling.

Naturally, career stages which are closely related to age or life stage are more strongly associated with developmental theories, while age-independent, task-relevant stages are derived from a more sociological or economic foundation. Further the focus of interest shifts from the individual to the organizational or societal level (Wrobel, Raskin, Maranzano, Leibholz Frankel, & Beacom, 2003). Mentioned authors amplify E. Schein's "career anchors" (Hogan, & Blake, 1999) that have provided a conceptual understanding of individual career development within the current reality of impermanent organizational ties. He posits that an individual's self-concept, basic values, motives, and needs serve to provide a foundation from which to make difficult life choices, including decisions regarding career and family. So, institution organizing support in vocational counselling must take into the mind the youngsters' further ties with society, economic reality and child's individuality as well.

Talking about Holland's theory of career choice (Hogan, & Blake, 1999) some accentuating statements could be discussed in the context of institutional support in vocational counselling process. Holland distinguished six basic types of work environment: realistic, investigative, artistic, social, enterprising and conventional. For the closed type organization it is important to organize environment in which youngsters, during their life in the community, have a possibility to explore as many as possible work environments. While getting acquainted with different types of works, tasks, materials, knowledge, etc., a child could reveal the best inborn abilities and rights. At the same time the high skilled professionals, able to recognize and develop child's abilities must be close to him. It corresponds to the second Holland's statement that claims that people search for environments where they can use their skills and abilities and express their values and attitudes. In this context institution intercept functions of family that is mostly responsible for transferring traditions, inculcation of traditional values, development of social experience of the child.

Institution, successfully performing in vocational counselling, has to base this work on issues that correspond to the requirements and strategies of state economy, development of friendly environment, psychology of teenagers and needs of labour market. Sociologists stress the forces in the society as the major determinants of vocational choice. However, the wide range of occupations that an individual will consider in choosing a career is determined largely by the status expectations of the social class to which he/she belongs. Parents often influence their children in the choice of a career. It reasons child's choice of occupation within the range acceptable to parental values, expectations and social class. In community it must be ensured that every child will have enough sessions for adequate choice. Educational opportunities clearly influence vocational choice, that is why quality of education in the community must correspond to the youngster's abilities and needs (Baranauskienė, & Juodraitis, 2008; Baranauskienė, Radzevičienė, & Valaikienė, 2010).

Usually, youngster's vocational choices are related to his/her social class and the social origins of an individual limit the range of occupational opportunities available to the person. Students who come from lower class homes often find it difficult to continue their education while those from upper class homes obtain much encouragement from their families and peers to continue their studies (Friesen, 1981).

Economists say that opportunities of the labour market strongly influence the vocational choices people make. If the opportunities for making a living are limited, the person will seek out a career which has a potential to meet his physical needs even though the career is, in many ways, unsuitable for him. To assist in broadening the range of career opportunities, vocational information is very useful (Friesen, 1981).

Summarizing it could be concluded that institutional support in vocational consulting is multimeaningful and complex activity that first must be directed to develop child's personality. Role of institution in organizing vocational counselling for youngsters without valid family support has much more extended functions in comparison with other ones, which are attended by teenagers living in families.

Problem of the research: What are the peculiarities of closed type community organizing vocational counselling for youngsters belonging to social risk group? What main issues of institutional management correspond to Christian values?

Object of the research: Socio-educational institutional support mechanisms in vocational counselling for adolescents without a valid family support in the Christian closed type institution.

The research aims have been drawn:

1) To conceptualize essential categories of institutional support ensuring success of vocational counselling for children and youth having SEN based on the Christian understanding of modern education and social integration.

2) To reveal mechanisms of vocational counselling support in the closed type institution Città dei Ragazzi.

Methods and methodology of the research: Observation of scientific literature, analysis of heritage of Msgr. J.P. Carroll-Abbing studies have been used to reveal main issues of Christian standpoints of social integration. Empiric data have been collected by using ethnographic research. This type of research has been chosen because it reflects societal behaviour of people that enables to learn more deeply about the phenomenon and diversity of vocational counselling in different EU countries. Research data have been gained during the natural observation and complemented by the interview method, analysis of documents and assessment by expert groups. The data was processed by logic analysis aiming to reveal completeness of the system of vocational counselling in Italy, on the basis of the theoretical conception of the institutional support mechanisms of the system of vocational counselling for students having SEN, while revealing the links of interaction of assessment criteria. Certain criteria of institutional support mechanisms of the vocational counselling system for students with SEN (see Table 2; authors Baranauskienė, & Juodraitis, 2008) have been defined. It consists of 2 notional blocks that allow describing and understanding the peculiarities of analyzed phenomenon.

Empiric data for the research have been collected using method of structured discussion (free conversations with staff, students, and ex-students), method of observation (observing staff's and students' communication) and narrative method describing and revealing the essential features that let better understand phenomenon of institutional support in vocational counselling of SEN pupils.

Participants of the research: In the research 35 youngsters of Boys' Town from the 11 to 17 years of age have participated and 20 teachers and specialists working in the Boys' Town, as well.

Assurance of reliability of data: It should be taken into account that results of the ethnographic research often leave some doubts concerning reliability of data and validity of conclusions. In order to validate research results the group of experts (counsellors) was formed; group of three people was made and they not only got acquainted with results of a particular research, but got acquainted with the results of the overall research, as well. Remarks of experts and additional information provided by them will help in drawing final generalizations and conclusions.

Theoretical background of the research: According to the analysis of scientific studies (Marinelli, & Dell Orto 1999; Sharma, 2005; Baranauskienė, & Juodraitis, 2008; Baranauskienė I., & Radzevičienė L., 2010) institutional mechanisms of vocational counselling support were defined and basically they are constructed on the socio-educational performance.

Institutional support mechanisms of the vocational counselling system for pupils having SEN were conditionally divided (Table 2) into two blocks: 1. Accessibility of the system of vocational counselling and 2. Flexibility of the system of pre-vocational counselling that is a part of complex phenomenon.

Table 2

Support mechanisms of the vocational counselling system for pupils having SEN

Socio-educational institutional support mechanisms
1. Accessibility of the system of vocational counselling
2. Flexibility of the system of pre-vocational counselling

Baranauskienė, & Juodraitis, 2008

Each block has its indicators according to which institutional mechanisms of vocational counselling support could be clarified. Institution cannot be assessed as a stable area, disconnected with working staff, pupil and environment. To reach goals and to implement foreseen mission the institution must be sensitive to changing challenges of social reality, to meet needs of everyone who participates in this process. Therefore, management and organization of socio-educational activities supporting institutional vocational counselling depend on the deep knowledge and cognition of those who are involved in this process. It means that human factor is significant and must be taken into the mind working in the closed type institutions.

Categorizing two blocks of socio-educational activities supporting institutional vocational counselling some subcategories have been defined (Table 3).

Table 3

Subcategories of institutional socio-educational support mechanisms

Socio-educational institutional support mechanisms
Accessibility of the system of vocational counselling <ul style="list-style-type: none"> ✓ Systemic organization of pre-vocational counselling ✓ Diversity of forms of pre-vocational training ✓ Acknowledgement of the value of the process ✓ Provision of conditions for pre-vocational “growth” in comprehensive school
Flexibility of the system of pre-vocational counselling <ul style="list-style-type: none"> ✓ Constant reaction to changes in the labour market ✓ Flexible and modern modifications of forms of curriculum, organization and management of education ✓ Making the conditions for education closer to the market conditions ✓ Compatibility with systems of pre-vocational training of pupils having SEN in other countries

Analysis of research data

It is important to organize vocational counselling as a continuing process in which youngster has a large range of possibilities to get knowledge, to learn in the work environment, to have opportunities for training and discussions, to have possibility to check his/her attitudes and values with others. All these issues are named as accessibility for vocational counselling (Table 4). At the same time ideological background of closed type institution organizes activities for the forming of youngster’s common values through supporting child’s self-government education.

Discussing the results of the first block of socio-educational institutional support mechanisms in the aspect of the accessibility of the system of vocational counselling for the youngsters who have no valid family support some important results have been set up. One of the most important conditions for successful vocational counselling is the whole effectively performing system of vocational training and education. It means that institution, organizing its educational practice, must coordinate and adjust its regulation according to the unanimous state legal background. Four indicators have been set up that prove systemic organization of pre-vocational counselling: agreements of collaboration with large range of outside institutions to ensure permanent and renewing process in the community management.

Table 4

Accessibility of the system of vocational counselling

Area	Acknowledgement	Indicators	Responsible persons
Systemic organization of pre-vocational counselling	<ol style="list-style-type: none"> 1. Relationship with outside vocational counselling organizations. 2. Relationship with outside education institutions. 3. Relationships with labour sector 4. Relations with local and national authorities. 	<ol style="list-style-type: none"> 1. Number of collaboration agreements with outside counselling organizations. 2. Number of agreements with education institutions for in-service training for educators. 3. Number of agreements with enterprises in which vocational counselling is performed. 4. Coordination of vocational counselling activities according to the local and national legislation. 	Administration of institution; Vocational counselling specialists; Social pedagogues; Social worker.
Diversity of forms of pre-vocational training	<ol style="list-style-type: none"> 1. Different school areas to get acquainted with professions. 2. Different methods and content of induction of professions. 3. Purposive involvement of specialists into vocational counselling activities. 4. Inclusion of the content of vocational counselling into after school activities. 	<ol style="list-style-type: none"> 1. Areas of gardeners, foodstuff, handicrafts, stock-raising, garage, library, art and sport. 2. Innovative teaching methods, based on self-governance and creative learning. 3. Meetings, excursions, training sessions outside community under the guidance of high skilled professionals. 4. Public, religious, community celebrations, competitions, meeting with pupils from outside schools, participation into the city actions and entertainments. 	Administration of institution; Vocational counselling specialists; Tutors; Social pedagogues; Social worker; Representatives of Christian community; Pupil.
Acknowledgement of the value of the process	<ol style="list-style-type: none"> 1. Number of pupil involved in certain professional training. 2. Stable reversible relationships with enterprises, planning number of needed workers. 3. Extension of the number of partners that could be potential work givers. 4. Exhibitions, marts celebrations, presenting pupils handworks. 	<ol style="list-style-type: none"> 1. Number of groups and pupils in which they tentatively do some objects. 2. Meetings with administrations of partners; planning visits; further needed work places; methodical basis for vocational counselling 3. Invitations of partners to participate into presentations of new technologies, professions, training courses; 4. Activity in participating and presenting in and outside school pupils' handworks. 	Administration of institution; Vocational counselling specialists; Tutors; Social pedagogues; Social worker; Representatives of Christian community; Pupil.
Provision of conditions for pre-vocational "growth" in community	<ol style="list-style-type: none"> 1. Extension processes of social integration of the community. 2. Enriching community's environment with additional "professional" areas. 3. Setting closer relationships with community graduates. 	<ol style="list-style-type: none"> 1. To extend process of social integration not by single pupil, but community, as well. To initiate participation of community in local and national levels. 2. To establish areas that could orientate youngsters to officeholders' professions, that require higher level of education. 3. To invite constantly community graduates to share experience, knowledge with youngsters, to help administration to set up contacts with enterprises in which community graduates are working. 	Administration of institution; Vocational counselling specialists; Social worker; Representatives of Christian community; Pupil; Graduates.

INSTITUTIONAL SUPPORT MECHANISMS IN VOCATIONAL COUNSELLING FOR ADOLESCENTS WITHOUT

A VALID FAMILY SUPPORT

Porfirio Grazioli, Ingrida Baranauskienė

Apart from common state legal regulation Community of Città dei Ragazzi has specific mission that goes through every educational and social activity: youngsters that live in Community are educated in the Christian spirit. So, the idea of serving others, the idea of work as common value and wellness is being implanted during youngsters' life in the Community.

Other significant indicator of accessibility in the system of vocational counselling is diversity of forms of vocational counselling (4 indications). Administration of Community with the help of Maecenas established variety of areas with modern equipments, materials, plachets for performance of vocational counselling, applying innovative methods of education. The diversity of vocational counselling reveals through the visits to the partners' enterprises, meetings with high skilled professionals, participation in the outside entertainments, celebrations and competitions.

Acknowledgement of the value of the vocational counselling is significant in the aspect of bettering mentioned process and mostly it goes through the outside societal relationship. Analyzing indicators (4 points) it has been revealed that acknowledgement of the value of the vocational counselling is set inside and outside of the institution. Inside indicator (1) it is the number of pupils in groups in which youngsters tentatively try to work. Other ones reflect outside activities in the acknowledgement of the value of the vocational counselling: it is meetings with partners; planning visits; activities that improve methodical basis for vocational counselling; presentations of new technologies, professions, training courses, etc.

To understand institutional support mechanisms in vocational counselling for youngsters without a valid family support it is important to find the provision of conditions for pre-vocational "growth" in community, because pupils live in close environment, so their social experience is rather limited. Analyzing indicators (3 of them have been set up) it was revealed that process of social integration could be extended first of all through visits, participation in outside public activities. Sometimes, following the principles of Christian world-view, that is a background of Community existence, it is hard to match participation in social events, to assess demonstrated values (or their decay) and at the same time to keep high self-governance that is crucial idea in child's upgrowing process.

Another idea that could provide better conditions for pre-vocational "growth" in community is larger orienting of youngsters to the officeholder's professions that require higher level of education. Basically, vocational counselling is linked to the professions that require lower level of education. It is a lack of vocational counselling activities that directs youngsters to seek higher education and to orient them into the level of officeholder's.

Graduates of the Città dei Ragazzi Community could be involved more actively in the process of institution's management. For this day graduates help in taking care about younger foster children in everyday activities.

Summarizing the research data on the accessibility of the system of vocational counselling in Community of Città dei Ragazzi it might be mentioned that present situation reflects the general requirements for educational institutions in this area. To say more, the practical basis for vocational counselling is better than in other public regional schools; high skilled professionals ensure continuation and quality of this process; active collaboration with enterprises let the administration of Community organize vocational counselling effectively (Table 5).

Institutional support mechanisms in vocational counselling for adolescents without a valid family support could be discussed in the aspect of flexibility of the system of vocational counselling. Flexibility of the vocational counselling system is assessed according to four categories: a) constant reaction to changes in the labour market; b) flexible and modern modifications of forms of curriculum, organization and management of education; c) making the conditions for education closer to the market conditions; d) compatibility with systems of pre-vocational training of pupils having SEN in other countries.

Table 5

Flexibility of the system of pre-vocational counselling

Area	Acknowledgement	Indicators	Responsible persons
Constant reaction to changes in the labour market	1. Meetings with representatives of enterprises. 2. Meetings with representatives of education services of local community. 3. Changes in the management of community according to challenges in the labour market.	1. Number of planned meetings; Year plan for further collaboration. 2. Number of planned meetings; Year plan for further collaboration. 3. Corrections in the community management corresponding to changes in the labour market.	Administration of institution; Representatives of enterprises; Representatives of education services of local community; Vocational counselling specialists; Social worker; Representatives of Christian community.
Flexible and modern modifications of forms of curriculum, organization and management of education	1. Application of new teaching methods and forms. 2. Changes in number of professional areas, according to labour market needs. 3. Involving new specialists into vocational counselling according to the community needs. 4. Involvement of new partners into vocational counselling according to the changes in labour market.	1. Interest of pupils in the new activities of vocational counselling when new teaching methods and forms are applied. 2. Establishment of new areas for pupils to know more about professions that are needed in the changing labour market. 3. Increasing or decreasing number of vocational consulting teachers, according to the institutions' needs performing process of vocational counselling. 4. New agreements with partners who are ready to assist in vocational counselling in the changing labour market.	Administration of institution; Vocational counselling specialists; Tutors; Social pedagogue; Social worker; Representatives of Christian community; Representatives of enterprises.
Creating the conditions for education closer to the market conditions	1. Extensive visits, training in the partners' enterprises; 2. Comfortable conditions for youngsters to learn specific features of professions. 3. Setting up possibilities to work guarantying social security.	1. Usage of after-lesson time for visits and trainings in partners' enterprises; 2. Getting ready to present shift-work system for youngsters. 3. To ensure social insurance for youngsters during their tentative training.	Administration of institution; Representatives of enterprises; Vocational counselling specialists; Social worker; Representatives of Christian community.
Compatibility with systems of pre-vocational training of pupils having SEN in other countries	1. Responsibility and collaboration of Local authorities for ensuring vocational counselling in Education Institutions. 2. Legal background of youth work and promotion of children rights. 3. System of vocational training 4. Content of vocational consulting. 5. Learning environment for vocational counselling. 6. Readiness of enterprises for collaboration with education institutions.	1. Flexibility of authoritative governance in performing processes of vocational counselling in education institutions. 2. Accordance of Legal background of youth work and children rights in different countries of EU. 3. Accordance of System of education system and vocational training in each EU country. 4. Accordance of content in vocational consulting, depending on socioeconomic needs in each EU country. 5. Differences in learning environment for vocational counselling. 6. Insufficient readiness of enterprises to collaborate with education institutions in vocational counselling.	Administration of institution; Representatives of enterprises; Representatives of education services of local community; Vocational counselling specialists; Social workers; Representatives of Christian community.

Analyzing constant reaction to changes in the labour market the process of vocational counselling shifts according to actual needs and institutional possibilities. Vocational counselling activities are organized in meetings with representatives of enterprises, in which older students have their practical placements; in meetings with local authorities and staff of city education council. Administration of Città dei Ragazzi Community schedules plans for constant collaboration with mentioned institutions, but if there is a need to do any corrections, to add additional activities, to discuss and react to the changes in labour market, flexibility of any activity is obvious.

Constant reaction to changes in the labour market process is closely connected with other category: flexible and modern modifications of forms of curriculum, organization and management of education; 4 indicators have been set up that describe the category. Specialists working in the Community are open to challenges and due to their professionalism they are able to react to the changing reality in the labour market in an adequate way. Administration of Community creates good working conditions to the staff; encourage them to attend in-service courses, to intercept good experience collaborating with other specialists from the similar institutions. Other indicator that was distinguished from mentioned category is a large number of high skilled professionals working in the Community. Administration of Città dei Ragazzi Community pays a great attention to staff composing, besides professional qualification staff members must be with the highest moral features – it is the Community the performance background of which is Christianity and these values must be communicated to the youngsters.

Establishment of new areas for pupils to learn more about professions that are needed in the changing labour market is one more indication that corresponds to the flexibility of the system of vocational counselling. Administration of the Community is open to the changes and as a response to the changing situation in the labour market computer, garage, and stock-raising educational areas there have been established.

Flexibility of vocational counselling system depends on the increasing (or decreasing) number of vocational consulting teachers, according to the institutions' needs. During the last decade the number of new staff members has started to work in Community of Città dei Ragazzi. Mostly it is associated with renewal of whole educational area, application of new innovative teaching methods that are closely connected with the rising of new technologies, professions, and need of the new knowledge.

Flexibility of vocational counselling ensures new contacts with new enterprises, institutions, factories, farming units. According to these agreements pupil has more possibilities to learn environment to gain more social experience, so they are more skilled and more responsible in their future choice.

Conclusions

Generalizing what has been discussed earlier such conclusions could be drawn up:

1. Institutional support mechanisms in vocational counselling for adolescents without a valid family support include categories of accessibility of the system of vocational counselling and flexibility of the system of pre-vocational counselling.

2. Accessibility of vocational counselling in the Community of Città dei Ragazzi manifests by:

- close relationship with outside vocational counselling organizations; relationship with outside education institutions;
- application of new teaching methods and forms, number of professional areas, according to labour market needs, involving new specialists into vocational counselling according to the community needs;
- number of pupils involved in certain professional training; stable reversible relationships with enterprises, planned number of needed workers; extension of the number of

partners that could be potential work givers; exhibitions, marts celebrations, presenting pupils' handworks;

- extension processes of social integration of the community; enriching community's environment with additional "professional" areas; setting closer relationships with community graduates.

3. Flexibility of the system of pre-vocational counselling in the Community of Città dei Ragazzi manifests by:

- meetings with representatives of enterprises; meetings with representatives of education services of local community; changes in the management of community according to challenges in the labour market;

- application of new teaching methods and forms; changes of number of professional areas, according to labour market needs; involving new specialists into vocational counselling according to the community needs; involvement of new partners into vocational counselling according to the changes in labour market;

- extensive visits, training in the partners' enterprises; comfortable conditions for youngsters to learn specific features of professions; setting up possibilities to work guarantying social security.

4. Comparing systems of vocational counselling of pupils having SEN in other countries the differences have been set up in:

- responsibility and collaboration of Local authorities for ensuring vocational counselling in education institutions;

- legal background of youth work and promotion of children rights;

- system of vocational training;

- content of vocational consulting;

- learning environment for vocational counselling;

- readiness of enterprises for collaboration with education institutions.

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PSYCHOLOGICAL AND PSYCHOPHYSIOLOGICAL “PRICE” ASSOCIATED WITH SCHOOLTEACHERS’ OCCUPATION

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Abstract

Any kind of work is normally associated with a certain psychological and psychophysiological “price”. It is most pronounced in occupations that are characterized by high professional pressure, permanent stresses and increased risk of professional burnout. The survey that targeted 765 Ukrainian school teachers has revealed that the “price” they pay by virtue of their occupation is three-fold: personal, subjective and psychosomatic.

Key words: *psychological and psychophysiological occupational “price”, school teachers, adaptation, general well-being, fatigue, state of health, state anxiety.*

Introduction

As it was said before, any occupation is associated with a certain psychological and psychophysiological “price” (the occupational “price”). Once defined and accounted for it can be used as a means of enhancing effectiveness in solving such issues as raising the quality of professional selection, individualization of occupation, performing various training, rehabilitation and correctional actions etc. Addressing these issues is most beneficial for occupations that are characterized by high professional pressure, permanent stresses and increased risk of professional burnout (Karpoukhina, & Kokun, 2010; Kokun, & Karpoukhina, 2010). These features apply among others to the work of school teachers. Therefore, factoring in their occupational “price” can contribute to effectiveness of their occupation and maintaining their physical and psychotic health.

Content and components of occupational “price”

Most often the occupational “price” is interpreted as psychological and psychophysiological “expenditures” of internal resources, which enable individuals to accomplish certain activities (Карпухина, & Розов, 1993). It is adequate if the ratio between the occupation effectiveness and psychophysiological expenditure of the human body resources is optimal. In other words, if individuals perform their tasks at an appropriate level of effectiveness they can fully (or almost fully) replenish their “spent” psychological and psychophysiological resources within a normative respite period before resuming work (before the next working day, over weekend or vacation/leave). And vice versa, if the occupational effectiveness is maintained through permanent and unreplenished exhaustion of psychic and physical reserves of the human

body and the period of restoring psychic and physical occupation capacities is getting longer endangering the individual's health the occupational "price" can be described as mostly inadequate.

Some researchers break down the occupational "price" into three main components: 1) personal "price" conditioned by changes in steady personal features, which manifest themselves if an individual is engaged in a certain work for a long period of time; 2) subjective "price" that reflects the level of psychic comfort or discomfort of an individual performing work; 3) psychosomatic "price" that manifests itself in various psychosomatic symptoms and syndromes (Карпущина, & Розов, 1993).

Nieuwenhuijsen and colleagues demonstrated that stress-related disorders are provoked by such main determinants as high job demands, low job control, low co-worker support, low supervisor support, low procedural justice, low relational justice and a high effort-reward imbalance (Nieuwenhuijsen, Bruinvels, & Frings-Dresen, 2010). Kopp and colleagues believe that root causes triggering the workplace stress include job insecurity, low control and low social support at work, weekend work hours, job-related life events and dissatisfaction with work (Kopp, Stauder, Purebl, Janszky, & Skrabski, 2008).

We have shown that the *components* constituting the occupational "price" can be broken down into two main categories: objective and subjective. Those of the first group include the workplace conditions, intensity and nature of load, psychological climate inside the work group, social and housing conditions of employees. The second category comprises professional qualification and experience, level of professional capacities, individual features, state of health, work motivation etc. (Кокун, 2004). All other circumstances being equal, hard work conditions (high temperature, humidity, noise, etc.), high intensity of the work load, unfavorable psychological climate in the working team and social/housing conditions of employees increase their occupational "price". And on the contrary, high professional qualification, considerable experience, high level of professional skills, good health, solid physical and psychic endurance, high work motivation result in bringing this "price" down (and vice versa).

The notion of occupational "price" can be of generic and individual nature: 1) different varieties of work differ by its relatively objective higher or lower "price"; 2) the better individuals get adapted to a certain variety of occupation the lower is the "price" they have to pay.

Parameters increasing occupational "price" for school teachers

Specifics of the school teachers' occupation are conditioned by its general nature and requirements, on one hand and by social and economic conditions in a certain country at a certain stage of its social and historic development, on the other. General nature of occupation performed by school teachers that may cause its "price" to go up includes complexity, high dynamics, polyaspectedness and poly-functionality (Болтівець, 2000; Кокун, 2004).

It is well known that the work of school teachers is associated with high emotional load, regular burnout, permanent stressful situations (Goyal, & Goel, 2009; Jimmieson, Hannam, & Yeо, 2010; Болтівець, 2000; Семиченко, & Заслуженюк, 2000). It is believed to be one of the most intensive varieties of work (Bellingrath, Weigl, & Kudielka, 2009; Скрипко, 2002; Ширманова, 2002). School teachers have to shoulder the two-fold work load: professional/pedagogical and managerial, which takes a toll of not only intellectual but also enormous emotional and physical exertions. In opinion of some researchers, school teachers normally have to sustain greater work loads as compared to managers and bankers, general directors and association presidents, i.e. those who work in close contact with other people (Зборовская, 2001). According to the data provided by the World Health Organization (WHO), the stress factor attributed to the pedagogic activities is 7.2 (at the scale of 10, which is the highest

stress level) that in terms of the negative effects on the physical and psychic health is inferior only to such occupations as miner, surgeon, civil aviation pilot, policeman and prison guard (Василькова, 2007).

The elevated psychological load of school teachers can also be function of social causes. Ukraine, for instance, is still experiencing permanent social perturbations, political and economic instability, constant reforms and transformations in the education system. Another important component of the Ukrainian school teachers' high occupational "price" are the conflicts that tend to arise in the pedagogical process: between teachers, teachers and students, teachers and school administration (Семиченко, & Заслуженюк, 2000). Some researchers emphasize that in many cases teachers are affected by such negative phenomena as social disorientation and disadaptation being provoked by their low income, livelihood problems, uncertainties and daily routine (Болтівець, 2000).

Our earlier surveys among Kyiv teachers lead to conclude that most teachers experience abnormally high professional and livelihood loads and are apparently dissatisfied with their salaries and their social status (Karpoukhina, & Kokun, 2010; Кокун, 2004).

Negative effects of elevated occupational "price" for school teachers

In the territory of the post-Soviet countries teachers constitute the professional group that is distinguished by very low physical and psychic health parameters. Another important factor is that various parameters of the teachers' physical and psychic health tend to deteriorate with progress of their professional career (Зборовская, 2001; Скрипко, 2002). According to researchers the consequence of the above-mentioned elevated stress inherent to pedagogic occupation in case of many teachers is manifested in decreased work satisfaction, elevated anxiety, frustration, resentment, fatigue, frequent headaches and insomnia (Ноженина, 2009; Ширманова, 2002). Considerable percentage of teachers suffers of stress-related diseases: multiple somatic and mental stress ailments (Chamundeswari, Vasanthi, & Parvathi, 2009; Болтівець, 2000).

Many teachers suffer of intellectual, emotional-volitional, personal-professional and other psychological disorders, which often result in the increasing gap between their current professional practices and new job requirements (Зборовская, 2001). One of the most pronounced negative aftereffects of the school teachers' elevated occupational "price" is their professional deformation and professional "burnout" (Кокун, 2004).

Professional deformation of teachers is expressed in their attempts of manipulating other people, craving for power, authoritarianism, rigidity, absence of critical thinking that eventually produce negative impact on their professional activities (Болтівець, 2000). The most widely spread professional deformations exhibited by teachers include: pedagogic aggression, authoritarianism, self-righteousness, tendency of being didactic in communications, ostentation, pedagogic dogmatism, dominance, pedagogic indifference and conservatism, simplified approach to problems, desire of bringing everything to overly simple structures, generalization in perceiving other people, role expansion, social hypocrisy, poor sense of humor (Зеєр, 2007).

For teachers the most characteristic manifestation of the professional "burnout" is reduction of their professional obligations, lesser interaction with colleagues and students, expansion of "emotional thriftiness", the growing desire of being "left alone", inadequate emotional reaction etc. (Zaichikova, 2003; 2004).

Approaches to research of occupational "price"

Traditionally, the occupational "price" is discovered by comparing two sets of diagnostic parameters: those that were evaluated in "background" conditions and those that reflect a certain period of professional experience (i.e., "before" and "after"). The extent to which the latter exceed the former makes up a considerable component of such "price" (Кокун, 2004).

For purpose of this article we can take a working day, daily shift, working week (from the first workday to the weekend), working year or any other lengthy period between leaves or other periods as the unit of work experience (Karpoukhina, Kokun, & Zeltser, 2008).

The comprehensive study of “price” attributed to any (including the teachers’) occupation in the above described aspect is normally based on a multi-stage research that requires considerable material, organizational and human resources. The “price” charged by the school teacher’s occupation can be determined for a single working day, week, semester, school year. However, no matter how well-substantiated such research approach appears one should keep in mind that it does not guarantee that the discovered occupational “price” will be “pure”. It is explained by the fact that the diagnostic parameters obtained at the end of research, beside the immediate professional load, can also be influenced by a number of other conditions that are hard to control (Karpoukhina et al., 2008). Therefore, the planning of similar research should be performed with particular accuracy and the analysis of received results should be carried out with special care and thoughtfulness.

We believe that it is also important to account for such aspects of the occupational “price” as “age” and “gender”. The purpose of such break-down is to make sure that the occupational “price” is determined by comparing diagnostic parameters for different age and/or gender professional groups inside one occupation. This allows “simultaneously” comparing occupational “price” by identifying, in which age and gender groups, and with respect to which parameters, it is reliably lower or higher. Such approach to considering the occupational “price” was successfully tested earlier in studies performed to define the “price” paid by high school and college students.

The professional’s fatigue and illnesses can also be interpreted as one of the occupational “price” manifestations. Studying such manifestations is an important aspect of occupational “price” research. According to some scholars, these manifestations are the most evident demonstration of the “price” charged within a certain occupation since permanent over-fatigue and stresses almost inevitably lead to psychogenic disorders: cardiovascular, gastrointestinal, allergic illnesses, etc. (Родина, 1996).

Method

Participants, procedure, measures

In our research of the school teachers’ occupational “price” we have used different approaches from among those listed above.

At the first stage we have partially used the “traditional” approach of studying the occupational “price”. With participation of 67 teachers in two Kyiv schools we have performed two sets of research: before the beginning of the school year (after summer vacations), and at the end of the first semester (4 months later). We have applied the self-estimated method (O. Kokun). Under this method the subjects of the study were asked to evaluate different work and life-related factors (estimates of well-being, level of vitality, mood, ability to do the regular work demands, health) by using non-calibrated scales (with a range from 1 to 100), where 1 means the worst and 100 the best possible value.

At the second stage, we have conducted one-off research with participation of 765 teachers from several Ukrainian cities (of which 67 teachers came from the previous study). The methods we applied included survey (O. Kokun) and the State Trait Anxiety Inventory (Ch. D. Spilberger et al.). The survey questions that teachers were asked to answer were deemed to assess, in particular, when (at the beginning, in the middle or at the end) they would feel themselves better or worse throughout the working day, week, semester and school year; what was their work capacity curve (getting worse, stays the same or getting better) during the working day and week; what were their relations with colleagues, school management

and student parents; what was their professional and off-school load and characteristic manifestations of fatigue due to their school activities as well as any disorders provoked by their professional activities etc.

Limitations

Since the research revealed that only 4% of all subjects were male teachers it was decided to use only women for analysis. For the same reason we omitted the “gender” aspect of the school teachers’ occupational “price” and consequently all results of this research applies exclusively to female teachers.

Results and Discussion

The results which have been obtained *at the first stage* that allow tracing the dynamics of the self-esteem parameters for teachers who have participated in this study within the first semester of the school year are included in Table 1.

Table 1

Comparison of self-esteem parameters exhibited by teachers before the start of the new school year and at the end of the first semester.

No	Variable	s	<i>M</i>	<i>SD</i>	n	p ≤
1	General well-being	a	72.1	22.1	77%	0.01
		b	59.3	20.8		
2	Level of effort	a	69.5	23.2	56%	–
		b	66.7	22.1		
3	Mood	a	54.4	20.1	29%	0.001
		b	71.2	25.6		
4	Labor capacity	a	67.3	19.8	58%	–
		b	65.8	20.2		
5	State of health	a	66.5	23.8	74%	0.01
		b	56.4	22.7		

Note: 1) a – results before the beginning of the new school year, b – results at the end of the first semester; 2) n – number of teachers, whose parameters have worsened.

According to the data listed in the Table above we can conclude that after four months of work at school the teachers that have been subjected to professional load demonstrated that at reliable level their self-assessment of the general well-being and state of health have worsened; the level of efforts and labor capacity decreased insignificantly and self-assessment of their mood has, on the contrary, improved significantly.

The obtained results can be viewed as generally consistent with the self-assessment of general well-being: the state of health reflects “homeostatic” level of teachers’ adaptation to occupation and self-assessment of level of effort whereas their labor capacity reflects the “productive” level. The “productive” level characterizes adaptation from perspective of effectiveness one exhibits when exercising a certain occupation and “homeostatic” one is mostly indicator of the occupational “price” and characterizes adaptation of an individual to his/her occupation from perspective of spending psychological and psychophysiological resources and maintaining his/her health (Карпукіна, & Розов, 1993).

In our opinion, psychophysiological occupational “price” that manifests itself at the “homeostatic” level of adaptation (certain reduction of self-assessed general well-being and

state of health) is adequate. In other words, we could observe the optimal ratio between the effectiveness of professional activities and the spent psychological and psychophysiological resources. If, however, the occupational “price” manifests itself already at the “productive” level (considerably reduced self-assessment of labor capacity, lower level of effort) it is evident that the occupational “price” is inadequate as related to the available psychological and psychophysiological resources. The longer individuals work under conditions of the elevated occupational “price” the more inevitably it leads to exhaustion of their psychophysiological resources and deterioration of their physical and psychic health.

As to the dynamics of the mood we think that it is influenced by other sufficiently evident reasons. The first set of research was performed after the long (two months) summer leave the teachers had before the next school year. And the second set of research took place a few days before the New Year holidays and two-week vacation. Therefore the second half of research has registered a much better mood as compared to the first one, which can be considered as absolutely natural. The fact that the teachers’ occupational “price” manifests itself, first of all, at the “homeostatic” level of adaptation is corroborated by results obtained also at the *second stage* of our research. Their self-assessment of general well-being throughout the working day, semester and school year is shown in Table 2. The results of self-assessed curve of labor capacity throughout the working day and week can be found in Table 3.

Table 2

The dynamics of teachers’ well-being throughout the working day, semester and school year

Period		General well-being	
		Highest	Lowest
Working day	Start	58%	13%
	Middle part	33%	16%
	End	9%	71%
Semester	Start	42%	20%
	Middle part	42%	22%
	End	16%	58%
School year	Start	50%	19%
	Middle part	32%	31%
	End	18%	50%

Table 3

The dynamics of teachers’ labor capacity throughout working day and week.

Period	Labor capacity		
	Deteriorates	Stays at the same level	Improves
Working day	37 %	50 %	13 %
Working week	43 %	45 %	12 %

The above results make it possible to visualize the general picture of the trend regarding the subjects’ self-assessment of general well-being and labor capacity. It appears logical that the majority of all teachers have a better general well-being at the beginning of the above periods and worse at the end. The same applies to the change in labor capacity. On the other hand, we revealed the trend of general well-being fluctuating throughout the working day to greater extent than during longer periods.

As to the self-assessment of those teachers who told to feel themselves better at the end of the above periods an assumption can be made that this self-assessment is caused by

an actual improvement of the body status at physiological level (physiological pre-condition) and by improvement of their psycho-emotional well-being by the end of the working day (psychological pre-condition). The ratio of these components can considerably vary for different individuals.

To standardize the nature of changes occurring in general well-being and labor capacity of teacher, we have grouped the data on each of the subjects to analyze the ratio between the best and the worst general well-being and labor capacity in respective periods (Tables 4 and 5).

Table 4

Self-assessed teachers' general well-being

Period	General well-being									
	the best	the worst	n	the best	the worst	n	the best	the worst	n	
Working day	start	middle part	12%	middle part	start	9%	end	start	4%	
		end	47%		end	23%		middle part	5%	
Semester		middle part	11%		start	14%		start	6%	
		end	30%		end	28%		middle part	11%	
School year		middle part	19%		start	12%		start	8%	

Table 5

Self-assessed teachers' labor capacity

Change in labor capacity			
Throughout the day	During the week		
	improves	stays at the same level	deteriorates
Improves	5%	6%	2%
Stays at the same level	5%	30%	15%
Deteriorates	2%	10%	25%

Distributing subjects between groups made it possible to determine common adaptation types of teachers. Based on the self-assessed *general well-being* these types were broken down separately for working day, semester and school year (Table 6). For instance, with the best well-being at the end of the working day 4% of all subjects said they felt themselves the worst at the beginning of the working day and 5% in its middle (see Table 4), which makes up 9% of the "improvement" adaptation type for the working day.

Table 6

Adaptation types of teachers (based on self-assessed general well-being).

Adaptation type	Working day	Semester	School year
"Improvement"	9%	17%	18%
"Deterioration"	68%	55%	62%
"Unstable"	23%	28%	20%

Based on self-assessed *labor capacity* (determined on the basis of the results shown in Table 5) five adaptation types of teachers were differentiated:

"Improvement" – 5% (teachers, whose labor capacity improves throughout the day and during the week);

“*Improvement-stable*” – 11% (labor capacity improves throughout the day and stays at the same level during the week or otherwise);

“*Stable*” – 30% (labor capacity stays at the same level throughout the day and week);

“*Unstable*” – 29% (labor capacity throughout one period deteriorates and improves or stays at the same level throughout another);

“*Deterioration*” – 25% (labor capacity deteriorates throughout the day and during the week).

Therefore, the most favorable (relative to the reduction of an individual occupational “price”) adaptation type of “improvement” (for general well-being) was discovered in 9% to 18% of all teachers (function of period). The most favorable adaptation types in terms of labor capacity: “improvement”, “improvement-stable” and “stable” were displayed by 46% of all teachers. The first group, as we have mentioned before, reflect predominantly “homeostatic” level of adaptation and the second group – the “productive” one. In terms of labor capacity the category of favorable adaptation type included several times more subjects than that in the category of the general well-being. These statistics completely correspond to other results of the research, which prove that the teachers’ occupational “price” manifests itself predominantly at the “homeostatic” adaptation level.

Let’s review below the results, which characterize the age aspect of the school teachers’ occupational “price”. In the Tables 7 and 8 below certain age consistencies between the general well-being and labor capacity curves displayed by the surveyed teachers can be observed.

Table 7

Dynamics of general well-being fluctuations displayed across different teachers’ age groups

Period		Age group (years old)							
		≤ 29 (n = 216)		30–39 (n = 234)		40–49 (n = 201)		≥ 50 (n = 114)	
		A	B	A	B	A	B	A	B
Working day	start	53%	16%	53%	18%	62%	9%	73%	3%
	middle part	30%	30%	39%	13%	35%	13%	24%	13%
	end	17%	54%	8%	69%	3%	78%	3%	84%
Semester	start	31%	23%	32%	26%	52%	13%	49%	13%
	middle part	39%	30%	52%	15%	37%	22%	40%	19%
	end	30%	47%	16%	59%	11%	65%	11%	68%
School year	start	47%	16%	43%	26%	54%	14%	49%	19%
	middle part	26%	44%	37%	33%	35%	23%	38%	30%
	end	27%	40%	20%	41%	11%	63%	13%	51%

Note: A – the best general well-being; B – the worst general well-being.

Table 8

Dynamics of labor capacity fluctuations displayed across different teachers’ age groups.

Period	Age group (years old)											
	≤ 29 (n = 216)			30–39 (n = 234)			40–49 (n = 201)			≥ 50 (n = 114)		
	A	B	C	A	B	C	A	B	C	A	B	C
Working day	41%	48%	11%	29%	57%	14%	39%	48%	13%	43%	49%	8%
Working week	34%	50%	16%	40%	47%	13%	48%	43%	9%	51%	48%	1%

Note: Labor capacity: A – deteriorates; B – stays at the same level; C – improves.

The above data is the evidence of a rather clear-cut trend: the older are the subjects, the more ($p \leq 0.01-0.001$) their self-assessment in terms of general well-being throughout various periods (ranging from one working day to a school year) and their self-assessment of labor capacity throughout the week deteriorate. It leads to conclude that the older school teachers are, the more evident is their tendency of paying higher occupational “price”.

Let’s now review the results of this research regarding such of teachers’ occupational “price” as symptoms of fatigue and illnesses. The subjects representing various age groups did not display any considerable disparities in the quality and quantity parameters of fatigue symptoms; the research results broken down by percentage distribution and age are included in Table 9.

Table 9

Distribution of fatigue symptoms that teachers feel at work

Fatigue symptoms	Age group (years old)				
	≤ 29 (n = 216)	30 – 39 (n = 234)	40 – 49 (n = 201)	≥ 50 (n = 114)	Entire sampling (n = 765)
Deterioration of general well-being	43%	47%	55%	56%	50%
Decreasing of labor capacity	37%	39%	39%	47%	40%
Deterioration of focus	31%	24%	20%	16%	22%
Nervous stress	46%	39%	42%	42%	42%
Increased resentment	38%	25%	28%	16%	27%
Less self-control	4%	6%	3%	4%	4%
Mood swings	25%	16%	22%	11%	19%
Indifference to work	21%	16%	6%	2%	13%
No symptoms	3%	1%	5%	0%	2%

The above Table shows that the fatigue felt by teachers in most cases (40–50%) manifests itself in form of deteriorated general well-being, nervous stress and decreased labor capacity. Another important portion of subjects (19–27%) said they experience increase in resentment, deterioration of focus, mood swings. Relatively less number of teachers (13%) acknowledged being indifferent to the work they perform and the lowest share of interviewees (4%) complained of reduced self-control. Only 2% said they did not feel any of the above symptoms of fatigue.

In terms of age the trend looks rather interesting. The older the subjects are the more numerous are symptoms of fatigue related to their state of health, such as deterioration of general well-being and decreasing labor capacity and less of those related to their professional level and professional adaptation: lapses of attention, elevated resentment, mood swings and indifference to work. To summarize the above said we can state that teachers with extended professional experience exhibit increasing professional adaptiveness, which makes it possible for them to partially reduce their occupational “price”. At the same time the “price” teachers pay increases in terms of health as they grow older.

Table 10 shows the teachers’ perceptions of illnesses that in their perspective are occupational by nature. According to this Table, the teaching in most cases (50–51%) leads to cardiovascular system diseases and sight deterioration. Also quite spread are illnesses of a nervous system (39%) and Ear Nose Throat problems (33%).

Table 10

Break-down of illness symptoms provoked by teachers' occupational activities

Illness symptoms	Age group (years old)				
	≤ 29 (n = 216)	30–39 (n = 234)	40–49 (n = 201)	≥ 50 (n = 114)	Entire sampling (n = 765)
Musculoskeletal apparatus	7%	14%	17%	20%	14%
Cardiovascular system	32%	50%	62%	59%	50%
Nervous system	28%	38%	45%	36%	39%
Sight deterioration	37%	37%	70%	69%	51%
Ear Nose Throat problems	35%	35%	40%	27%	33%
Other*	3%	3%	3%	4%	2%
None	29%	8%	4%	4%	11%

* Note: Almost all subjects indicated gastrointestinal diseases as “other” in this Table.

The dependence between aging and the increasing disorders of musculoskeletal apparatus, cardiovascular and nervous system, sight deterioration can be regarded as logical. We believe that this is one of the most evident manifestations of the teachers' occupational “price”. Whereas 29% of young teachers said they did not feel any of the above fatigue symptoms, in the next age group (30 to 39) this percentage goes down to 8% and even further down among those over 40 – to 4%.

Tables 11 and 12 show the number of fatigue and illness symptoms among teachers of different age groups.

Table 11

Number of fatigue symptoms teachers experience at work

Age group	Number of fatigue symptoms						
	0	1	2	3	4	5	6
≤ 29 years old	4%	23%	31%	27%	9%	5%	1%
30 to 39 years old	1%	40%	22%	22%	12%	2%	1%
40 to 49 years old	4%	35%	27%	21%	5%	4%	4%
≥ 50 years old	0%	47%	29%	16%	4%	2%	2%
Entire sample group	2%	36%	26%	22%	9%	3%	2%

Table 12

Number of illness symptoms teachers relate to their occupation.

Age group	Number of illness symptoms					
	0	1	2	3	4	5
≤ 29 years old	29%	40%	20%	8%	3%	0%
30 to 39 years old	8%	39%	29%	18%	6%	0%
40 to 49 years old	4%	21%	30%	27%	16%	2%
≥ 50 years old	4%	40%	20%	18%	13%	5%
Entire sample group	11%	33%	27%	19%	9%	1%

The obtained survey results support the thesis according to which older and more experienced teachers feel themselves less tired but more ill. Teachers under 29 years old said they felt in average 2.42 ($\sigma = 1.5$) fatigue symptoms; those 30 to 39 years old – 2.16 ($\sigma = 1.4$); and those 40 to 49 years old – 2.14 ($\sigma = 1.4$); teachers above 50 years old experienced 1.91 ($\sigma = 1.3$) fatigue symptoms. The difference between the first and last group is statistically reliable ($t = 2.603$; $p \leq 0.01$). Of those teachers who complained of illnesses, teachers under 29 years old make up 1.25 ($\sigma = 0.9$); 30 to 39 years old – 1.77 ($\sigma = 1.1$); 40 to 49 years old – 2.27 ($\sigma = 1.4$); and above 50 years old – 2.07 ($\sigma = 1.2$). The difference between the age group under 29 years old and all other groups as well between age groups of 30 to 39 and 40 to 49 years old are equally statistically reliable at high level ($t > 3.5$; $p \leq 0.001$).

Results of correlation analysis also corroborate the trend of older and more experienced teachers feeling less tired but more ill. Regardless of a rather strong correlation between the number of illness and fatigue symptoms manifested by teachers ($r = 0.31$; $p \leq 0.001$) the number of the above fatigue symptoms negatively correlates with age ($r = -0.16$; $p \leq 0.001$) whereas correlation between age and the number of illness symptoms is positive ($r = 0.25$, $p \leq 0.001$).

Once again it was demonstrated that the teachers' occupational "price" manifests itself primarily on "homeostatic" level of adaptation (more illness symptoms with age) and not on productive one (more fatigue symptoms with age). We could measure one of specific parameters featuring the teachers' occupational "price" by observing the state anxiety. Such anxiety can be detrimental to efficiency of various activities (Kokun, 1996; 1997). By comparing the measurements taken in different age teacher groups we have ascertained that the subjects over 40 years old had statistically higher state anxiety level ($t = 3.342$; $p \leq 0.001$) as opposed to their younger colleagues. Therefore, one of the manifestations of the teachers' occupational "price" is the trend of their personal anxiety growing with age.

Conclusions

To summarize, we believe that the findings of this study make an important contribution to research on psychological and psychophysiological occupational "price".

First, this article reviews in a condensed manner the content, parameters and measurements of the occupational "price", determines major fields where its research can be practically applied and considered. The article lays down basic approaches that can be used to study the occupational "price", its interrelation with "homeostatic" and "productive" level of human adaptation to work, substantiates the approach to understanding its adequacy/inadequacy. The authors have scrutinized the parameters that lead to elevated occupational "price" of school teachers and the negative consequences that such "price" incurs.

Second, the research analyzed manifestations of school teachers' occupational "price". It was demonstrated that this "price" is felt primarily on "homeostatic" level of adaptation (deterioration of general well-being, state of health, etc.) and can be viewed as relatively adequate (optimal relation between occupational efficiency and expenditures of human psychological and psychophysiological resources). In the age aspect, the school teachers' occupational "price" is displayed in form of growing with age level of state anxiety, worsening of general well-being and labor capacity throughout various time periods, increased number of different illnesses and disorders. Older teachers tend to experience increasing number of fatigue symptoms, which are closely related with their state of health and decreasing number of fatigue manifestations associated with professional level and professional adaptation, which enables them to partially reduce their occupational "price" by enhancing their professional qualification and professional adaptiveness. The common adaptation types of teachers that we have identified on the basis of their general well-being and labor capacity can equally be of interest in practical sense.

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PECULIARITIES OF THE APPLICATION OF THE KNOWLEDGE OF MATHEMATICS IN REAL-LIFE SITUATIONS AND SOLVING PROBLEMS IN CASE OF SENIOR FORM STUDENTS HAVING MODERATE SPECIAL NEEDS

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Abstract

The article deals with the peculiarities of the application of the knowledge of mathematics in real life situations of students with moderate special needs who study in senior forms of mainstream schools. The research data have been collected applying quantitative approach. By the method of questionnaire survey it has been investigated how students with moderate special educational needs who study in 8-10 forms of mainstream school are able to apply possessed knowledge of mathematics in real-life situations and solving problems of practical character, the peculiarities of their functional mathematical literacy have been assessed. The results of the research have shown that the level of functional mathematical literacy of the majority of students with moderate special educational needs who have participated in the pilot research is not sufficient, the knowledge of mathematics is not strong, students lack practical abilities and perception how and where possessed knowledge could be applied in everyday activity.

Key words: *students having moderate special educational needs, practical application of mathematical knowledge, abilities, mathematical literacy, problem solving.*

Introduction

Increasing processes of the creation and implementation of new technologies stimulate constant change of the education system. The task raised for mainstream school is not only to transfer knowledge and experience accumulated by the society but also help every student to form value system, to learn how to learn and solve problems, to develop person's competences that would help to actively function in the society and in constant perfection to adapt to changing social, economical conditions (Bendrosios pradinio ir pagrindinio ugdymo programos, 2008). It is aimed that student could use possessed knowledge and information in everyday life (Bulotaitė, & Gudžinskienė, 2004; Šiaučiukėnienė, Visockienė, & Talijūnienė, 2006; Baranauskienė, Geležinienė, Tomėnienė, Vasiliauskiene, & Valatkienė, 2010).

In the National Education Strategy of Lithuania for 2003–2012, in the Law on the Amendment of the Law of Education of the Republic of Lithuania (2011), in General

Programmes of Primary and Basic Education (2008) the mission of education is perceived as assistance to a student perceiving contemporary world, gaining the basics of literacy, cultural and social competence and becoming independent, responsible person creating own and community life. Teaching becomes rather process-oriented than result-oriented, because according to Petty (2008), it is not knowledge but skills that are priceless due to their transferability remaining after learning. The knowledge transferred is valuable and efficient only when a student understands it, is able to interpret and apply it, if he/she perceives why he/she learns. When the amount of information is increasing and informational technologies are developing it is becoming relevant not only to memorize many facts but rather recognize situations and questions that could be answered using possessed mathematical knowledge.

The informational society of today is especially mathematized, that is why the need for mathematical literacy is even more felt and it is recognized almost in all spheres of human life: household, professional activity, recreation, in the actions of civil responsibility, social actions, at work, managing personal finances, taking examinations, continuing studies, raising children, etc. Referring to the ideas of foreign scientists Dudaitė (2008) defines mathematical literacy as the ability to recognize, understand mathematics and apply its knowledge, to make reasoned decisions about present and future role of mathematics in person's private and professional life and socializing with peers and relatives, to participate in mathematical activity in such ways that correspond to the needs of the life of an individual as a constructively acting, interested and conscious citizen. It shows that in General Programme of Mathematics for Basic Education much attention should be paid to the factor of functionality because understanding and application of known mathematical concepts, mathematical methods for every student (gifted, weaker or having special needs) creates preconditions not only to know but also freely orient in practical and everyday life.

It also raises new importance and new requirements for teaching/learning mathematics at school. Change in teaching of mathematics and methods of its teaching, the concept of mathematical literacy have been widely discussed by scientists and pedagogues of Lithuania – Ažubalis and Kiseliovas (2002), Balčytis (2000), Būdienė (1998), Cibulskaitė and Sičiūnienė (2007), Dudaitė (2006, 2008), Kiseliova and Kiseliovas (2004, 2008), Mineikienė and Vismantienė (2001), Zybartas (2000) and foreign authors – Cuban (2001), Madison (2003), Briggs (2002), etc. Mathematical teaching of students having special educational needs has been described by Perova (1984), Štitiienė (1999, 2003); Garbinčiūtė and Štitiienė (2002); Tomėnienė (2010), Tomėnienė, Tamutytė and Geležinienė (2011), Tomėnienė, Pigulevičiūtė and Skrebieienė (2011), etc. Hence contemporary theory and practice of education raise the task for teachers of mathematics to constantly review the contents of the subject, to assess and reorient education priorities, to help every child to develop the most important and essential general abilities and value attitudes that would help in future to choose a profession, to find one's way in the rapidly changing society, to successfully work in it, to feel good and be happy. Undoubtedly, it is very relevant in organizing the education of students having moderate special educational needs (SEN) who tend to choose more often to learn in a mainstream school that is the closest to their living place. In the recommendations of the application of General Programmes of Basic Education meant to educated students with special needs having low (limited intelligence) and very low (mild intellectual disorder) intellectual abilities (2010) it is indicated that one of the main principles of the adaptation of general education content is the principle of practicality. Education should take place through activities and tasks of practical character, orienting towards practical needs of students' life. It is aimed that students with special needs after graduating the programme of basic education would have gained the basics of general and essential competences of subjects necessary for future studying and work.

Having reviewed scientific literature of recent years it is possible to state that the education of mathematical literacy of students with moderate special educational needs

is not being discussed sufficiently, there is a lack of information about academic abilities and achievements of senior form students having moderate special education needs and integrated in mainstream schools, their application in practical activity. In order to improve this situation, to reveal the expression of abilities of mathematical literacy of senior form students and youth having moderate special educational needs, teachers of mathematics in mainstream schools and teachers of profession in vocational training schools were interviewed in 2009-2010. The data of the research (Baranauskienė, & Tomėnienė, 2010; Томениене, 2010; Tomėnienė, Tamutytė, & Geležinienė, 2011) have revealed pedagogues' opinion about the importance of the development of functional mathematical literacy of students and youth having moderate special educational needs, the necessity to improve the process of teaching these students mathematics in mainstream school, to review the contents of curriculum, developed abilities, attitudes, applied strategies and methods. The results of the research have shown that the development of functional mathematical literacy should become an important component of prevocational training of students with special needs. According to the respondents, SEN students, who come to learn to the centres of prevocational training, their level of mathematical literacy is not sufficient for studying future speciality. For youth it is difficult to apply mathematical knowledge in everyday and professional activity and real life situations. Developing mathematical literacy the main attention at school should be paid to such knowledge that students could apply in practical activity, teachers of mathematics and profession suggest. However, in order to improve mathematical education of these students it is not sufficient to refer only to pedagogues' opinion, it is necessary to know the level of functional mathematical literacy of these students. Only with an appropriate acquaintance with pupil's interests, skills, abilities and possibilities, practical mathematical abilities could start to form. It is evident that there is a lack of such knowledge about academic and practical abilities of senior students with moderate special educational needs educated in mainstream schools, therefore, the relevance of the present work is conditioned by the willingness to assess actual situation of the development of mathematical literacy of students having SEN and identify the peculiarities of practical mathematical abilities of senior form students having moderate special educational needs.

Aim of the research: To investigate the ability of students with moderate special educational needs who study in senior forms of mainstream schools to apply possessed mathematical knowledge in real life situations and solving problems.

Object of the research: Peculiarities of the application of mathematical knowledge in real life situations and solving problems of students with moderate special educational needs.

Methods and methodology of the research: The research instrument has been prepared: questionnaire (mathematical test) meant to test the ability of students with moderate special educational needs who study in senior classes of mainstream schools to apply possessed mathematical knowledge in real life situations and solving problems. The data necessary for the research have been collected performing written quantitative survey. The questionnaire that was used during the research has been created referring to the suggestions received from teachers of mathematics and profession during the research performed in 2009-2010, the suggestions of expert group, the education content described in General Programmes (2008), programme for special school (Štitiienė, 1999), recommendations for the application of General Programmes of Basic Education meant to educate students with special needs with low (limited intelligence) and very low (mild intellectual disorder) intellectual abilities (2010). The questionnaire consisted of the explanation how to fill in the questionnaire, set of mathematical formulas necessary for solution, questions to receive the demographical data about the respondents and 4 chapters of tasks of practical character. Chosen 23 tasks had to help to assess the peculiarities of the application of knowledge of students with moderate

special educational needs from the main analyzed topics in mathematics solving tasks of practical character. The tasks by which students' factual knowledge, understanding, skills, their application in everyday or well known vocational and real life context were assessed were conditionally divided into 4 chapters: "Check if you know how to measure" (10 tasks), "Do you know how to apply geometrical knowledge in practice" (6 tasks), "Do you know how to apply mathematical knowledge in vocational activity" (3 tasks), "Check your knowledge in economics" (4 tasks). The respondents were given a questionnaire consisting of main mathematical topics: numbers and calculations, geometry, measures and measuring, statistics. The contents of all of the tasks are related to the environment known to a pupil, everyday situations, vocational activity. In order to better assess students' mathematical abilities several tasks were selected for the majority of task groups. All tasks are different: some are simpler and easier, other more complicated.

In creating the questionnaire, the format of the task was also taken into account. The quarter of tasks was multiple choice (students had only to circle a chosen answer). Solving tasks with short solution (15%) students had to write the answer of the task. Tasks requiring presenting the solution (60%) were assessed with the bigger number of points. Every student received a questionnaire with tasks that he/she could solve in several lessons. Students were allowed to use supporting means, i.e., calculators, measure tables, etc. The space for solutions was left next to the tasks, therefore, students were asked to make all the solutions in questionnaire sheets.

The results of students' task solving have been analyzed in three aspects: *knowledge and skills* (knowing, understanding, performance of main concepts and procedures); *communication* (understanding the task, rendering task solution, use of mathematical symbols and terms); *solution of practical problems* (choosing the way to solve the task, writing the answer, making elementary conclusions). All participants of the research were acquainted with the contents of the questionnaire and the rules of filling it in. Moreover, they were informed that their personal data would not be recorded.

To process empirical data quantitative data analysis and descriptive statistics have been used. The results have been calculated using Microsoft Office Excel 2007 and Microsoft Office Word programmes.

Participants of the research: In choosing the participants of the research the method of target selection has been used – "when the researcher himself/herself chooses which respondents it is more expedient to choose" (Luobikienė, 2000). In this case, the research group of quantitative research consisted of 8–10 form students with special educational needs studying at mainstream schools of Anykščiai, Pakruojis, Pasvalys and Šiauliai towns and districts. The sample of pilot research consisted of 100 respondents corresponding to the criterion: senior form students of mainstream schools having moderate special educational needs and educated according to adapted programme of mathematics.

Research results and their interpretation

Before performing tasks students in the chapter "Questions about you" had to give some information about themselves (demographical block), i.e. to write gender, age, form, to indicate who helps to do homework, to learn mathematics. During the research, the respondents were not selected according to gender or age. The main criterion for selection was that the respondents had to be 8–10 form students having moderate special educational needs and studying in mainstream schools. Having calculated the results of the research it has become clear that more boys than girls have been surveyed, i.e. 58% of boys and 42% of girls. The age of students who participated in the research is from 13 to 19. The majority of the respondents were students of mainstream schools of the age of 15–16, that makes up 67%

of all the respondents. 35 students of the eighth form, 30 of the ninth form and 35 of the tenth form participated in the research. They were asked who helps them to do homework, learn mathematics; whether students attend complementary classes in mathematics. The received data show that the main forms of assistance in learning mathematics are sessions with special pedagogue and consultations of mathematics teachers. Out of 100 respondents having moderate special educational needs 48% of all eight-formers, 50% of all students of the ninth form, 54% of all students of the tenth form attend sessions with special pedagogue or consultations of mathematics teacher. Complementary private sessions are attended only by one nine-former. It has become clear that parents do not help children to do homework anymore, girls ask for help more often (38%), boys – less often (26%).

It has been aimed to know what type of general mathematical and knowledge application abilities are developed among students having special needs. The research has shown that students having moderate special educational needs solved tasks variously. Most of application tasks were of average difficulty or difficult for students.

The results of the research have shown that students having moderate special educational needs were best at performing tasks from the fields of the contents of mathematics *Numbers and Calculations*, *Measures and Measuring*. From the field *Numbers and Calculations* the lines of operations were chosen that are related to the environment known to a student, everyday situations, vocational activity. The students were best at performing these tasks because they could use calculators.

The majority of tasks in the questionnaire (even 10) were presented from the field of the contents of mathematics, the knowledge of which is often necessary in everyday activity – from the field of *Measures and Measuring*. The students managed to perform these tasks variously (Figure 1).

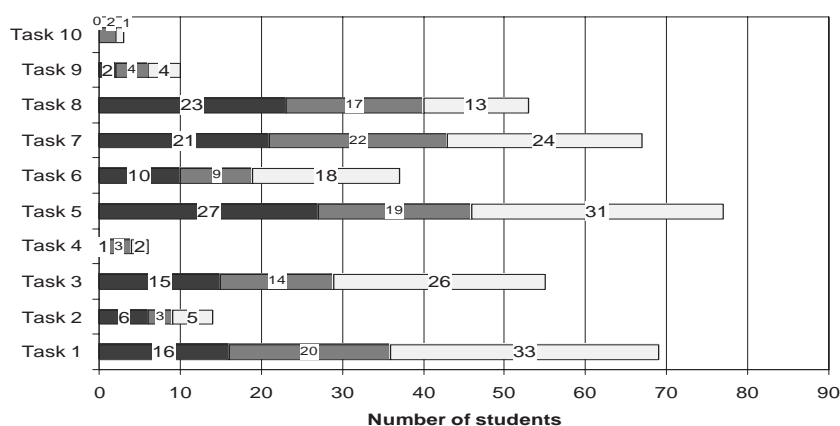


Figure 1. The results of correctly solved tasks of the chapter “Check if you know how to measure”, number of students (N = 100)

As it is seen in Figure 1, the respondents were quite good at tasks that required to measure the length of the segment according to the presented ruler (task 1, 69% of correct answers), to tell the time (task 3, 55% of correct answers). The students were also quite good at the task which required to calculate how long it takes for the worker to go to work (task 5, 77% of correct answers), according to the example convert simple measurements from larger to smaller and smaller to larger units (task 7, 67% of the answers; task 8, 53% of the answers), to calculate the indications of the thermometer (task 6, 37% of correct answers). The respondents experienced difficulties with tasks that required to measure the length of

a pencil and write it not only in centimetres but also in decimetres (task 2, 14% of correct answers), to draw the clock arrows so that they show indicated time (task 4, only 6% of the correct answers). The most difficult task for students was to convert concrete numbers to decimal fraction and vice versa to write fractions in concrete numbers (task 9, 10% of the answers and task 10, 3% of the answers).

In generalizing the abilities of the knowledge of students having moderate special educational needs and their application performing the tasks of the chapter “Check if you know how to measure” it has been noticed that:

- eight-formers and nine-formers were the best at measuring the length of the segment, solving the task of time calculating, according to the example convert simple measurements from larger to smaller and smaller to larger units;

- ten-formers performed all the tasks better, the most difficult ones were to write the length of a pencil in decimetres, to draw clock arrows so that they show the indicated time, to convert concrete numbers in decimal fraction and vice versa;

- 45% of the students experienced the most difficulties in telling the time from the clock with Roman numbers. The precondition may be made that students know electronic watch better because they encounter it more often in everyday life. In order to know the time the majority of students use mobile phones, computers, electronic clocks of institutions.

- the respondents made the most of mistakes converting decimal fraction to a concrete number, for example: most often the students would write 2,15 kg for 2 t 15 kg instead of 2,015 kg. Forgotten zero was the mistake the majority of students made.

In the chapter of the questionnaire “Do you know how to apply geometrical knowledge in practice” six tasks from the field of *geometry* have been presented. Students had to remember their possessed knowledge in this field solving tasks related to vocational activity (hairdresser’s, builder’s, surveyor’s). The students of the tenth form were best at solving those. The results of correctly solved tasks have been presented in Figure 2.

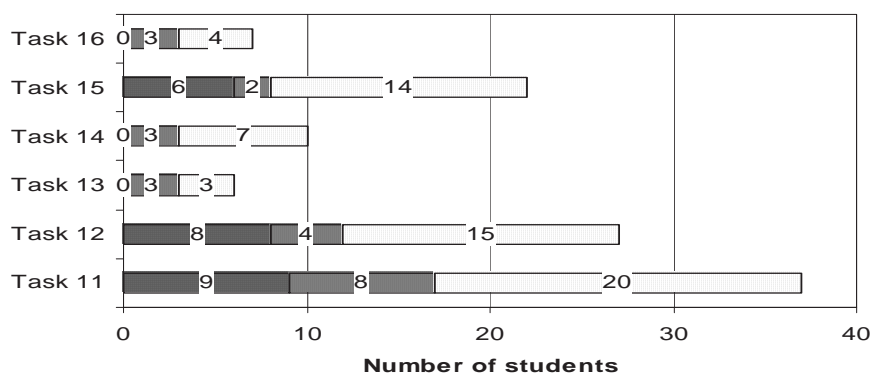


Figure 2. The results of correctly solved tasks of the chapter “Do you know how to apply geometrical knowledge in practice”, number of students (N= 100)

From the data presented in Figure 2 it may be seen that students were best at solving task 11, where they needed to cut a strip to make 9 equal parts (37% of correct answers). Half of ten-formers who participated in the research managed to correctly draw a plan of a parking lot (task 12, N = 15), to use the aid – the presented formula how to find the volume and calculate how many cubic metres the workers dug out (task 15, N = 14). It was more difficult for the respondents to calculate the areas of a rectangle and a circle (task 13, 6% of the answers, and task 14, 10 % of the answers) and a volume of a composed figure (task 16, only 7% of correct

answers). Unfortunately, no eight-formers succeeded in calculating what length of linoleum is necessary for a sitting room (task 13).

Generalizing the knowledge of students having moderate special educational needs and the ability of their application performing the tasks of the chapter “Do you know how to apply geometrical knowledge in practice” it should be noticed that:

- tasks of the field of *geometry* were rather difficult for the students. Students of the eighth and the ninth form were making especially many mistakes;
- having analyzed in more detail the abilities of the students it has become clear that the students are quite good at recognizing main geometrical figures of plane and space, their main elements; however, they were especially bad at solving the tasks that required to motivate something or use the concepts of perimeter, area, volume, scale (as it has been mentioned incomprehension of these concepts has also become especially clear on the level of knowledge). Two thirds of the respondents (78 %) were making mistakes and did not manage to draw the plan of a parking lot, although the scale was indicated in the task. Many respondents managed to use the presented formula of finding the volume of the cube, however, they inserted numbers incorrectly (e.g. $V = a^3$, $V = 3m^3$, in the given formula children did not notice that the number 3 should be multiplied three times), they did not name the units of measuring.

In performing three tasks of the chapter 3 “Do you know how to apply mathematical knowledge in vocational activity” students had to remember their possessed knowledge from the fields of *Measures and Measuring* and *Statistics*. In case of these tasks as well as in the previous ones the ten-formers were best at solving them (60–63% of all the ten-formers who participated in the research performed tasks 17–19 correctly) and it was the most difficult for the eight-formers (only 15% of the eight-formers who participated in the research performed tasks 17–19 correctly). Almost two thirds of the students did not fully succeed in solving these tasks. The results of correctly solved tasks have been presented in Figure 3.

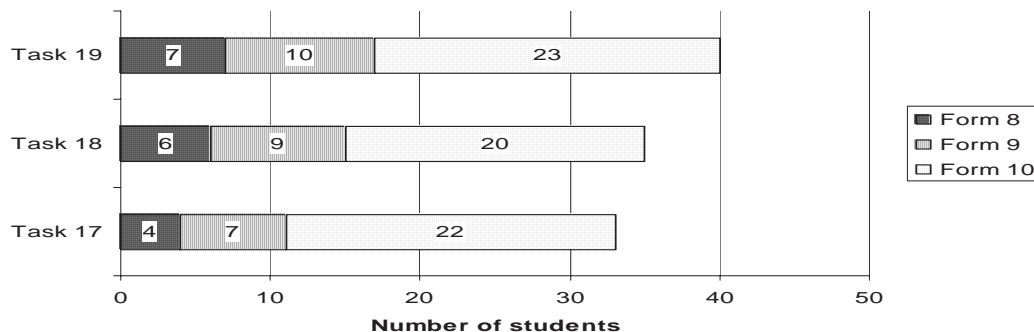


Figure 3. The results of correctly solved tasks of the chapter “Do you know how to apply mathematical knowledge in vocational activity”, number of students (N = 100)

As it is seen in Figure 3 the respondents were quite good at performing tasks from the fields of measures and measuring and statistics, which required to calculate by applying a proportion how many kilograms of apples the farmer sold (task 17, 33% of correct answers), to calculate the builder’s salary and to find out the average work salary of 4 months (task 18, 35% of the correct answers). Students were best at solving the task that required reading the data of the diagram and find out how many workers work at the hotel “Svajoné” (task 19, 40% of the correct answers).

With the task 17 it has been attempted to find out whether the students know how to apply the knowledge about proportion; with the task 18 – whether students know how to calculate the mean of the sample, with task 19 – whether students know how to read

information presented in a diagram, analyze, make conclusions, related to the data presented in the diagram.

Generalizing the knowledge of students having moderate special educational needs and the abilities of its application it has been noticed that the eight-formers are better acquainted with the calculation of the mean of the sample than with the tasks of making a proportion.

During the research, the respondents have also been given 4 tasks from family economics, calculating percentage when buying in sales. The results of correctly solved tasks of this field have been presented in Figure 4.

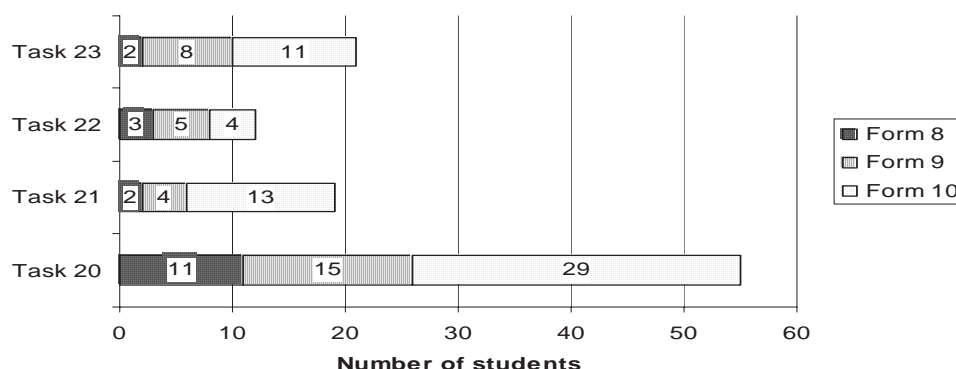


Figure 4. The results of correctly solved tasks of the chapter “Check your knowledge in economics”, number of students (N = 100)

As it is seen in Figure 4, students were especially good at calculating family budget, i.e. how much money family spends for taxes and how much is left for them (task 20, 55% of correct answers). The respondents encountered difficulties in the tasks that required to calculate the discount of selling camera and find its present price with discount (task 21, 19% of correct answers) and perform banking operation – to calculate currency exchange from LTL to LVL (task 22, 12% of the correct answers). Especially many difficulties were encountered in task 23 (21% of correct answers) that required to calculate the amount of used electricity, the sum to be paid and complete filling in paying account in the electricity booklet.

By task 20 it has been attempted to find out whether students know how to read the data presented in the table and calculate communal taxes. It may be seen from the obtained results that this task was the best performed by the students of the tenth form (71% of all the ten-formers), 54% of the students of the ninth form and 35% of the eight-formers have also managed to solve it correctly. The respondents have encountered quite many difficulties in the task that required calculating the discount of selling camera (percentage), to find the present price with the discount of 20%. Quite many students were making mistakes in this task incorrectly choosing operation. Some students did not distinguish between the sum of discount and presented price of the item, therefore, they divided the price to the number of percent. The results of the research have shown that the knowledge of these students about percentage is not strong yet, therefore, they face difficulties in calculating partial price of the item when it is reduced by several percent. The results of task 22 have shown that only a small part of the students are able to calculate the amount of the currency to be exchanged, although nowadays when people like travelling every modern person should know how to perform such operations. To solve this task students had to make up the way of solving (to multiply then add up), to perform the operations of multiplication and addition (they could use the calculator) and make a conclusion. The most frequent mistakes: they would incorrectly choose the first

operation, some students multiplied correctly but forgot to add the fee for currency exchange or selling operation. By task 23 it has been attempted to find out whether pupils know how to calculate the indications of an electricity meter and fill in the tax booklet. The majority of the students made mistakes in this task incorrectly choosing operation, some of them decided not to solve at all. The students of the eighth form experienced the most difficulties. This task was best performed by senior students – 16–19 years of age. The knowledge of the junior ones is not strong, not all of them had seen the electricity booklet, had not tried to fill in it.

Generalizing the results of performing tasks of the chapter “Check your knowledge in economics” it is possible to state that tasks 21–23 were rather difficult for students having moderate special educational needs because only one seventh of the respondents managed to perform them correctly. It is possible to make a presupposition that in the lessons of mathematics more time should be given to solving tasks of similar character, organization of practical projects and excursions. This fact should be taken into account by teachers of mathematics and authors of textbooks preparing the tasks of practical (real life) character for the lessons of mathematics. It is necessary to involve students’ parents in this activity, to acquaint children with tax paying accounts, to acquaint show how the accounts are filled in, how communal taxes and discounts for goods in the shops are calculated.

Conclusions

1. The results of the research have shown that the knowledge of mathematics of students having moderate special educational needs and learning in senior forms of mainstream school is not strong, students lack practical abilities and perception how and where they could apply their knowledge in everyday activity. The students of the eighth form experienced especially many difficulties in applying their possessed knowledge. It shows that the level of functional mathematical literacy of these pupils is not sufficient, therefore, it would be more expedient to individualize the content of education for students with special needs paying more attention to visual and practical demonstration and explanation of every separate step, only using the context that is well known for their environment and close to real life situations, to teach how to use supporting material and auxiliary calculation means.

2. 8-10 form students having moderate special educational needs who participated in the research have the best mathematical knowledge in the fields of *numbers and calculations*, *measures and measuring*. Students were best at performing arithmetical operations, calculating simple arithmetical lines, converting measurements from smaller to larger and larger to smaller units, solving the tasks of time counting. Students were quite good at performing elementary tasks in the field of statistics that required to analyze the information presented in the diagram and answer simple questions.

3. The main problems the students faced in performing tasks in the fields of the content of mathematics *numbers and calculations*, *measures and measuring* are insufficient skills in operations with fractional and concrete numbers, proportional quantities, proportions, percentage.

4. Students having moderate special educational needs experienced difficulties in the tasks of the field of *geometry* that required to motivate something or to use the concepts of perimeter, area, volume, scale (incomprehension of these concepts has also become clear on the level of knowledge). The respondents were not able to use the given formula, insert numbers and calculate the expression.

5. The results of the research have shown that during the lessons of mathematics more attention should be paid to solving tasks from the field of family economics, teaching how to perform various banking operations, calculate salaries, expenses, taxes. It is necessary to involve students’ parents in this activity to acquaint children with family budget and show practically how communal taxes are calculated and various accounts are filled in.

6. The problem typical to all the fields of the contents of mathematics is that many students performing the test did not solve verbal tasks, and those who solved experienced difficulties in reading conditions, choosing the way of solving, writing solutions and answers. In the process of education it is necessary to pay more attention to the following aspects of mathematical activity: analyzing conditions of the task, discussing possible ways of solving, modelling real life activities and imitating respective actions of problem solving.

It has been a long time since the discussions about the possibilities of educating students with various special educational needs in mainstream schools started. However, only now scholars begin to talk about deeper knowledge about senior form students with moderate special educational needs, studying in mainstream school, and adaptation of the education contents, so that the ability to apply possessed knowledge in real life situations and solve problems becomes the main factor of the subject (in this case – mathematics). Therefore, more thorough scientific research in this field is necessary and has to be encouraged.

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GAINS, LOSSES, AND LIFE GOALS IDENTIFIED BY CAREGIVERS OF INDIVIDUALS WITH DISABILITIES IN THE UNITED STATES

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Abstract

It is often reported that caregivers of individuals with disabilities experience stress as they manage caregiving responsibilities while they make the effort to balance family and work. Thirty-one caregivers of individuals with an array of disabilities in the United States completed a qualitative survey in this pilot study that asked them to identify their gains and losses from providing care and to identify their life goals. The gains from caregiving were identified as enhanced empathy and compassion, and the losses as strained family relationships, and less personal time. The most commonly identified life goals were experiencing happiness and achieving financial stability. The implications of these results on professionals' attempts to support caregivers and their families are discussed.

Key words: *caregivers of children/adults with disabilities, life goals, stress, family relationships, disability policy, disability governmental support.*

Introduction

Parents, siblings, and extended family members may experience stress and an array of other feelings as they adjust to the demands of caring for someone with special needs while trying to balance family, work, and their other responsibilities (McDonald, Poertner, & Pierpoint 1999; Plant & Sanders 2007; Raina et al., 2004). Providing care for an individual with a disability may drain physical and emotional energy, as well as financial resources (Floyd & Gallagher, 1997; Murphy et al., 2006). Research has shown that caregivers of children with disabilities report increased health and psychological problems when compared to parents of children without disabilities (Florian & Findler, 2001; Maes et al., 2003; Murphy et al., 2006). In addition, expenses for medical procedures, therapies, specialized care, and adaptations increase the ongoing financial burdens placed on caregivers of children with special needs, causing parents greater worry and tension (Parish et al., 2008). Although parents and guardians expect to perform caregiving tasks during the upbringing of a young child, these responsibilities take on a new significance when a child is diagnosed with a disability. With a disability, roles and duties may change, and caregivers often face the possibility that a child may require long-term care beyond the typical child-rearing years (Raina et al., 2005).

Most of the studies that have examined the needs and concerns of caregivers of individuals with special needs have focused on the experiences of one kind of caregiver, typically mothers, who care for young children (Florian & Findler, 2001; Harden, 2005; Judge, 1998; McDonald et al., 1999; Murphy et al., 2006; Plant & Sanders, 2007; Rosenzweig, Brennan, & Ogilvie, 2002), examined a specific disability group such as intellectual disabilities (Grant & Whittell, 2000; White & Hastings, 2004) or emotional and behavior disorders (Harden, 2005; McDonald et al., 1999), or examined relatively few variables that may affect the lives of those in the caregiving role (King et al., 1999). To be responsive, professionals need a better understanding of the broad objectives which guide caregivers as they provide day-to-day care for an individual with special needs, regardless of the disability, the caregiver's relationship to the individual, or whether the individual needing assistance is a child or an adult. These objectives, or life goals, are the foundation of each family's definition of what constitutes a good quality of life (Bailey et al., 1998). Human services professionals may be more effective in implementing policies, making policy recommendations and, ultimately, may be better equipped to offer responsive support services to families if they have more knowledge of what families are striving to achieve in their lives.

The object of the research: The present pilot study asked caregivers to identify the benefits and losses from caregiving and to identify their life goals.

The aim of the research: It was hypothesized that there may be more commonalities, than differences, in caregivers' goals regarding how they would like to live their lives.

Methodology and Organization

Research sample

Thirty-one caregivers of individuals with a variety of disabilities participated. A caregiver was defined as any individual, at least 18 of years of age, who assumed at least 50% daily caregiving responsibility of an individual with any type or degree of a disability. A disability was defined as a condition that was identified as a disability by the medical community, such as autism spectrum disorder, cerebral palsy, that required some accommodation or modification in how that individual lived his/her life in order for the individual to reach his/her optimal functioning. The characteristics of respondents, and those for whom they provided care, are summarized in Table 1. The majority of respondents were female (74%) and were responsible for caring for a child (73.0%). Most of the caregivers were married (48.8%) and had completed a college education (61.3%). Respondents indicated that their family members were diagnosed with a range of disabilities with the most common being a physical disability (33.1%). The majority of caregivers indicated that their family members' disability fell in the moderate (46%) level of impairment.

To examine the benefits and losses of adults who served as caregivers of individuals with special needs, and their life goals, a qualitative survey was developed. The survey was distributed to two educational facilities which served children with special needs (preschool through middle school grades) and two family support groups located in the southeastern section of a southern state in the United States. All participants completed a paper survey which contained instructions and a self-addressed, stamped envelope so surveys could be returned anonymously. Responses were written directly on the survey which took about 15 minutes to complete. All participants completed the survey voluntarily. Of the one hundred and thirty surveys that were distributed, thirty-one were returned, a 23% return rate. Many in the potential sample refused participation citing they did not have time to complete the survey, which may explain the low return rate.

Table 1

Characteristics of Caregivers and Family Members			
Caregiver	Percent of Respondents	Family Member Who Receives Care	Percent of Respondents
Gender		Relationship to Caregiver	
Female	74.0	Child	73.0
Male	26.0	Sibling	14.1
Age		Relative	12.9
Up to 20 years	3.2	Age	
Up to 30 years	22.6	Up to 6 years	32.3
Up to 40 years	29.0	Up to 20 years	48.2
50 years and older	45.2	Up to 40 years	9.7
Living Status		Up to 65 years	6.5
Married	48.8	Older than 65 years	3.3
Alone	35.5	Disability	
With a partner	15.7	Autism	19.4
Time caring for family member with disability		Down's Syndrome	19.4
Up to 10 years	58.0	Multiple Disabilities	9.7
Up to 20 years	32.3	Mental Retardation	19.4
Longer than 21 years	9.7	Physical Disability	33.1
Education		Severity of Disability	
Primary	3.2	Mild	29.0
Secondary	12.9	Moderate	46.0
Vocational training	23.4	Severe	25.0
University	61.3		
Currently Employed			
Yes	64.5		
Part-time	12.9		
No	23.4		

The survey consisted of 5 open-ended questions, in which respondents could write their opinion. The survey asked for demographic information about the caregiver: gender; marital status, age, educational level, length of time the respondent had been caring for the identified family member; and current employment status. Further, information about the individual being cared for was gathered: the disability, the severity of the disability, age of the individual, and the relationship of the individual to the respondent. The next part of the survey requested write-in responses to what respondents considered their "biggest gains" and "biggest losses" from serving as a caregiver. In the last section, respondents wrote their two most important life goals. Life goals were defined as a driving force which gave life purpose and comprised what a person lived for or desired to achieve. All responses were summarized and clustered into principal ideas.

Results of the research

Respondents' answers to the gains and losses as a result of being a caregiver are summarized in Table 2. The most commonly reported gains were a renewed positive perspective on life and joy from observing a family member learn new skills. The most common losses identified were strained relationships within and outside the family, including concerns for siblings, and a reduction in social or personal time. Finally, respondents were asked to identify their two most important life goals. The most common life goals reported were: 1) experiencing happiness, and 2) achieving financial stability.

Table 2

Summarized Write-In Responses to Survey Question: “What do you perceive as the biggest gains and losses from providing long-term care to a family member with a disability?”

Perceived Gains	Perceived Losses
<ul style="list-style-type: none"> • Knowing I have grown as a person • Patience; Humbleness; Gratitude • Satisfaction from being helpful • A new perspective on life • Ability to prioritize what’s really important • Empathy, compassion, and improved insight about others • Kinder treatment of others • An increased understanding and knowledge about children/adults with special needs • Rejoicing while observing my child’s constant improvement with independent living • Joy at watching my child learning to talk • Excitement at watching my child learn new things due to my consistency and skill in instruction/parenting • Knowing my family member is safe and has a good quality of life • Having a strong bond with family member s and knowing my child knows her/his family • Experiencing unconditional love 	<ul style="list-style-type: none"> • Financial stability and security • Loss of income • Frustration and anger when schools do not meet child’s needs • No social life and no opportunity to start a relationship • No opportunity to have an intimate relationship with spouse • Loss of personal sense of self • Loss of free time/freedom • Having to wait to have more children • Loss of ability to sustain normalcy in public • Understanding that child will be different from other children • Loss of my original dreams for family member to be independent • Siblings have to sacrifice and have a different childhood, with increased responsibilities • Difficult for grandparents and other family members

Conclusions and discussion

It is generally accepted that being a caregiver for an individual with a disability can involve prolonged periods of time, energy, unpleasant tasks, and frequent disruption of family routines, particularly when health concerns are involved (Schultz & Quitner, 1998). Like the present study, others have found that some caregivers report feeling a loss of control over day-to-day events (Murphy et al., 2006). Additional evidence which may support this observation is the large number of caregivers who refused to complete the survey, stating that they did not have time for anything that was not mandatory.

In examining the gains and losses of caregiving, the respondents reported experiencing what may seem as contradictory feelings. That is, the same caregivers who reported feeling a loss of their personal identity simultaneously reported that they felt enriched by their current caregiving role. This may be interpreted to mean that the caregivers in this study could experience strained family relationships, while at the same time, experience an understanding that the source of these was not a singularly negative factor in their lives.

The family member for whom they provided care could cause stressful feelings but these individuals could also provide caregivers with love and, at times, be a source of pride. In this small sample of respondents, this finding appeared to be especially the case when the caregiver was a parent, rather than a relative.

Other research has found both negative and positive outcomes from the caregiving role (Grant & Whittell, 2000; Heiman, 2002). However, as encouraging as this outcome may be, professionals must still be concerned about the long-term resilience of the caregivers they serve. The daily struggles of life can deplete anyone's coping abilities suddenly and unexpectedly. When stress extends beyond what may be viewed as reasonable by a caregiver, any caregiver can crumble under the strain. If caregiver's needs are not acknowledged and sufficiently managed, the situation can create additive stress on caregivers which can affect the entire family's psychological, financial, and emotional well-being. The respondents' responses to the "losses" associated with caregiving responsibilities seemed to support this view. The majority of caregivers reported that constant financial pressure, the difficulty of maintaining "normalcy" in public, the loss of freedom (e.g., personal free time, travel) and the strain on family and extra-family relationships were significant sources of distress. This information, although perhaps not new in itself, is useful to any professional serving families with individuals with special needs. Sometimes through repetition, professionals may forget the urgency with which these emotions may be impacting the caregivers with whom they interact. Staying vigilantly aware of this reality should help service providers better gauge the status and current needs of the caregivers they serve.

Caregiver Identified Life Goals

Stress has been conceived as a balance between external environmental demands and the perceived internal ability to respond (Raina et al., 2005). The caregivers in this study suggested that their life goals were a source of stress to them if achievement was inhibited by caregiving demands. The implications of each life goal will be discussed.

Goal to experience happiness. Consistently caregivers reported that services which focused on the *whole family unit* were the most useful to them, and consequently, added to their desire for happiness. The caregivers in this pilot study seemed to understand that dealing with complex needs for a long period of time can wear one down, both physically and emotionally. The research suggests that this is especially true when the individual receiving care has psychiatric and/or behavioral problems (Maes et al., 2003). As one's energy is depleted, it may be safe to surmise that happiness becomes more difficult to achieve. Respite care and other kinds of care relief programs were a common need identified as fundamental to those surveyed. As they noted, these programs permitted them to recharge emotionally and physically. Unfortunately, during challenging economic times, it is usually care relief programs that are some of the first to be cut, even though families may consider them fundamental to their ability to cope and manage stress.

Goal to experience financial stability. Financial stability/security appeared elusive to many of the respondents in this study. The majority of caregivers indicated that present financial supports provided to families in the United States were inadequate. Emerson (2003) indicated that often mothers reduce the number of hours they work or leave jobs to provide care for a child with a disability. In this study, the desire to find or keep a job that met the family's needs was repeatedly indicated as an urgent need by the respondents.

Further, becoming a caregiver of a child with the potential of long-term care introduces additional roles and, therefore, requires substantial rearrangement of priorities and energy within families (Raina et al., 2004). Other researchers have suggested that parents of individuals with intellectual disabilities may be uniquely stressed by concerns about the independent

functioning of their child in the future and the need to provide on-going care into adulthood (Floyd & Gallagher 1997). Any professional offering support to these families must remain extremely sensitive to the requests they place on caregivers so they do not unintentionally add additional economic or emotional burdens.

Limitations of the research

There are several limitations which must be addressed when examining the outcomes of this study. First, the sample was small, the majority were female, college-educated, employed full-time and resided in the same geographical area. Clearly, a larger sample and one with a variety of demographic may have yielded different results. Second, because the survey was first used in this pilot, it lacked reliability and validity data. Third, a large portion of the respondents were married or had a partner which may have influenced their responses. Finally, different outcomes may have been generated if all family members being cared for were the same age and were receiving the same level of educational, instrumental, and social support.

Conclusion

The caregivers of this study made it clear that caring for an individual with a disability presents challenges, added responsibilities, and rewards. The results suggest that caregivers are often attempting to balance extremely high levels of stress and that timely, concrete supports could be helpful in mitigating their anxiety. In reporting data from a national survey in the United States, Parish and colleagues (2008) noted elevated rates of material hardship among families raising children with disabilities (e.g., cost of therapies, loss of income) when compared with families without a disabled family member. The Parish study, and the present one, highlight the need for policies at the national and state levels which more effectively target support systems which ease family-specific struggles. Clearly, more research is needed to clarify the specific strains families face and to identify where new policies would be most cost-effective. Nevertheless, it does appear safe to say that caregivers believe more needs to be done to support them as they attempt to manage the needs of their entire family.

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UNDERSTANDING THE IMPACT OF THE UN CONVENTION ON THE RIGHTS FOR PERSONS WITH DISABILITIES USING QUALITATIVE RESEARCH METHODOLOGIES

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Abstract

The UN Convention on the Rights of Persons with Disabilities (2008) has been hailed as a breakthrough in the field of human rights and advocacy for individuals with disabilities. Monitoring the implementation of the convention is a large task that will require an examination of research methodologies traditionally used in studying the effects of particular phenomena. This article argues that qualitative research methods which rely on the individual perspectives of persons with disabilities, their advocates, and family members will yield important data to further our understanding of the implementation of the convention. Additionally, we can identify best practices in the field of inclusive development to assist all persons with disabilities globally.

Key words: *qualitative research, inclusive development, persons with disabilities, UN Convention on the Rights of Persons with Disabilities.*

Problem Statement

Since 2008 individuals with disabilities and their allies around the world have been celebrating the passage of the UN Convention on the Rights for Persons with Disabilities, which offers a way forward in thinking about human rights for a group who are often left out, discounted, abandoned, or killed. With reason this event is cause for celebration, however, how will we know when we have fully realized the goals and intent of this important convention? What will count in terms of success? Who will be held accountable for ensuring better lives for individuals and their families? By what measure will we know for certain the Convention is serving its purpose? These questions are essential if we are serious about improving the quality of life for persons with disabilities. These questions also take on an added level of urgency when we are faced with uncertain economic global development and unequal levels of personal power, freedom and social justice.

Introduction to the Global Context

According to the World Health Organization, there are approximately 650,000,000 people with disabilities worldwide (Mont, 2007; Collier, 2010). However this number is an educated estimate for a number of reasons. One reason is that the concept of disability, and

its definition vary by culture, and in some instances, people might be reluctant to count their condition one way or the other way. For example, in China, there is no label for a head injury, such as traumatic brain injury, yet there must be individuals who have been thusly injured, especially when one takes into consideration the number of motor vehicles, the volume of traffic, and the driving population with little formal driver education. In particular, mental health labels carry stigma for most people, and to say that one has schizophrenia, for example, might bring your family dishonor, or community exclusion.

Daniel Mont (2007) has written about this exact problem, as have Amartya Sen (1999) and Martha Nussbaum (1997, 2006) when trying to find out how disability is counted and described for the purposes of economic development policy for the World Bank. Specifically, Mont carefully explains the past limitations of surveys that asked respondents to comment on their impairments using a medical model approach. Questions might be ignored, overstated, embellished, or misunderstood. Recognizing the power of the World Bank and its ability to fund projects based on “real data”, i. e. quantitative data and statistics, it is critical that the information is accurate. At the same time, we know that individuals have individual experiences, and those experiences can be powerful lessons for us.

In contrast, the disability studies model promotes a social understanding of disability and how societies think about persons with disabilities. The field of disability studies is a relatively new area of critical inquiry that promotes a social model of understanding people with disabilities in the context of their families, communities, and societies (Gabel & Danforth, 2008; Valle & Connor, 2011). Using a social model enables researchers to study how persons with disabilities are included in their home, community, and workplace.

There is a tendency for us to seek specific answers to questions that may, in fact, have complex answers. For example, we want to know how many people can read in a particular country. The UN reports impressive data sets for each country, and you can determine health factors, literacy rates, mortality rates, and more, all from charts and statistics reported through EdStats (UN Edstats, 2011). No doubt this is useful information, and it is made even more useful with tools and linear regression models. But what we seldom are provided are real human stories that give us a better sense of *how things really are out there*, and what needs to change (if anything).

Object and Aim

The purpose of this article is to examine stories of individuals with disabilities and specific contextual situations to understand how important qualitative research methods are for developing theories of best practices for supporting persons with disabilities according to the articles of the UN Convention on the Rights of Persons with Disabilities.

Methodology

A major principle in educational research is that an important research question is first identified and then research methods are selected to match the research question (Gall, Gall, & Borg, 2002, as cited in Giangreco & Taylor, 2003). Using interviews, participant observation, an extensive review of research literature and document content analysis, several coding themes were developed to organize the data.

Here are a few examples of what I mean:

***From Kiev, Ukraine.** The grand civic hall of Kiev is used for a wide range of celebrations in the city. It is a modern building with tall pillars at the entrance, and crystal chandeliers on every floor. As a guest I attended the 10th Anniversary of the Open University of Human*

Development of Ukraine in 2008, which was a daylong gathering of students, dignitaries, citizens, and guests, followed by an elegant buffet in this large building. It was raining heavily outside and most people took shelter immediately. At the end of the program, before the dinner, one lone student was sitting in the entrance hall, trying to be comfortable on a concrete bench. Sasha (pseudonym) was someone I met earlier at the university, and I knew that he had just graduated with a law degree, and he also has cerebral palsy. His speech is quite hard to understand (even if I spoke Ukrainian, which I don't), and his interpreter worked to help him communicate with others. He was clearly agitated and seemed distressed. My host and I approached him to find out what was wrong. Nearby, a custodian was speaking loudly into a walkie-talkie and seemed upset too. Sasha explained that the custodian told him to leave the great hall lobby because he was "cluttering up the place and looked like he didn't belong." While the performances were continuing in the auditorium, Sasha, who had also been on stage as an awardee, took refuge in the lobby before the crowd emerged. The lobby attendant did not want him to be sitting in the lobby and had come close to picking up Sasha and forcibly moving him.

My host, an official at the university was visibly shaken, and after having harsh words with the lobby attendant, explained to me that it was another example of the way persons with disabilities are treated. She said, 'There is no way he (attendant) would dare to speak to me like this, let alone ask me to leave the lobby! It is only because Sasha is disabled and this person thinks he does not belong at a celebration, especially one for the university!'

Meanwhile, Sasha was talking with his interpreter and others who were now mingling around him. He was clearly upset still, and discussing the next step of filing a complaint through the university. The lobby attendant was in the vicinity and did not look too happy about the scene.

From Xi'An, China

Xi'An was the original capital city of ancient China, and the remaining walls around the city are an enduring reminder of its place in history. In the central core of the city there is an area that is home to thousands of Muslim Chinese, with an ancient mosque, numerous crowded stalls with ethnic foods and goods for sale. The market area is lit by single light bulbs, dangling over the narrow alleys. One evening, during a downpour, I saw a young woman propel herself across the cobblestones while sitting on a wooden sled with wheels. She had foot-long sticks taped to her hands, and she dug them into the walkway to move forward. Her shoulders were broad and athletic; her legs were tiny and tucked underneath her. She rode her sled almost as a skateboarder would in an urban setting in North America. I was stunned to see her in motion; she was the first person I saw in China who had an obvious disability, and who was mobile in such an effective way. This was not a high tech invention, but a homemade transportation rig. Who was she and where was she going? Before I could blink she was gone.

From Doha, Qatar

The citizens of Doha, Qatar are reputed to be among the richest in the world. The ruling Royal Family has made a commitment to educate all citizens, providing the very best of tertiary education to anyone. Beyond "Education City", a campus with western top-ranked universities maintaining satellite campuses, there is a center of progressive education for Qataris who have disabilities. The Shafallah Center provides educational services, rehabilitation and counseling for children and adults with developmental disabilities. Her

Highness Sheikah Mouza bint Nasser al Missned has dedicated her resources to providing a state of the art facility, with advice and consultation from the “best of the west”. In the center, parents can find information, supports and services all tailored to their individual needs.

Previously in Qatar, children with disabilities were sent to institutions and schools abroad, primarily in Europe, in order to receive an education. Sometimes families rarely saw their child again, and the family unit was disordered due to the distance created. Sheikah Mozah viewed this as a heartbreak no family should have to endure, and she made it a priority to fund a local center for her citizens.

Since its inception, the Shafallah Center has been funded with millions of dollars, and has ballooned into a campus that rivals the best. Initially most of the staff was professionals hired from the west, with a plan to train Qatari citizens. This is a goal for many reasons: to build local capacity and understanding among Qatari citizens; to provide an education for Qataris that is uniquely Muslim and respectful of culture in Qatar; and, to fully integrate students with disabilities into Qatari society. When visiting the Shafallah Center one is left with questions as to how this is working for the students and families. How is a rehabilitation and education program styled after western programs influencing families in Qatar?

From the United States

In the United States there have been several recent cases of abuse and neglect for individuals with disabilities. One prominent case involves a behavioral intervention school in Massachusetts that has used aversive behavioral techniques for decades (Wen, 2011). Students have died while under their care, as a result of electric shock cattle prods, wearing specially designed helmets that emit harsh auditory stimulation, squirting noxious substances into nostrils, being held in four-point restraints for days on end, and random shocks that exceed the industrial standards of care for animal livestock. It is reported that the cattle prods used at this school are designed to provide a shock that is twice the legal limit for cattle. A Washington D.C. non-governmental organization Mental Disability Rights International successfully petitioned the United Nations Special Rapporteur, citing these violations as human rights abuses using the Geneva Convention Against Torture. While the school is still operating, the Director, Dr. Matthew Israel was forced to resign (Wen, 2011). A court-appointed monitor is in place to keep an eye on the situation. The irony is that the former Behavior Research Institute (BRI) was still under court supervision and renamed the Judge Rotenberg Center (JRC) when these recent charges were laid. Clearly government oversight in this situation was lacking.

These examples from Ukraine, China, Qatar, and the United States are completely different in scope and defy quantitative surveys and polls. In order to fully appreciate these experiences, one must be immersed in the situation, with reliable informants, and enough time to become familiar with the scene. No doubt there are multiple understandings of the situation, and this adds to the complexity of our understanding, rather than diminishing the results of the study (Bogdan & Biklen, 2011). Personal stories and experiences are complicated and need to be fully understood in context.

Results: Why Qualitative Research is More Important than Ever

Qualitative research methods provide us with the tools to delve into complex situations. We can learn from individuals using interview methods; we can observe as participants or non-participants to understand the situation, and we can stay grounded in the data by researching cultural norms, attitudes, and checking our data with local experts. There is a rich tradition of using qualitative methods in the field of disability studies (Bogdan & Biklen, 2011; Giangreco

& Taylor, 2003; Grut & Ingstad, 2005) and, one could argue, the field has evolved because of the power of individuals telling their stories using a qualitative approach (Gabel & Danforth, 2008). In fact, we have learned directly from persons with disabilities what is important to them, how best to support individuals and families, and how best to educate children with disabilities (Kluth, 2011).

The field of disability studies has evolved toward a social model of understanding disability as a result of using qualitative methods of inquiry. The medical model of disability is now outdated as a way of interpreting the lives of people with disabilities. In keeping with advances in the field, the World Health Organization has adopted a social model of disability as a way of defining disability. This is a critical stance that has empowered people globally. What has not necessarily evolved to the same degree is the way we learn about people with disabilities and the appropriate research methods to do so. This has become a problem when we consider how to monitor progress of people with disabilities in the context of the UN Convention on the Rights of Persons with Disabilities.

To date the agencies that fund large scale studies are mostly concerned with quantitative data sets that enable statisticians to compare countries for global monitoring purposes. This is important data. The questions that are raised from such data gathering techniques are also important. But what are left out are the personal and individual stories that are indicative of social and cultural norms. These events are important to understand as well, and often cannot be compared with anyone else's experience. But taken as a whole, themes can be developed when enough information has been gathered. So, for example, we can learn of the inventiveness of citizens in a particularly poor country, as a way of coping with limited resources. We can learn how a particular community supports mothers of children with disabilities by sharing time and ideas. These notions of support are often overlooked in large-scale studies, and do not equate easily to a formula for GDP and aid monies. As one advocate from Bangladesh puts it: "we may not have money and resources, but we have a lot of *people resources*" (personal communication, 2009).

We know from disability studies that communities of people can inform and support each other in ways that do not seem apparent in terms of dollars spent and education levels achieved. This is important for our understanding of developing nations and the way these countries support individuals with disabilities. Often the concern of developing countries, among others, is that they will not be able to afford support for their citizens with disabilities. Some people take this argument further, and state their objections to providing precious resources for persons with disabilities based on inequity across the population for health care, food, and shelter. While these concerns are legitimate on face value, how are people coping with disability as a primary factor? If there are 650,000,000 people with disabilities worldwide, and approximately one billion people living in failing states (Collier, 2007), what can be done to understand the situation of these people and their resource scarcity?

One effective means of understanding particular situations is a technique employed by Mental Disability Rights International advocates, where they receive a nomination to study a particular country and its policies and practices for individuals living in dire circumstances. In fact, the reports generated by MDRI have been influential in advancing human treatment for persons in several countries (for example in Romania, Hungary, Mexico, Paraguay, Viet Nam, to name a few), and have influenced member states of the European Union when determining membership of states under consideration (see www.mdri.org for complete reports). These advocates enter the situation and study the conditions people are living in. The researchers rely on cultural workers as informants, and fact-check their information with documents, interpreters, and numerous visits. The robust nature of this inquiry has yielded huge results for persons with disabilities.

Another nongovernmental organization of equal importance is Mental Disability Advocacy Center (MDAC) based in Budapest, Hungary. This group of legal advocates has reported on conditions in Croatia, Slovenia, Russia, and other central and eastern European countries. Additionally, this organization provides legal assistance and training for families of individuals with disabilities (see www.mdac.org for further information.)

The UN Convention on Rights for Persons with Disabilities will rely on special rapporteurs to provide and interpret results on behalf of persons with disabilities. It remains unclear as to how individual states parties will collect data, analyze the data, and report findings to the committee. Another issue on the front page of international advocacy efforts is the use of electroshock against prisoners and people with disabilities as a punishment. For example, in Turkey and Argentina, until recently it was a common psychiatric practice to use electroshock treatment, *without anesthesia*, to “teach adults [with a disability] a lesson.” The international standards for care within the psychiatric mental health community were not being applied in certain countries, even though the primary psychiatrists knew this would violate current practices and would certainly cause significant pain (MDRI Turkey report, 2008; MDRI Argentina report, 2007).

Why do we have so much attention on persons with disabilities? Given this group is the largest minority in the world, we have an untapped sector in all societies that have been marginalized, ignored and underappreciated. With a commitment toward education, health care, nutrition, public safety and security, these individuals and their families can be contributing members of society. In the international development aid system, nongovernmental organizations (NGOs) tend to view their mission as a single set of outcomes, such as providing wells for a village, better nutrition, immunizations, education, and organizational structures for civil society. A new framework of *inclusive development* considers all aspects of human growth and wellbeing within a society, with a particular emphasis on persons with disabilities as contributors with capabilities (Nussbaum, 1997, 2006).

While these examples are harsh and obviously detrimental to life and well-being, more subtle forms of discrimination can be seen in our society. Here are a few to consider: the use of the word ‘retard’ in everyday language in the media; a lack of physical accessibility; selective genetic counseling to terminate pregnancies for “suspected disabilities”; and, neighborhood opposition to group homes and community care facilities continues. How can we turn the tide against people with disabilities and support each other to become valued members in our society?

There are positive examples to study and inform our understanding, using Nussbaum’s Capabilities Approach (2006), which offers ten factors to promote the needs of people with disabilities, in order to live a fulfilling life. Nussbaum’s work is an *aspirational* set of ideals, listed below in Table 1. If we combine these ideals with the guaranteed rights under the UN Convention, we have a newer, positive way of thinking about supports for our most vulnerable citizens. If we choose to support people with disabilities in our personal lives, in our communities, and in society, here are some ways we can use the Capabilities approach as set of “golden rules” to live by. We can choose to support people with: inclusive education at all levels; community living residences with freely chosen companions; supported employment with access to real work and wages; healthcare in the community that is the same as what all citizens receive; a meaningful life with loved ones in the community.

While we are developing our societies to include our most vulnerable people, we can learn much from one another. A clear way to learn is to share personal stories of achievements, and the best way to do this is by employing qualitative research methods, and communicating this information electronically, in print form, and in conferences. In our global world this is quite possible.

Table 1

Capabilities in the Life of a Person with a Disability

1. Life Lived to the fullest Articles 10, 15, 25	<ul style="list-style-type: none"> • Life spans of WHO expectations for industrialized countries • Quality of life and end of life decision-making
2. Bodily health Freedom to pursue a healthy life without restraint Articles 10, 11, 14-17, 19, 25, 26, 28	<ul style="list-style-type: none"> • Food and nutrition for wellness • Access to health care in community • Participation in wellness activities in community
3. Bodily integrity Articles 10, 11, 14-17, 19, 25, 26, 28	<u>Freedom from:</u> <ul style="list-style-type: none"> • Sterilization forced • Do not resuscitate orders • Experimental drug and surgical treatments • Abuse • HIV infection • Aversive behavioral therapy
4. Senses, imagination and thought Freedom to experience nature within natural ecosystem Articles 8, 10, 14-21, 24, 28-30	<ul style="list-style-type: none"> • Community living • Education for all by 2015 (UNESCO) • Opportunities for exploration of environment • Sensory stimulation • Guaranteed a form of communication with technology
5. Emotions Freedom to express natural emotional life and intelligence Articles 8, 12, 14, 18, 19, 21, 23, 24, 28-30	<ul style="list-style-type: none"> • Emotional lives interpreted as “appropriate behavior”; not dangerous • Permitted to marry and have families, or adopt • Seen as emotionally mature
6. Practical Reason Viewed as capable, competent, sentient beings Articles 5, 12-14, 17, 18, 21, 22, 28	<ul style="list-style-type: none"> • Legally competent (i.e, rule of law, court system, witnesses) • Capable of supported decision-making with guardians who assist • Personal Futures planning • Realistic to dream beyond present
7. Affiliation Freedom to associate with all species of choice Articles 5-7, 12-14, 17, 21-23	<ul style="list-style-type: none"> • Living with family and chosen friends • Inclusive communities • Inclusive recreation and leisure
8. Other Species Respect for all species, not just own Articles 5, 10-18, 22, 23	<ul style="list-style-type: none"> • Living arrangements that are in one’s control or freely chosen • Given opportunities to investigate or explore nature • Animals viewed as companions or loved ones not just in servitude
9. Play Inclusive opportunities for play and recreation Articles 5, 8, 9, 18-21, 24, 30	<ul style="list-style-type: none"> • Recreation is unlimited and available • Accessible play spaces or adapted equipment
10. Control over one’s environment Dignity of space, place in community and society Articles 5, 8, 9, 12-18, 30	<ul style="list-style-type: none"> • Living wages and opportunities for employment • Viewed as competent to own property • Permitted to speak or use technology to communicate • Socially Valued roles in society

Conclusion

In summary, people with disabilities, locally and globally continue to face enormous obstacles for full participation in society. Constituting the largest minority in the world, which cuts across all ethnic, cultural, economic and social ties, there should be a stronger emphasis placed on public education, health, and inclusive community living in order to incorporate all citizens. With protections and rights afforded by the United Nations it is within our reach to attain these goals in our society, and by assuming that people are more capable, we can benefit with everyone's participation. It is essential for us to learn from each other by sharing this information to inform our practice in support of people with disabilities. Qualitative research methodologies provide us with the tools, techniques, and perspectives to better understand the perspectives of people with disabilities, and can be useful in studying the implementation of the UN Convention on the Rights of Persons with Disabilities.

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HEALTH AND EDUCATION PROBLEMS OF CHILDREN AND YOUTH WITH DISABILITIES IN LATVIA

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Abstract

Since Latvia has acceded to the European Union, the issue of equal opportunities of education for all has become topical: the legislation is harmonized, the attitude towards children with special needs is changed in education from segregation and social isolation of disabled persons to integration and inclusion. The authors of the article identify the existing problems related to the health and education of disabled children and youth, explain the terminology existing in the country, analyze statistical data of recent years regarding the number of disabled people and describe the opportunities offered by the country to the target audience of the article on all levels of education.

Key words: *health, special needs, disability, education, professional suitability.*

Introduction

In any democratic society a person is considered to be a unique value, who lives, learns or works among other people: everyone shall be provided the most appropriate way of participation in various social activities in order to let each individual feel belonging and understood.

Respecting a person as a value under current conditions in the European states the society puts forward new tasks for the development of education because the education acquired by any person is significant. It is an important precondition influencing the life quality of each person. Complete and successful inclusion into the social life and labour market is impossible without appropriate education.

In Latvia the issues related to the provision of education to children and youth with special needs are considered in the context of internationally adopted documents: in 1990 a program "Education for All" was launched, when in Jomtien within the framework of an international conference the declaration "On Education for All" was adopted and an action plan for the coming ten years to facilitate development and access to basic education was

developed. In 1994 the World Conference on special education took place in Salamanca, Spain. In 2000 in Dakar, Senegal the World Education Forum was organized to reach the aim by 2015.

In order to ensure successful implementation this commitment is also included into the UNO Millennium Development Objectives (Rouzs, 2006). Basing on the conclusions of the European Council made in Lisbon in March, 2000, the same year the European Council in Nice decided that cooperation in the areas of policy envisaged to fight against social exclusion shall be linked by the Open Coordination Method (OCM) combining actions plans of individual states and initiatives facilitating cooperation of the Commission.

Latvia has started moving towards inclusive education. In the narrow sense it is education for children with special needs or functional disturbances, but in the broad sense inclusive education is education for everyone, for everyone is given an opportunity to acquire education according to his/her abilities and needs regardless his/her physical qualities, material status and many other reasons. It is envisaged by the Education Law – every person has a right to acquire education regardless his/her material and social status, race, nationality, ethnicity, gender, religion and political views, health condition, occupation and residence (*Izglītības likums*, 1998).

Thus, in order to provide equal opportunities and facilitate integration of disabled children and youth into society a coordinated and embracing policy in all spheres of social life is needed, especially in:

- health (prevention, health education, diagnostics, treatment, medical rehabilitation);
- education (including training the persons involved in the integration process of the disabled people);
- employment (vocational orientation, vocational training, and provision of employment);
- social integration (social assistance and care, accessible environment);
- information and legal protection, etc. (Konceptija "Vienādas tiesības visiem").

Research object: Provision of education for children and youth with special needs on various levels of education.

Aim: To identify obstacles to successful inclusion resulting from the analysis of the health condition and offered opportunities for the children and youth with special needs in Latvia.

Methods:

- analysis of normative documents on the education opportunities for pupils with special needs and opportunities of career development support and professional rehabilitation for disabled people;
- analysis of statistical data about the health condition of children and youth;
- SWOT analysis of opportunities to acquire basic education for pupils with special needs.

Definitions of disabled people and terminology used in Latvia

According to the information provided by I. Balodis, president of Disabled People and their Friends Union "Apeironi" (Latvia) talking about this social group in the legislation of Latvia there are used two notions "disabled person" and "disability".

In compliance with Section 4 of LR Law "On Medical and Social Protection of Disabled Persons" a **disabled person** is a person who due to the disturbances of the organ system functions caused by a disease, trauma or inborn defect needs additional medical and social assistance and to whom disability is determined according to the procedure envisaged by this law and other normative acts (LR likums. *Par invalīdu medicīnisko un sociālo aizsardzību*).

Disability is permanent or intransitive limitation of physical abilities of a human body unrelated to age changes, which impose difficulties for a person to integrate into society,

completely deprives of or partially restricts person's ability to work and take care of himself/herself (Section 5 of LR Law "On Medical and Social Protection of Disabled Persons").

However, exploring the world experience and the terminology existing in other states it can be concluded that this term is not used there at all. One of the reasons is as follows – when translating from English the root of the word "invalid" indicates uselessness or unfitness; however, in Latvia this term is deeply-rooted, but lately many other terms have been observed, for example:

1. *a person with disability* – a term used by NGOs as it includes all groups of disability and indicates a person and his/her disability;
2. *persons with handicaps* – persons with disturbances of physic health, social behaviour, etc.;
3. *persons with special needs* – persons with development disturbances, which are diagnosed: persons with mental development disturbances, persons with vision and hearing disturbances, persons with language and speech disturbances, persons with mental health disturbances, persons with support and movement system disturbances).

The application of terms in Latvia depends on the branch, where it is used, for example: in the legislation on education a term "children with special needs" is used, but in the legislation on medicine and social work terms "disabled children" or "youth with disabilities" are used; thus, in the article we use several terms to denote the target audience.

Situation analysis in Latvia

The issues of health, education and preparation for the labour market among children and youth with disabilities shall be considered in the long-term. A successful solution is possible under conditions when purposeful and systematic work has already been started in and succession is observed in this process. The topicality of the issue in the long-run is also confirmed by the statistics on various disturbances among children, including the number of disabled children.

According to health examinations children and youth are divided into three health groups. Group I includes children and teenagers who have no chronic diseases and whose development is without pathology, physical development corresponds to the age; group II includes children with threats of having chronic diseases, functional disturbances, and even implicit neuro-psychic development retardation; group III includes children having chronic diseases, inborn pathologies of organs and systems, functional pathologies.

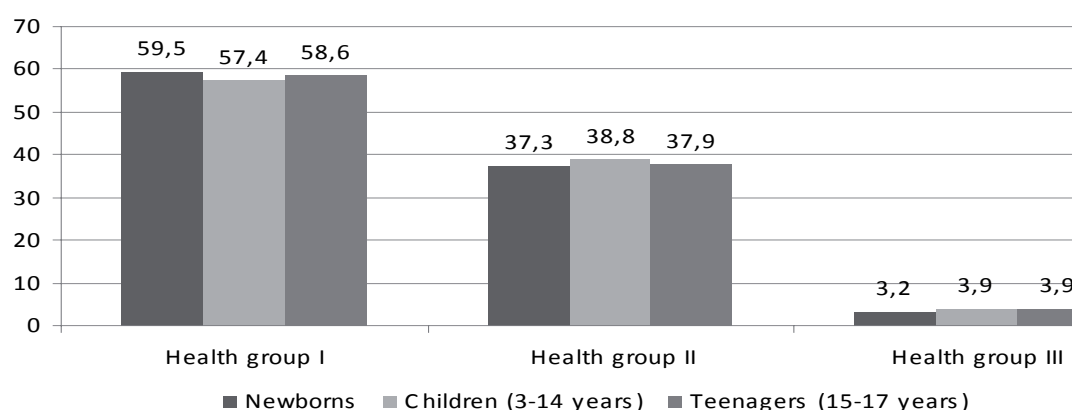


Figure 1. Distribution of newborns, children and teenagers according to health groups (%)

Each year disability is diagnosed for many children for the first time. Until 2004 general practitioners conferred disability to children under 16. Since 2004 it is done by the Health and Work Ability Expertise Doctors State Commission according to single criteria.

From 2005 to 2008 the most frequent reasons for children's primary disability were psychic and behavioural disturbances, but since 2009 – inborn deformities and malformations, out of them 25.7% – inborn blood circulation diseases. Overall, in 2009 primary disability was conferred to 853 children – 94.6% out of the total number of children sent to the primary disability expertise.

In 2010 primary expertise was performed to 1273 children under 16, the primary status of a disabled child was conferred to 684 children – 96.2% out of the total number of children sent to the primary disability expertise to confer a status of a disabled child (out of 711): in the age group 0-6 years – 387 children, 7-16 years – 297 children. Distribution (%) by age groups is depicted in Figure 2.

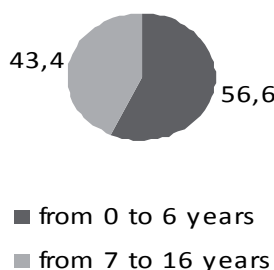


Figure 2. Distribution of disabled children by age groups (%)

The General Education Law and its amendments regulate the educational system in Latvia, including also special education of children and youth with special needs who can learn at any school in compliance with Section 49 of the General Education Law. It determines that in special education there are created opportunities and conditions for pupils with special needs to acquire education corresponding to the health condition, abilities and development level at any educational establishment, at the same time providing pedagogically psychological and medical correction, preparation for work and life in society (*Vispārējās izglītības likums*).

Currently, pupils with special needs acquire education at special educational establishments (partially segregated environment), special classes of mainstream schools (integrative environment) and mainstream classes (inclusive environment).

The number of pupils in Latvia has been decreasing for several years; however, the proportion of pupils acquiring special programmes decreases less. The statistical data prove that in Latvia in the school year 2010/2011 8435 pupils or 3.8 % from the total number of pupils had special education programmes. Unfortunately, during the last decade a tendency of proportional increase in the number of these students was observed (see Fig. 3). It shall not be ignored in establishing the educational policy.

In the school year 2010/2011 in Latvia there were 821 general education establishments, including 62 special schools. Almost 200 general education establishments had licensed special education programmes.

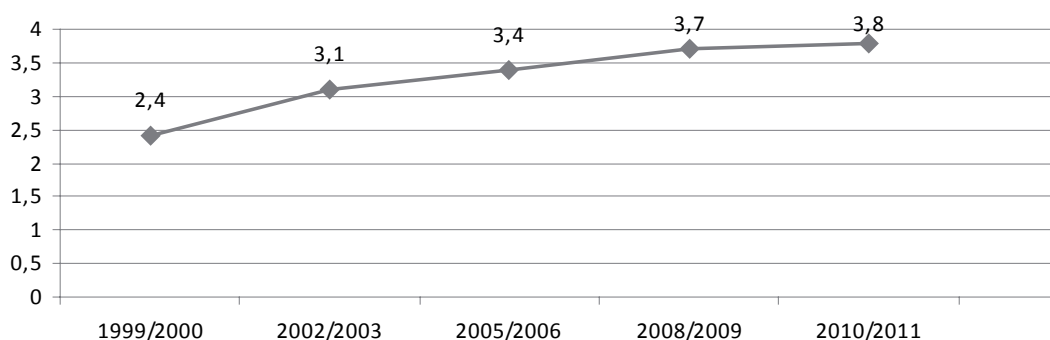


Figure 3. Number of pupils in special schools and classes (%)

In all special basic education programmes the teaching and upbringing process is related to systematic treatment and recovery measures, daily special correction and rehabilitation work because many pupils with special needs besides the primary disturbance often have one or several secondary disturbances or various diseases. Pupils with multiple development disturbances have specific problems: memory, language, attention, communication, etc. (Vīgante, 2007).

Within the framework of the doctoral thesis “Development of Communicative Competence among Teenagers with Language Disorders at Basic School” (Ušča, 2011), the author conducted a research related to the educational opportunity offered to children and youth with special needs in Latvia – analysis of advantages and disadvantages of mainstream schools and boarding schools (see Table 1).

As a result of the analysis, it can be concluded that choosing a school by parents and competent authorities, firstly, one shall think about a child – which environment is the most suitable for him/her, where s/he will receive complex assistance to develop better taking into consideration his/her special needs.

Experience proves that inclusion of children with special needs into mainstream schools does not always give a benefit of reaching the maximum result a child is capable of.

The researches conducted in the USA prove that peers better accept in school environment those children who have very severe disturbances because their inadequate behaviour is justified by the kind of disturbance. However, the less severe are the disturbances and the more a child is similar to others, the less is his/her different behaviour justified (Bērziņa, 2010).

The results of this research and the researches of other countries prove that children having slight mental development disturbances, who graduate from mainstream basic schools, have low life quality and it is difficult for them to integrate into society. However, after graduation from basic school children and youth with special needs move to the next stage of their life – necessity to prepare for professional life and integrate into the labour market.

Opportunities for career development among disabled persons in Latvia

Article 9 of the *European Social Charter* (06.12.2001) determines that each person has a right to use “a service which will assist all persons, including the handicapped, to solve problems related to occupational choice and progress, with due regard to the individual’s characteristics and their relation to occupational opportunity”, thus each EU Member state shall provide career counselling to all population free of charge.

Table 1

SWOT analysis of two options for acquiring basic education (Ušča, 2010)

	Advantages	Disadvantages
Boarding school	<p>Qualified and experienced pedagogical and support staff. Teachers of all subjects are prepared for work with pupils having special needs. Teaching and upbringing are subjected to the aim of correction taking into consideration the level of disturbances, general development, health condition; individualization and differentiation, a special correction and rehabilitation programme, which includes group and individual activities are provided.</p> <p>The school has medical staff (a doctor and nurses), who follow children's health condition, observation of hygiene requirements at school, make a menu, taking into consideration requirements for healthy food.</p>	<p>Isolation from one's family.</p> <p>Insufficient involvement of parents into the improvement of school environment, reasons – the distance from school to residence and/or the social status of the family.</p> <p>Insufficient experience for pupils out of school in municipalities or companies.</p> <p>Restricted environment for development of social skills, especially communicative competence.</p>
Mainstream school	<p>Education on the site – development and implementation of programmes according to pupils' needs at the place of their residence.</p> <p>Facing daily real life problems and their solution.</p> <p>Open environment for the development of social skills, especially communicative competence.</p> <p>Involvement of parents into the educational process.</p>	<p>Not all subject teachers are well-prepared for work with children having special needs.</p> <p>Due to the lack of funding it is difficult to provide sufficient support of specialists.</p> <p>The solution of health problems of the pupil having special needs depends on his/her parents' sense of responsibility and financial means.</p> <p>The society is not always ready to accept a person with special needs, a negative attitude of parents and peers is faced quite often.</p>

The document *Career Guidance: A Handbook for Policy Makers* (01.03.2005) of the European Commission (hereinafter – EC) indicates four major areas of career guidance services development:

1. improving career guidance for young people (development of measures at all levels of education);
2. improving career guidance for adults (including employed persons);
3. improving access to career guidance (using information technologies, embracing risk groups, improving career information and materials, and coordination between institutions);
4. improving the systems supporting career guidance (developing evaluation of service quality, including the aims of career guidance development into legislative acts, creating national forums (*Karjeras attīstības atbalsts. Rokasgrāmata politikas veidotājiem*, 2007).

Currently in Latvia basing on the EU policy documents and foreign experience by the Cabinet Order No. 214 of 29.03.2006 a conception "Improving Career Development Support System" (hereinafter – Conception) has been approved. The aim of the conception is improving the career guidance support system, to perform coordinated measures to develop normative acts and action policy in order to increase the competitiveness of the labour force and employment rate on the one hand, and provide support to individuals to identify and implement their personal aims and interests on the other hand. Introduction of such system

and measures gives an opportunity to individuals, including disabled persons, to broaden their knowledge, to choose the most appropriate and suitable way of education, motivates for studies and achieving good results as well as facilitates integration into the labour market.

Opportunities for professional rehabilitation among disabled youth and analysis of results

Currently, the responsibility for the introduction of the career guidance support system (CGSS) in Latvia on the political level is shared by the Ministry of Welfare: Employment State Agency (ESA), Social Integration State Agency (SISA) and Ministry of Education and Science: LR State Education Development Agency (SEDA).

“Support for Unemployed Persons and Persons Seeking Employment Law” determines the competence of the ministries mentioned above in the development of CGSS (Section 5):

- The Ministry of Welfare shall develop State policy for the reduction of unemployment, participate in the development of employment policy and the improvement of the career development support system, as well as co-ordinate the development of proposals for active employment measures and the organization, financing and implementation of preventative measures for unemployment reduction.

- The Ministry of Welfare in co-operation with the Ministry of Education and Science shall ensure the occupational training, retraining and in-service training of unemployed persons, the acquisition of non-formal education of unemployed persons and persons seeking employment, the retraining, in-service training and further education of persons employed by merchants and self-employed, training programmes for involving adults in lifelong education, training programmes for employed persons subject to the risk of unemployment, as well as the organization of career consultations (www.likumi.lv).

Employment State Agency basically implements the policy for reducing the unemployment rate in the state by organizing and enacting active employment measures. Since September, 2007 the agency has taken over the functions of PCGSA (Professional Career Guidance State Agency): offers group and individual consultations regarding career guidance, identification of professional suitability, provides information on the issues related to job seeking and workplace preservation both to young people and adults, as well as performs psychological evaluation of the unemployed persons' training skills.

In compliance with Cabinet Regulations No. 239 “Bylaw of Social Integration State Agency” of 01.04.2008 – the Social Integration State Agency (SISA) is a state institution under supervision of the Ministry of Welfare aimed at facilitating social integration of disabled persons and persons with functional disturbances and providing disabled persons and persons with functional disturbances an opportunity to receive vocational rehabilitation and acquire the first level vocational higher education (college education).

SISA is established to improve the life quality (welfare indicator, which includes physical and mental health, free time and spending it, work and link with society, a right to make decisions independently and implement them, material provision) for disabled persons by providing professional, social and medical rehabilitation services.

SISA has the following functions:

- to provide vocational rehabilitation services – measures ensuring renewal or development of professional knowledge and skills or mastering a new profession according to the kind and severity of person's functional disturbances, and prior education and qualification;
- to provide vocational rehabilitation services – measures oriented towards renewal and development of social functioning skills;
- to provide medical rehabilitation and physical medicine services;

- to implement vocational basic education, vocational secondary education and first level professional higher education as well as professional further education programmes;
 - to evaluate disabled persons' professional suitability according to their interests, abilities, prior education and health condition;
 - to provide consultations to employers regarding adaptation of work environment, etc.
- (Valsts aģentūras „Sociālās integrācijas centrs” darbības stratēģijas [Action Strategies of State Agency “Social Integration Centre”], 2008).

SISA is competent to provide professional rehabilitation services to disabled young persons, and one of them is identification of professional suitability for integration of disabled youth into the labour market. In 2010 professional suitability was tested among 458 persons, including 252 females and 206 males. An extended professional suitability course was taken by 272 persons, in support points professional suitability was tested for 186 persons (*SIVA. 2010 gada publiskais pārskats*).

SISA had recommended 352 persons for receiving vocational rehabilitation services. Acquisition of educational programmes at Jurmala Vocational Secondary School is recommended to 259 persons, out of them 5 persons had a professional suitability testing course in 2009 and used an extended professional suitability testing course in 2010. 93 persons were recommended for studies in college, out of them 2 persons had a professional suitability testing course in 2009 and used an extended professional suitability testing course in 2010. 114 persons were not recommended to acquire vocational education (1 person had a professional suitability testing course in 2009 and used an extended professional suitability testing course in 2010), 36 persons have not used an extended professional suitability testing course yet. The professional rehabilitation service is refused to 78 persons due to their health condition, very weak abilities and knowledge (see Fig.4).

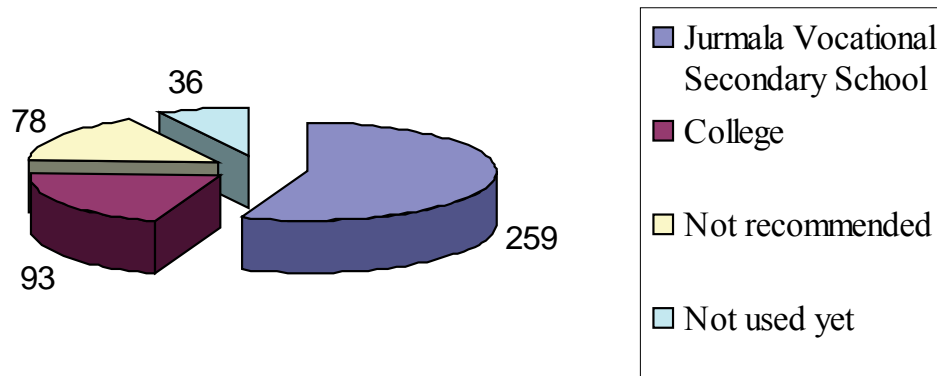


Figure 4. Distribution of recommendations among applicants for professional suitability testing (number of persons)

Out of all applicants professional suitability testing was performed among 25 (5%) persons having the 1st disability group, 178 (39%) persons having the 2nd disability group, 252 (55%) persons having the 3rd disability group and 3 (1%) disabled children.

Testing of professional suitability was also performed in the *support points established in the regions of Latvia* in Cesis, Barkava, Viesīte, Jelgava, Cīrava, Rēzekne, Daugavpils, Kuldīga and Jūrmala.

In 2010 1455 disabled persons studied in support points. According to the results of professional suitability testing in Daugavpils, Rezekne and Jelgava Support Points trainings in the further and professional development programme "Computer Use" was organized, providing training for 77 disabled persons to gain the qualification of an information input operator.

The support points (SP) inform and consult disabled persons about the services offered by SISA in the field of vocational and social rehabilitation; 905 individual consultations about requalification and further education for disabled persons, opportunities to receive vocational rehabilitation services, situation in the regional labour market and other issues have been provided. Within 117 informative group consultations 526 disabled persons have been informed. In cooperation with employers 38 potential workplaces have been identified and 72 disabled persons have been placed there to work or have practice.

Within the research the questionnaires filled in by the clients in SISA SP in Rezekne, results of practical and actual work have been summarized. The analysis from 2007 to the end of 2010 was done and reflected in a monograph (Korņiljevs, 2011).

Table 2 depicts the proportion of disability and number of disabled persons (comparison of SISA SP in Rezekne clients with the overall situation in the state).

Table 2

Proportion of disability and number of disabled persons
(comparison of SISA SP in Rezekne clients with the overall situation in the state)

Kind of disability	No. of clients	Ratio in percent-age	Proportion according to HWAEDSC data	Total number in the age group 16–57 years	Total number in all age groups
	Rezekne region		State in 2010		
Vision	26	3.9%	5.5%	3774	7645
Hearing	17	2.5%	2.5%	1715	3475
Movement	62	9.3%	13%	8919	18070
Mental development disturbances, including psychic diseases	134	20%	28%	19210	38920
General disease	431	64.3%	51%	34992	70890
Total	670	100%	100%	68610	139 000

The total number of SISA SP Rezekne clients or the number of respondents in Rezekne region (Rezekne, Rezekne district and Ludza, Ludza district according to SISA territorial distribution) are 670 disabled persons from the age of 16 till retirement age (see Table 3). Out of them 321 participants have already undergone primary professional testing (PPT) in SISA SP Rezekne and 87 persons – extended professional suitability testing in SISA Jurmala.

Conducting a research, the data about the education and age of SISA SP Rezekne clients have been analyzed (see Table 3).

Table 3

Correlation between education and age of SISA SP Rezekne clients

Education	All ages	Age				
		Under 20	21–30	31–40	41–50	Over 50
incomplete basic	14	8	6	-	-	-
basic	125	17	49	31	17	11
vocational	74	-	8	22	22	22
secondary	215	13	17	47	71	67
vocational secondary	201	-	22	31	76	72
higher	41	-	7	8	13	13
No. of respondents:	670	38	109	139	199	185

Analyzing the obtained data it is seen that among SISA SP Rezekne clients in the youth group under 20 a majority of persons (17) have basic education, 13 – secondary education and 8 – incomplete basic school.

The research shows that out of 670 SISA SP Rezekne clients only 38 persons under 20 have requested assistance in the support point. Despite the legislation facilitating an inclusive policy, activities of various organizations and implementation of various projects there are many problems in the field of disabled children and youth with special needs, especially in the education and employment field of disabled persons, which cause obstacles to their successful inclusion into the society and labour market.

Successful implementation of an inclusive education policy depends on everyone's understanding and activity, thus participation of all parties – teachers, parents, employers, social workers, each member of society – is needed.

Conclusions

The legislation of Latvia provides an inclusive attitude towards education of pupils with special needs, career guidance and vocational rehabilitation of disabled young people; however, at the current stage the implementation of the inclusive policy has several obstacles:

- *Lack of understanding in the society about persons with special needs:* the educational system offers training, but parents do not want pupils with special needs to learn beside their children, employers do not wish to hire a specialist with disability, etc.

- *Physical environment:* not all educational establishments are accessible for children and youth with special needs, especially if they have movement disorders: there is a lack of approaches, ascents, lifts, etc. The issue about access to interest education and culture and sports events is not settled. The issue of transportation is also topical because persons with movement disorders often cannot get to the educational establishment or workplace.

- *Threats of mechanical inclusion:* in mainstream schools pupils with special needs sometimes are kept just because of the number of pupils. There is a lack of trained teachers, insufficient support staff – a support team (psychologist, special pedagogue, speech therapist,

teacher's assistant), an assistant. Under such conditions of mechanical inclusion the school cannot provide complex pedagogical, corrective and rehabilitation assistance; as a result pupils with special needs suffer intellectually, emotionally and physically.

- *Teachers' readiness to work in inclusive environment*: Many teachers lack knowledge and experience how to work with children with special needs. It is the worst situation if a teacher blames a child and his/her parents if the child cannot learn something being unable or unwilling to see the problem.

- *Insufficient methodological provision*: there is a lack of appropriate teaching and technical aids, a majority of concepts are taken over from Russia and Western countries without systemically considered adaptation. There is a lack of experience about organizing teaching and learning in integrative and inclusive environment.

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IV. PSYCHOSOCIAL REHABILITATION

APPLICATION OF ART EDUCATION IN THE MANAGEMENT AND REDUCTION OF SIGNS OF FATIGUE IN WOMEN WITH MS DIAGNOSIS

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Abstract

In the article presented results reveal dimensions of influence of art education on the reduction of fatigue in patients with MS. Personal motivation for active participant in social life could be promoted by optimizing common art education activities that have significant impact on reduction of fatigue signs. All too often, problems of fatigue in MS first of all are similar to somatic and neurological problems, but from the point of view of social paradigm – person's fatigue problems deal with effective social participation and social involvement. Fatigue as a certain person's inwardly status is closely connected with emotional self-feeling and hopefully could be managed applying art education. Subjective understanding of signs of fatigue and its management reveals ways of specific educational activities of adults with MS that are directly pointed to the reducing sense of fatigue and increasing quality of social participation.

Key words: *Patients with MS, fatigue, management and reduction of signs of fatigue, art based activities.*

Introduction

Multiple sclerosis (MS) is defined as non-contagious, lifelong chronic disease that causes symptoms of motor impairment, language, memory, deficits of cognitive activity and problems in communication that depend on the level of impaired areas of the cortex. These impairments sometimes facilitate non-adequate behaviour models (Diekamp & Kalt, 2000; Blaney & Lowe-Strong, 2009) that lead to the problems in the activities of social participation.

Fatigue is one of the most significant symptoms that directly affect person's social participation. Understanding own situation that is conditioned by sense of fatigue patients often experience emotional fall that leads to more serious conditions: anxiety or depression, feeling of weariness or lack of energy, anger, frustration and hopelessness, withdrawal from social participation.

All spheres of everyday life are affected by fatigue and are evident in the lack of communication with outside environment. Communication is a complex phenomenon in which psychical, motor, cognitive, speech activities are involved (Malchiodi, 2006; Zull, 2002, Beversdorf, White, Cheever, Hughes, & Bornstein, 2002), therefore, externally signs

of fatigue most of all are observable in the process of communication. Perception of speech, understanding of social interaction and situation, the content of information are the main requirements for social participation and public activities. That is why life quality of patient due to the sense of fatigue suffers significantly. Sense of fatigue associated with MS differs from normal tiredness. Fatigue that is typical to MS requires physical and mental efforts, but the feeling of tiredness is much stronger than would normally be expected (Cafarelli, 2002). Due to extremely unstable balance of energy and of dissipation, mental functions are affected by fatigue as well (Renom, Nota, Martinell, Gustafsson, Warinowski, & Rosa Terré, 2007).

Depending on the area of educational focus, art can facilitate a variety of goals: physical and occupational goals (improving motor skills); cognitive goals (improvement of memory, prioritization, planning, organization); psychosocial goals (improving interpersonal skills, expression of feelings); emotional goals (improving impaired control, easing anxiety, easing depression from feelings of loss, loneliness, guilt, and frustration) (Art Therapy — History & Philosophy).

Individuals can try to prevent fatigue by using effective relaxation techniques. Attempts to manage signs of fatigue and to influence fatigue changes in dimensions of communication in patients with MS applying art education, based on the positive emotional experience could be successful. Art education could serve as a form and precondition of social integration and as a form of reduction of fatigue as well.

According to Thomas, Thomas, Hillier, Galvin, & Barker (2006) the diversity of interventions indicates that there are many ways that can potentially help people with MS. That is why no definite educational technique can be assessed as the best one. However, there is reasonable evidence that art education approaches are beneficial in the treatment of depression, anxiety and in helping people adjust to, and cope with, having MS. It means that MS process has negative impact on the maintenance of a positive quality of life and psychosocial well-being.

Neuroscience points that during learning process the brain physically changes, having positive emotional background. Emotions arise and come into play due to modification of adrenalin, serotonin, and dopamine in synapses. The misbalance of hormone in MS is mentioned by many researchers (Pall, 2001; Pall, & Satterlee, 2001; Richards, Roberts, Mathers, Dunstan, McGregor, & Butt, 2000;), and it presupposes the idea that art education on people with MS could actuate positive changes in production of hormones that are significant for cognitive activities. Modelling incoming signals from outside in the brain is inwardness of learning. To seek any results person must show some intensity of effort and focus for learning. Art engaging individual's state emotionally, also changes functioning of the brain activity (Zull, 2002).

Working with people suffering from MS, supportive relationship between person and educator is highly significant to guide the art-making experience and to help the individual to find meaning through it along the way, as well as to give personal meaning to the art product that could help to sense and name a problem (Barry, & Enoka, 2007; Buchalter, 2004; Malchiodi, 2003; Malchiodi, 2006). Art educator facilitates exploration, observing and trying to understand an inner change, that is why in many cases educators use art therapy as assessment and evaluation of emotional, cognitive, and developmental conditions (Fox, & Goodheart, 2001). Slight difference could be defined between terms “art therapy” and “art education as therapy”. The second term is more orientated to art education that could have a meaning of facilitating of abilities, changing person's point of view solving personal interaction problems.

Object of the research: Changes in reducing signs of fatigue in patients with MS applying methods of art education.

Aim of the research: To reveal the changes in the reduction signs of fatigue in patients with MS applying art education.

Extent of the research: 46 women with MS from Šiauliai County (4 regions) from 36 to 52 years of age.

Methodology of the research

As a theoretical background of analyzing changes in reducing signs of fatigue applying art education lays a *central governor model* designed by Noakes (Thomas, Thomas, Hillier, Galvin, & Barker, 2006). According to this model the brain, experiencing the overstretching, sets off a series of sensations that the body translates them as symptoms of fatigue. The brain does so to protect itself. The main function of the brain is to make sure that person does not get into trouble in whatever exercise he/she is doing. Positive emotions reduce sense of fatigue through neuro-endocrinal system – so person without extended stress can participate in social activities.

Other methodological issue that helps to understand and shape activity in persons with MS is *health believe model* that attempts to explain and predict health behaviours. This is done by focusing on the attitudes and beliefs of individuals and *theory of planned behaviour* (Glanz, Rimer, & Lewis, 2002), as well. Issues of *theory of Reasoned Action* suggest that a person's behaviour is determined by his/her intention to perform the behaviour and that this intention is, in turn, a function of his/her attitude towards the behaviour and his/her subjective norm, and it has been taken into account as well. The best predictor of behaviour is intention. Intention is the cognitive representation of a person's readiness to perform a given behaviour, and it is considered to be the immediate antecedent of behaviour. This intention is determined by three things: their attitude towards the specific behaviour, their subjective norms and their perceived behavioural control (Aronson, Wilson, & Akert, 2003). Activities of certain art forms in the process were not so important, because the main focus was paid to the changes of fatigue characteristics in general. In this research art based education forms were decoupage and elements of moving therapy. It must be mentioned that there were no therapeutic interventions, as it is usual in such type of sessions.

Methods used in the research

1. Analysis of scientific studies concerning art education as a method of changing psychosocial conditions of patients with MS.

2. Qualitative research, using method of interview was done with the view to assess personal changes in the main characteristics of social participations after the sessions of art education. Structured interview was conditionally divided into three areas:

- a) self-feeling while participating in the sessions of art education;
- b) personally needed help that might encourage social participation;
- c) subjective overview on managing signs of fatigue.

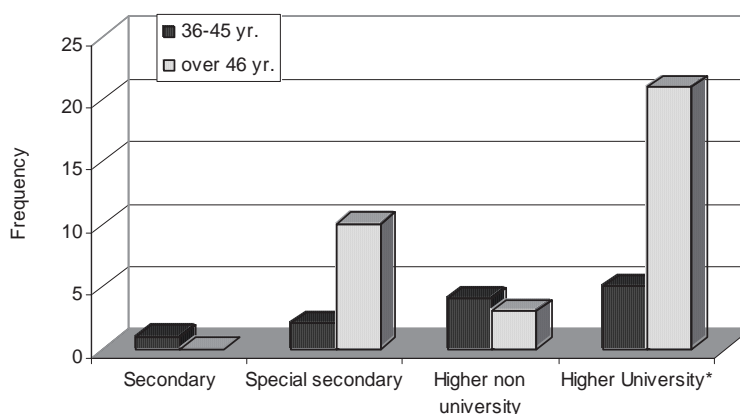
The empiric data of the research was processed applying *method of content analysis* excluding semantic categories that reflects application of art education in the management and reduction of signs of fatigue in women with MS diagnosis.

3. Methods of statistic description were used describing demographic characteristics of the participants of the research.

Analysis of the research data

Characteristic of participants. Changes of sense of fatigue in patients with MS using art education were tested according to the aspects of the level of education, and marital status. Research was done with volunteers who are included in the list of permanent observation of neurologist in the health care centres of Šiauliai County. Women, who took part in this research, participate in the pilot study under the guidance of researchers of Faculty of Social Welfare and Disability Studies, Šiauliai University. Art education sessions took place in university laboratory of Corrective Physical Activity during 6 months twice a week and were moderated by students who were prepared as trainers in art education. Duration of session was 1 hour.

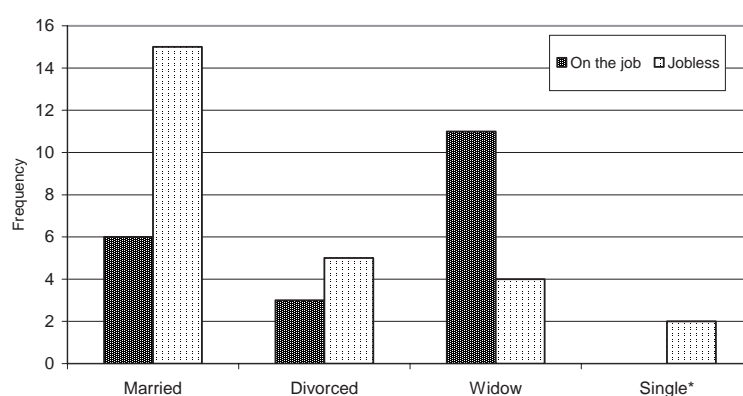
According to the research data it was found out that in the most cases it was women with higher university education over 46 years of age (Fig.1). It is not typical talking about all general set, but it is typical, that educated women are more active and motivated in any kind of social participation. The fact that younger women are not so involved in the social activities could be conditioned of their lack of information, low self-confidence or motivation. It looks to be true, that elder women are educated more and it means that level of education corresponds to the level of social participation. This fact supports some ideas about fatigue control in group of women with MS. Having longer period of disease they are more effective in managing sense of fatigue and know more about their individual reactions on environmental influences.



*level of statistic significance $p = 0,05$

Fig. 1. Women suffering MS according to their level of education

Talking about marital status of women, the premise could be made, that it could be connected with experience controlling sense of fatigue (Fig. 2). Analyzing demographic data, it was found out that the largest number of women that live in marriage are jobless. It means that they could have some support from other family members. The fact that widows make the largest number of employed women shows their social activeness and at the same time attempts to keep appropriate level of life quality. Divorced and single women are motivated insufficiently to participate in social activities. Maybe due to the psycho emotional reasons, to the limited contacts with outside environment they tend to withdraw from activities that suggest common participation. The premise could be made, that women who are educated and have deeper experience in keeping and facilitating interrelations, might have more motivation for cognitive activities, interpersonal contacts and social participation.



*level of statistic significance $p = 0,02$

Fig. 2. Women's suffering from MS employment according to marital status

Assessment of subjective changes of self-feeling while participating in the art education sessions

This part presents research data of qualitative research, revealing the impact of art education on personal self-feeling of patients with MS. The development of fatigue is characterized by an initial, disproportionate increase in the perception of effort required to maintain or increase the work output before the inability to exert the required force is experienced (Cafarelli, 2002).

There are two forms of fatigue in multiple sclerosis – mental and physical. Both of them have a negative influence on developing communication skills that ensure process of social participation. That is why opinion of patients must be analyzed together with objective data of research in order to better understand management of MS signs.

Mental fatigue usually follows a daily pattern and, in this respect, differs from the constant fatigue associated with depression. Participation in the art education activities revealed (table 1) self-feeling changes in women mood, motivation and involvement into common social activities.

Table 1
Self-feeling while participating in the sessions of art education

Category	Statement	Rate of statement
Sense of belonging	"I was not alone"; "to work together is better"; "others also try to make pictures for the first time"; "we were doing the same things"; "all the time we were in close relationship"	26
Lack of certain experience	"I've never done such things"; "My friend told me how to decorate"; "I have no experience in making beautiful things"; "during the first lessons it was hard".	21
Interest	"I read more about moving therapy at home"; "I ask to tell more about materials used in decoupage"; "it will be my hobby in future"; "it would be nice to continue these sessions next year"	19
Problems with concentration	"to keep attention during decoupage"; "it is hard to keep sequence of works"; "all the time I was asking colleague what to do next"; "it's hard to start"; "miss steps in making picture"	19
Relax	"I felt relaxed"; "good time spent together"; "friendly and stimulating activity"; "time goes very fast in lessons"; "I feel very quiet"	18
Uncertainty	"I was not sure, that this activity was for me"; "I was afraid of failure"; "they are professionals, and I start only now"; "it was a question for me, how I'll get to these sessions"	17

Analyzing changes of the self-feeling while participating in the sessions of art education six categories have been identified: sense of belonging; lack of certain experience; interest; problems with concentration, relax, and uncertainty. The large range of experiences have been noticed, that reflects respondents' attitude to the art education sessions, to the environment and own relation with the whole process. According to the identified categories, some premises could be drawn out. First of all it shows the level and quality of organized activities, and the positive input on the personal self-feeling of women. It was revealed that *sense of belonging* has a largest rate of statements (26 statements). It means that common activities in the close, safe environment is the first condition to develop general social skills such as communication and at the same time emotionally acceptable environment creates opportunity to manage sense of fatigue.

During the sessions *lack of experience* in art activities has been mentioned too (21 statements). Women came to gain some skills, to experience new proficiency and were open to these challenges. Self-criticism and adequate evaluation of the situation provokes many feelings, both positive and negative. *Interest* (19 statements) and at the same time experienced *problems of concentration* (19 statements) can be assessed as motivation for proposed activities. The fact that women attended all the sessions shows their attempts to master fatigue and to keep in active state. The prevailing of positive emotions indicates category of *relax* (18 statements). “I felt relaxed”; “friendly and stimulating activity”; “I feel very quiet” – statements that prove absence of fatigue. Moreover, reducing sense of fatigue was one of indications to organize sessions of art education for the women with MS.

A few statements indicating *uncertainty* (17 statements), as self-feeling while participating in the sessions of art education were mentioned as well. As it has been realized, this category cannot be equated with the category of lack of experience. Uncertainty is mostly associated with the inner emotional experiences indicating some kind of conflict between people and environment. Lack of experience reflects the level of person’s knowledge, skills, abilities and it is equivalent to the situation or task.

The most significant self-feeling while participating in the sessions of art education was sense of belonging that indicates developing skills of communication as well.

Personal need in help that might encourage social participation is one of main pre-conditions for feeling safe, good and self-confident. These are characteristics that are highly needed for social participation and effective communication. Analyzing research data (table 2) it was found out that main category that encourages person for social activity is *family support* (25 statements). It means, that social workers, social educators, other specialists are not so important involving women into social activities. Firstly, women’s nature tends to serve for family and with family and secondly, women trust the family members more than other strangers. This fact provokes discussion what to do and how ensure women with MS to feel more self-confident and be open to meet outside support. Category of *family support* could be analyzed in the context of other defined category – *accompanying* (20 statements). It means, that in any case women feel safe while being with and accompanied by the members of family. On the other hand, it shows great problems in self-identification, and self-confidence. These characteristics are common to the most social risk groups. Developing communication skills these problems partly could be solved. This fact can be proved by other identified categories analyzing the need of personal help that encourages social participation of women with MS. Meeting *needs of information* (17 statements), *education* (11 statements) and *individualized activities* (14 statements) many problems concerning personal development could be changed. Increasing social experience and contacts could motivate women (because it was indicated as a need) for activity, developing communication skills and openness for environment.

Category of *Societal attitudes* (15 statements) was the one which could determine women with MS reserve and avoidance of social participation. It happens because people know little about symptoms of the disease; they could be affected by the common societal stereotypes associated with concept “different” (“they think that I’m drunk”; it’s troublesome to feel different”, etc.). Therefore, analyzing data it has been revealed that process of integration and involvement in social activities must be performed from both sides.

Analyzing research data on the subjective overview on managing signs of fatigue (table 3) it was found that it is important to keep in mind individual characteristics of the women and that process cannot be organized as strict and exact process. Education activity is effective when it is organized flexibly, orientated not to the result, but to the process. Respondents are actively involved into education, but they hold course of events by themselves independently. In such situation relations and mutual understanding with educators must be highly close and trustful.

Table 2

Personal need in help that might encourage social participation

Category	Statements	Frequency
Family support	“encouragement of husband”; “family support in studies”; “to share housework and have more time for myself”; “to have common hobby”; “to talk about my problems with family”	25
Accompanying	“somebody should be near”; “I’m afraid to go alone”; “Without accompanying – nowhere”; “I want to go with friends”; “usually I need assistance outside home”	20
Information	“more information about events”; “I want to study, but where?”; “social workers could inform us”; “we can share information on the web site...”; “I ask for all information needed in the meetings of our organization”; “nobody gives information to me”	17
Societal attitudes	“it is complicated to attend public celebrations”; “they think that I’m drunk”; “no benches for short rest”; “nobody invites me”; “it is hard for them to take care of me”; “it is a shame to explain that I have problems with toileting”; “it’s troublesome to feel different”	15
Individualization of activities	“I think that events could be differentiated”; “I like close, private meetings”; “it’s difficult to be in crowd”; “I want to meet the same as me”; “not everything is suitable for me”; “short lessons”	14
Education	“I have only finished secondary school”; “to study in college”; “this year I will try to continue studies”; “I want to study...but my sickness”; “my hope is to study at university”; “regrettably, I have no education”	11

Table 3

Subjective overview on managing signs of fatigue

Category	Statements	Frequency
Motivation	“I’m so involved, that for the moment I forget everything”; “I hope to find new things, activities”; “interesting to follow up how we are getting better and better”; “surprise for my family let me feel good”	21
Withdrawal from thoughts about disease	“new things let me forget fatigue”; “try to forget how I’ll feel after some hours”; “it’s enough time to think about fatigue sitting at home”; “there are many people who are in the worse situation”; “I’ve just forgotten”	18
Changing type of activity	“after some time I’m going to prepare tea”; “doing works at home I change them, as well as here”; “during break I’m looking what is going on”; “I like to chatter by phone”; “when it’s boring I ask for a break”	17
Patience	“try to be more patient”; “patience and high spirit help to go on”; “it’s not unusual to feel bad”; “every day the same”	16
Difficulties in fatigue management	“doesn’t work”; “it’s no chance to feel better”; “everything goes on its own way”; “I never succeeded to work on myself”; “all attempts are temporal”; “it is an illness and nothing to do about it”; “I can do tasks of the same type for a half an hour, and that’s all”	16
Managing work activity	“I’m working according to my wish”; “to stop for some time”; “I miss some tasks”; “to evaluate one’s health”; “I’m doing long breaks”; “I tried to choose easier way”; “We share tasks with colleagues”; “ask teacher for a break”	15

Against all odds, *motivation* is one of significant criterion to master fatigue (21 statements). It seems that it can be talked about reducing mental fatigue. Barry, & Enoka, 2007) indicate, that patients feel fine during the first few hours of the day but, by afternoon

or early evening they feel completely exhausted. Often a nap or a short period of rest will help them recover. The sessions take place in afternoon time, so sense of motivation works as stimulation and measure to decrease fatigue (e.g. “I’m so involved, that for the moment I forget everything”, “surprise for my family let me feel good”, etc.). It has been found out that art education sessions help to *withdraw from the thoughts about disease* (18 statements). Women do not purposely try to forget health and psychological problems, this happens through their participation in education sessions. It means that common, but highly individualized work can be assessed as emotional strengthening and educational curing (being together they feel better).

Categories *changing type of activity* (17 statements) and *managing work activity* (15 statements) indicate two aspects of fatigue management: interior and exterior. Changing type of the activity means that even being tired, women are not going to change environment – they try to choose activity in the same place, with the same people. Managing work activity means that women could act independently. They are responsible for their decision even to go out of activity, or to organize the work themselves (missing tasks, doing them more easily, etc.). Resting usually helps and many tasks can be completed if broken down into little bits with frequent rests in between.

Participation in art education activities requires a lot of energy, concentration and time. This is proved by other category – *Patience* (16 statements). During long time women with MS get used to feel symptoms of the disease, so patience is like everyday state. Nevertheless, attending art education sessions certifies that motivation plays a significant role that induces them to continue chosen activity, having satisfaction from doing art and communicating with others. It shows that not all women with MS could hide fatigue, other symptoms of the disease, but their self-determination for social activities could be assessed as positive input on patient’s involvement into social participation.

The last category defined is *difficulties in fatigue management* (16 statements). Rather large rate of statements indicates that even being in the remission period they face with reality that limits their activity, sometimes leads to negative emotional experience and breaks health. Such kind of subjective overview on managing signs of fatigue shows that together with art education, professional support of health educator or psychologist must be provided, as well. Some answers (“doesn’t work”; “it’s no chance to feel better”; “I never succeeded to work on myself”; “all attempts are temporal”) can be understood as conditions being close to depression, although Blaney, & Lowe-Strong (2009), Thomas, Thomas, Hiller, Galvin, & Baker, (2006) assume that depression and fatigue do not correlate very well in multiple sclerosis.

Summarizing the research results of subjective changes of self-feeling while participating in the art education sessions it can be stated that art education works as a stimulating, motivating and relaxing factor.

Conclusions

1. Situations that exclude (or partly exclude) MS persons from usual social activities, that give them self-satisfaction, create state of despair and feeling of loneliness, define communication disorders in interacting with environment.

2. Development of communication skills and overcoming sense of fatigue have been analyzed according to the self-feeling while participating in the sessions of art education; personal needs that help to encourage social participation and subjective overview on managing signs of fatigue.

3. Important factors of self-feeling while participating in the sessions of art education were: sense of belonging, lack of certain experience; interest, problems with concentration, sense of relax and uncertainty.

4. Assessment of personally needed help encouraging social participation is revealed through: family support, accompanying, information, societal attitudes, individualization of activities and education.

5. Subjective overview on managing signs of fatigue could be realized by motivation for activity, withdrawal from thoughts about the disease, changing the type of activity, patience, managing work activity.

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CHANGES OF INFANTS' MOTOR DEVELOPMENT USING CORRECTIVE EDUCATION

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Abstract

The article deals with the research, the goal of which is stating the effect of corrective education on the impaired motor development of infants depending on the beginning of corrective education. In order to assess the motor development of infants the Munich functional development diagnostics was used. There participated 120 infants attending early rehabilitation service of Šiauliai consulting policlinics for children's disease clinics. The first assessment of the complex motions of infants was made in different age groups (group I – $3\pm0,5$ months; group II – $6\pm0,5$ months). Generalizing information in scientific literature about the results of evaluation of children's motor development in different periods until the age of one who had undergone neurodynamic therapy (NDT) and taking into consideration the results of our research we can say that the essential factor deciding the success of early intervention is infant's age at the beginning of corrective education. If complex correction begins earlier then it causes better results of psychomotor development.

Key words: *infants' motor development, corrective education, neurodynamic therapy (NDT).*

Child's psychomotor development concerns many steps of growth being a continuous process lasting from fecundation to full maturity of a child. Holistic attitude to the psychomotor development includes the unity of biological, social and psychological origin. Characterizing child's growth together with all psychomotor development various authors (Alexander at al., 2011; Bly, 2004; Trunovas & Kitajevs, 1997; Montessori, 2000) emphasize that stimulated by its need to move, a child increases metabolism with intensive movements of its body.

In many works (Mockevičienė, & Kardelis, 2005; Maceina, 1990; Šalkauskis, 1990; Bly, 2004; Andrikienė, & Ruzgienė, 2001; Laužikas, 1997; Trunovas, & Kitajevs, 1997; Montessori, 2000; Harris, 1993) both interaction of physical and psychic phenomena and three inseparable spheres of human development (physical, spiritual and psychic) are stressed. During the first year of life a very big role is attached to the motor system. Normal development of infant's other systems and psyche depend on its motor system. Many theories of individual's development consider motor skills to be very important. Laužikas (1997) says that a man depends on how he moves because not only psyche stimulates movement but movement has an effect on psyche as well.

It is evident that psychomotor development being an inseparable part of infants' movements, senses and thinking, during the first year of its life is an important phenomenon acknowledged by many professionals (Helbruge, & Vimpfenas, 1995).

The important thing is that it is possible to evaluate this phenomenon objectively. With the help of diagnostics of the development of complex movements we can estimate psychomotor development in infancy. In later periods the above mentioned psychomotor spheres split into separate spheres of individual's development nevertheless there remain certain inner links among them regulated by factors of socialization (Radzevičienė, 2005). Normal motor development corresponding to the child's age especially in the first year of life is one of the most important indicators of child's health which depends on living conditions, regime of work and rest, economics, education, psychological factors and active movement.

Actuality of the theme enabled to formulate a problem question: can purposeful and systematic corrective education influence the development of impaired movements more if it begins in the early period of infancy rather than later?

Having formulated the problem, **the object of research** has been determined – the development of impaired movements of infants. Scientific solution of the research object corresponding to the subject of cognitive activity is directed to the changes of the development of infants' impaired movements using corrective education trying to find the causative link between those variables.

We have chosen general development of movements (crawling, sitting, walking and snatching) as dependent variables of the analysis of the research object. The independent variables in this research are infants' age, influential means used in the programme of corrective education.

Having chosen those variables we had **a goal** of stating the impact of corrective education on the changes of infants' impaired movements depending on the beginning of corrective education. Seeking our goal we have determined the following **tasks** in our work:

1. To state the dependence of the beginning of corrective education and clinical diagnosis of psychomotor impairments.
2. To apply the programme of corrective education for infants with impaired movements referring to NDT/ Bobath (neurodynamic therapy), pedagogics of early education and principles of psychology and family pedagogics.
3. To estimate the effect of the programme of corrective education on general motor development of the investigated infants.

Research methodology

Theoretical methods. Analytical and generalizing methods for the analysis of the literary sources associated with the research subject were used, the results of the investigation were discussed and compared with the data of similar investigations made by other authors.

Empirical methods. The Munich diagnosis test of functional development (MFRD) was used for evaluation of motor development of infants. In order to find out the peculiarities of changes of movements standard MFRD methodology was used. Preparing the Munich diagnosis test we took into consideration the long-lasting observations of infants' and small children's behaviour made by Munich Centre for Children (Gedminaitė, 1998). Munich diagnosis of functional development is a complex investigation measuring the level of development of different functions. Estimating their level the age of development (in months) is indicated comparing these values with the infant's chronological age (Hellbruegge, 1985). This methodology corresponds to the main criteria of objectivity, validity and reliability. Objectivity is assured by concrete tasks and criteria of their estimation. Infants having this skill at a certain age are considered as normally developing. We have chosen the following values from MFRD for estimation of infants' general motor development:

1. Crawling age (indicates the development of crawling);
2. Sitting age (indicates the development of sitting);

3. Walking age (indicates the development of standing and walking skills);
4. Snatching age (indicates motor development of the palm).

The scheme of complex motor development received while applying this methodology indicated the level of the motor age when corrective education should be started. The goals of the programme of corrective education depended not on the chronological age of infants but on the age of their complex motor development.

The choice of methodology was stimulated by its accessibility both to the professionals and to the members of infants' family. Active participation of parents in the investigation helped to create better contacts between a professional and parents, trustworthy atmosphere that is very important for the professional's work with the family and with the infant. Another reason for choosing MFRD test was that the programme of corrective education used in the experiment was based on the same principles of infants' normal neurodynamic motor development.

Educational experiment was performed according to the programme of corrective education, individually made for the infant according to the age of complex motor development.

Methods of mathematic statistics were used for the analysis of research data. Research data were processed by computer programmes Exel and SPSS. The statistical methods (descriptive statistics, Kaiser coefficient) were used analyzing the results of quantitative research findings. The results obtained have been processed and analyzed based on the reliability index ($p \leq 0,05$). Indicator of statistical significance (p) shows that the results are statistically significant.

Organizing research and its contingent

The experiment was made with the infants who attended the early rehabilitation service (ART) of Šiauliai consulting polyclinics for children's disease clinics. Dividing infants into groups and making further assessments of complex movements, we used the periods of infancy suggested by Badaljan, & Žurba (1988). Before the experiment the first assessment of infants' complex movements using the Munich functional development diagnostics test was made in the groups of different periods of infancy: in the first group of the period of early infancy ($3 \pm 0,5$ months, $n = 65$); in the second group of the period of late infancy ($6 \pm 0,5$ months, $n = 55$).

Individual corrective education of infants with impaired movements took place once a week with active participation of parents. Parents were taught to apply corrective education in everyday activity. There were no more sessions of corrective education for infants whose complex motor development reached the norms of their age. Every three months the development of complex movements of all the researched infants was assessed until they became one year old.

Estimation of the research results

Trying to find out what motor disorders persuaded doctors to send infants to the early rehabilitation service we analysed those reasons and divided the infants into three groups according to the indications of muscle tonicity disorders or motor disorders characteristic only to a certain age of infants or if both factors were characteristic at the same time.

Muscle tonicity is only an indicator defining motor function and the basis of further motor development (vertical posture, balance, resisting gravitation and determined movements). Tonicity is controlled by the sphere of reflectory spinal cord segmental apparatus and sub-cortex regulation and higher centres of brains into psychomotor development are included. When motor functions improve, the reflex system of movements acquires the character of conscious control of active movement. We think that infants with such impairments had been sent to early rehabilitation in order to control and regulate further motor development.

Analysis of medical documents showed (Fig. 1) that distribution of muscle tonicity and non-specific motor disorders differed in the I and II groups of the researched infants. In the group of early infancy period (group I) 62% of the researched had diagnosis of muscle tonicity disorder and in the group of later infancy period (group II) there was no such case. In this group 76% of the researched had impairments of two sorts – muscle tonicity and non-specific motor development. It could mean that disorders of motor development were not always noticed in the first months of infancy.

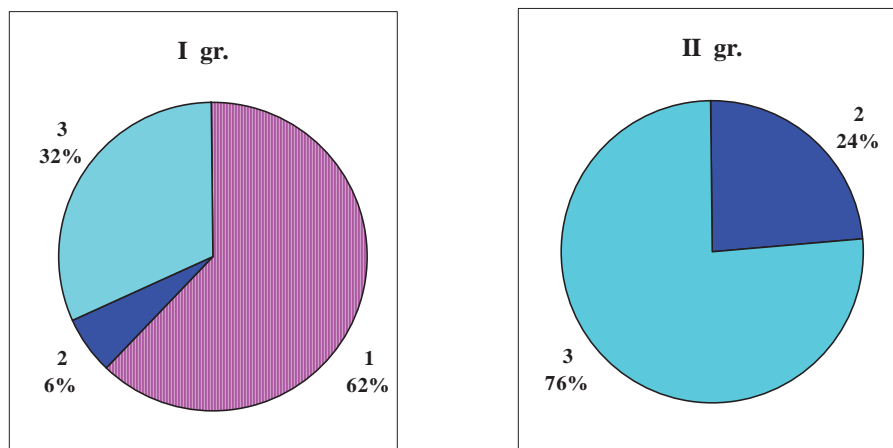


Figure 1. Distribution of the I and II groups of the researched infants according to their impairments diagnosed by doctors (%)

1 – disorders of muscle tonicity; 2 – non-specific disorders of motor development;
3 – disorders of muscle tonicity and non-specific motor development.

On the basis of these presumptions and the research results received before the experiment we emphasized positive factors of physical and emotional environment in our programme of corrective education and also used adequate specific corrective means causing decrease of infants' muscle tonicity (or at least its stability) during the sessions of corrective education. In order to be certain about the given presumptions concerning the proper choice of methods in the early period of infancy (group I) and diagnosing infants' muscle tonicity, other more exhaustive investigations should be made because it is fairly important for appointing early corrective education to infants.

Having made the first investigation with the help of MFRD test the results (Table 1) show that in groups I and II the development of all four complex movements falls behind the norm quite significantly ($p < 0,001$). Nevertheless in group I reciprocal differences of complex movements were indistinct ($p < 0,05$) while in group II those differences were more distinct. In group II (6 months) the age of infants' crawling function development reached only 3,8 months ($p < 0,001$) and developed slower than other functions of complex motions (sitting - 4,4 months, walking - 4,1 months, snatching - 4,7 months ($p < 0,05$)). Evaluation of complex motor functions before the experiment showed that in group I the crawling function was also behind the norm. In both groups the snatching function was best developed (group I – 2,0 months; group II – 4,7 months). All the four complex motor functions indicate the age of general motor development (crawling, sitting, walking, snatching). Before the experiment the researched infants' average age of general motor development reached only $1,8 \pm 0,66$ months in group I and $4,2 \pm 1,38$ months in group II. It shows that motor development of the researched infants lagged behind other infants of the same age (group I – $3 \pm 0,5$ months; group II – $6 \pm 0,5$ months).

Table 1

General motor development (GMD) before experiment (month) in groups I and II

	GMD (month)	Standard digression	Standard error
Gr. I	1,8	0,66	0,08
Gr. II	4,2	1,38	0,19

The research results show that in both groups there were infants whose general motor skills (Fig. 2) corresponded to chronological age (group I – 18% and group II – 22%). In group II general motor development of the majority (29 %) was 2 months late that corresponded to the chronological age of 4 months. In group I general motor development of most of the infants (48%) was 1 month late and corresponded to developmental norms of 2 months. Even 31% of infants in group II were late with their general motor development for 3-5 months and in group I the development of 4% of infants corresponded to the norms of the newborn babies.

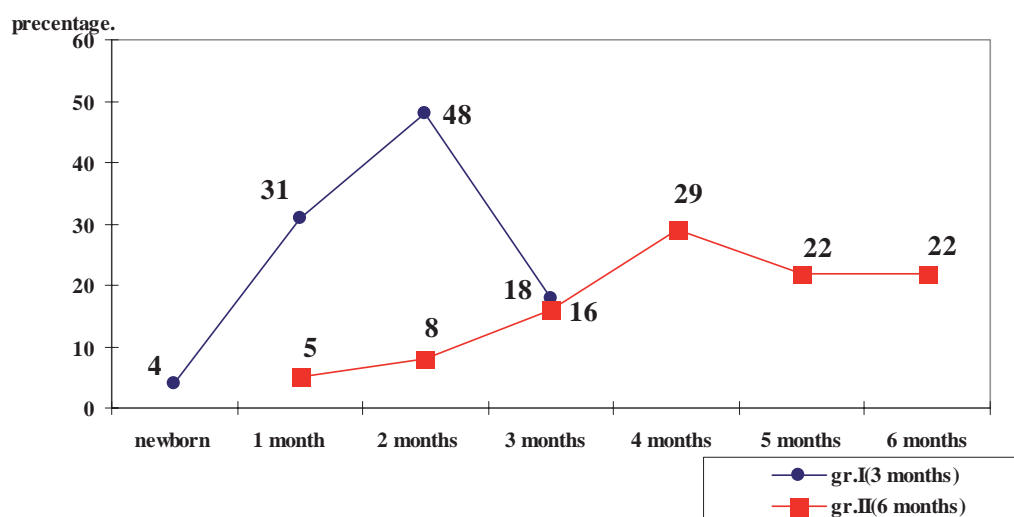


Figure 2. Distribution of infants (%) in groups I and II according to the age of general motor skills before the experiment

Analysis of the research data showed that in groups I and II the development of various motor functions differed. Because of this it is not possible to state that crawling, sitting, walking and snatching functions characterize general motor development of infants hence there correlation analysis of motor functions was made.

It revealed that the link between the motor functions was strong and profound (Table 2). KMO (Kaiser) coefficient (0,85 %) shows that correlation matrix is suitable for factual analysis as one factor covers 84% of general dispersion. Having such high correlation coefficients (Table 3) it is possible to state that functional spheres (crawling, sitting, walking and snatching) are interrelated. On this ground we have calculated general motor level and dynamics.

We have discovered that corrective education influenced general motor development in different ways. The picture shows the impact of corrective education in the early period of infancy (group I) during the first three months. The age of complex motor functions of 69% of infants in group I reached chronological age and only less than one third of infants had to continue exercises of corrective education till the end of infancy (31–23%). When these

exercises started later (after the 6th month), during the first three months motor functions only of 22% of infants reached the norms of chronological age and the rest had corrective education till the end of infancy.

Table 2

Correlation links of motor functions

Motor functions	Crawling	Sitting	Walking	Snatching
Crawling	1,0			
Sitting	0,88*	1,0		
Walking	0,79*	0,80*	1,0	
Snatching	0,75*	0,76*	0,74 *	1,0

* $p < 0,001$

Table 3

Parametres of the scale of general motor development
(Extraction Method: Principal Component Analysis)

Motor functions	Factor weight (L)	Correlation with the scale	Descriptive power of factors
Crawling	0,94	0,88	
Sitting	0,94	0,89	84%
Walking	0,91	0,84	
Snatching	0,89	0,80	
Reliability	Parametres: Cronboch $\alpha=0,93$; Guttman's split-half Average intercorrelation 0,79	coefficient 0,92	

Having estimated general motor development (Table 4) we have noticed that in group I motor skills of children were developing evenly and already in the 9th month they corresponded to the developmental norms. In group II corrective education started only in the 6th month so general motor development improved but not so fast (9 months corresponded to 7,1 months development norm and 12 months – to 10,1 months development norm). One could notice a tendency proved by t-criterion that when children were growing, in every age period the differences between the groups were diminishing. It shows that in group II the difference between the general motor development and its norm was distinct but it was decreasing when the children were growing.

Our results demonstrated that when corrective education started later it determined slower and not full liberation of motions. Analysis of the results revealed that the impact of corrective education on the infants from group I was most effective in the first stage of the experiment during the first three months. We should analyse the question why delayed corrective education determines much slower and not full regaining of motions: were there any gaps in the programme of corrective education or was it because of the older age when corrective education started? As we haven't managed to find any investigations of this kind, our discussion will be based on the results of our researches and physiological mechanisms

of psychomotor regulation. We think that starting corrective education earlier (at 3 months) caused better results because at this age motor expansion should have reached the first stage of psychomotor development when movements develop on the grounds of reflexes. In the programme attention is being paid not only to reflexes and reflective reactions while educating infants of this age but early pedagogics and psychology are also taken into consideration in order to stimulate emotional background (Andrikiene, & Ruzgienė, 2001). Perhaps it had a positive effect on the improvement of psychomotor mechanism already in the first stage of development of motor skills, that's why such a good effect was achieved during the first three months of corrective education (in group I motor functions of 69% of infants reached the developmental norm). However starting education at the age of 6 months (group II) when the formation of intermediate complex motions begins for normally developing infants, it is more difficult or even impossible to stimulate normal mechanisms of physiological regulation without the initial stage of development. Our research showed that in this group movements of infants were getting liberated extremely slowly. There arises a question about the relevant choice of our programme which could influence slower development of functions. But the results of motor functions when corrective education in group I has begun at the age of 3 months, prove that 81% of infants at the age of 9 months needed no further corrective education. The research results correspond to the idea of Helbrügge and Vimpfen (1995) that in the early stages of development the ability to adapt and to change that adaptation is really big but later it is gradually diminishing. On the other hand the child of the earlier developmental stage is more able to regenerate what had been impaired because his growth is more vigorous and it is easier for him to adapt.

Table 4

Change of general motor development (GMD) in groups I and II

Age	groups	GMD (month)	Standard digression	Standard error	Levene's test	t-tst
<u>6 months</u>	I gr.	5,8	0,9	0,11	F = 9,5	t = 7,9
	II gr.	4,2	1,3	0,17	p = 0,003	p < 0,001
9 months	I gr.	9,1	1,1	0,13	F = 25	t = 7,3
	II gr.	7,1	1,9	0,25	p = 0,001	p < 0,001
<u>12 months</u>	I gr.	11,9	1,2	0,15	F = 36	t = 5,1
	II gr.	10,1	2,4	0,33	p = 0,001	p < 0,001

Deviation from the norm of child's development during the first months of his life doesn't mean that he will have a long-lasting and permanent motor impairment. Our experiment showed that early correction was very important for the development of infants' motor skills. Examining many researches on the effectiveness of corrective education, Haris (1993) says that after the first and the second year of life it is high time to give up the idea of making muscle tonicity, positions of reflexes and movements normal but it is necessary to seek functional goals which could be used by a child in everyday activity.

Generalizing information in scientific literature about the results of evaluation of children's motor development in different periods who had undergone neurodynamic therapy (NDT) and taking into consideration the research data of this article it becomes evident that the essential factor for the success of early intervention is the infant's age when corrective education begins. If complex correction begins earlier then it causes better results of psychomotor development.

Conclusions and discussion

The article deals with the research, the goal of which is stating the effect of corrective education on the impaired motor development of infants depending on the beginning of corrective education. In order to assess the motor development of infants the Munich functional development diagnostics was used. There participated 120 infants attending early rehabilitation service of Šiauliai consulting polyclinics for children's disease clinics. The first assessment of the complex motions of infants was made in different age groups (group I – $3\pm 0,5$ months; group II – $6\pm 0,5$ months).

The research results showed that in the first group impaired muscle tonicity was diagnosed for majority of infants and in the second group – impairments of natural motor development and muscle tonicity. We have found out that in both groups motor development of infants before the experiment was much behind the chronological age. In both groups of infants, regaining of their impaired movements was very rapid during the first three months of corrective education. Generalizing information in scientific literature about the results of evaluation of children's motor development in different periods until the age of one who had undergone neurodynamic therapy (NDT) and taking into consideration the results of our research we can say that the essential factor deciding the success of early intervention is infant's age at the beginning of corrective education. If complex correction begins earlier then it causes better results of psychomotor development.

The research showed the principles of the changes of infant's motor development using corrective education:

1. In the period of early infancy (until 3 months) increased muscle tonicity is usually found and later (3-6 months) combined impairments (muscle tonicity and natural motor development) are mostly diagnosed.

2. In both groups the age of the investigated complex motor function of infants before the experiment was a great deal behind the chronological age norm (group I – 1,8 month; group II – 4,2 months).

3. Using corrective education in the early (3 months) period of infancy all the impaired complex motor functions of the majority of infants (77%) reached the norms of chronological age development at the end of infancy (12 months). The effect of corrective education which started later (6 months) was much smaller, the development of motor functions was late (1–2 months) and only 39% of infants had reached the norm of chronological age development by the end of infancy.

4. In both groups regaining impaired complex motions was the fastest during the first three months of corrective education.

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IN MEMORIAM OF VYTAUTAS KARVELIS (1933–2011)

It was the end of September when we talked with the Professor, who was as always in a lively mood, having many thoughts and ideas...

And on the 2nd of November we said goodbye to Him.

We will remember Vytautas Karvelis – professor of the Department of Social Education and Psychology of the Faculty of Social Welfare and Disability Studies, Šiauliai University (Lithuania), habilitated doctor in Social Sciences, emeritus – at first as a **Teacher**. The Teacher, whose caring presence was felt by many people, especially in our Faculty, many of whom He encouraged to more thoroughly get into special education, later into social education, He invited some of them to work to the former Faculty of Special Education, encouraged the others to study in Moscow or Saint Petersburg; the Professor would sincerely share His scientific and practical experience with doctoral students continuing His works in the field of disability studies.

Vytautas Karvelis will also remain in our memory as a **Creator**. The Professor was one of the most active upholders of the Faculty as an institution, by His initiative the Department of Social Education and Psychology was established, the speciality of a social pedagogue in Lithuania was approved. Having directed His scientific regard to education of children and other people with disabilities and development of Special Education in Lithuania, He did not confine Himself by only theoretical constructions – with great respect we saw that the Professor's words did not differ from deeds: accentuating in His books active participation of people with disabilities, every time He had a chance, He would personally encourage these people to strive for education, not to be indifferent for themselves and their lives. “V. Karvelis came and invited to study”, “The Professor V. Karvelis persuaded to study”, “If not the Professor – I would not even think that I could strive for education” – these are just some thoughts from the research performed in our Faculty about blind people with the highest achievements in Lithuania. The Professor would constantly remind that every child even having the biggest disabilities is God's creature – and must be respected and loved. The Professor's sincerity and love was also felt by pedagogues working with children having disabilities and parents many of whom He helped in misfortune.

The name of the Professor Vytautas Karvelis for many who know Him is associated with the name of **Active Public Character**: active creator-practician of Special Education in Lithuania, active fighter in the Ministry of Education and Science for the most favourable solutions of the issues of children with special educational needs. He would always find arguments to prove His statements and would usually realize His ideas. Not only special pedagogues-practicians but also scientists from Klaipėda and Vilnius universities knew the Professor and would ask for advice from Him. The Professor was known and respected in the post-soviet space. After regaining the independence of Lithuania, Vytautas Karvelis made a great contribution to development of special education of Lithuania. Every traineeship wherever it was – in Great Britain, Germany, the USA or elsewhere – had a very clear aim expressed by the Professor: “What can we bring to Lithuania, how should we change to make our education system open and accessible to each child?”

The Professor was a **Friend** for all. Everything happens in life among friends. The Professor would smile and say “Friends?”...

We lost a Friend – sincere, understanding, intelligent, intellectual. We were happy to feel His presence close to us.

Rest in peace.

*On behalf of the community of the Faculty of Social Welfare and Disability Studies –
the Dean Ingrida Baranauskienė*

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