# e-PEDAGOGIUM

An independent scientific journal
for interdisciplinary research
in pedagogy

# Obsah

## Reviews and short reports

# Editorial

Dear readers,

The subtitle of "our" journal is: an independent specialist journal for interdisciplinary research in pedagogy. Still, what is interdisciplinary research? What is interdisciplinarity? Is it possible to apply the interdisciplinarity approach in pedagogy?

These questions are asked by many researchers and academics, and answers to them are not simple and unambiguous. From the viewpoint of reasoning, it is not possible to wedge its advantages and disadvantages into summarizing indicators, it is not possible to classify and average them. It is not possible to describe them unambiguously either. Interdisciplinarity is a rare phenomenon. It is a method, a theoretical instrumentarium or a notional antagonistic antipole. It is an approximator, a critical view as well as a communication strategy. Many attempts at interdisciplinarity in pedagogy fail due to their even constrained overlaps, e.g. between "our" discipline of pedagogy and "your" discipline of pedagogy. These and similar overlaps give rise to controversies on accepting fundamental criteria of the interdisciplinary understanding of a problem which authors are not aware of or even do not want to perceive. Then the accentuation in application comes that shows on the practical level, for example during defining outcomes from a research survey or during the creation of a theory.

Clinging to the positivist approaches to interdisciplinarity in pedagogic research is in fact counterproductive because one direction cannot serve as the exclusively "true" and correct one. It is because it lacks the fundamental thesis of interdisciplinarity which is critical discussion and dialogue. The absence of respect for a different approach and the preference of different theories. This lack of fundamental principles causes the consequence of the preference of one-sided methodological approaches and the generation of one-sided outcomes brought by the changing times and society. The time full of the "RIV point system", the numerical recording of outcomes or impact rate. The time changing in the academic environment to the time of "academic entrepreneurship", excellence and neo-liberal approaches.

Still, the real interdisciplinary approach, accenting all the outlined advantages and disadvantages, can be seen also in the cooperation in the pedagogical community. It is

a rare phenomenon indeed. It results also in the presented contributions. The objective of these is problem solutions proposed by their authors; nevertheless they still search for new "contacts „and impulses. They make efforts at discussion, critical evaluation. They are motivated to destroy well-established stereotypes of exactly defined "compartments" of scientific branches.

The reflections presented in the editorial of this issue are not the main pillars of interdisciplinarity. They are a manifestation of an attempt at dialogue, discussion and defining the interdisciplinary discourse in the contemporary pedagogy, namely in its scientific area. They are an endeavour at communication in the pedagogy community, cooperation of academic and research staffs, presentation of a phenomenon in the pedagogy sciences and an endeavour at destruction of "imaginary" barriers between them.

<div align="right">Board of editors</div>

# Articles

# On integration of isolated pupils into the class using modern teaching methods

**Bronislava Štěpánková, Petr Emanovský**

**Abstract**

Successful pedagogical work is unthinkable without good knowledge of relationships of pupils in the classroom. The knowledge is important especially in the case of a class of teenagers. The article deals with the issue of isolated pupils in such a class and the possibility to integrate them into the class using suitable modern teaching methods (project-based learning, cooperative learning, collaborative teaching/learning). The method as well as the process and results of the research connected with this problem at elementary school are described in this paper. The aim of the research was to answer the question: Can the project-based learning help isolated pupils integrate into the class? Using sociograms and the Wilcoxon statistic test of significance, the hypothesis was accepted that the number of isolates after the project-based learning is statistically significantly lower than that of the case of using the classical frontal teaching.

**Key words:** relationships of pupils, sociometry, isolates, project-based learning.

## Introduction

The unpleasant feeling of isolation of an individual in a group of classmates, especially in the sensitive period of adolescence, can have a significant negative influence on her

or his future life. To avoid this negative feeling and try to integrate the teenager back into the class team, we tried to find some means, method or form which would contribute to the integration. After some experience, we came to the conclusion that the method of project-based learning (PBL) could contribute to the inclusion of students standing at the edge of class to the class group. In order to ascertain the correctness of our view, we realized the research.

# 1 Sociometry as a method to describe the relationships in the class

*Sociometry* represents a quantitative method for measuring social relationships. It was developed by the psychotherapist J. L. Moreno in his studies of the relationship between social structures and psychological well-being (Moreno, 1953). One of the important means in sociometry is the *sociogram*, a systematic method for graphically representing individuals as points/nodes and the relationships between them as lines/arcs (McIntyre, 2003). The graphically representing is based on a special sociometric test detecting pupils' positive and negative choices in the class. Sociometry and sociograms are undervalued tools for teachers' behaviour management in the class collective. They provide a wealth of information about classroom friendship and interaction patterns, and they can be very useful for the teacher when he/she is planning seating arrangements or work-group composition. The results of sociometric investigation can be applied to help make positive changes in behaviour in a classroom setting (Sherman, 2002).

## 1.1 Sociometric structure of the class

Sociograms help identify various groups of pupils. The pattern of choices can show a *star* (that is someone that receives the most choices), a *rejectee* (he or she that receives no positive choices and a number of negative choices); everyone else is a *member* (receiving some positive and perhaps some negative choices) and an *isolate* (someone receiving no choices). Sociometry is based on the fact that people make choices in interpersonal relationships. Whenever people gather, they make choices where to sit or stand; choices about who is perceived as friendly and who not, who is central to the group, who is rejected, who is isolated (McIntyre, 2003). Sociometry can be seen as a way in which to measure the relationships between people in a social setting. It is undertaken to reveal information about individuals in their relationship to groups, in the context of their mutual activities. In education, sociometric assessment is a valuable means by which the teacher can determine the relationships of individual pupils

to other ones within the class. It also allows the teacher to track the roles which the pupils play in mutual relationships within the classroom, identifying for example the popular children who are the centre of attention, and the neglected children who are overlooked by the majority of their peers (Hoffman, 2001).

## 1.2  Sociometric test

The *sociometric test* is the most important and basic technique giving sociometry information. Using the test we find out the positive choices in the group, which are sympathy, preferences, attractions, and also the negative choice – rejection. The positive choices are detected more often. The sociometric test contains usually one or more questions that allow all members of a social group to vote of the partners for certain situations or joint activities. The sociometric test is set mostly in written form. The content of the questions depends on the specific objectives of the sociometric investigation. The sociometric-rating questionnaire SO-RA-D by Vladimir Hrabal can be also included among the sociometric tests. It uses a rating scale for two factors – influence and popularity, which are supplemented by verbal reasoning of the assessments. The questionnaire is standardized for the population in the Czech Republic. In our research we have used the questionnaire B-3 which is designed for the sociometric analysis of pupils of the 4th–9th grades of primary school. The obtained data are usually processed in several ways – using matrix analysis, sociogram and calculation of sociometric indexes (Hoffman, 2001). For our purpose we created the sociograms using the freeware "Sociogram" and then determined the number of isolates (Table 1).

# 2  Modern teaching methods as a support for isolates

## 2.1  Project-based learning

*Project-based learning* is a learning method that places students at the center of the learning process. It is widely used to replace the traditional teaching method in which the teacher, who is the center, strictly follows the teaching plan. The teacher leads the students to the learning that they desire or the learning following the project objectives (Henry, 1994). Project-based learning is an instructional model that involves students in investigations of compelling problems that culminate in authentic products. Projects that make for stronger classroom learning opportunities can vary widely in subject matter and scope, and can be delivered at a wide range of grade levels (Kratochvílová, 2003). Projects grow out of challenging questions that cannot be answered by rote learning. Projects put students in an active role such as: problem solver, decision maker, investigator, or documentarian (Thomas, 1998). Students become more engaged in

learning when they have a chance to dig into complex, challenging, and sometimes even messy problems that closely resemble real life. Project-based learning goes beyond generating students' interest. Well-designed projects encourage active inquiry and higher-level thinking (Thomas, 1998). One of the advantages of project-based learning is that pupils have the opportunity to work in a team. Through solving of tasks in groups the pupils acquire and develop communicative and social experience and skills, learn to help each other and learn to respect the opinion of others. They all have the opportunity to assert themselves, to exchange ideas, defend their positions or lead a team (Kratochvílová, 2003). Since the project is not involved in teaching trying to learn as much as possible in the shortest possible time, emphasizes the quality of teaching, which develops specific personality traits of students (activity, initiative, independence, creativity) (Grecmanová & Urbanovská, 1997).

## 2.2  Cooperative learning

*Cooperative learning*, sometimes called small-group learning, is an instructional strategy in which small groups of students work together on a common task. The task can be as simple as solving a multi-step math problem together, or as complex as developing a design for a new kind of school. In some cases, each group member is individually accountable for part of the task; in other cases, group members work together without formal role assignments. Cooperative learning focuses on the processes that occur in the cooperation within groups, primarily on social interaction (Kasíková, 1997). Mutual understanding, willingness to cooperate, ability to help each other and responsibility for other are necessary to achieve a common goal. An important assumption for cooperation is a joint task for a group of pupils. Suitable conditions for the development of positive social relationships create in the classroom while they are solving the common task. Jana Trabalíková (2011, 2012) analyzes the relationship between class climate and cooperative learning.

## 2.3  Collaborative learning

*Collaboration in teaching* involves educators planning and working together in schools, working with students at all stages of schooling and across all learning areas. There is no one way of collaborating; each context is different. Collaborative teaching can take many forms; each school should choose the mode of collaboration which best suits learner needs. Some options are joint planning, small group work, parallel teaching, support teaching or team teaching. All forms of collaborative teaching should include assessment of learner performance/learning outcomes as well as evaluation of the unit of work/lesson sequence. *Collaborative learning* is any learning where two or more students are working together on a learning experience. It is learner-centred where stu-

dents are active participants and have clear roles, responsibilities and outcomes – both long term and short term. The success of the group is dependent upon the contribution of every individual. Collaborative skills are important in many work and social contexts. The purpose of collaborative learning in schools is to give learners an avenue where they learn the skills of active listening, positive conflict resolution and awareness/acceptance of others' views (ESL FundameNTals, 2004**).**

# 3  Research

The following research problem was formulated for the investigation:
*Does project-based learning help isolated pupils integrate into the class collective?*
The research hypothesis was formulated according to the research problem:
*Project-based learning helps isolates with integration into the class more than frontal teaching.*
The research hypothesis was transformed to the statistic hypothesis:
*The number of isolates determined using sociometric investigation after project-based learning is lower than the number of isolates determined using sociometric investigation after frontal teaching.*
Subsequently, the null and alternative hypotheses were formulated:
$H_0$: *The number of isolates within frontal teaching is the same as within project-based learning.*
$H_A$: *The number of isolates within frontal teaching is different than within project-based learning.*

## 3.1  Research method

The sociometric-rating questionnaire B-3 SORAD by Vladimír Hrabal was used to determine the number of isolates after using project-based learning and after frontal teaching. This questionnaire was chosen because it allows an easy computer processing in the form of class hierarchy, where it is easy to recognize the names of children that represent the isolates. Moreover, the sociogram of positive relations as well as the sociogram of negative relations is given. Special attention was paid to such isolates that were labelled with the same order number in the sociogram and in the class hierarchy. If a positive relation from an isolate to a pupil of the rest of class is found, these two pupils will be assigned to one working group with the intention of strengthening of positive linkages.

The form of the questionnaire B-3 is the following:

1. My friends in our class include:
    1. ………………… 3 points
    2. ………………… 2 points
    3. ………………… 1 points

2. As a boyfriend/girlfriend I would not choose:
    1. ………………… 3 points
    2. ………………… 2 points
    3. ………………… 1 points

3. I evaluate myself as follows:
    a) I am always at the centre stage in the classroom.
    b) Sometimes I participate and I am usually informed of events in the classroom.
    c) A couple of times I participated in, but I do not use to be informed.
    d) It seems that the class does not care about my participation too much.
    e) I am not interested in the events in the classroom.

4. Answer yes – no:
    In the classroom there is at least one pupil who is unhappy.          yes – no
    Who is it?
    Why is he/she unhappy?
    There is someone in the class that the others hurt occasionally.       yes – no
    Who is it?
    Why they hurt him/her?
    Sometimes I'm looking forward to school.                              yes – no
    Mostly I find someone who can help me with a problem.                 yes – no
    We deal with common problems mostly in peace.                         yes – no

5. Circle the number in each row which best expresses the degree of your feelings in the classroom:

    | Feeling of security | 1 2 3 4 5 6 7 | Feeling of threat |
    |---|---|---|
    | Feeling of friendship | 1 2 3 4 5 6 7 | Feeling of antagonism |
    | Atmosphere of cooperation | 1 2 3 4 5 6 7 | Atmosphere of indifference |
    | Feeling of confidence | 1 2 3 4 5 6 7 | Feeling of distrust |
    | Tolerance | 1 2 3 4 5 6 7 | Intolerance |

6. Find someone in the class that is:
    | Righteous | Offensive |
    |---|---|
    | Reliable | Unjust |

| Witty | Ungrateful |
| Always at the center of the action | Unreliable |
| On good terms with all | Alone |

## 3.2  Evaluation and interpretation of the sociometric questionnaire

The questionnaire refers to the class dynamics. Sociometric stars, isolates as well as individuals at risk – potential victims of aggressors and aggressors themselves can be identified using the questionnaire. Class potential is also described by responses of pupils connected with their positions in the class, so we can find out those who are not comfortable in the classroom. The properties projected to the classmates represent also a very valuable source of information. The class positions hierarchy is built from several outputs of the questionnaire, and therefore it can be suitably used as a basis for intervention in the class. Sociometric stars have the largest radius in the classroom, their views are respected, and so they can streamline the educational intervention of the teacher. The rejected individuals can be also be identified through the results of the questionnaire. They are the easiest victims of the class, and we would like to know how they are satisfied in the class collective. In the case of negative feelings of the pupil is necessary to find the cause and try to change his/her position. In the case of the isolates it is necessary to try to integrate them into the class collective.

## 3.3  Preliminary research

The preliminary research was realized on a small sample of two classes of the seventh grade. The isolates were determined using the sociometric questionnaire B-3 and subsequently working groups were created so that each group contained an isolated pupil. That was followed by one-day implementation of project-based learning and the same questionnaire was submitted to the students after the teaching. The order of the small sample sociometric measurement was to determine whether the number of the isolates in the class decreases after the implementation of project-based learning. Given the small number of classes it was not possible to use the statistical Wilcoxon test. Considered was the frequency of isolates before and after the implementation of project-based learning here.

## 3.4  Research sample

The research was carried out in the seventh, eighth and ninth grades of primary school. A total of 178 pupils took part in the research.

## 3.5 Process of research

The sociometric questionnaire B-3 was submitted to the pupils of the research group at the end of November 2011 after the previous one-month period of using classical frontal teaching without any project-based method in the classes. Working groups for the project were created based on the subsequent computer data processing of the questionnaire. The "Project Day" took place in such distributed classes in the following period, when each class was processing its topic. The classes did not mix each other during this period. The sociometric questionnaire B-3 was answered by the pupils after the project again. The names of the isolated pupils were obtained from the class hierarchy based on the following computer processing of the second questionnaire. The number that represents the position in the class hierarchy is obtained summing all positive options and substracting all negative ones. The "sociometric stars" have the most points and the isolates have the fewest points.

## 3.6 Sociometric results

The following table shows the sociometric results connecting with the number of isolates in the classes obtained from the questionnaire.

**Table 1:** Sociometric results – number of isolates

|                              | 7.A | 7.B | 7.C | 8.A | 8.B | 9.A | 9.B | 9.C | S   |
|------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Number of pupils in the class | 19  | 20  | 25  | 23  | 23  | 24  | 23  | 21  | 178 |
| Number of isolates before PBL | 5   | 8   | 10  | 9   | 8   | 8   | 7   | 5   | 60  |
| Number of isolates after PBL  | 3   | 5   | 7   | 10  | 6   | 5   | 4   | 5   | 45  |

## 3.7 Null hypothesis testing

The statistical *Wilcoxon test* was used to test the null hypothesis. The test is usually used in the case of repeated measurements of the same objects. The advantage of the test is that it reveals small differences between the measurements.

**Table 2**: Data for the Wilcoxon test

| Class | Number of isolates | | d | Order | + | − |
|---|---|---|---|---|---|---|
| | Before using PBL | After using PBL | | | | |
| 7. A | 5 | 3 | 2 | 2.5 | 2.5 | |
| 7. B | 8 | 5 | 3 | 5.5 | 5.5 | |
| 7. C | 10 | 7 | 3 | 5.5 | 5.5 | |
| 8. A | 9 | 10 | -1 | 1 | | 1 |
| 8. B | 8 | 6 | 2 | 2.5 | 2.5 | |
| 9. A | 8 | 5 | 3 | 5.5 | 5.5 | |
| 9. B | 7 | 4 | 3 | 5.5 | 5.5 | |
| 9. C | 5 | 5 | 0 | − | − | − |

Using the data from Table 2 one can compute the value of the Wilcoxon test criterion $T = 1$ (for details see e. g. Chráska, 2007). Since the table value of the criterion $T_{0.05}(7)$ for significance level $a = 0.05$ and for 7 pairs is equal to $2 > 1$, the hypothesis $H_0$ is rejected. It means that for this significance level there is a statistically significant difference between the number of isolates after frontal teaching and that of after project-based learning.

## 3.8  Conclusion of the research

The Wilcoxon test showed that the number of isolates within the frontal teaching and project-based learning is different. The number of isolates occurring in the class before implementation of the project method, i. e. within the classical frontal teaching, is higher than after using the project-based education. One can say that the project-based learning represents an effective means for integration of isolates to the class collective. Thus, the validity of our research hypothesis about usefulness of project-based learning for integration of isolates into the class was confirmed.

# Summary

Based on the data obtained from the sociometric investigation made in the seventh, eighth and ninth grades of primary school, we tried to determine whether project-based learning helps the integration of isolates into the class team more in comparison with frontal teaching. The survey showed that the number of students ranking in a hierarchical arrangement of the class in the category of isolates decreased using the project-based method compared to the number of isolates within the frontal teaching.

This result is considered to be very valuable. Project-based learning that gets more positive, and therefore we consider it appropriate to implement into teaching. It is an illusion that projects are the only way of including isolates into the class, but the results of our research have confirmed that they are one of the ways for marginalised children to be incorporated into a team. A comparison of the modern teaching methods in the context of pupils' relationships improvement could be an interesting topic for further research.

## References

Chapin, F. S. (1950). Sociometric Stars and Isolates. *American Journal of Sociology,* Vol. 56, pp. 263–267.

Chráska, M. (2007). *Methods of Pedagogical Research*. Praha: Grada.

Baranoková, E. (2012). *Project-based Learning as Help for Marginalized Children*. Diploma Thesis, Palacký University, Olomouc.

Grecmanová, H. & Urbanovská, E. (1997). Project-based Learning and its Importance at the Current School. *Pedagogika*, vol. 1, pp. 37–45.

Henry, J. (1994). *Teaching Through Projects*, London: Kogan Page Limited.

Hoffman, C. (2001). *Introduction to Sociometry*. Retrieved from: http://www.hoopandtree.org/sociometry.htm

Kasíková, H. (1997). *Cooperative Teaching, Cooperative School*, Praha: Portál.

Kratochvílová, J. (2003). *Theory and Practice of Project-based Learning*. Brno: Pedagogická fakulta MU.

Lodico, M. G., Spaulding, D. T. & Voeghtle, K. H. (2010). *Methods in Educational Research*. San Francisco: Jossey-Bass A Wiley Imprint.

McIntyre, T. (2003). *Sociograms*. Retrieved from: http://maxweber.hunter.cuny.edy/pub/eres/EDSPC715_MCINTYRE/Sociogram.html

Moreno, J. L. (1953). *Who Shall Survive?* Foundations of Sociometry, Group Psychotherapy and Sociodrama. Beacon House, Inc.

Sherman, L. (2002). *Sociometry in the Classroom*. Retrieved from: http://www.users.muohio.edu/shermalw/sociometryfiles/socio_arehtmlx#what.

*Sociogram*, freeware. Retrieved from: http://www.phenotyping.com/sociogram/mSociogram.html

Thomas, J. W. (1998). *Project-based Learning: Overview*. Novato, CA: Buck Institute for Education.

Trabalíková, J. (2011). Cooperative Teaching and its Influnce on Climate in the Classroom of 5th Grade of Elementary School. *PEDAGOGIKA.SK,* Vol. 2 (No. 1), pp. 36–52.

Trabalíková, J. (2012). *Action plan of a teacher in his/her own class.* E-pedagogium [online]. 2012, II. [cit. 2012-10-20], pp. 71–93. ISSN 1213-7499. Retrieved from: http://www.upol.cz/fakulty/pdf/e-pedagogium.

*Understandings and strategies that underpin ESL pedagogy and practice*. ESL FundameNTals. (2004). Retrieved from: http://www.det.nt.gov.au/__data/assets/pdf_file/0015/5244/esl_fundamentals.pdf

# Acknowledgement

**Contacts:**
PaedDr. Bronislava Štěpánková, Ph.D.
Institute of Education and Social Studies, Faculty of Education,
Palacký University, Olomouc, Czech Republic
E-mail: bronislava.stepankova@upol.cz

doc. RNDr. Petr Emanovský, Ph.D.
Department of Algebra and Geometry, Faculty of Science,
Palacký University, Olomouc, Czech Republic.
E-mail: petr.emanovsky@upol.cz

---

### IJAS Conference in Toronto

The "International Journal of Arts and Sciences" Conference Series takes place annually in several cities across Europe and North America. One of the traditional international conferences was organized from May 19 to May 22 2013 at Ryerson University in Toronto, Canada. The conference brought together more than 100 international academics from around the world, including professors and graduate students, to present research in their respective fields. There were many interesting talks presented in four sections: Social Sciences and Humanities, Business and Economics, Teaching and Education and Technology and Science. The IJAS Conferences are typical multidisciplinary conferences where each participant can find a topic that interests her/him. Not otherwise it was in the pleasant environment of Ryerson University.

# Internal world representation in adolescents in the context of normal and abnormal development

## Joanna Kossewska

**Abstract**

The article tries to briefly look at the process of identity development and content of internal world cognitive representation in the youth with normal and abnormal development. As it is reviewed the specific developmental conditions influence the subjective world representation as well as psychological outcomes of its differentiation related to normal and abnormal development.

**Key words:** world representation, identity development, hearing impairment, chronic illness.

## World representation and its regulative function

Though the effectiveness of corrective interaction is conditioned on numerous factors, the inner representation of the world that the youth contributes to the contact with carers and therapists may be one of them. Man is not a passive recipient of the incoming information, but processes, selects and interprets it on the basis of the experiences en-

coded in memory, which, as a result, leads to the creation of a subjective representation of reality in mind, what is an important element of identity and proper self-evaluation.

This representation, being a global cognitive representation, performs a crucial regulative function in conduct. This *representation*, so a system of judgments about the essence of the world (a real picture of the world consisting of ontological statements) tends to be distinguished from the outlook (being an ideal picture of the world), in which recognized values, that is the criteria of the world cognition and its evaluation, take an important place (Gurycka, 1994).

Subjective perception of oneself and the surrounding world, so building the picture of reality or its cognitive representation is the thing that determines the individual's subjectivity and individuality (Markus, 1983). Not the objectively existing world and its particular elements alone exert a crucial influence upon human behavior, but the subjective picture of the world, individually processed, constructed. Thus, reality representation in human mind has a double form. On one hand, it is of an individual character because it consists of representations of various episodes and events experienced by the individual, on the other hand, it takes the form of cognitive schemes including general representations, hypotheses on the surrounding reality (the world and oneself) as well as generalized knowledge, aside from a particular context. Schemes, fulfilling the role of patterns arrange experience, encode knowledge, so that it may be the basis of judgments, decisions, conclusions, predictions and expectations' formulation (Markus, 1983). Individual versions of reality created by the individual, function in the form of personal constructs being a generalized interpretation of facts, serving to characterizing the objects of our cognition (persons and situations) and eliciting similarities and differences among them. Personal constructs allow to construct experiences and give meaning to events, and through that they determine the perception of reality and anticipation of future events (Kelly, 1955 in Kofta, Doliński, 2000).

In the recent years, many interesting studies and discoveries have been carried out regarding the development of single objects and concepts cognitive representations (e. g. Bartmiński, 1990; Kielar-Turska, 1998, 2005), studies on the representation of the world as a whole are much rarer (Gurycka, 1994, Bulla, 1997, Świda-Zięba, 2000) and that seems to be particularly interesting as *"the global representation of the world in human mind and his place in the world"* (Gurycka 1994, p. 7), playing an important regulative function, implies the way of human conduct and conditions possibilities of coping with burdens, as well as the way of problem solving, and is a basic point of reference for his understanding of the world (Gurycka, Tarnowki, 1996).

The representation of the world happening "here and now" has a complex structure and consists of diverse elements marked out by the activity of the individual, which may be analyzed from the interpsychical perspective of **Bioecological Model of Human Development** (Santrock, 2007). The most important element connected with the functioning of the individual is the "Self" category which may be enriched with descriptive and

evaluative elements, as well as those containing the developmental aspect. The "Self" category along with interpersonal relations with the closest family members (treated separately or jointly) create a microsystem. Other people, who are an important element of a mesosystem in which the individual lives, and the social environment presented as public institutions and establishments that create the level of exosystem (school, the scouts, place of work) also belong to the crucial categories appearing in the subjective world. Both adults and the youth in their subjective worlds allow for the presence of such elements of the macrosystem as: the economic and political environment (the state, political system, nationality) and natural environment (the nature, nature protection, civilization diseases). **Chronosystem** – refers to the pattern of environmental events and transitions over time. It includes the individual time perspective.

Three levels of description are taken into consideration when characterizing the mental representation of the world. The first level reveals the material aspect (declarative, figurative) of the world picture and refers to the isolation of units (objects) that constitute that picture, the second one – evaluative – contains information about the subjective attitude of the individual towards the isolated objects, the third – logical and operational (procedural) – regards the analysis of relations between objects, that is the organization and structure of the world picture.

## World representation in the adolescence stage

Research conducted under Gurycka's instruction (1994, 1996) provided valuable data about the content of the material world representation in high school youth. The subjective world of the youth is dominated by two opposing values: on one hand, young people search for pleasure connected with possessing material comforts and playful contacts with peers, however, on the other hand – they focus on existential issues such as the aim and sense of life, moral values, religion. The world of the youth concentrates on the central "I" category which has positive features, but is also a source of anxiety, hesitations and reflections. The world picture is filled with positive feelings revealed towards people, objects and values being the structural units of the subjective world, while negative emotions of fear and anxiety appear in relation to the future. The world picture of the youth reflects its reflectivity and humanism, as well as independence (Tarnowski, 1996, 1998). It contains elements that are crucial owing to the present course of the individual's developmental process and life events ahead of it.

The analysis of the world representation in the early adolescence stage was performed by Bulla (1997) with the use of Child's Living Space method. The world of younger youth is mostly filled with close people and peers towards whom positive feelings dominate, as well as with institutions, the natural environment and particular material values. The younger youth relatively rarely express their interests and existential values in the world structure.

Comprehensive research carried out by Świda-Zięba (2000) contributes to the knowledge about the values of the present Polish youth. The representation of oneself and the world that functions in the minds of adolescents was also a subject of the author's analyses. One of the elements of this picture's structure is the creation of future plans that are connected with future time perspective. A young man starts to gain knowledge about his/her own feelings, needs, attitudes and possibilities. Gaining knowledge about oneself as a result of experiences with the outer world enriches and establishes the picture of one's own person and the picture of the world. Knowledge of oneself, one's needs, values, ideals and skills plays an important role in shaping life plans and the actions of the individual. Future plans creation makes it possible to obtain greater autonomy, self-determination, management of one's own life and development. In the adolescence period, life plans are not worked out yet. In this period, the individual creates a vision of a perfect world in which he/she also finds a place for himself/herself. He/She extends life plans, sometimes very remote ones, but often little realistic as they still do not sufficiently allow for opportunities in the form of outer objective conditions and their own predispositions.

## World representation in the disabled and chronically ill youth

Time perspective as an element of the world representation appears in the youth with a mild level of intellectual disability. This youth also make plans for the future, think and dream about becoming self-dependent, which they reveal by expressing their own expectations and desires. But limitations in the intellectual sphere, lack of the ability of abstract thinking do not however enable to perceive significant connections between one's own action and its effects. These restrictions do not allow to predict the course of events happening independently of the subject. It hinders the possibility of influencing the course of events and one's own fate, and taking intended and intentional actions. As a consequence, the youth with a mild level of intellectual disability have difficulties in defining states which do not exist yet, or in creating realistic plans for the future. They also often cannot evaluate their conduct skills appropriately. They assess various social situations from the perspective of one's own *I*, not being able to look at the given situations from the perspective of others (Kowalik, 1989).

In comparison with the healthy youth, young people with motor dysfunctions construct less diverse maps of the world, which is the result of objective limitations in interpersonal relations, caused by locomotion limitations (Wilk, 2000, as in Pilecka, 2002). Physical limitations cause lower sense of influence on oneself, on other people and on the course of events, and also lesser material scope of the world representation. However, this less intense physical activity is conducive to inner reflection and

development of the value system, in which God, being its keystone and central point, plays a particular role.

God and spiritual values are also dominant elements in the world representation in the youth with asthma (Jabłońska, 2001, as in Pilecka 2002). The ill youth's representation of the world, despite numerous similarities in the scope of emotional content and color to the picture in the healthy youth, is characterized by peculiar dichotomy of two categories: God and his attributes and the church. God is connected with the accepted system of values, especially with love and the good, whereas the church is associated with participation in collective forms of religious life. In spite of the material differentiation, both categories are very important for the youth with asthma and are two sources of support – spiritual and social. The healthy youth probably derive social support from other sources, hence the church plays a less important role in their subjective world.

The world representation is somewhat differently constructed by the youth with insulin-dependent diabetes (Nitecka, 2001, as in Pilecka, 2002). The material scope of the world representations created by this group of the youth is smaller, but social relations and material comforts take a special place in it. Values and other dimensions of the spiritual world do not decide about the representation content in a significant way. The color of the constructed vision of the world is definitely positive. Elements of the real world dominate in the world representation of the ill youth, which shows a huge need of action and the conviction of one's own efficacy and personal influence on the course of events.

## World representation in the youth with conduct disorders

Children and the youth with adaptive difficulties, and boys in the first place, create a negative and threatening representation of the social environment (Pilecka, 2002).

The research on the world representation in the youth with conduct disorders was carried out by Kossewska (2000). The youth aged 15–17 under the custody of the Emergency Fostering took part in the research due to the specificity of their personal experiences and particular course of socialization process and considerable level of moral corruption. The studied youth committed crimes against property, health and life – fights, robberies, thefts, and therefore were under institutional custody. The control group was high school youth paired with the youth from the experimental group as regards the similarity of independent variables (age and sex). Cognitive representation of the world in the minds of the youth with conduct disorders was determined on the basis of A. Gurycka's (1994) method – "The Map of My World".

The **Emergency Fostering** is a kind of emergency educational care center where children deprived of constant and appropriate parental care are sent. Emergency centers provide a child, who is partially or entirely deprived of parental care and in a crisis

situation, with an emergency, 24-hour care, education adjusted to the age and devel-
opmental possibilities, care and education until return to the family, or placement in
a foster family, socialization or family facility. These centers may connect intervention,
socialization and therapeutic activities towards the child and his/her family.

The Emergency Fostering arranges the first stage of care for children and the youth
aged 7–18. Children who run away from home, or from other educational care cent-
ers, who wander around streets, do not have their own house, who are minor victims
of domestic violence, stay at the shelter. Not infrequently they are the youth who in-
fringed the law and were sent to the shelter on the basis of the regulations of the Act
on Juvenile Delinquency Proceedings. Juvenile delinquents are placed there for the
time of a pending trial. A considerable percentage of the children come from families
dominated by alcoholism, violence, poverty, unemployment and all kinds of addictions.

Emergency Fostering also organize rehabilitative, therapeutic and compensatory
activities and help the children with fulfilling their schooling obligation.

The quoted studies of the cognitive world representation in the minds of the youth
with conduct disorders revealed characteristic features of its inner picture of the world.
Concentration on oneself is a crucial feature that is shown by defining a central object
from which links in the direction of other objects split radially. Most often, one's own "I"
is the central object, and in that case the world representation is of egocentric character
(Neff, 1996). This central type of the world picture proves an intensified egocentrism in
comparison with the control group. Egocentrism is a natural, though developmentally
earlier stage of personality structure shaping process and also a symptom of the intensi-
fied self-affirmation need which could not be met by satisfactory interpersonal relations
with significant people. According to Urszula and Mariusz Filla's (1996) research findings,
the "I" category is more frequent in the youth than in adults, more often in boys than in
girls. Egocentrism takes multiple forms (Zaborowski, 2002), at least two of which – basic
and cognitive egocentrism – may be found in the studied youth, the result of which
may be cognitive decentralition process inhibition consisting in the integration of one's
own perspective with the perspectives of other people.

The central place of one's own person in the world representation is a characteristic
feature in the adolescence period and influences narrowing the area of interests and
the idealization of one's own individuality. Neff's studies (1996) showed that the cen-
tric type is however a form of some impoverished world vision dominated by objects
connected with the closest family circle, providing – in families properly fulfilling their
functions – a sense of security. People with this type of world representation do not
show particular interests in social life, so they do not have ambitions to play a dominant
role in it, they do not start reflection on philosophical issues but do not experience inner
conflicts either. The presence of objects with the pronoun "my" symbolizes the spread
of the "I" boundaries on other significant elements that become important components
of the inner psychical world. It may result from a pathological relation with the object in

childhood (Gasiul, 1992). More often, in comparison with the control group, placement of one's own person on the Map of the World and attributing more importance to it, as well as lack of emotional color towards oneself – neither positive nor negative emotions, nor reflection – show serious inner conflicts being the basis for antisocial conduct forms that is an immediate reason for placing the child in an Emergency Fostering.

Lack of reflection towards oneself may reveal difficulties in the process of self-education consisting in learning how to undertake actions and meet obligations. This process starts as early as in childhood and reaches its maximum after the adolescence period and, as the results show, is more intense in the youth from the control group. Self-creation competence, that is the wisdom of experience boosting resistance to stress and helping to cope with failures and life's adversities, is an effect of self-education (Przetacznik-Gierowska, 1993).

The elements of the world in the youth with conduct disorders are less often connected with positive links. The limited network of emotional bonds in the world of the youth, on the basis of broad studies conducted in England, is regarded as one of the factors of social environment that determines antisocial conduct (Radochoński, Perenc, 2000).

The world representation in the youth under the custody of the Emergency Fostering is characterized by lesser maturity, which was particularly shown in the number of isolated objects, not related to the other elements of the subjective world. Incoherence in the subjective picture of the world seems to follow from the conflict character of the relations between the individual and his/her closest social environment. Polarized families present contradictory attitudes towards important issues and events and normative patterns, which causes lack of sense of security and hinders the formation of a coherent picture of the world in children (Satir, 2002).

However, in the youth with conduct disorders negative and conflict relations between the "Self" and family members appeared, even if negative emotions towards them were not shown. So, concentration on oneself may be a defense reaction serving the reduction of negative emotions connected with traumatic experiences from interpersonal relations with the members of one's own family, it may also reduce the ability to anticipate future goals and plans aimed at the future – however, if they appear, they are very specific and do not have many details (job, family).

The youth under the custody of the Emergency Fostering feels the possibility of exerting influence on particular elements of one's own individual world in a much weaker way than the control group, which may result from a weaker expectation of one's own efficacy (Bandura, 1977, Domańska-Najder, 1984, as in Poznaniak 1998). Actions taken by the wards of the institution are more often situation-conditioned in its subjective interpretation than dependent on one's own competencies, the evaluation of which may also be lowered.

The experience of lesser personal influence on the elements of one's own world suggests that the "Self" does not fulfil controlling or central function in decision-making mechanisms. Losing control over the world (the life, action) leads to acquired helplessness, which may be treated as a fixed defense mechanism reducing the risk of failure, and also reducing negative emotions, or as a manifestation of a low sense of one's own efficacy or coherence that play a vital role in the process of coping with life adversities (Antonovski, 1995).

In comparison with the control group, the world representation in the youth with conduct disorders is more saturated with elements of the real world and material objects. Institutions fulfilling care and educational functions also appear more often. From Gurycka's (1998) studies it follows that school is a frequent element of the youth's picture of the world, however, owing to the fact that the autonomy of the youth staying at the center is obviously limited, institutions that define the frames of the living space dominate in their world representation. However, school does not have much meaning for the youth from both groups and negative emotions are shown towards it. School remains in conflict with other objects as it limits interests' development, hence, is not conducive to harmonize with the world of the youth. Although the youth under the custody of the Emergency Fostering have limited possibilities of influencing their own individual real world, still, they do not show so many negative emotions towards formal institutions as the control group. The observed difference between the studied groups can be analyzed on two levels: the individual – allowing for the individual's needs and the institutional one – following from the diversity of institutions and their functions. The youth from the control group experience many negative emotions towards school, which in relation with the educational system reform became an institution that only fulfils the curriculum, and social life and pursuing one's own interests moved outside school boundaries. On the other hand though, formal education is a crucial element of the plan for the future, so anxiety connected with the fear of failure and time pressure appears. For the youth from the Emergency Fostering, institutions which are objects of the real world, fulfil complex functions: rehabilitative, training and educational. They create a present environment in which the youth develop and may meet their personal needs under controlled conditions. Personal traits of counselors and teachers in relation to institutions may have a significant meaning to the wards, among which emphatic sensitivity and the ability to understand the ward's situation are particularly important as for this group they substitute a parent, they are not only specialists implementing the curriculum (Morgan, 1984, Kliś, Kossewska, 2000).

# World representation in the youth with hearing impairment

Hearing impairment is the factor influencing individual experience and development. However, as it influences the identity development, it might also impact the world representation understood as a system of knowledge comprising an individual's information and beliefs developing as the individual gains experience.

In the study of deaf adolescents done by Kossewska (2012) subjects aged 15–17 were tested individually with the applied method called "Map of My World" by Gurycka (1994). It was showed that there is a great similarity of the world representation developmental pathway between the deaf and the hearing in the scope of the presence of future temporal orientation The Deaf adolescents present significantly fewer time categories on their world representation than the hearing ones do. They are usually related to present real objects, such as school, peer and family relationships, dating. The world of hearing adolescents includes more future time perspective which is related to vocational as well as social and personal goals.

Polish Deaf adolescents attend segregated school and usually live in a dormitory outside their family. Social life and realisation of interests have moved out of the family. For deaf and low-hearing youths, institutions of the real world perform complex functions: socialisation, education and upbringing. Institutions create a controlled environment where young people may develop and satisfy their needs. They give them a chance to realise the need of influence which is very important in the development of a mature, responsible personality. Present time perspective may limit the range of deaf adolescents' judgements, decisions and actions. Only few deaf youths pointed out the prolong education and profession as important values within the future context, while according to Zimbardo and Boyd (1999), a more future-based time perspective could help students study and progress to higher education. Deaf and hearing adolescents develop in relatively less secure environments, thus according to Evolutionary Life Theory, it may be followed by present oriented behavioural strategies, which reflect an orientation towards immediate outcomes and little concern for future consequences.

This finding may result from the fact that 90 % of deaf children are born to hearing parents, and these children may not have received any usable language input during critical language acquisition periods of brain development. Lacking language input during a child's earliest years and the underdevelopment of a formal language system can result in an adult without fluency or competence in any language, including sign language (Sacks, 1989). Hearing family usually creates the low-stimulating developmental environment. Possession of a language system is necessary to facilitate abstract thinking, mature personality development and future goal orientation. Without such a system, some deaf persons may lack the ability to think abstractly or to generalize concepts. The development of future time orientation might be also limited by the low

level of verbal communication skills, as to a result of the issue, an average deaf adult reads English at a fourth grade level (Haskins, 2000).

# Conclusions

1. The world representation presenting the inner picture of the real world that emerged in the minds of the youth in connection with their socializing experiences fulfils a vital regulative function.
2. The representation of the world possessed by the youth with conductive disorders in comparison with the youth from the control group has specific features: the centric type of the world picture – containing the general "I" category; more saturation with real and material objects; lesser expressed sense of influence; fewer positive links between objects; lesser maturity.
3. The peculiarity of the representation of the world in the youth with conduct disorders results from diverse socializing experiences involved in interpersonal relations in the family.
4. The analysis of the material world representation may present an important element of personality structure development process and the basis for creating individual therapy program and the rehabilitative process of the youth with conduct disorders, a ward of the Emergency Fostering involved in infringing the law.
5. Building narration around the cognitive world representation revealed by the youth with conduct disorders may be a crucial element of family therapy, conducted from the perspective of the theory of systems as well as from the cognitive-behavioral one, and also of prevention and preventive measures and supporting the areas within which development is not disturbed.
6. The Deaf and hard-hearing Polish adolescents present significantly fewer time categories on their world representation than the hearing ones do. They are usually related to present real objects as school, peer and family relationships, dating. The world of hearing adolescents includes more future time perspective which is related to vocational as well as social and personal goals.

# References

Antonovsky, A. (1995). *Rozwikłanie tajemnicy zdrowia. Jak radzić sobie ze stresem i nie zachorować*, Warszawa: Fundacja IPN.
Bartmiński, J. (1990). *Językowy obraz świata*. Lublin: UMCS,.
Bulla, B. (1997). Stosunek badanych dzieci do własnej osoby i świata. In M. John-Borys (Ed.), *Pomoc dzieciom zagrożonym patologią środowiska rodzinnego i lokalnego*. Katowice: Wydawnictwo Uniwersytetu Śląskiego, pp. 123–134.

Fila, U., Fila, M. (1996). Charakterystyka obiektów Map Mojego Świata młodzieży i dorosłych. [in:] A. Gurycka (Ed.), *Typologia i funkcje obrazu świata w umyśle człowieka*. Poznań: Wydawnictwo Fundacji Humaniora, pp. 39–52.

Gasiul, H. (1992). *Oblicza „ja" w świetle wybranych koncepcji psychologicznych. Pojęcie rozwój patologia.* Bydgoszcz: Wydawnictwo WSP.

Gurycka, A. (1994). *Reprezentacja świata w umysłach młodzieży – geneza.* Warszawa: Pracownia PTP.

Gurycka, A. (1996). *Typologia i funkcje obrazu świata w umyśle człowieka.* Poznań: Wydawnictwo Fundacji Humaniora.

Gurycka, A. (1998) Charakterystyka wybranych źródeł autorytetów na podstawie badań nad światopoglądem. In A. Gurycka, T. Neff & A. Tarnowski (Eds.), *Jak ludzie spostrzegają swój świat*. Warszawa: Wydawnictwo Akademickie „Żak", pp. 91–100.

Kielar-Turska, M. (1998). Umysłowa reprezentacja świata dziewięciolatka na przykładzie analizy znaczenia słowa mądrość. In M. Smoczyńska (Ed.), *Studia z psychologii rozwojowej i psycholingwistyki*. Kraków: Universitas, pp. 179–188.

Kielar-Turska, M. (2005). Rozwój reprezentacji poznawczej na przykładzie potocznej wiedzy o polityce. In Ledzińska M., Rudkowska G. & Wrona, L. (Eds.). *Psychologia współczesna: oczekiwania i rzeczywistość*. Kraków: Wydawnictwo Naukowe AP, pp. 203–216.

Kliś, M. & Kossevska, J. (2000). *Studies on Empathy*. Kraków: Wydawnictwo Naukowe AP.

Kofta, M. & Doliński, D. (2000). Poznawcze podejście do osobowości. In J. STRELAU (Ed.), *Psychologia. Podręcznik akademicki*. t 2. Gdańsk: Gdańskie Wydawnictwo Psychologiczne, pp. 561–600.

Kossevska, J. (2006). Representation of the World in Youth with Conduct Disorders. In Kliś, M., Kossewska, J. & W. Czajkowski. *Studies on Communications and Doping with Stress*. Kraków: WN AP.

Kossewska, J. (2012). Temporal Orientation as the Attribute of World Representation in Deaf Adolescents. Poster presentation 1st Conference on Time Perspective, Coimbra, Portugal, 5.–8. 9. 2012.

Markus, H. (1983). Self-knowledge: An Expanded View. *Journal of Personality*, vol. 51, pp. 543–565.

Morgan, S. (1984). An Illustrative Case of High-empathy Teachers. *Humanistic Education and Development*, vol. 1, pp. 70–83.

Neff, T. (1996). Mapa Mojego Świata w świetle projekcyjnej interpretacji rysunku In A. Gurycka (Ed.), *Typologia i funkcje obrazu świata w umyśle człowieka*. Poznań: Wydawnictwo Fundacji Humaniora, pp. 90–139.

Pilecka, W. (2002). *Przewlekła choroba somatyczna w życiu i rozwoju dziecka. Problemy psychologiczne.* Kraków Wydawnictwo UJ.

Poznaniak, W. (1998). Teorie uczenia się społecznego jako model normalnego i zaburzonego funkcjonowania jednostki oraz grupy. In H. Sęk (Ed.), *Społeczna psychologia kliniczna*. Warszawa: PWN, pp. 70–98.

Przetacznik-Gierovska, M. (1993). *Rozwój człowieka a samowychowanie.* Wykład na II Krajowej Konferencji Psychologów Rozwojowych. Przegorzały, 6–9.

Radochoński, M. & Perenc, L. (2000). Rozwój osobowości antyspołecznej w ontogenezie In F. Kozaczuk & M. Radochoński (Eds.), *Aktualne problemy pedagogiki resocjalizacyjnej i patologii społecznej*. Rzeszów: Wydawnictwo WSP, pp. 45–69.

Sacks, O. (1989). *Seeing Voices: A Journey into the World of the Deaf.* Berkeley, CA: University of California Press.

Santrock, J. W. (2007). *A Topical Approach to Life-Span Development.* New York, NY: McGraw-Hill.

Satir, V. (2002) *Rodzina. Tu powstaje człowiek.* Gdańsk: Gdańskie Wydawnictwo Psychologiczne.

Świda-Zięba, H. (2000). Obraz świata i bycia w świecie: z badań młodzieży licealnej, Warszawa: UW.

Tarnowski, A. (1996). Typologia światopoglądu na podstawie ilościowej analizy Map Mojego Świata. In A. Gurycka (ed.), *Typologia i funkcje obrazu świata w umyśle człowieka*. Poznań: Wydawnictwo Fundacji Humaniora, pp. 53–89.

Tarnowski, A. (1998). Humaniści, społecznicy, pragmatycy. In A. Gurycka, T. Neff & A. Tarnowski *Jak ludzie spostrzegają swój świat*. Warszawa: Wydawnictwo Akademickie „Żak", pp. 17–40.

Zaborowski, Z. (2002). *Człowiek, jego świat i życie. Próba integracji*. Warszawa: Wydawnictwo Akademickie „Żak".

Zimbardo P. & Boyd J. (1999). Putting Time in Perspective: A Valid, Reliable Individual-Difference Metric. *The Journal of Personality and Social Psychology*, vol. 77, pp. 1271–88.

**Contact:**
Joanna Kossewska, Ph.D.
Pedagogical University
Department of Psychology
30-084  Krakow, Poland
Podchorazych St. 2
e-mail: Joanna.Kossewska@ap.krakow.pl

The Faculty of Law, Palacký University, Olomouc cordially invites you to the second year of the international scientific conference "Mediation 2013 – The way to Co-operation and Conciliation", which will be held from 27th to 28th September 2013 at the Faculty's premises. The conference will be organised in three parts. Initial presentations given by the main speakers will be followed by lectures in individual sections: Mediation in legal and social context, Mediation as a method, Application fields of mediation and the Profession of a mediator. The third part of the Conference will consist of workshops with practical demonstrations of mediation techniques and activities of professionals and organisations engaged in mediation. For further information including electronic registration form see:
http://www.mediaceolomouc.eu/

# Supervision as prevention and support to teachers in inclusive education

**Petra Potměšilová, Miloň Potměšil,
Marcela Fojtíková Roubalová**

**Abstract**

The presented research was focused on the field of sentiments, attitudes and concerns of educators potentially working with pupils with impairment under inclusive settings.

This study was aimed at discovering whether the above stated parameters change after achieving qualification in special needs education. The results of research encompassing a period of two years aimed at describing a group of 794 educators from the point of view of the development of their attitudes, opinions and concerns while being focused on the process of inclusion. In accordance with the obtained results, supervision as a special psychological support is badly needed.

**Key words:** inclusion, attitudes, sentiments, education, pupils with impairment, methodology of teaching, overloading, stress, supervision, teacher.

# Introduction

## Notions of the first part research

In regard to the fact that the presented research is directed to the field of special needs education, which represents, in the context of pedagogy and education, a very good example of an inter-field approach, the respective terminology was defined at first. It is necessary to mention normalization and inclusion. Probably the most fundamental statement in relation to upbringing and education was expressed in the Salamanca statement (1994) by the representatives of 92 UNESCO member countries in their declaration. This declaration speaks about tendencies which lead to elimination of discriminating attitudes through establishing open inclusive schools and, subsequently, through creating social consciousness which is also directed towards the principles of inclusion. The main issue discussed therein was education, and that is why the principal theme characteristic for the entire recent process was: "Education for all". A significant attribute was the notion of *normalization*, which is closely linked with the requirement for adjustments of conditions ensuring the "normal" life of people with mental disabilities. It was first introduced by the Danish lawyer Niels Erik Bank-Mikkelsen (1999). Adjustment – normalization refers to common every-day activities, involvement in the every-day life of society in the extent of being acceptable to each particular person. This concept then also gave rise to a similar view of the process of education (Gilbert & Hart, 1990) and socialization of people with other types of disadvantages.

The essential term for this study is *inclusion*. The concept of inclusion follows the basic human rights, which – if they are to be abided by – may not leave out the group of people with special needs (Meijer, 2001). Inclusion thus, for our purposes, represents a set of conditions, which, if they operate mutually/bilaterally, provide handicapped people with an approach by the majority of society focusing on developing their potentials in individual sectors and supporting their abilities so that they become fully functional tools for a maximum independent life within the society. The fundamental difference lies in the fact that pedagogy, in the event of inclusion, operates with human rights. To simplify things, it may be stated that a school must be conformed to a child, not the child to the school (Groma, 2008). Inclusive pedagogy views children or pupils from such a position, which does not distinguish the differences caused by the above-mentioned reasons, but it is supposed to work with a group where each individual has his/her own particular needs compared with Milovanovitch (2009).

The aims of the educational process are stipulated in the national, and later, in the school educational curriculum and, if need be, in an individualized plan serving as a tool corresponding to specific needs. Within the framework of general pedagogy, modern educational philosophy views, the current trend as being comprehensive. In this respect, e.g. R. Barrow and R. Woods (2006) mention on pages 94–95 the requirements for educators and teachers who implement the process of education and characterize

it as "rational" and explain it further from the point of view of the modern conception of pedagogy and the necessary competencies of teachers. Competencies of teachers towards handicapped children and pupils are dealt with in a publication by A. W. Brue and L. Wilmshurst (2005) who list the competencies of educators essential for work with children and pupils with various types of handicap and then also the special needs in education. K. Hull (2002) offers specific characteristics of inclusion and inclusive education and sees the following assumptions as fundamental (p. 13):

- Handicapped children may take part in the same educational programs as their contemporaries.
- They can visit an environment which reflects their real age.
- They can, if need be, use an individual approach in the form of an individualized educational plan (IEP).
- They have the right to receive support from the special needs education, according to their needs.

General educational work focused on children and pupils, both handicapped and intact, naturally demands the readiness and competencies of the respective pedagogical personnel. Hájková (2005) as well as Blake, Smeyers, Smith, Standish (2006) defines the professional competencies of a teacher as a set of prerequisites for performing teaching activities, and also as a capacity to act intelligently in situations which are constantly new and unique, with the aim of finding a suitable on-the-spot response. If a teacher possesses these abilities to evaluate and make decisions, he/she is apt to choose suited responses in situations which can be completely new and unexpected – there is more about this from Lambe (2007). With respect to the fact that our aim is not to present specific competencies expected of teachers who are specialized in the education of handicapped children (from the point of view of the type), by taking into account the specificities of particular handicap. The research results of studies conducted by D. J. Bjarnason (2005) in Iceland indicated a close cohesion between the change of conditions within the transformation of the traditional approaches to the form of inclusive education and their reflection in the preparation of future educators. From the point of view of the monitored competencies and attitudes, the author is clearly speaking about "… changed general educator's roles in the face of growing student diversity".

## The aim of the research

The study (the complete research report was published as an article: Potměšil (2011) was aimed at describing a group of 794 educators from the point of view of the development of their attitudes, opinions and concerns focused on the process of inclusion. In accordance with the acquired results one of the supportive form will be designed – the supervision.

# Method

Data was gathered from in-service teachers working in different parts of the Czech Republic. All the participants took part in the research as volunteers. The total data set comprised of 638 completed questionnaires. The data was collected between 2009 and 2011 using the questionnaire which was used by Loreman et al. (2007). A statistical analysis was conducted on the data employing a principal component analysis.

## Analysis of the acquired data

The research involved 794 informants from all over the Czech Republic. (22.4 % males, 77.6 % females). The age of informants oscillated by 32.8 % up to the age of 29 years, while 37.8 % fell into the category of 30–39 years and 29.4 % above the age of 40.

The education level of our informants was as follows: 59.5 % informants completed their secondary schools education, 24.6 % informants completed their study with a Bachelor's degree and 15.9 % informants completed their study of a Master's degree. A mere 0.5 % of the informants had completed their doctorate program (Ph.D.).

In order to conduct further analysis, all the items of the questionnaire were divided into two groups:

1. **Labor input and stress**
   That group of statements referring to labor input and stress when teachers work with students with special needs under the conditions of inclusive education should also be considered, and then summed up with the following from the acquired data:
   - More than 90 % of the informants of both the waves do not have a negative relationship towards handicapped people.
   - Approximately 70 % of the informants in both the waves believe that the presence of a pupil with special educational needs in a classroom shall increase their work load.
   - 58 % of the informants in both the waves expressed their misgivings of sufficient support for inclusive education on the part of professional workplaces.
   - The level of one's own competencies was regarded as insufficient by 58.9 % of the informants.
   - More than 36.4 % of the informants voiced their concerns that it was not possible to pay enough attention to a pupil with specific educational needs.
   - The presence of a handicapped pupil was regarded as a great source of stress by 29 % of the informants.

2. **The education process and its management**
   In this set of statements there were answers regarding the process of inclusive education and opinions of educators about managing of their load.
   - The statements focusing on the presence of pupils with impaired communication competencies and the possible presence of an assistant were evaluated positively by over 90 % of informants.
   - Almost 70 % of the informants negated the possibility to incorporate pupils with aggressive behavior into a standard classroom in the form of inclusive education.
   - A shift in the evaluation of effectiveness and acceptability of work according to an individualized plan was demonstrated as 76.5 %.
   - Concerns about the application of special communication techniques were expressed by 52.7 % of the informants.
   - About 70 % informants did not show any concerns about working with pupils with ADHD disorders.
   - The presence of pupils who are constantly unsuccessful at school results is unthinkable for 52.7 % of the informants.
   - Problems with the acceptance of handicapped pupils by intact classmates were expected by approximately 40 % of the informants.

Conclusions relating to the labour input and stress and the process of education and its management:

The informants of the research relate positively to handicapped people, and as more than half of them are concerned about the insufficient support for inclusive education from professional workplaces, they therefore realize higher work load but the implementation of inclusive education does not seem to bring about any increased stress level for them. A half of the informants senses a lack of competencies and, consequently, also has concerns about whether they will not be able to pay sufficient attention to pupils with special needs.

Furthermore, the informants showed willingness to accept a pupil with specific needs and possibly even co-operation with an assistant. Work based on an individualized plan is accepted by the informants and is regarded beneficial. They, however, refuse to work with students with behavioural disorders in the extent of aggressiveness as constantly unsuccessful, whereas working with pupils with attention disorders does not seem to cause any concerns. A part of the informants (40 %) expressed their concerns about the acceptance of pupils with specific needs into the team of an intact group in a classroom.

In accordance with answers concerning sentiments, attitudes and concerns of educators when working under the conditions of inclusion, it can be stated that the sample of informants addressed in the presented research demonstrated conscious willingness

to co-operate on projects of individual inclusion. They feel, however, concerns on key items about the lack of professional competencies and support and effectiveness of such educational work.

The research, which is described below, is based on those results obtained before. The finding that more than 90 % of the addressed educators do not have a negative attitude towards disabled individuals was essential with respect to further research; however, a half of the respondents expressed their concerns in relation to the presence of a pupil with special educational needs at their primary schools. These concerns were clearly defined by the educators as associated with their fear of having insufficient skills and of apparently not receiving adequate support from professional institutions.

Based on the above, it might be concluded that with an adequate and well-functioning professional base, educators need not be concerned about the inclusion of pupils with special educational needs atnormal primary schools. As it is stated in Hull, Goldhaber & Capone (2002) or Gilbert & Hart (1990).

One of the fundamental factors facilitating effective expert support to educators should be supervision. Supervision constitutes standard support, which is utilised by psychologists and psychotherapists within their everyday work. Nevertheless, current legislation fails to determine any kind of supervision with respect to primary school teachers, as well as pupils with special educational needs. The only exception are the Methodical Guidelines for Rendering Supervision in Educational Facilities for the Provision of Institutional or Juvenile Correctional Education and in Educational Facilities for the Provision of Preventive Educational Care, which lay down the definition of supervision, characterize supervision in such school facilities, and determine the function of supervisors and their required education. These guidelines were already issued (Předpisy 2012).

According to Hawkins (2004, p. 59), Hess defines supervision as a quintessential interpersonal interaction with the general goal that one person, the supervisor, meets with another, the supervisee, in order to make the latter more effective in helping people.

Supervision is a distinct professional activity in which education and training aimed at developing science-informed practice are facilitated through a collaborative interpersonal process (Falender, Shafranske, p. 3).

Rue and Byars (1990) define supervision as a first level of management in an organization.

The results indicated herein are based on a survey that is currently in progress. As of May 2012, 140 relevant questionnaires have been collected and recorded from the total number of 165 respondents addressed so far. A total of 25 questionnaires have been discarded as they contained incomplete answers to some of the questions or lacked basic information required for the further processing of the survey results.

The questionnaire comprises twelve questions. It should be noted that multiple options could be selected with some of the questions and the sum of the answers provided therefore does not correspond to the number of respondents. For the purposes of this text, the first three questions, in which the respondents provided basic information about themselves (sex, age and years of practical experience) were chosen and further processed along with two additional questions:

- No. 5: What do I understand under the term "supervision"?
- No. 7: I would welcome supervision…

The target group of respondents is built by pedagogical staff. Pursuant to Section 2 of Act No. 563/2004 Coll., on Pedagogical Staff, within the wording of the amending Act No. 159/2010 Coll., a pedagogical worker is a person who performs direct teaching, direct educational, direct special educational, or direct pedagogical and psychological activities by directly affecting the learner and thereby effectuates education and edification pursuant to a special legal regulation; who is an employee of a legal entity carrying out the activities of a school or an employee of the state, or the headmaster/headmistress of a school where such a person is not in a labour-law relation with a legal entity carrying out the activities of a school or is not an employee of the state. A pedagogical worker is also an employee who performs direct pedagogical activities in social care facilities.

### Respondent division according to sex

From the total of 140 respondents addressed so far, 125 are women, i. e. 89 %. The composition of the research sample corresponds to the current composition of pedagogical staff in the Czech Republic.

### Respondent age

The age of the respondents ranges between 21 and 55 years. The largest number of respondents is aged between 31 to 40 years, or is under 30 years of age.

### Respondent length of practical experience

Almost half of the respondents (48 %) have less than 5 years of practical experience. From the total number of 67 respondents, 21 respondents had only a year of pedagogical practical experience. The longest practical experience was 34 years.

    With a view to the fact that the research is still in progress, the above indicated data currently serve only for information purposes. After all data are collected, the mutual correlations between the individual questions will be determined (i. e. relationship

between the length of practical experience and the need for supervision, relationship between age and the need for supervision, etc.).

### What do I understand under the term "supervision"?

The purpose of this question was to ascertain how the addressed respondents understand the term "supervision", what they envisage under this term. The respondents could select multiple answers (tab. No. 1).

**Table 1:** Understanding "supervision"

| | | | |
|---|---|---|---|
| 1. | Form of control or inspection | 18 | 7 % |
| 2. | Form of assistance or support provided to me in my personal life | 33 | 13 % |
| 3. | Form of assistance or support provided to me in my professional life | 92 | 35 % |
| 4. | Form of assistance and support provided when working with pupils and clients | 88 | 34 % |
| 5. | Form of support provided to managerial staff | 30 | 11 % |
| 6. | I cannot think of anything | 0 | 0 % |
| **Total** | | **261** | **100 %** |

The largest number of answers was registered with options Nos. 3 and 4, which implies that 35 %, 34 % respectively, of all the answers perceive supervision as providing support in professional life and/or when working with pupils or clients.

### I would welcome supervision…

Question No. 7 is aimed at determining the direction of the conceivable need for supervision among pedagogical staff. The respondents could choose from 5 options and they could provide multiple answers (tab. No. 2).

**Table 2:** Welcome supervision as…

| | | | |
|---|---|---|---|
| 1. | As support when working with specific clients | 72 | 26 % |
| 2. | As support in relation to my development in my personal life | 33 | 12 % |
| 3. | As support in relation to my development in my professional life | 88 | 32 % |
| 4. | As support ensuring the effective functioning of the work team | 68 | 24 % |
| 5. | As support within managerial work | 18 | 6 % |
| **Total** | | **279** | **100 %** |

The largest number of answers was registered with option No. 3, namely 32 % of the total number of 279 answers. The second most frequently selected answer was option No. 1 (26 %), followed by option No. 4 (24 %).

## Discussion

The above shown tables and diagrams clearly imply that 92 answers of the respondents to the question *"What do I understand under the term 'supervision'?"* consider supervision as support in professional life. Eighty eight answers characterize supervision as assistance and support when working with clients. Based on these figures and percentages, it might be concluded that most of the respondents perceive supervision as possible professional assistance in relation to working with clients. This fact is quite significant as regards the planned practical use of supervision in pedagogical practice as the educators themselves accept one of the forms of supervision.

When comparing the above specified results with the data collected for question No. 7: *I would welcome supervision*, we may say that the major part of the provided answers involved support when working with clients or support in professional life, i. e. 88 answers, 72 respectively.

Referring to the results of hypotheses have been developed and performed the statistical analysis of the relationship of the above items.

H(0):   The fact that teachers receive support in the supervision of their professional life is not statistically dependent on the expressed need for supervision.

H(A):   The fact that teachers receive support in the supervision of their professional life is statistically dependent on the expressed need for supervision.

**PivotTable 3**

| Support in professional life | 0 | 1 | Total |
|---|---|---|---|
| 0 | 29 | 19 | 48 |
| 1 | 23 | 69 | 92 |
| **Total** | **52** | **88** | **140** |

Based on data in a PivotTable (tab. No. 3) test criterion was calculated ($\chi^2$ 294.8112929), which is larger than the critical value at significance level of 0.01 ($\chi^2$ 0.01 (1) 6.634896712). Given that the calculated test criterion is higher than the critical value of the refuse consent for the null hypothesis and could be accepted the alternative hypothesis:

**The fact that teachers understand supervision as an aid in their professional lives and that would receive help in the supervision of their professional life shows the statistically significant association.**

H0:     The fact that teachers understand supervision as support when working with clients and that they would welcome supervision as support while working with clients, there is no statistically significant association.

HA:     The fact that teachers understand supervision as support when working with clients and that they would welcome supervision as support while working with clients, there is statistically significant association.

**PivotTable 4**

| Support in working with clients | 0 | 1 | Total |
|---|---|---|---|
| 0 | 37 | 15 | 52 |
| 1 | 31 | 57 | 88 |
| **Total** | **68** | **72** | **140** |

Based on data in a PivotTable (tab. No. 4) test criterion was calculated ($\chi^2$ 80.82491517), which is larger than the critical value at significance level of 0.01 ($\chi^2$ 0.01 (1) 6.634896712). Since the calculated test criterion is higher than the critical value, the null hypothesis it can be refused and the alternative hypothesis can be accepted.

***The fact that teachers understand supervision as support when working with clients and that supervision is seen as support when working with clients is a statistically significant association.***

In relation to question No. 7: *I would welcome supervision*; the option concerning support for the team work is among very frequent answers, i. e. 68 in aggregate.

***In addition to support in their professional life, pedagogical workers would also welcome support aimed at effective functioning of their team work.***

The frequency of two additional options is also significant with regard to planning supervisory activities for educational professionals. The first is support in personal life. A total of 33 respondents perceive supervision as providing support in their personal life and 33 respondents would welcome such support in practice.

Based on these results, research hypotheses were established and a statistical verification of the relationship of the above items using chi² test of goodness of fit performed:

H0:     The fact that teachers understand supervision as support in private live and that they would welcome supervision as support for their private life, does not bring statistically significant association.

HA:     The fact that teachers understand supervision as support in private live and that they would welcome supervision as support for their private life, brings statistically significant association.

**PivotTable 5**

| Support in personal life | 0 | 1 | Total |
|---|---|---|---|
| 0 | 94 | 13 | 107 |
| 1 | 13 | 20 | 33 |
| **Total** | **107** | **33** | **140** |

Based on data in a PivotTable (Tab. No. 5) test criterion was calculated ($\chi^2$ 32.87249134), which is larger than the critical value at significance level of 0.01 ($\chi^2$ 0.01 (1) 6.634896712). Given that calculated test criterion is higher than the critical value of the refuse consent for the null hypothesis and that is why the alternative hypothesis is accepted:
*The fact that teachers understand supervision as support in their personal life and that supervision would is welcomed as support in teachers personal life appreciate the statistically significant association.*

The second one is the perception of supervision as an inspection. This option was selected by 18 respondents. Even if this number may seem insignificant when compared to the total number of respondents (140), it does suggest that, in practice, pedagogical workers have certain concerns of being under control. These concerns should be taken into account when developing a supervision program for pedagogical staff. *Concerns in relation to supervision may appear among some pedagogical workers as supervision is commonly associated with control and inspections.*

The frequency of the option involving supervision of managerial staff in connection with both the questions is also quite interesting. It suggests that pedagogical workers consider this type of supervision as important in relation to their work.

Based on this fact, research hypotheses were developed and statistical verification of the relationship of the above items using chi2 test of goodness of fit implemented:

H0:   The fact that teachers understand supervision as support in private live and that they would welcome supervision as support for managing work and that supervision does not bring statistically significant association.

HA:   The fact that teachers understand supervision as support in private live and that they would welcome supervision as support for managing work and that supervision brings statistically significant association.

**PivotTable 6**

| Support in managing work | 0 | 1 | Total |
|---|---|---|---|
| 0 | 100 | 10 | 110 |
| 1 | 22 | 8 | 30 |
| **Total** | **122** | **18** | **140** |

Based on data in a PivotTable (tab. No. 6) test criterion was calculated ($\chi^2$ 6.498868466), which is smaller than the critical value at significance level of 0.01 ($\chi^2$ 0.01 (1) 6.634896712). Given that calculated test criterion is less than the critical value, which is why it cannot be rejected as a null hypothesis.

*The fact that teachers understand supervision as support for managing work and that supervision would like support in management welcomed does not bring statistically significant association.*

Supervision provides the supervisees with the opportunity to see the particular situation from a different perspective, and thereby allows them to take an adequate stand. With regard to the fact that supervision has not yet become a standard part of pedagogical work, as well as the concerns expressed by the educators, our next aim is to create a supervision program for this target group.

The above specified results imply that pedagogical staff is interested in case, team as well as managerial supervision. In addition to these three types, there is also a need to expand supervision to cover the personal or private area. At first sight, it may seem that this area does not fall within the scope of supervision. However, our own practical experience tells us that if an individual is not content in his or her personal life, it may hugely influence his or her professional life.

Based on the individual types of supervision, a specific draft plan of supervisory activities will be drawn up and it will implement both the individual and group forms of supervision. The work itself will be grounded on interviews, on role playing with the aid model situations and on the use of expressive therapy, in particular art therapy.

As a general conclusion of the first presented part, it is possible to make a statement that teachers who are working under inclusive educational settings are forming a group for which psychological supervision is badly needed.

## Reference

Barrow, R., Woods, R. (2006) *An Introduction to Philosophy of Education*. 4th edition, Routledge. Blake, N., Smeyers, P., Smith, R., Standish, P. (2006) *Philosphy of Education*. 5th edition, Malden: Blackwell Publishing.

Bjarnason, D. (2005) Disability Studies and Their Importance for Special Education Professionals. *Nordisk Pedagogik*, 25, 339–356.

Brue, A. W., Wilmshurst, L. (2005) *A Parent's Guide to Special Education*. New York: AMACOM.

Falender, C. A., Shafranske, E. P. (2004) *Clinical Supervision: A Competency-Based Approach.* 1st ed. Washington: American Psychological Association. 348 pp.

Flynn, R. J., Lemay, R. A. (1999) (Eds.) *A Quarter-century of Normalization and Social Role of Valorization: Evaluation and Impact*. Ottawa: University of Ottawa Press.

Forlin, Ch. (2006) Inclusive Education in Australia Ten Years After Salamanca. *European Journal Of Psychology Of Education*, XXI, 3, 265–277.

Hawkins, P., Shonet, R. (2004) *Supervize v pomáhajících profesích*. Praha: Portál, 202 pp.

Hull, K., Goldhaber, J., Capone, A. (2002) *Opening Doors.* Boston: Houhgton Miffin Comp.

Gilbert, C. and Hart, M. (1990). *Towards Integration: Special Needs in an Ordinary School.* London: Kogan

Lambe, J. (2007) Northern Ireland Students Teachers' Changing Attitudes Towards Inclusive Education During Initial Teacher Training. *International Journal of Special Education*, 22, 1, 59–71.

Loreman, T., Earle, Ch., Sharma, U., Forlin, Ch. 2006. Pre-service Teachers' Attitudes, Concerns and Sentiments about Inclusive Education: an International Comparison of the Novice pre-service teachers. *International Journal of Special Education*, 21, 2, 80–93.

Loreman, T., Earle, Ch., Sharma, U., Forlin, Ch. (2007) The Development of an Instrument for Measuring Pre-service Teachers' Sentiments, Attitudes, and Concerns about Inclusive Education. *International Journal of Special Education*, 22, 2, 150–160.

Meijer, J. W. Ed. (2001) *Inclusive Education and Effective Classroom Practices*. Odsense: Europe – an Agency for Development in Special Needs Education. Milovanovitch, M. (2009) *Teacher Education for Diversity*. ERI SEE Zagreb.

Potmesil, M. *The Sentiments, Attitudes and Concerns of Educators When Working Under the Conditions of Inclusion*. Annales Universitatis Paedagogicae Cracoviensis Studia Psychologica IV. WN Uniwersytetu Pedagogicznego. Kraków: 2011. pp. 71–85.

Rue, L. W. A Byars, L. L. (1990) *Instructor's Manual: Supervision: Key Link to Productivity*. 3. vyd. Homewood: Irwin, 208 pp.

*Sociální programy.* [online] cit. 24. 5. 2012 From: http://www.msmt.cz/socialni-programy/metodicky-pokyn-k-poskytovani-supervize?highlightWords=supervize

*Předpisy.* [online] cit. 24. 5. 2012 From: http://aplikace.msmt.cz/Predpisy1/sb190-04.pdf

Valeo, A. (2008) Inclusive Education Support Systems Teacher and Administrator View. *International journal of Special Education*, 23, 2, 8–16.

**Contact:**
PhDr. Mgr. Petra Potměšilová, Ph.D.
Mgr. Marcela Fojtíková Roubalová
Department of Christian Education
Sts. Cyril and Methodius Faculty of Theology
Palacký University Olomouc
Univerzitní 22
771 11  Olomouc, Czech Republic
E-mail: petra.potmesilova@upol.cz; roubalova.marcela@seznam.cz

doc. PhDr. PaedDr. Miloň Potměšil, Ph.D.
Department of Special Education
Faculty of Education
Palacky University Olomouc
Žižkovo nám. 5
771 40  Olomouc, Czech Republic
E-mail: mvpotmesil@gmail.com

# Pupils with special educational needs in the context of vocational education in Poland

**Maciej Bochyński, Joanna Klimek,
Katarzyna Lisowska-Strzępek, Kamila Morzyniec,
Mateusz Sawicki, Katarzyna Zielińska**

**Abstract**

The article presents vocational education of pupils with special educational needs in Poland, in the context of current barriers that hinder disabled persons from vocational work fulfilment. Vocational education has been described at all levels of the present system with reference to diverse needs of pupils. The analysis of the GUS [Central Statistical Office] data leads to a conclusion that the level of education of the disabled is not sufficient for them to participate in the open labor market. Thus, the necessity of system improvement and flexibility of vocational offers for disabled persons is particularly emphasised, as the forms and content of presently implemented curricula do not befit the rapidly changing conditions on the job market.

**Key words:** vocational education, pupils with special educational needs, individual and social barriers.

# Situation of the disabled on the Polish labor market

Poland is among a group of countries which are characterized by a large population of disabled persons[1], with a concurrently low index of their social activation; it specifically concerns people with intellectual and sensory disability and with mental disorders. For many years, we have been observing activities aimed at the creation of the possibility of a comprehensive, based on equality rules attendance in social life – it is worth mentioning that the so called "Polish model of vocational integration" has been introduced for many years, still, the presence of the disabled on the Polish labor market is little in comparison with other European countries, and their social participation in some areas is imperceptible (becoming self-dependent, shared accommodation, etc.). Unfortunately, the efficiency of undertaken measures is not sufficient; there is also deficiency in system solutions, which would optimally allow to activate disabled persons in vocational, educational or personal space.

---

[1]  The phenomenon of disability is larger in Poland than in most countries, even when taking definition differences into account. One of the reasons is the fact that over 1/3 of persons at a working age who are "lawfully" disabled, are not "biologically" handicapped. The age cross-section of persons being "lawfully", but not "biologically" disabled, suggests that the system is being used as a form of early retirement. More than 12 % of all men at the age of 60–64 and over 11 % of all women aged 55–59 have a certificate of disability, even if they do not feel handicapped themselves. This relatively often occurrence of disability in Poland is also to a large extent a consequence of a lenient system of adjudicating disability before 1999. For this reason, about 1.7 million people (data from the National Census of 2002 and 1.4 million according to the health assessment of 2004) were officially declared disabled, although they did not suffer from physical or mental handicaps. The situation may result from the presently functioning system of disability adjudication. On the other hand, more than 1 milion people, who have a biological handicap, were not officially adjudicated disabled. This phenomenon, however, mainly concerns retired persons in whom disability developed at an older age (cf. Chłoń-Domińczak, A., Poznańska D., 2007, p. 17).
It is worth reminding that there are three independent systems of adjudicating disability in Poland – the first, for disability pension purposes, performed among employees and self-employed persons, the second executed within the social insurance of farmers, and the third – assigned to purposes not related to disability pensions, administered by local authorities.
Considering a high number of applications and eligible persons in the employees system, procedures were reformed in 1997, which led to a decrease in the number of disability pensioners (see: Wóycicka I., Ruzik A., Zalewska H., 2002).
According to the results of a quarterly representative Research of Population Economic Activity (BAEL) carried out by GUS the number of disabled persons aged 15 and over, had been systematically falling down since 2002 and amounted to 3.7 million in 2008. It means that 11.8 % of the population aged 15 and over, have a lawful certificate of disability. In the year 2008, the number of lawfully disabled persons at the working age was about 2.2 million and accounted for 9.3 % of the population at that age. In 2008, 26.9 % of persons aged 15 and over, had a severe degree of disability certification (or equivalent), 38.1 % of those persons had a moderate degree of disability certification (or equivalent) and 35.0 % had a certification of a mild degree of disability (or equivalent). Among handicapped persons at a working age, the percentage of persons with a severe degree of disability is by far lower, with a distinctly higher percentage of persons with mild disability (the percentages are 18.7 %, 39.8 % and 41.5 % respectively) (source: http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=431279&p_token=1883766014#)

The analysis of the social reality of disabled persons inclines to some generalizations:

1. Constant lack of legal stabilization, which causes that the information about new legal acts does not reach the most interested ones, moreover, legal regulations do not ensure complete protection to the disabled, even in area of work access on the open market, legal contradictions as regards entering into marriage of adult disabled persons, etc.

2. Results of the quarterly Research of Population Economic Activity (BAEL)[2] conducted by GUS show that disabled persons are usually less educated than the able-bodied ones. In 2008, as much as 68.1 % of disabled persons at the age of 15 and over did not have secondary education, and only 6.1 % had higher education. As a matter of fact, this relation is more favourable; however, the difference in that regard is still noticeable in comparison with able-bodied persons, among whom 48.8 % did not possess at least secondary education, whereas 16.5 % had higher education. The disabled encounter difficulties not only in obtaining or completing education at a higher level, but also at the secondary and elementary ones. In turn, low education or the lack of it decrease the chances of the disabled on the labor market, and the chances of life with dignity. The highest vocational activity is featured by persons with higher education.

3. Social and economic situation of particular population groups, including the disabled, is a derivative of their situation on the labor market. The results of the Research of Population Economic Activity (BAEL)[3] in Poland present a considerable improvement of the situation on the job market in the last three years. There was an increase of the employment indicator and decrease in the rate of unemployment. And, even though the situation of disabled persons is still much worse than that of the able-bodied ones, beneficial changes must be noted. Most of the handicapped working at the age of 15 and over are hired employees – 65.6 % in 2008, but there is also significant percentage of self-employed persons and employers (all 23.6 %, including 2.6 % of employers) and helping members of families (10.8 %), which follows from the fact that a substantial part of the disabled work in individual farming. A vast majority of disabled hired workers are employed in sheltered workshops. In December 2008, 39.4 thousand of the disabled working on the open market and 163.3 thousand of working in sheltered workplaces, were registered in the system of servicing financial support led by the State Fund for Rehabilitation of Disabled Persons. Although the domination of sheltered market employment is still significant (80.6 %), there is a clearly evident rising tendency in the share of employees from the open market (from 15.9 % in December 2005 to 17.9 % in December 2006, and 19.1 % in December 2007 to 19.4 % in December 2008)[4].

---

[2]  Source: http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=431279&p_token=1883766014#

[3]  Source: http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=431279&p_token=1883766014#

[4]  Source: http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=431279&p_token=1883766014#

4. The most difficult situation is that of disabled persons living in the country, not re-lated to farming, though, paradoxically, farming gives employment to many handi-capped people, especially to the elder and less educated ones. However, we have noted a decrease in the vocational activity of the disabled connected with farming in the recent years. Most of disabled persons remain out of the job market and this phenomenon has been observed for many years, including people at a working age as well. In 2008, 83.9 % of the disabled at the age of 15 and over were vocationally inactive, and 75.7 % of persons at a working age (in comparison with the share of the able-bodied ones – 40.6 % and 25.3 %, respectively). Therefore, legislation measures that support the activation of those persons are still being taken.

## Vocational discrimination of the disabled

The problem of **vocational discrimination** of disabled persons is generally related to barriers that restrain their vocational activity. There are many barriers like that, some lie in the disabled workers, others in employers, many of them reside in the social approach towards disabled persons (A. Barczyński, P. Radecki, 2008: S. Kowalik 2007: A. Ostrowska, J. Sikorska, B. Gąciarz, 2001).

7. Individual qualities of a disabled person may strengthen or weaken the results of disability. The barriers are crucially diversified depending on age, health condition, education, manners, approach to difficult situations, vocational preparation, type of disability, family circumstances, financial situation, intellectual, emotional, physical ability, little vocational mobility of disabled persons.

A significant factor that hinders the disabled from vocational activity is low self-esteem and negative assessment of the possibilities of gaining employment. Disabled persons are also self-discriminating, that is, they discriminate themselves due to the existing disability, which as a result contributes to vocational inactivity (K. Osińska, 1986). Pro-longing period of being out of work can lead to the appearance of multiple negative consequences (I. Poliwczak, 2008). Lack of work causes the intensification of ailments connected with the main reason for the body dysfunction; it may also conduce to the emergence of new ones. The relationship between the limited possibilities of finding employment by the disabled and the low level of vocational qualifications and low level of education is emphasized as well. The duration of time without work also impacts finding employment. The longer a disabled person is out of work, the lesser the chances of employment. Intellectually disabled persons are in the worst position. In the case of intellectually disabled persons, the capability of performing vocational work depends on the degree of disability and the employer's willingness to cooperate, as well as on the suitable selection of the type of work to match the employee's individual abilities. The

issue of the lack of sufficient vocational preparation of intellectually disabled persons, who leave school, is a separate problem.

8.  The attitude of an employer to hiring a disabled person may be influenced by additional obligations (necessity to bear higher costs, extended reporting, necessity of technical – organizational changes in the company, requirements regarding the preparation of objects, necessary preparation of workplaces). Employers are also unwilling to take on disabled persons because of a large number of inspections and complicated bureaucracy. The existing system of equalizing the chances of the disabled in Poland is mainly criticized by employers for its low efficiency and efficacy. The system is of a rather compensatory than activation nature, it preserves inactivity – merely 5 % of financial resources are allocated to vocational activity and substantial help, whereas nearly 80 % is used to pay out disability pensions.

9.  Barriers of external nature are created by: social policy, employment policy, the condition and efficiency of functioning of pension and disability pension systems, treatment and health rehabilitation, place of residence, legal situation of the disabled in the state, attitudes of the environment, access to education and social welfare, prejudices of colleagues.

Limitations resulting from external surrounding, and being a derivative of the principles of rehabilitation system functioning, are lack of stability of functioning system principles, complex procedures and diverse sources of financial support. Conditions of labor market functioning that impact the low vocational activity of disabled persons are the following: level of services provided to the disabled including vocational counseling, employment agencies and the issue of additional trainings, lack of job offers for the disabled, ill-organized system of vocational education – education in professions that do not guarantee employment (occupations such as: broom-maker, potter, etc.).

Additional problem, being a factor that substantially makes it difficult for the disabled to find employment, is structural unemployment on the Polish job market, connected with ill-adjusted structure of work resources, both in the geographical and qualification – vocational respects. This situation causes disproportions on the labor market. Ill-adjustment of structures regarding geographical location consist in the fact that the structure of work supply considering the place of residence does not match the demand for it within these sections. Statistically speaking, the worst situation is in villages and small towns, where the rate of unemployment is high. This type of structural mismatch is of crucial importance for those disabled who are significantly limited by their handicap in the search of finding work outside their place of residence, or for whom the search is impossible due to the very same reason. On the other hand, ill-adjustment of the qualification – vocational structure, causes that the employee's vocational qualifications do not match the real demands of the labor market. Disabled persons with low vocational qualifications are exposed to more often losses of employ-

ment as a result of enterprise reorganization (redundancy). Unfortunately, interesting job offers are aimed at persons who are willing to requalify immediately or relocate, which is difficult in the case of the disabled.

Barriers that make it difficult for the disabled on the employment market must include instability and inefficiency of the Polish system of vocational rehabilitation.

Here, it is also worth referring to an interactive model of vocational rehabilitation of persons with intellectual disability presented by W. Otrębski (2007). This model focused on the issue of vocational interests and vocational competences of intellectually disabled persons. The model assumes that vocational activity of an intellectually disabled person that agrees with their interests is a guarantee of a higher level of vocational competence.

# Education of pupils with special educational needs in Poland

Education of man who is intellectually disabled should be perceived as vocational preparation[5]. According to the proposition of Z. Gajdzica (2001, p. 391) three basic periods are distinguished:
*   "vocational preorientation led in elementary classes of primary school,
*   vocational orientation carried out in the senior classes of primary school,
*   vocational education in vocational schools".

The Polish system of education **of children and youth with special educational needs** is an integral part of the operative school system in the country. In Poland, a system of partial integration with mainstream education is functioning. For many years, special

---

[5]  It is worth presenting interesting results collected from studies done by B. Oszustowicz and J. Baran (1999). The authors carried out an experimental program of vocational orientation in a class at a special school. 30 intellectually disabled pupils took part in experimental classes. The control group also consisted of pupils with intellectual disability, not participating in the project. The experiment involved four stages of activities. In the first, the participants had to fill out two surveys: about the selection of occupation, and school and extraschool interests. The second stage included engaging pupils from the experimental group in the vocational orientation classes. At the third stage – having completed the experimental classes and starting education in a vocational school by pupils – using a survey, information on the aptness and satisfaction from the chosen path of education, and the usefulness of vocational orientation classes, was collected. The last stage – performed a few months after starting education in a vocational school – consisted in completing another survey by the studied group and writing a composition about plans for life, interests and preferred values. It turned out that vocational orientation classes help special school pupils in the preparation for informed selection of occupation, contribute to the formation of a real picture of one's own abilities, prompt motivation to study and work, as well as facilitate the process of adjustment at the next level of education – in vocational school.

education was inseparably connected with the functioning of special school. Nowadays, it is run in other establishments, not only integrative, but also in mainstream ones.

In Polish educational system children and youth with special educational needs may be educated in:

1. special schools,
2. special classes at mainstream schools,
3. in integrative classes at mainstream schools, integrative schools, the so called integrative form (including),
4. in mainstream class through individual education, so called integrative (including) form,
5. through individual education (individual education, most often at the pupil's home).

Special education system in Poland generally reflects the premises and structure of the general one; however, due to the peculiarity of didactic and educational work with pupils with special educational needs, we can talk about its dissimilar components and characteristics (Fig. 1).

# Psychological and pedagogical assistance for children and the youth

The Regulation of 2010[6] sets new rules of providing and organizing psychological-pedagogical assistance in public nursery schools (kindergartens), schools and establishments which allow for providing each student with comprehensive psychological-pedagogical assistance in the environment of his/her education and upbringing. The student should be provided with individualized psychological and pedagogical help in accordance with his/her individual developmental and educational needs and psychophysical capabilities, identified by a teacher or specialist who tutors the student.

This regulation came into force on the first of February 2011 and shall not be effective until the school year 2011/2012.

According to the mentioned regulation, the help given to the student in kindergarten, school and establishment, consists in identification and fulfilment of the student's individual developmental and educational needs, as well as in identification of his/her individual psychophysical capabilities. It defines the recipients of psychological and pedagogical help as people having difficulties that result from differentiated input.

In the effective regulation, classes applying to the selection of educational direction and occupation, as well as education and professional career planning, are defined as

---

[6] Regulation by the Minister of National Education of 17 November 2010 on the rules of organizing and providing psychological and pedagogical assistance in state nursery schools, schools and establishments, Journal of Laws No. item 1487.

**Fig. 1:** Special education system diagram (based on Sowa & Wojciechowski, 2003, p. 134).
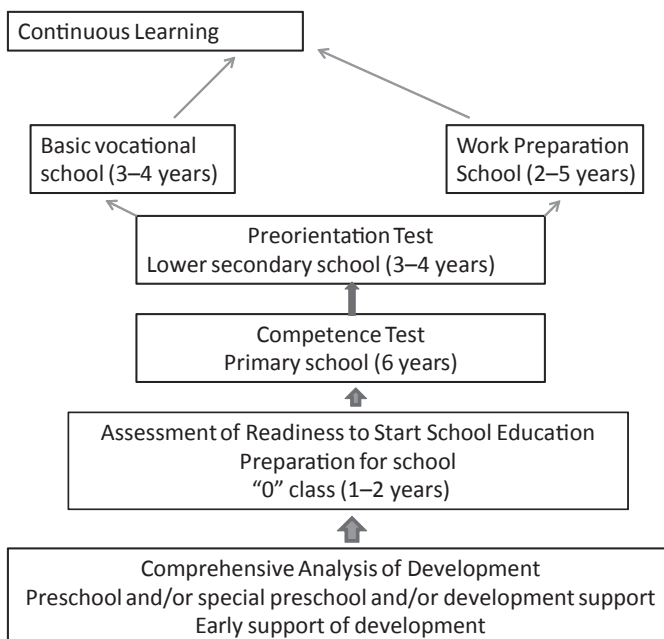


one of the ways of giving psychological and pedagogical support. Classes connected with the selection of educational direction and occupation, as well as education and professional career planning, are organized in order to support the students of lower secondary and upper secondary school in taking educational and vocational decisions using active work methods. These classes are run by teachers, tutors of educational groups and other specialists – including career counsellors. Planning and coordination of psychological and pedagogical assistance distribution is dealt with by a **team** of teachers, tutors of educational groups, and specialists who have classes with the student.

In theory, the new regulation leads towards the real inclusion, however, in practise the goal is difficult to obtain.

# Vocational education of pupils with special educational needs

## 1. Prevocational education at the preschool level

*Pre-primary education establishments* are the establishments that take care and pre-pare children for school education. Such establishments are designated for children between the age of 3 and the beginning of their education in a primary school. Pre-primary education establishments include: nursery schools, pre-primary sections of primary schools, since the school year 2008/2009 they also comprise pre-primary education groups and pre-primary points. Until the school year 2003/2004, a child had the right to a one-year of pre-primary school preparation.

*Special nursery schools* are organized for children with moderate or severe disabilities – visual, hearing, motor-skills disability, chronic illness (in health care centers), with intellectual disability or multiple disability. A special nursery school can be an independent establishment or can be organizationally related to a special primary school, a special education center or a healthcare facility. Obligatory schooling is postponed in the case of a child who has been diagnosed as needing special education, or a child over the age of 6 who is provided with special pre-primary education, but no longer than to the end of the school year in the calendar year in which the child is 10 years old. In the case of a child who has been diagnosed as needing special education, the obligation of a one-year pre-primary school preparation starts at the beginning of the school year preceding the school year in which the child starts fulfilling obligatory schooling.

A nursery school bases its caring-educational interactions upon "The Core Curriculum for Nursery Education, Nursery Schools, Preschool Departments and Other Forms of Preschool Education" drawn up by the Ministry of National Education and upon the Curricula for preschool education.

The Core Curriculum for Preschool Education[7] describes a comprehensive process of supporting the development and education of nursery schools' pupils. It defines the goals of preschool education and areas of educational interactions. The purpose of preschool education is to support and direct a child's development in accordance with his/her innate potential and developmental abilities in relation to the socio-cultural and natural environment.

Therefore, preschool education is aimed at mastering skills and knowledge that children ought to display when they start school education.

Preschool education curricula contain ways of goal achievement based on the areas presented in the core curriculum. There is no single binding preschool education cur-

---

[7] Appendix to the Regulation by the Minister of National Education of 23 December 2008 Journal of Laws of 15 January 2009, No. 4, item 17.

riculum; its choice lies in the hands of a teacher who is in charge of a given group of pupils. The teacher may make use of ready-made curricula, or prepare one on the basis of the core curriculum. It is worth mentioning that the same core curriculum applies to disabled children as well as to the healthy ones. No separate preschool education curricula have been issued for these children either. Thus, teachers who work in a given nursery, must draw it up on their own.

However, individual educational-therapeutic curricula are drawn up for pupils with special educational needs, the curricula allow for the children's needs and abilities[8]. Preschool education curriculum for a given child is adjusted and approved for a particular establishment within these curricula, then appropriate methods, means and forms of implementation are selected. Moreover, according to MEN's recommendations, children with special educational needs have classes in smaller groups; they may take advantage of specialized psychological and pedagogical assistance.

Thus, prevocational preparation of children going to a nursery school is not explicitly formulated in the above mentioned areas of preschool education. Lack of explicit, top-down recommendations, as regards the preparation of disabled children for fulfilling a role of an employee in the adult life at the preschool education stage, causes that the introduction of such content depends on the teacher's invention. The teacher must see his/her pupil in a comprehensive and prospective way, i. e. focus in his/her interactions not only on the present, but also reflect on which skills and knowledge (also the one enabling them to take up work), they will need in the adult life. All actions that teachers take towards their pupils in a nursery school and which focus on inspiring confidence in their own abilities aiming at the most self-reliance, understanding applicable behavior rules in the society and arousing respect for work as a value, may be perceived as prevocational education.

a)  **Prevocational education at primary school level**
    **(Stage 1 – Integrated education and Stage 2 – subjective education)**
Prevocational education is the first and probably the most fundamental stage of education connected with the individuals' vocational education and their development. In some countries, it is treated as a peculiar connection of theoretical knowledge with the pupils' life experience, in other countries it is seen as linking general education with practical problems of work, whereas in yet another ones, with the process of school and vocational orientation. In Poland, it is understood as a characteristic process of education through work and to work.

---

[8]  Regulation by the Minister of National Education of 17 November 2010 on the rules of organizing and providing psychological and pedagogical assistance in state nursery schools, schools and establishments, Journal of Laws No. item.

Within the integrated education, which includes the first 3 years of primary school, the content connected with prevocational counselling focuses on the three areas:

1. knowledge and learning about the world and oneself;
2. ability to act in the world;
3. values and attitude towards the world and oneself.

As for the teaching method, nowadays, the authoritarian model of a teacher giving pupils ready-made material is becoming a thing of the past, today, pupils are made to discover the world and search for knowledge on their own. Therefore, it is good when the teacher creates such situations, in which a child is able to recognize his/her own cognitive abilities, strengths and weaknesses. The pupil should be able to communicate, build social relations, and also have knowledge about the natural, cultural and technical environment. During the first years in primary school, pupils should learn how to get to know and manage themselves, act skilfully in the world of various contexts (practical, cognitive and symbolic) and in diverse social groups. In the core curriculum for elementary education, we read that in the scope of relations to themselves and the others, the pupil should acquire the following content:

- development of the sense of self-esteem and self-identity (self-confidence, self-reliance, ethnic, cultural identity, etc.);
- introduction of the child into the spiritual and material culture (one of the family, region, country, Europe and the world);
- spiritual and moral development (shaping beliefs and socially valuable attitudes, e.g. towards the younger, the weaker, the suffering, respect for one's own work and the work of other people, confidence in oneself).

The core curriculum of general education for primary schools assumes that the pupil who finishes the third grade, within social education, understands the importance of work in man's life; knows the occupations of his/her relatives and friends; and is also aware of the occupational specificity, e.g. of a railway man, chemist, police officer, vet.

At the 2nd stage of education, elements of prevocational education are present in all subjects and on all paths. However, they have a different meaning for this type of learning – some of them (e.g. Polish, Maths, Music, P.E.) focus on the general culture of the individual, which is obviously essential in shaping pupils' attitude towards work. Others (History, Civics) persuade to reflection on oneself and the social environment, on the issue of each man's distinctness and uniqueness, each man's needs and means of meeting them, also, on the importance of work in man's life and its social distribution. However, such subjects as IT or Technical Education are almost entirely planned for prevocational education as pupils gain most practical knowledge in these classes.

**b) Pro-vocational education in lower secondary school and vocational counselling**

The following are mentioned among the conditions that need to be fulfilled so that the disabled youth was properly prepared for work:

1. Correct qualification for a proper direction of vocational education, in accordance with psychophysical abilities, interests and employment opportunities;
2. Provision of proper organization of the didactic and educational process (appropriately equipped workshops and laboratories, suitably trained teaching staff, the use of the most efficient methods and forms of teaching);
3. Adjustment of curriculum requirements for particular subjects to the cognitive capabilities of the youth.

At the 3rd level of education, completed in lower secondary school and the following 4th level (upper secondary school), which have similar tasks, students obtain education that allows them to acquire vocational competences and then improve them during years of work. The aim of general education at levels 3 and 4 is just enabling and facilitating the selection of educational and vocational paths by providing access to information, guidance and career counselling.

The In-School Vocational Guidance Project at the level of lower secondary school and developed by the National Education Support Center may be an example to follow for the creation of counselling in schools, based both on cooperation with students and their parents. It determines the tasks of the Board of Teachers, allowing for the creation and maintenance of the in-school counselling system's uninterrupted activity in compliance with the school charter, definition of priorities regarding vocational knowledge and information within the school educational curriculum for each year of learning, as well as the fulfilment of activities in the scope of students' preparation for career path selection, included in the school educational curriculum. It assumes that in the first year of learning in lower secondary school, students will be stimulated to get to know one another, in the second one, they will have a chance of getting acquainted with particular occupations and make a preliminary decision, whereas in the last year they will gain educational and vocational information that will allow them to confront self-evaluation with the demands of schools and occupations, which will enable them to take a final decision. As early as from the 2nd grade, pressure must be put on students who show problems with school and occupation selection which is supposed to be leveled by the intensification of individual work.

Cooperation with parents ought to run at 3 stages. The first one should include getting parents acquainted with the school informative and counseling activities and organization of psycho-educational classes which enable to support the child in making educational and vocational decisions, the next one is involving parents as representatives of various professions into the course of informative activities carried out by the school, and finally, making it possible for parents to get acquainted with the full offer

of secondary education, and also, individual work with parents of students who show health, emotional, decision-making, intellectual, family and other problems, as well as cooperation with pedagogical and psychological counseling center.

Since 1 September 2009, a stage of changes has begun, changes meant to implement the new core curriculum which imposes on educational establishments a responsibility of a very individual approach towards each student, in order to meet their needs, difficulties and interests, and which is to bring about an increase in education effectiveness, especially for people with special educational needs. These changes assume the achievement of the set goals due to the cooperation of the teacher, pedagogical and psychological assistance and the parents through individual work with the student (Ministry of National Education, 2010). This system, defined as the in-school system of vocational guidance also imposes a responsibility of "tutoring in the selection of educational direction, as well as organizing interactions with psychological-pedagogical counseling centers, including specialist counseling service, and between other institutions that provide guidance and specialist help services to students and parents"[9]. Work with the student ought to take place on the basis of Individual Educational-Therapeutic Schemes which should adapt the core curriculum to the disabled student's capabilities, but it also accounts for therapeutic functions based upon building a positive relation with the student and supporting his/her social development through various forms of rehabilitation interactions. The Individual Scheme expresses the school's activities adjustment to the psychophysical needs of a particular child, hence it should account for the information from all specialists who work with the child and from the parents, it ought to be "an author's plan including learning content, methods and forms of work in particular, or in all subjects or educational areas" (Ministry of National Education, 2010).

It has been postulated to employ career counselors, who will deal with the coordination of activities within the In-School Systems of Vocational Guidance[10], in all lower secondary schools. Their purpose should not only involve making it possible for students to learn about jobs offered by the labor market, but also learning about requirements that need to be met when applying for a certain post and, most of all, the development of awareness concerning one's own talents, qualifications and interests. Their task includes, in particular: assistance with education and career planning, gathering, updating and making educational and vocational information available, showing students, parents and teacher additional sources of information, giving students and parents individual advice, running group activation classes, preparing students for conscious career planning and taking up a vocational role, supporting students and teachers in guidance activities, cooperating with the board of teachers in the scope of

---

[9]  Regulation of the Minister of National Education and Sport of 12 February 2002 on the framework curricula in public schools, Journal of Laws of 2002 No. 15, item 142.

[10]  Regulation by the Minister of National Education of 17 November 2010 on the rules of organizing and providing psychological and pedagogical assistance in state nursery schools, schools and establishments, Journal of Laws No. 228, item 1487.

ensuring uninterrupted activities of the in-school guidance system and cooperating with institutions that support this system.

**c)  Vocational education at post-compulsory level**
The aim of vocational education is preparing those in education for life under the conditions of contemporary world, for working and active functioning within the changing labor market.

The task of school and other entities that run vocational education and the way of their completion are conditioned by changes in the economic and social environment, particularly impacted by: the idea of economy based on knowledge, economic and social processes globalization, growing share of international trade, geographical and vocational mobility, new techniques and technologies and the growth of employers' expectations in the area of employees' knowledge and skills level.

Vocational education is implemented in secondary schools: basic vocational school, secondary technical school and post-secondary school. Students fulfil the curriculum act that is modified depending on the individual limitations of a student. General vocational education – broadens the range of knowledge and skills in accordance with the student's interests and talents, leading to professional work. Learning in a basic vocational school prepares the student for taking up a job on the basis of the certificate that confirms his/her professional qualifications.

In schools that are not of vocational character, according to the regulation by MEN of 21 March 2001[11], the so called internal guidance system was created, through which students may gain support in the recognition of their own competences, skills and vocational predispositions.

The selection of occupation is important for every man; however, it is a particularly crucial life decision for people with SEN. As a rule, they encounter more problems with the optimal choice of occupation than the healthy ones. People with SEN usually have, though in a diverse scope and degree, a limited work capacity due to lowered functional ability of the body, which causes that it is more difficult for them to evaluate their occupational abilities and position on the labor market on their own. Taking wrong or random vocational decision entails much more serious consequences for people with SEN than for the healthy ones. Since they are exposed to needless effort connected with obtaining professional qualifications, which is not fruitful as regards the chance of taking up a job. As a result, the disappointment and stress caused by it may lead to giving up further vocational rehabilitation and vocational activity. It is worth pointing out the fact whether the student is aware of his/her health condition, or is able to demonstrate his/her own advantages, or rather has a tendency to deprecate himself/

---

[11]  Regulation of Minister of National Education of 21 March 2001 on the conditions and method of assessing, classifying and promoting pupils and students, and conducting examinations and tests in public schools.

herself and that the technological progress and future occupations, may change the existing contraindication to performing particular jobs. Whether the student is able to keep distance to his/her, sometimes unreal, ideas of future vocational goals. The general rule when selecting an occupation is to match the kind of job to the psychophysical condition of the candidate. It would be ideal if the selected occupation (activity, kind of work) agreed with his/her interests and intellectual abilities. It is worth emphasizing that the final decision regarding future planning is up to the student and his/her parents. Moreover, it must be remembered that as regards methodological and education completion/work performance contraindications, solely the so called industrial medicine doctors, not career counselors, are authorized to adjudicate. It must be kept in mind that the student with special educational needs is also a talented one. The work of a career counselor with the talented student may consist in developing interests and work motivation, shaping creative thinking, shaping personality in the area of work, supporting personal development, developing the student's talents as a source of vocational competences. Systematic and continuous work of career counselors/vocational teachers-guides with students, including those with special educational needs, leads to the creation of a coherent labor market. Thanks to the creation of new chances of all students' vocational development, their potential, which is knowledge and skills, will be better used. It is particularly important from the point of the modern labor market and economy based on knowledge.

Vocational education at special vocational schools proceeds according to a set school profile. Both in Poland and in other European countries, a cycle of broad-profile ending with a specialization module, is used in vocational education. Broad-profile profession enables a wide area of employment, creating the basis for multi-direction specialization in the course of vocational work, and allows retraining and gaining additional professions.

Vocational education is mostly offered at two levels: the level of special and basic vocational schools, whose graduates get the title of a qualified worker or an apprentice in some occupations, and the level of special vocational secondary technical schools, the completion of which provides professional qualifications at the secondary level (a technician) (Otrębski, 2007). Those schools' graduates are prepared for the open labor market and supported employment.

1. ***Special vocational and basic vocational schools*** are adjusted (in terms of curriculum and organization) to the needs and intellectual-physical capabilities of youths with disabilities. Special vocational and basic vocational secondary schools can be organized as independent institutions, or as integral parts of other educational institutions. They can also be set up in healthcare institutions. The student is able to achieve a diploma certifying his/her professional skills. These schools are meant for the youth with mild and moderate level of intellectual disability and are designed to provide special circumstances of work preparation and achieving professional

qualifications. They are open to graduates of special lower secondary schools for the youth aged 16 – 18 (in some cases even for 21 or 24 year-olds). Depending on the type of school, the course of study lasts from 2 to 5 years and comprises two stages of different curriculum, as well as contact with vocational practice: general social and vocational training (1 or 2 years) and profiled vocational training (2–3 years).

- *Work preparation schools* are intended for students with moderate or severe intellectual disability and for students with multiple disorders with the option of extension up to the age of 24. A graduate from a work preparation school receives a school-completion and job-training certificate. No further schooling is anticipated after completion of such a school. Learning in such schools should prepare the student to carry out the activity of working within the sheltered (supported) employment (sheltered workshops, occupational workshops, occupational therapy workshops)
- *Training and rehabilitation centers* are mainly meant for people with physical disability. They fulfil the task of social and vocational rehabilitation through the following activities: organization and maintenance of social infrastructure providing accommodation and catering for participants of such trainings; the organization and maintenance of didactic infrastructure; organization of diagnostic tools making it possible to carry out comprehensive evaluation of psychological and physical abilities in the aspect of professional opportunities; providing proper staff and conditions to conduct social and treatment rehabilitation with special emphasis on the degree and type of disability.

Practical classes and training periods are important components of vocational education. The quality of practical education is largely determined by didactic facilities. Practical education may be carried out:
- in practical classes labs,
- in school workshops,
- in Centers for Practical Education,
- in Centers for Continued Education,
- at the employer's.

Professional development of the disabled includes almost their entire lives and leads to obtaining qualified professional work. The employment took up by graduates boils down to two forms (Majewski, 1995): employment in the open labor market and employment under special conditions. A disabled person can accept employment on competitive terms. In regular production plants, service industry, agriculture and institutions, they may be employed on the same terms and work in the same conditions as able-bodied workers. The only privileges that a disabled person has in this case follow from the general regulations of their employment, i. e. shorter work time, longer leaves, doing the job only during the day, adjustment of work station.

The disabled may also work under proper conditions with the help of a professional assistant or a supporting investor (Mikulski, 1994). Proponents of this form of employment emphasize that it is relatively less costly and fulfils such a crucial, in recent times, condition of social integration. It is also possible to set up *one's own business or agricultural activity*. Having a business or running agricultural activity is a chance for work, mainly for the disabled who live in areas with a very high rate of unemployment, or in small localities where chances of finding a job are little. However, this type of employment requires from the disabled person many additional, both vocational and soft skills.

# Conclusions

The reform of education serves the facilitation of education procedures for the youth with special educational skills, in order to guarantee them better access to employment in adult life. Vocational work is a primary developmental task and right of a human being, as well as the source of quality of life, thus, the state ought to make efforts, and through proper legal regulations, favor and facilitate the professional career of the disabled, the preparation for which starts at the stage of preschool education and is continued throughout the whole life.

# References

Badania Aktywności Ekonomicznej Ludności (BAEL): http://www.stat.gov.pl/bdl/app/strona.html?p_name=indeks (access 25.06. 2012).

Badania Aktywności Ekonomicznej Ludności (BAEL): http://www.stat.gov.pl/bdl/app/dane_podgrup.hier?p_id=431279&p_token=1883766014# (Access 25. 06. 2012).

Barczyński, A. & Radecki, P. (2008). *Identyfikacja przyczyn niskiej aktywności zawodowej osób niepełnosprawnych: raport z badań przeprowadzonych w ramach realizacji Partnerskiego Projektu "Kluczowa rola gminy w aktywizacji zawodowej osób niepełnosprawnych"*. Warszawa: Krajowa Izba Gospodarczo-Rehabilitacyjna.

Chłoń-Domińczak, A. & Poznańska, D. (2007). *Promocja zatrudnienia niepełnosprawnych na rynku pracy*. Budapeszt: Wyd. Międzynarodowej Organizacji Pracy.

Gajdzica Z. (2001). Wpływ treści kształcenia na wybór zawodu przez uczniów lekko upośledzonych umysłowo. In R. Kwiecińska, M. J. Szymański (Eds.), *Młodzież a dorośli. Napięcia między socjalizacją a wychowaniem*. Kraków: Instytut Nauk o Wychowaniu Akademii Pedagogicznej w Krakowie, s. 390–401.

Kowalik, S. (2007). *Psychologia Rehabilitacji*. Warszawa: WaiP.

Majewski, T. (1995). *Rehabilitacja zawodowa i zatrudnienie.* Warszawa: Centrum Badawczo-Rehabilitacyjne Osób Niepelnosprawnych.

Mikulski, J. (1994). *Sposoby realizacji systemu rehabilitacji zawodowej i zatrudnienia,* Warszawa Centrum Badawczo-Rozwojowe Spółdzielczości Inwalidów.

Narodowy Spis Powszechny z 2002 http://www.stat.gov.pl/gus/8185_PLK_HTML.htm (access 30. 06. 2012).

Sowa, J., Wojciechowski, F. (2003). *Rehabilitacja edukacyjna w zarysie. Ujęcie systemowe*. Zamość.

Osińska K. (1986). O społecznym dyskryminowaniu osób niepełnosprawnych. In A. Hulek. (Ed.) *Człowiek niepełnosprawny w społeczeństwie*. Warszawa: PZWL.

Ostrowska A., Sikorska, J. & Gąciarz, B. (2001). *Osoby niepełnosprawne w Polsce w latach dziewięćdziesiątych*. Warszawa: ISP.

Oszustowicz, B. & Baran, J. (1999). Orientacja zawodowa młodzieży upośledzonej umysłowo w stopniu lekkim – uwarunkowania i konsekwencje. In J. Pilecki & S. Olszewski (Eds.) *Wspomaganie rozwoju osób niepełnosprawnych*. Kraków: Oficyna Wydawnicza TEXT, pp. 195–202.

Otrębski, W. (2007). *Interakcyjny model rehabilitacji zawodowej osób z upośledzeniem umysłowym*. Lublin: Wydawnictwo KUL.

Poliwczak, I. (2008). Praca w życiu osób niepełnosprawnych. Znaczenie oraz powody i negatywne aspekty pozostawania bez pracy. In L. Frąckiewicz (Ed.) *Przeciw wykluczeniu społecznemu osób niepełnosprawnych*. Warszawa: IPSS.

Wóycicka I., Ruzik A. & Zalewska, H. (2002). Disability Pension in Poland. In *Reforming Worker Protections: Disability Pensions in Transition*, ILO, Budapest: Central and Eastern European Team.

**Contact:**
Maciej Bochyński, Joanna Klimek,
Katarzyna Lisowska-Strzępek, Kamila Morzyniec,
Mateusz Sawicki, Katarzyna Zielińska
National Society for Autism Krakow Branch
Grottgera St.3
30-035  Kraków, Poland
E-mail: biuro@kta.krakow.pl

# Academic performance of high school students: mediating effect of study approaches

## L. N. A. Chandana Jayawardena & Aleš Gregar

**Abstract**

Success in higher education is viewed as an effective way of enhancing employability by the youth. This study focussed on examining the impact of high school students' study process, gender, and emotional intelligence (EI) to their academic performances. Hundred and fifteen (third year) high school students (52 girls, and 63 boys) were randomly selected from three high schools in Zlin, Czech Republic. Emotional intelligence of the respondents was measured through Genos EI Inventory. Respondents' study process was assessed through the 'revised two-factor Study Process Questionnaire' of Biggs et al. Academic performance of the students was assessed based on their examination results. SPSS computer software was employed for the descriptive and inferential analysis of data. Study Approaches, Study Motives, and Study Strategies adopted by the respondents were assessed. Relationships were tested between the respondents' gender, age, EI and academic performances. The mediating effects of study approaches to the aforementioned relationships were examined. Findings revealed a positive relationship between the gender of respondents and their academic performances. High school girls had adopted deeper study approaches and their academic performances were superior to boys. EI had no significant relationship with the academic performances of the respondents. The surface study approach had a negative relationship with the academic performances of the respondents. The deep study approach did not have a relationship with the academic performances of students. The surface study ap-

proach had a mediating effect to the relationship between the gender and academic performances of high school students. Further research is recommended on varying socio-cultural contexts, and demographic segments.

**Key words:** Gender, Academic Performances, Study Approach, Emotional Intelligence, High School

# Academic Performances and Learning Styles

Education is viewed as a form of replication of work to produce future employees (Bowles & Gintis, 1999). However, efforts intended to promote the employability of students tend to be misguided at times. Poropot (2011) elaborated: 'if education is to fulfill its role in preparing students for work then employability should be integrated into normal educational practice, rather than added to it'. A study conducted by Whitmire (2001) on the usage of library by undergraduates found that a higher usage of academic library was shown by the students, who indicated active engagement in study activities and faculty interactions. However, the study did not reveal a strong relationship between the students' usage of library and academic performances. Poropot (2001) stated the differences between the assessment of academic performances and workplace performances could diffuse the focus on employability through education. It is pertinent to discuss 'Teaching' and the role of teachers in this respect. Schmulian and Coetzee (2001) opined on teaching style as 'Lecturers may consider the appropriateness of their style of pedagogy given the outcomes of the study and whether they are adding value in the classroom'. They have indicated those parties with a vested interest in a student's academic performance, viz: parents, sponsors, university, professional bodies etc. A lecturer provides guidance to facilitate the critical thought process, such as the improved line of students' thinking, generation of class notes etc. (Marburger, 2001).

## Study Process

It has been common understanding that studying is a process, involving steps. The 'students' approaches to learning' (SAL) theory (Entwistle, Waterston, 1998 & Biggs, 1993) is a meta-theory conceptualizing both teaching and learning. The '3P' model of teaching and learning (Biggs, Kember & Leung, 2001) consists of three levels, viz. a Presage, Process, and a Product. The presage level describes the individual differences within a given teaching context, focused on 'Student factors' and the 'Teaching Context'. Process signifies the handling of specific tasks, based on 'learning focused activities'. The product level describes the differences of teaching contexts from each other. 'The heart of the teaching/ learning system is at the process level, where the learning

related activity produces or does not produce the desired outcomes' (Biggs, Kember & Leung, 2001). In a study environment the roles of the teacher and the student are vital for effectiveness. Researchers suggest that the involvement (and the output) of the student is more important than the teachers' role. Herein the significance of the study approaches is focused. A recent study (Jayawardena & Kuruppuge, 2012) found a positive relationship between the surface study approach and Academic performances of high school girls. Biggs (1999) elaborates on the study approaches: 'A generic way of describing 'what the student does' is precisely in terms of their ongoing approaches to learning'. Biggs (1999) summed up; 'A student who typically picks out likely items for assessment and rote learns them, finds that strategy won't work under portfolio assessment, so goes deep'.

# Emotional Intelligence

Salovey and Mayer (1997) defined emotional intelligence (EI) as 'an individual's ability to understand emotions of one's own and others' in a manner that allows him or her to monitor them, discriminate among different emotions, and use this information effectively in shaping one's behaviour'. They defined that EI involves 'the ability to perceive accurately, appraise, and express emotion, the ability to access and/or generate feelings when they facilitate thought, the ability to understand emotion and emotional knowledge, and the ability to regulate emotions to promote emotional and intellectual growth'. Empirical findings do not suggest a strong relationship between EI and academic performances of respondents (Jayawardena & Gregar, 2012). The ability of EI to predict academic success has been found to be weaker in comparison to the cognitive ability and personality. Wagerman and Funder (2007) found that 'conscientiousness' can be successfully used to predict GPA in college seniors. Conscientiousness had accounted for 37 % of the variance in GPA. Colom et al. (2007) found that sensation seeking and impulsivity were negatively correlated to Academic performance. Sanchez et al. (2001) observed that Emotional stability and Conscientiousness, have significantly contributed to an individual's academic success. Chamorro-Premuzic et al. (2001) found that EI contributes to 'soft skills', which are vital for the career development of youth.

# Scope of the study

The study revolves on two main research questions. Is there a relationship among Gender, EI, and Academic Performances of High School Students? Is there a mediating effect of the study process approaches to the relationships between gender, and EI with Academic performances? The study focuses on the impact of gender, age, and

EI, and the mediating effect of study process approaches to academic performances. Specific objectives of the study were to assess and analyze the impact of gender, age, and EI to academic performance of high school students, and to analyze the mediation effect of study process approaches (motives and strategies) on academic performances of high school students. By conducting the study in the Czech Republic, an attempt is made to extend the theory to culture that is more collectivist in nature than that of the West. Herein the Hofstede's cultural dimensions theory (Wikipedia contributors, August 19, 2012) adds an interesting dimension to the research findings. The conceptual framework of the study is shown by Figure 1. The study consisted of three independent variables (e. g. gender, age, and EI of the respondents), two intervening/mediating variables of the study process (e. g. surface study approach, and deep study approach), and the dependent variable, i. e. academic performance of high school students. The study proposed four main research hypotheses. They are as follows:

H1:    There is a positive relationship between gender of high school students and their academic performances.

H2:    There is a positive relationship between EI and academic performances of high school students.

H3a:   The surface study approach has a mediating effect on the relationship between gender and academic performances of high school students.

H3b:   The surface study approach has a mediating effect on the relationship between EI and academic performances of high school students.

H4a:   The deep study approach has a mediating effect on the relationship between Gender and academic performances of high school students.

H4b:   The deep study approach has a mediating effect on the relationship between EI and academic performances of high school students.

**Figure 1:** Conceptual framework of the study
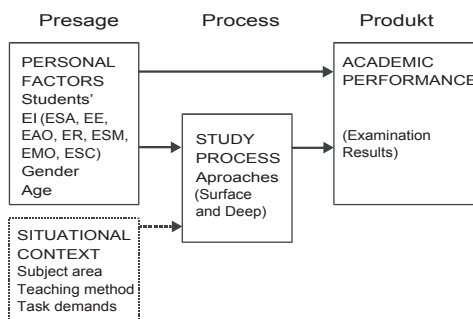


Source: A modified version of study processes using the Biggs's general model (British Journal of Educational Psychology, The British Psychological Society, 1985)

# High School Education in the Czech Republic

The education system in the Czech Republic, can be identified in four stages: i.) Pre-schools/Pre-primary education (3nd to 6th year), ii.) Basic schools (6th to 15th year), iii.) Secondary schools (high schools/grammar schools), secondary technical schools, secondary vocational schools and iv.) Universities (Wikipedia contributors, September 07, 2012). The Czech Republic applies free education, with the exceptions like some of preschools that are paid by parents. School education up to the age of 16 (elementary education) is mandatory. High schools are termed as 'secondary schools'. University education is provided free and students spend only on textbooks, basic equipment and food in school cafeterias. The state pays for health insurance of students up to 26 years of age (Wikipedia contributors, September 07, 2012). After completing the basic school, students are directed to three different (optional) secondary education schools. Secondary schools have the double task of preparing students to perform various occupations in the national economy, administration, culture, arts etc., and to prepare students for higher studies. The three types of schools are: a.) Secondary vocational schools (Střední odborné učiliště), providing vocational qualification programmes for 2 to 3 years for students planning to join a trade (e.g., carpentry, masonry, auto-mechanic etc.), b) Secondary technical schools (Střední odborná škola), providing secondary technical education expanding to four years in preparing students for higher education, and to hold junior positions in technical, business and other professions (accountant, technician, and kindergarten teacher), and c.) Grammar Schools (Gymnasium) prepare students to university education, and studies may last up to eight years. It could vary from four years (upper secondary) to six or eight years (lower and upper secondary) (Czesana and Simova, 2009).

# Methodology

# Operationalization of the Study

The study was conducted among 115 high school students (63 boys, and 52 girls) randomly selected from three high schools in Zlin, Czech Republic. Respondents were in the third academic year of senior secondary school. The Genos EI Inventory was employed to assess the EI level of the respondents. The Revised-SPQ-2F instrument was employed to assess their Study Process. Constructs were selected based on their merit and simplicity. The respondents' academic performance was measured by means of their performances at June 2011 and January 2012 examinations. The questionnaires were translated into the Czech language, and modified after pre-testing to enhance

clarity. The students were briefed of the purpose of the research, and their anonymity and confidentiality of responses was assured. SPSS software was used for the descriptive and inferential data analysis. The Regression and Correlation analyses were conducted to test major relationships.

# Research Instruments

The revised two-factor Study Process Questionnaire (Biggs, Kember, and Leung, 2001) and the Genos EI Inventory (Gignac, 2010) were used for the study. The Study Process Questionnaire (Wagerman and Funder, 2007) focused on three dimensions of learning: viz; Surface, Deep, and Achieving. Each 'study approach' has a specific 'motive' and an underlying 'strategy'. It focused on the three dimensions of learning: viz; Surface, Deep, and Achieving (refer Table 1). The revised two-factor SPQ (Revised-SPQ-2F) is an established measure focused on 'surface', and 'deep' approaches (Biggs, Kember, and Leung, 2001). The two main factors (e.g. deep and surface) distinguished the approach, motive, and strategy subcomponents. The questionnaire included 20 statements related to study activities and feelings. The items are scored on a five-point Likert scale, with responses varying from 1 = seldom to 5 = always.

**Table 1:** The Study Process Questionnaire: Dimensions, motives and strategies

| Parameter | Surface | Deep | Achieving |
|-----------|---------|------|-----------|
| Motive | Fear of failure | Intrinsic interest | Achievement |
| Strategy | Narrow target, rote learn | Maximise meaning | Effective use of space and time |

Source: Study Process Questionnaire, Biggs et al. 2001

**Table 2:** Domains of EI description

| Name of the Factor (Sub Construct) | Description |
|-------------------------------------|-------------|
| 1.  Emotional Self-Awareness (ESA) | The skill of perceiving and understanding one's own emotions. |
| 2.  Emotional Expression (EE) | The skill of effectively expressing one's own emotions. |
| 3.  Emotional Awareness of others (EAO) | The skill of perceiving and understanding others' emotions. |
| 4.  Emotional Reasoning (ER) | The skill of using emotional information in decision-making. |
| 5.  Emotional Self-Management (ESM) | The skill of managing one's own emotions. |
| 6.  Emotional Mgt of Others (EMO) | The skill of positively influencing the emotions of others. |
| 7.  Emotional Self-Control (ESC) | The skill of effectively controlling one's own strong emotions. |

Source: Gignac, Genos Emotional Intelligence Inventory; Technical Manual (2nd ed.), pp. 11–13.

The Genos EI Inventory focuses upon the EI ability dimensions, and measures them from the performance perspective. The Genos EI [20] self-report inventory (comprehensive version) consists of 70 items designed to measure the frequency with which an individual displays emotionally intelligent behaviours. The Genos EI Inventory items are scored on a five-point Likert scale, with responses varying from 1 = seldom to 5 = always.

The Age, EI, and Study approach variables had interval data. The data for the variable 'Gender' were categorical (nominal) and they were coded with 0 for boys, and 1 for girls. The data satisfied the assumptions for multiple regression analysis (Field, 2009).

# Findings

The respondents' age varied from 17 to 22 years. The majority was 18 to 19 years old. The Mean (M) age of boys was 18.75 years, with a standard deviation (SD) of 0.98. Mean age of girls was 18.71 years, with a SD of 0.80.

# Study process of the respondents

The respondents expressed the nature of their study process variables, namely Study Approach (SA), Study Motive (SM), and Study Strategy (SS) using the Revised-SPQ-2F instrument.

**Table 3:** Study Approaches of the respondents

| Parameter | Surface Approach | | Deep Approach | |
|---|---|---|---|---|
| | Boys | Girls | Boys | Girls |
| Mean (M) | 29.41 | 26.60 | 22.48 | 24.73 |
| Std. Dev. | 5.27 | 7.08 | 5.12 | 5.15 |

Source: Authors (Survey data of high school students in Zlin)

As depicted in Table 3, the boys showed a higher mean value for surface SA (29.41), and a lower mean value for the deep SA (22.48), indicating a higher reliance (than girls) on the surface study approach. The respondents showed negative values for the DSA over the SSA. In considering the net value of SA, the high school girls (–1.87) relatively adapted a deeper study approach over the boys (–6.93).

**Table 4:** Study Motives of the respondents

| Parameter | Surface Motive | | Deep Motive | |
|---|---|---|---|---|
| | Boys | Girls | Boys | Girls |
| Mean (M) | 14.22 | 13.00 | 11.25 | 12.52 |
| Std. Dev. | 3.29 | 4.31 | 3.18 | 2.66 |

Source: Authors (Survey data of high school students in Zlin)

Study motives of the respondents were subdivided as the surface study motive (SSM) and the deep study motive (DSM). These values are depicted in Table 4. The respondents showed negative values for the DSM over the SSM. The girls indicated deeper study motives with a (DSM-SSM) net value (of – 0.48) compared to the boys (–2.97).

**Table 5:** Study Strategies of the respondents

| Parameter | Surface Strategy | | Deep Strategy | |
|---|---|---|---|---|
| | Boys | Girls | Boys | Girls |
| Mean (M) | 15.19 | 13.60 | 11.22 | 12.21 |
| Std. Dev. | 2.63 | 3.64 | 2.58 | 3.18 |

Source: Authors (Survey data of high school students in Zlin)

The study strategies employed by the respondents were measured. They were subdivided as the surface study strategy (SSS) and the deep study strategy (DSS). Values of study strategies for the boys and the girls are depicted in Table 5. The respondents showed negative values for the DSS over the SSS. This suggested a higher dependence in the surface study strategies. The girls indicated a superior net value (DSS-SSS) of (–1.39) over the boys (–3.97) conforming to the trend depicted in Tables 3, and 4.

# Emotional Intelligence and Academic Performances of the respondents

Emotional Intelligence of the respondents was measured using the Genos EI inventory. The respondents were allocated a score based on their responses to identified events, and contexts. The EI score was identified as a total score, and also in seven subconstructs. The espondents' total EI score was used for the analysis with other study variables.

**Table 6:** Emotional Intelligence of the respondents

| Construct | Boys | | Girls | |
|---|---|---|---|---|
| | Mean | SD | Mean | SD |
| ESA | 35.92 | 4.35 | 6.92 | 3.97 |
| EE | 34.89 | 4.12 | 6.71 | 4.36 |
| EAO | 33.42 | 5.00 | 3.71 | 5.17 |
| ER | 32.58 | 3.97 | 3.49 | 4.11 |
| ESM | 33.24 | 3.91 | 4.10 | 3.66 |
| EMO | 31.79 | 5.31 | 4.29 | 5.37 |
| ESC | 31.26 | 5.92 | 3.86 | 4.56 |
| Total | 233.10 | 23.25 | 243.08 | 22.46 |

Source: Authors (Survey data of high school students in Zlin)

The respondents' EI scores are shown in Tables 6. The girls showed higher EI (total) scores than the boys. The EI score suggests that the girls demonstrate a slightly higher level of EI than the boys. The EI score of its last subconstruct, viz; Emotional Self Control showed the least value. The EI scores had multiple modes, indicating the dispersion of the respondents into several clusters. Cronbach's Alpha value of 87.8 % indicated a higher level of internal reliability.

**Table 7:** Examination marks of the respondents

| Parameter | Marks obtained (as a %) | |
|---|---|---|
| Category | Boys | Girls |
| Mean (M) | 57.21 | 71.20 |
| Std. Dev. | 12.95 | 13.33 |

Source: Authors (Survey data of high school students in Zlin)

Academic performances of the respondents were assessed based on their marks obtained at the examinations in June, 2011 and January, 2012. The students' marks were averaged and depicted (as a %) in Table 7. The girls have scored superior academic performances with 71.20 marks over 57.21 marks recorded by the boys.

# Gender, Age, and Academic Performances

This study had four research hypotheses. The first hypothesis examined the relationship between the 'Gender' and 'Academic Performances' of the respondents. Therein

the experimental hypothesis (H1) suggested the existence of a significant relationship between Gender of high school students and their Academic Performances. The simple linear regression was used to test the relationship among the two variables. $Yi = bo + biX$, where Y is Academic Performance, and X is Gender of the respondents. Findings indicated a significant relationship (at $p < 0.001$) between 'Gender' and "Academic performance' of the respondents. Academic Performance = 57.21 + 13.99 * Gender of high school students. The research data supported the experimental hypothesis. The high school girls (1 = girls and 0 = boys) contributed with superior academic performance and outperformed the boys. In other words an addition of one high school girl contributes to increase the academic performance by 13.99 marks. Pearson correlation value (r) between 'Gender' and Academic performance was 0.47, and $R^2$ indicated that 'Gender' contributed to 22.3 % of the variation of Academic performance of the high school students. The F value of 32.37 confirmed the improved prediction of the relationship. The t value of 5.69 verified that the slope of the regression line significantly varies from horizontal.

Multivariate regression (hierarchical) was used to test the relationship of Gender (Xi), Age (Xii) and EI (Xiii) with Academic Performance of the respondents. However, only Gender, and Age of the respondents showed significant relationships with their Academic Performance. It can be summarized that: Academic performances of high school students = 111.09 + 13.07 * Gender of respondents –3.68 * Age of the respondents. Accordingly Academic Performance indicated a positive relationship with Gender (females) of the respondents, and a negative relationship with Age (increase of Age) of the respondents. Details are depicted in Tab. 8.

**Table 8:** Relationship between Gender, Age, EI, and Academic Performance

| Model | Unstandardized Coefficients | | Standard Coefficients | Significance |
|---|---|---|---|---|
| | B | Standard Error | Beta | |
| Step 1 | | | | |
| Constant | 126.51 | 25.13 | | .000 |
| Gender | 13.72 | 2.43 | 0.46 | .000 |
| Age | −3.69 | 1.34 | −0.23 | .007 |
| Step 2 | | | | |
| Constant | 111.09 | 28.08 | | .000 |
| Gender | 13.07 | 2.48 | 0.44 | .000 |
| Age | −3.68 | 1.34 | −0.22 | .007 |
| EI | 0.07 | 0.05 | 0.10 | .225 |

Note: $R^2 = 0.26$ for Step 1, $R^2$ Change = 0.01 for Step 2, Adjusted $R^2 = 0.26$
Source: Authors (Survey data of high school students in Zlin)

The $R^2$ indicated that Gender and Age contributed to 26 % of the variation of Academic Performance of the high school students. The F value of 19.92 confirmed the significance of this model (Gender, and Age with Academic Performance) and the improved prediction of the outcome. The t values of 5.65 (Gender) and –2.76 (Age) confirmed that the regression line is significant. The Durbin Watson statistic of 1.44 bordered close to acceptability [21].

# EI and Academic Performances

The second experimental hypothesis (H2) suggested a significant relationship between EI and Academic Performance of the high school students. However, the data did not support it, suggesting no relationship (positive or negative) between EI and Academic Performance of the high school students. The research data did not reject the null hypothesis.

# Mediating effect of Study Approaches to Academic Performances

Examining the mediating effect of Study Approaches the authors focused on three basic conditions with regard to the study variables. They were as follows:
a)   Assess the relationship between the independent variables (i. e. Gender, EI) and the dependent variable (Academic performance) of the high school students.
b)   Assess the relationship between the independent variables (i. e. Gender, EI) and the mediating variable, i. e. the study process approaches of the high school students.
c)   Assess the relationship between the mediating variable, i. e. the study process approaches, and the dependent variable (Academic Performance) of the high school students.

There was no significant relationship (3.4) between EI and Academic Performance of the students. As a result the two research hypotheses, viz; H3b, and H4b (on the mediating effect of study approaches on the relationship between EI and Academic Performances) were rendered redundant. There was (3.3) a positive relationship between the Gender of respondents and their Academic performance. Simple linear regression was used to test the relationship between Gender and study approaches. $Yi = bo + biX$, where Y is the Study Process Approach, and X is Gender of the respondents. There were two study approaches, i. e. the Surface Approach and the Deep Approach. The surface study approach was significant (at $p < 0.05$) with Gender. The Surface Study Approach of the

high school students = 29.41 – 2.82 * Gender of the students. This negative relationship between Gender and the Surface Study Approach indicated that (girls = 1, boys = 0) the boys were more dependent on the surface study approach. The Pearson correlation value (r) was 0.22, and the $R^2$ indicated that 'Gender' contributed only to 5.0% of the variation of the Surface Study Approach of the high school students. The F value of 5.97 and the t value of 2.44 signified the model. There was no relationship (positive or negative) between 'Gender' of the respondents and their 'Deep study Approach'. Accordingly, the research hypothesis H4a was rendered redundant.

Simple linear regression was used to test the relationship between the Surface Study Approach (X) and Academic Performance of the students (Y). Academic Performances = 88.90 – 0.90 * Surface Study Approach of the students (p < 0.001). The Pearson correlation value (r) was 0.38, and $R^2$ indicated that the 'Surface Study Approach' contributed to 14.6% of the variation of Academic Performance of the high school students (F = 19.34, t = –4.40).

**Table 9:** Relationship between the Surface Study Approach, Gender and Academic Performances

| Model | Unstandardized Coefficients | | Standard Coefficients | Significance |
|---|---|---|---|---|
| | B | Standard Error | Beta | |
| Step 1 | | | | |
| Constant | 88.90 | 5.91 | | .000 |
| SSA | −0.90 | 0.21 | −0.38 | .000 |
| Step 2 | | | | |
| Constant | 77.40 | 5.83 | | .000 |
| SSA | −0.69 | 0.19 | −0.29 | .000 |
| Gender | 12.05 | 2.40 | 0.41 | .000 |

Note: $R^2$ = 0.38 for Step 1, $R^2$ Change = 0.16 for Step 2
Source: Authors (Survey data of high school students in Zlin)

Multivariate regression (hierarchical) was used to test the relationship of the Surface Study Approach (SA) (Xi) and Gender (Xii) with Academic Performances (Y) of the respondents. The results are shown in Table 9. It can be summarized that: Academic Performance of the high school students = 77.40 – 0.69 * SSA of the respondents +12.05 * Gender of the respondents. Academic Performance indicated a negative relationship with the SSA of the respondents, and a positive relationship with Gender (girls) of the respondents. Details are depicted in Tab. 9. $R^2$ indicated that the SSA and Gender contributed to 55% of the variation of Academic Performances of the high school students.

The F value of 24.37 confirmed the significance, and the improved predictability of this model (SSA and Gender with Academic Performance). The t values of –3.60 (SSA) and 5.03 (Gender) also verified the model. The Durbin Watson statistic of 1.53 suggested the generalizability of the findings.

**Figure 2:** Mediation effect of the Surface Study Approach
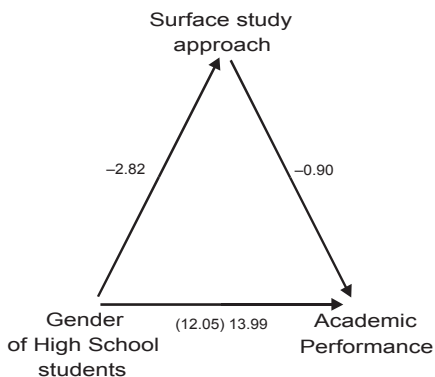


Source: Authors (Survey data of high school students in Zlin)

H3a: the experimental hypothesis suggests that the Surface Study Approach has a mediating effect on the relationship between Gender and Academic Performance of the high school students. Soble's test was used to test the mediating effect of the Surface Study Approach on the relationship between Gender and Academic Performance of the high school students. Soble's test statistic of 2.13 confirmed the significance of the effect at p < 0.05 (two tailed). The indirect (mediation) effect on the relationship between Gender of the high school students and their Academic Performance was 2.54. This meant that an addition of one high school girl has a positive impact of 2.54 on Academic Performance, through the mediation effect.

# Conclusion

The study answered the research question partly in the affirmative. The findings revealed a positive relationship between Gender (girls) and Academic performance of the Czech high school students. The girls contributed to superior academic performance. There was no significant relationship between the EI level of the respondents and their academic performance. Age (increase of age) had a negative relationship

with the Academic Performance of students. The Surface Study Approach had a positive mediating effect on the relationship between Gender and Academic Performance. It indicated an increase in the level of Academic Performance of Czech schools with a higher proportion of high school girls. Success in Academic Performance can effectively get proliferated into the future career development. And this would augur well for the career development of Czech ladies. It is premature to analyze further on the choice of 'study approaches' without details of the assessment techniques employed. Studies among larger samples of high school students will facilitate the generalization of the findings. Further research on varying socio-cultural contexts, focused on demographic segments will enrich the empirical findings.

## Acknowledgements

## References

Biggs, J. B. (1993). What Do Inventories of Students' Learning Processes Really Measure? A Theoretical Review and Clarification. *British Journal of Educational Psychology*, 63, pp. 1–17.

Biggs, J. B. (1999) *Teaching for Quality Learning at University*. Buckingham: Open University press.

Biggs, J. B., Kember, D. & Leung, D. Y. P. (2001) The Revised Two-factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology*. Vol. 71, pp.133–149.

Bowles, S. & Gintis, H. Comments on the Long Shadow of Work. *Critical Sociology*, 1999, Vol. 25, pp. 3–7.

Chamorro-Premuzic, T., Arteche, A., Bremner, A. J., Greven, C. & Furnham, A. (2010) Soft Skills in Higher Education: Importance and Improvement Ratings as a Function of Individual Differences and Academic Performance. *Educational Psychology*, 30(2), 211–241.

Colom, R., Escorial, S., Shih, P. C. & Privado, J. (2007) Fluid Intelligence, Memory Span, and Temperament Difficulties Predict Academic Performance of Young Adolescents'. *Personality and Individual Differences*. Vol. 42, pp. 1503–1514.

Czesaná, V. & Šímová, Z. Eds. (2009). *Vocational Education and Training in Europe. Country Report: Czech Republic*. Fifth edition. European Centre for Development of Vocational Training, Czech Republic, pp. 38–54.

Entwistle, N. & Waterson, S. (1988) Approaches to Studying and Levels of Processing in University Students. *British Journal of Educational psychology*. Vol. 58, pp. 258–265.

Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). London: SAGE Publications.

Gignac, G. E. (2010). *Genos Emotional Intelligence Inventory; Technical Manual*. (2nd ed.). Sydney: Waterloo, NSW.

Jaywardena, L. N. A. C. & Gregar, A. (2012). *Emotional Intelligence and Academic Performances of High School Students; A Case Study.* Proceedings of the First WSEAS International Conference on Economics, Political and Law Science, September, 2012, pp. 119–124.

Jayawardena, L. N. A. C. & Kuruppuge, R. H. (2012). Gender and Syllabus Based Study Approaches and Academic Performance. *Journal on Efficiency and Responsibility in Education and Science.* Vol. 5, No. 3, pp. 115–124 [on-line]. doi: 10.7160/ eriesj.2012.050301.

Marburger, D. R. (2001). Absenteeism and Undergraduate Exam Performance. *Journal of Economic Education*. Vol. 32, No. 2, pp. 99–109.

Mayer, J. D. & Salovey, P. (1997). What Is Emotional Intelligence? In Salovey, P. & Shuyter, D. (Eds.). *Emotional Development and Emotional Intelligence: Educational Implications.* New York: Basic Books, pp. 3–31.

Poropat, A. E. (2011) The Role of Citizenship Performance in Academic Achievement and Graduate Employability. *Education + Training*. Vol. 53, No. 6, pp. 499–514.

Sanchez, M. M., Rejano, E. I. & Rodriguez, Y. T. (2001). Personality and Academic Productivity in the University Student. *Social Behavior and Personality*. Vol. 29, pp. 299–306.

Schmulian, A. & Coetzee, S. (2011) Class Absenteeism: Reasons for Non-attendance and the Effect on Academic Performance. *Accounting Research Journal*. Vol. 24 No. 2, pp. 178–194.

Wagerman, S. A. & Funder, D. C. (2007) Acquaintance Reports of Personality and Academic Achievement: A Case for Conscientiousness. *Journal of Research in Personality.* Vol. 41, pp. 221–229.

Whitmire, E. (2001). The Relationship Between Undergraduates' Background Characteristics and College Experiences and Their Academic Library Use. *College & Research Libraries*. Vol. 62, No. 6, pp. 528–40.

WIKIPEDIA contributors, Hofstede's Cultural Dimensions Theory, *Wikipedia, the Free Encyclopedia,* Wikimedia Foundation, Inc. Retrieved from http://en. wikipedia.org/w/ index.php?title= Hofstede% 27s_cultural_ dimensions_theory and oldid= 503581691, (2012, August, 19).

WIKIPEDIA contributors, Education in the Czech Republic, *Wikipedia, the Free Encyclopedia*, Wikimedia Foundation, Inc. Retrieved from http://en.wikipedia.org/wiki/Education_in_the_Czech_Republic, (2012, September, 07)

**Contact:**
Lead Author:
L. N. A. Chandana Jayawardena BSc (Hons), MBA
Faculty of Management and Economics
Tomáš Baťa University in Zlín
Mostní 5139
760 01  Zlín, Czech Republic
and Department of Agric Extension
University of Peradeniya, Sri Lanka.
E-mail: chandanacj@gmail.com

Second author:
doc. PhDr. Ing. Aleš Gregar, CSc.
Faculty of Management and Economics
Tomáš Baťa University in Zlín
Mostní 5139
760 01  Zlín, Czech Republic
E-mail: gregar@fame.utb.cz

# Stress and Subjective Health of Teachers[1]

## Karel Paulík

**Abstract**

This article focuses on the psychological contexts of subjective health among teachers in relation to their perception and evaluation of work-related stress in the teaching profession. The research was carried out on a sample of teachers from Czech and Slovak primary schools (.N = 2501) during 2009–2011 using the subjective perception methodology.

The aim of the article is to consider the connections between subjective evaluation of stress and health among teachers, and between subjective and objective indicators of individuals' state of health.

The results indicate that there exist negative and statistically significant (1% level) but weak (lower than −0.2) correlations between perceptions of work-related stress and subjective health. This suggests that this relationship is probably mediated by other variables; in our research these were personality factors from the Big Five model (neuroticism and extraversion) and the variables optimism, hardiness and sense of coherence.

The connection between subjective and objective health is illustrated by correlation coefficients whose values were statistically significant (1 %) yet likewise weak (around 0.2); this suggests that other influences are also likely to be involved.

**Key words:** Subjective health, Big Five, stress, cognitive appraisal, optimism, sense of coherence

# Introduction

This article focuses on several psychological issues related to the subjective evaluation of the load experienced in connection with the teaching profession and teachers' subjective evaluation of their health. The discussion is based on a research carried out in 2009–2011 involving a total of 2501 teachers from the upper year-groups ('Level 2') of primary schools in the Czech Republic and Slovakia, using subjective perception methods to generate data for analysis.

The aims of the article are to consider the following questions:

1. What is the relationship between subjective evaluation of load and teachers' health?
2. What role is played by selected personality characteristics in the subjective evaluation of health?
3. What are the possible relationships between subjective health and objective indicators of an individual's health?

The teaching profession is generally considered to be a highly demanding one. Authors have frequently discussed the occurrence of high-load situations in the profession (e.g. Průcha, 2002, Oravcová, 2010, Popelková, Šišková, Zaťková, 2010, Kohoutek, Řehulka, 2011, etc.). However, it is also quite frequently stated (e.g. B. Lazarová et al., 2011) that teachers' workload often reaches levels that can be classified as stress (viewing stress as a special case of load which is highly non-optimal in relation to the possibilities and needs of teachers – see e.g. Hladký et al., 1993; Paulík et al., 2009). From the viewpoint of health, acute and long-term intense stress can be viewed as more or less of a risk factor, although the relationship between stress and health is not a simple and unambiguous one in view of the range of other factors which impinge upon this relationship (cf. Kebza, 2005; Gillnerová et al., 2011). Many authors agree (e.g. Šolcová, Kebza, 2006) that health is a multidimensional phenomenon, and that its individual dimensions are interlinked with each other to varying degrees. From the psychological viewpoint, the most interesting dimension is the subjective experience of health. This is referred to as 'subjective health', though a range of other terms are used – e.g. subjective health status, self-reported health, self-rated health, perceived health, etc.

The evaluation and perception of one's own health plays a major role in human life. The importance of this role is reflected in the World Health Organization's definition of health, which emphasizes the subjective dimension as part of the construct of 'well-being' (cf. e.g. Gillnerová et al., 2011) – which is linked to the maintenance of all life functions, social roles and the adaptability of the organism. Subjective health

is one of the important indicators of an individual's state of health, and can be used for various purposes (e.g. for research, the selection and evaluation of therapeutic approaches, etc.). The use of subjective health in this way brings several advantages; it can be determined simply and relatively easily, and it has strong predictive force e.g. for mortality or the application of treatment methods (cf. Šolcová, Kebza, 2006). An individual's subjective report on his/her own health is generally more extensive and wider-ranging than an objective medical diagnosis, thus enabling researchers to gain more data for various types of analysis.

This article focuses on subjective health of teachers in connection with their perception of the load to which they are subjected in their profession and in their life outside work. Research by several authors has indicated that teachers have a tendency to give relatively negative evaluations of their own state of health. For example, Vašina, Valošková (1998), based on a comparison of a large sample of teachers (M = 2240) with a representative sample of economically active inhabitants of one region in the Czech Republic (N = 998), state that teachers more frequently (to statistically significant levels) complain of health problems and give an overall lower evaluation of their own health than the economically active population as a whole. Female respondents listed more health complaints and evaluated their health more negatively than male respondents. Similar results were also given in my previous research (e.g. Paulík, 2001).

A further question to be examined here concerns the factors which influence the relationship between subjective load and subjective health. I focus particularly on the personality characteristics captured in the Big Five (five-factor) model, optimism and sense of coherence (SOC). In this connection I am primarily interested in the phenomenon of salutogenesis, which according to Antonovsky (1993) helps to support and develop health, restoring health after illness, reinforcing health and preventing health problems. Antonovsky views health as a lifelong process, and attempts to define the more general factors which help individuals achieve health. Many different personality factors and environmental factors can have a protective effect. Among the personality factors of salutogenesis Antonovsky identifies the sense of coherence (SOC), which is characterized by a stable and dynamic global tendency to see one's life space as essentially ordered, predictable and manageable. This vision of the human world thus offers hope that the course of events has a certain meaningful order, which can be expected or purposely influenced if necessary. Antonovsky sees SOC as a source of health. Individuals who score highly for SOC also display a high degree of flexibility when using potential sources of adaptation to load.

# Research

The research presented in this article was carried out between 2009 and 2011 at Czech and Slovak primary schools (for more details see Paulík, 2010a; 2010c; 2011; Paulík et al., 2009). The composition of the samples of respondents – consisting of teachers from the upper year groups ('Level 2') of primary schools – is shown in Table 1.

**Table 1:** Composition of respondent samples – teachers from Level 2 of primary schools

|     | 2009 Czech teachers | 2009 Slovak teachers | 2010 Slovak teachers | 2011 Czech teachers |
| --- | --- | --- | --- | --- |
| Set | Total 463<br>Male 88<br>Female 375 | Total 509<br>Male 81<br>Female 428 | Total 557<br>Male 87<br>Female 470 | N = 972<br>Male 169<br>Female 803 |

# Methods

The research focused on determining the subjective evaluation of health by teachers using a 5-point scale ranging from the lowest (1) to the highest (5) level of health. A similar scale was also used to determine the subjective degree of work-related and non-work-related load (1 = minimum, 5 = maximum load). The objective indicator of health selected was the number of days on which respondents were absent from work due to illness in the past year. Data on absence from work is generally considered to be an indirect indicator of work-related load (Vašina, Valošková, 1998). In order to determine the factors from the Big Five personality model, the NEO FFI inventory was used (Urbánek, Hebíčková, 2001); optimism was evaluated using the LOPS (Levi Optimism-Pessimism Scale – see Sarmány, 1992), consisting of 16 items measured on 6-point scales. SOC was measured using the SOC29 inventory (Antonovsky, 1993), translated into Czech by J. Křivohlavý. This inventory consists of 29 items with responses given on 7-point scales.

# Results

**Relation between teachers' subjective evaluations of health and load/mediators**

An overview of the evaluation of work-related and non-work-related load, subjective health and days absent from work due to illness is given in Table 2.

**Table 2:** Teachers' evaluation of load and state of health

| | 2009 Czech teachers | | 2009 Slovak teachers | | 2010 Slovak teachers | | 2011 Czech teachers | |
|---|---|---|---|---|---|---|---|---|
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD |
| Work-related load | 3.20 | 0.812 | 2.88 | 0.872 | 2.89 | 0.880 | 3.05 | 0.859 |
| Non-work-related load | 2.72 | 0.729 | 2.64 | 0.796 | 2.64 | 0.788 | 2.68 | 0.766 |
| Subjective health | 3.79 | 0.792 | 3.81 | 0.803 | 3.89 | 0.841 | 3.85 | 0.826 |
| Absence due to illness | 6.93 | 6.810 | 7.05 | 6.875 | 6.13 | 6.924 | 6.50 | 7.168 |
| SOC | 133.66 | 17.375 | 135.71 | 20.170 | – | – | 136.62 | 18.413 |
| Optimism | 64.53 | 9.871 | 65.37 | 10.363 | – | – | – | – |

The mean evaluation of work-related and non-work-related load in the Czech and Slovak respondents ranged from 2.88 to 3.20 (work-related load) and 2.64 to 2.72 (non-work-related load); this corresponds with medium levels of load.

In all cases, non-work-related load was statistically significantly lower than work-related load. The proportion of teachers who perceived their work as bringing heavy or extreme load (e. g. as being stressful) ranged from 22.7 % to 38.6 % in the sets included in Table 1. In the sets of Czech (N = 972) and Slovak (N = 557) teachers, the correlation coefficients for the relation between subjective health and perception of work-related load were low. Their values (–0.14 and –0.11) were statistically significant to 1% significance level. The correlations between perceived work-related stress and days absent from work due to illness were also low (–0.18 and –0.11), though they were also statistically significant to 1% significance level. The respondents' subjective evaluation of their own health ranged from 3.79 to 3.85, corresponding with the evaluation "fairly healthy".

For a more detailed analysis of the relationship between perception of load and subjective health, the method proposed by Baron and Kenny (1986) was used, applying the regression analysis. In order to estimate the mediating effect of the investigated variables, three regression equations were used. Baron and Kenny state that the following conditions must be met in order to prove a mediation effect:

1. In the first regression equation $x_2 = a_1 + bx_1$
   – in the regressive relationship between the independent variable (predictor) $x_1$ (in this case, work-related load) and the mediator $x_2$ (one of the examined variables from the Big Five model, optimism, SOC), the predictor must influence the mediator (the coefficient of simple linear regression between the independent variable and the mediator $b$ must be statistically significant).
2. In the second regression equation $y = a_2 + b'x_1$
   – in the regressive relationship between the predictor $x_1$ (work-related load) and the predicted $y$ (subjective health), the predictor must influence the predicted (the coefficient of simple linear regression $b'$ must be statistically significant).

3.  In the third regression equation y = a3 + b1 x1 + b2 x2
    – in the multiple regression of the independent variable (work-related load) and
    the dependent variable (subjective health), the mediator x2 (a variable from the
    selected personality characteristics) must influence the predicted y (the depend-
    ent variable subjective health). The coefficient of multiple regression b2 must be
    statistically significant. The influence of the predictor upon the predicted must be
    greater in multiple regression than in simple regression (the multiple regression
    coefficient b1 must be higher than the simple regression coefficient b'). An ideal
    'pure mediation' would require the multiple regression equation to show no effect
    of the independent variable upon the dependent variable (b1 to be statistically
    insignificant). The calculated values of the regression coefficients for the verification
    of the mediator hypothesis are shown in Table 3.

**Table 3:** Regression coefficients

|              | b        | b'       | b1        | b2      |
|--------------|----------|----------|-----------|---------|
| Extroversion | .142[++] | .196[++] | −.135[++] | .178    |
| Neuroticism  | .548[++] | .196[++] | −.140[++] | −.192   |
| SOC          | −.481[++]| .196[++] | −.139[++] | .216    |
| Optimism     | .477[++] | .196[++] | −.132[++] | .185    |

Table 3 shows b as the coefficient of simple linear regression between the independ-
ent variable and the mediator; b' as the coefficient of simple linear regression between
the independent variable (work-related load) and the dependent variable (subjective
health); b1 as the coefficient of multiple regression between the predictor (work-related
load) and the predicted (subjective health); b2 as the coefficient of multiple regres-
sion between the variables playing the role of mediator (personality variables) and
the predicted.

    The results presented in Table 3 (data for other variables are given in Paulík et al.,
2009) show that the coefficients b, b' and b2 are statistically significant and that the
value of b1 is higher than that of b' for the Big Five factors extroversion and neuroti-
cism and for optimism and SOC. This means that these variables act as mediators for
the relationship between work-related load and subjective health according to the
criteria of Baron and Kenny (1986).

    Focusing more closely on the role of SOC as a variable which – according to its
originator A. Antonovsky (1993) – has a major effect on human health (Paulík, 2011),
the correlation with the monitored variables is given in Table 4.

**Table 4:** Correlations of SOC

| Variable | Spearman's correlation coefficient |
|---|---|
| Subjective health | 2.13 |
| Objective health (days absent) | −.035 |
| Work-related load | −0.093 |
| Non-work-related load | −0.216 |

In this research, SOC correlated with subjective health, work-related and non-work related load. In view of the size of the sample (972 Czech primary school teachers), these correlations are significant to 1 %. No statistically significant correlation was found between the objective health indicator (absence due to illness) and SOC; the value (−.035) was not statistically significant even to 5 %.

In order to examine other connections between SOC and health indicators, the respondents were divided (cf. Paulík, 2011) into individuals with high and low scores for SOC. The criterion for the allocation to these groups was the median value. The first group (high SOC) consisted of individuals whose mean score was equal to or higher than the median; the second group (low SOC) consisted of those whose mean score was lower than the median. The mean values of subjective health (3.70 for the low SOC group and 4.00 for high SOC) differed for both groups with statistical significance to 1% (t-test 6.41). As for the objective indicator of health – the number of days absent from work due to illness – this showed no statistically significant variance either for the low-SOC group (mean 6.37, standard deviation 15.68) or for the high-SOC group (mean 6.63, standard deviation 18.59).

**Links between subjective health and objective health indicators**

The links between subjective health and the selected indicator of objective health are given in Table 5 for the Czech and Slovak primary school teachers.

**Table 5:** Indicators of subjective and objective health

| Study | 2010 | | 2011 | |
|---|---|---|---|---|
| Set | N = 557 | | N = 972 | |
| | Subj. health | Days absent | Subj. health | Days absent |
| Mean | 3.89 | 6.13 | 3.85 | 6.50 |
| Standard deviation | 0.84 | 16.92 | 0.83 | 17.168 |
| Correlation | −0.18 | | −0.17 | |
| Significance | 1% | | 1% | |

The mean subjective evaluation of health for both groups of the respondents corresponds with the verbal evaluation "fairly healthy".

The connection between subjective health (expressed in response to a direct question and evaluated on a 5-point scale) and objective health (in this case, expressed as the number of days absent from work due to illness) is illustrated by the correlation coefficients; the values of these coefficients were 0.18 for the Slovak teachers (N = 557), which is statistically significant to 1 %, and –0.17 for the Czech teachers (N = 972), which is also statistically significant to 1 %.

# Discussion and conclusions

The results presented in this paper support the assumption that the teaching profession is evaluated as a relatively highly demanding one in terms of teachers' own subjective evaluation of work-related load. For the sets of respondents, the evaluation of work-related load was statistically significantly higher than their evaluation of non-work-related load, and the proportion of stressed teachers ranged approximately between 20 % and 40 % – which corresponds with other results obtained from Czech and Slovak primary school teachers (e. g. Paulík, 1999, Štětovská, Skalníková, 2004 etc.).

The consequences of teachers' stress also include negative effects on health, although the influence of stress on health cannot be considered to be unambiguous and direct. This study focused on subjective health as evaluated by teachers, and an objective indicator of health, i. e. the number of days absent from work due to illness. Based on a calculation of correlations, it was found that the connections between the perception of work-related stress and subjective health are not random, and that the subjective evaluation of the respondents' own health has a tendency to worsen with growing load. Nevertheless, given that the statistically significant negative correlation coefficients were low (no higher than 0.14), the relationship between perceived load and teachers' health is probably also influenced by other factors. A regression analysis based on Baron and Kenny (1986) suggests that the influential factors include several components of the Big Five personality model (neuroticism and extroversion), as well as variables which appear to be connected with health and the ability to cope with load (see e. g. Paulík, 2010b) – SOC and optimism. These factors probably play the role of mediators, which impinge upon the relationship between work-related load and subjective health in such a way as to change the nature of this relationship, also helping to explain the consequences and mechanisms of this effect. In this research, the variable SOC appears to be a salutogenetic factor due to (a) its significant positive correlation with subjective health and its negative correlation with work-related and non-work-related load, and (b) the significant difference in subjective health between

individuals with high SOC and those with low SOC (those with higher SOC evaluated their health more positively than those with low SOC).

With regard to the relationship between subjective and objective health, the correlations proved to be statistically significant for the research sample. Nevertheless, the correlations were low, which suggests that subjective and objective health are phenomena which display not only several similarities, but also certain differences. This is also shown in other studies (cf. Šolcová, Kebza, 2006).

# References

Anatonovsky, A. (1993) The Structure and Properties of the Sense of Coherence Scale. *Social Science and Medicine,* 36, pp. 725–733.

Baron, R. M. & KENNY, D. A. (1986). The Moderator-mediator Variable Distinction in Social Psychological Research. *Journal of Personality and Social Psychology,* 51, 6, 1173–1182.

Hladký, A. et al. (1993). *Zdravotní aspekty zátěže a stresu.* Praha: UK.

Kebza, V. (2005). *Psychosociální determinanty zdraví.* Praha: Academia.

Kohoutek, R. & Řehulka, E. (2011) Stressors in the Work of Primary and Secondary Teachers in the Czech Republic. In Řehulka, E. (Ed.) *School and Health for the 21st Century. Health Education: Initiatives for Educational Areas.* Brno: MSD, pp.109–22.

Lazarová, B. (Ed.) (2011). *Pozdní sběr. O práci zkušených učitelů.* Brno: Paido.

Gillernová, I., Kebza, V., Rymeš, M. at all. (2011). *Psychologické aspekty změn v české společnosti. Člověk na přelomu tisíciletí.* Praha: Grada.

Oravcová, J. Náročné interakčné situácie v škole a ich zvládanie. In Valihorivá, M. & Kaliská, L. (Eds.), (2010). *Zdravá škola.* Banská Bystrica: UMB, pp. 284–298.

Paulík, K. Subjektivní hodnocení vlastního zdraví učitelů. In Řehulka E., Řehulková, O. (Eds) *Učitelé a zdraví 3.* Brno: Psychologický ústav AV ČR, nakl. Pavel Křepela, pp. 41–50.

Paulík, K. (2010a). Perception of Workload by Men and Women Teachers and Self-assesed Health Status. In Řehulka, E. (Ed.). *School and Health 21. Papers on Health Education.* Brno: MU, MSD, pp. 123–130.

Paulík, K. (2010b). *Psychologie lidské odolnosti.* Praha: Grada Publishing.

Paulík, K. (2010c). Subjektivní pracovní zátěž a zdraví učitelů a učitelek. In Valihorová, M. & Kaliská, L. (Eds.). *Zdravá škola.* Banská Bystrica: UMB PdF, pp. 484–490.

Paulík, K. (2010) Salutogenesis, Perception of Stress and the State of Health of Male and Female Teachers. In Řehulka, E. (Ed.) *School and Health. Health Literacy Through Education.* Brno: MU, pp. 319–327.

Paulík, K. et al. (2009). *Moderátory a mediátory zátěžové odolnosti.* Ostrava: FF OU.

Popelková, M., Šišková, A. & Zažková, M. (2010) Životná spokojnosť a vybrané osbnostné premenné učiteľov. *Psychologie a její kontexty, 1,* pp.15–31.

Průcha, J. (2002) *Učitel. Současné poznatky o profesi.* Praha: Portál.

Sarmány, I. (1992). Škála optimismu-pesimismu. In Prokopčáková, A. & RUISEL, E. (Eds.) *Praktická inteligencia II.* Bratislava: UEP SAV, pp. 85–90.

Šolcová, I. & Kebza, V. (2006). Subjektivní zdraví: Současný stav poznatků a výsledky dvou českých studií. *Československá psychologie,* 50, 1, pp. 1–15.

Štětovská, I. & SKALNÍKOVÁ, M. Sociální opora v kontextu proměn role učitele. In Vališová, A., Rymeš, M. & RIGEL, K. (Eds.) *Rozvoj české společnosti v Evropské unii IV.* Praha: Matfyspress, pp. 105–119.

Vašina, B. & Vlošková, M. (1998). Učitel – pracovní zátěž – zdraví. In Řehulka, E. & Řehulková, O. (Eds). *Učitelé a zdraví.* Brno: Psychologický ústav AV ČR, pp. 7–24.

**Contact:**
prof. PhDr. Karel Paulík, CSc.
Department of Psychology and Applied Social Sciences
Faculty of Arts, University of Ostrava
Reální 5, 701 03 Ostrava, Czech Republic
E-mail: paulik@osu.cz

## Sociální pedagogika / Social Education

Is a new peer-reviewed scientific journal that was launched in March 27, 2013. The purpose of the journal is to support information exchange among specialists in social education. In this journal the field of social education is delineated as the study of social aspects of education and development of children, youth and adults. Social education is an interdisciplinary science which collaborates with a number of other disciplines.

The journal publishes two issues per year which are access-free and are accessible at www.soced.cz. The journal publishes theoretical and empirical studies, book reviews and information about scientific events in social education. As concerns the studies, the journal is open to a variety of theoretical conceptions and methodological preferences (quantitative, qualitative, and mixed), provided that they bring new and interesting perspectives.

# Verification of activating teaching methods applied in primary school

## Martina Fasnerová

**Abstract**

The paper presents an overview of teaching methods applied in primary school. Activating and other teaching methods commonly used in primary school are described and compared. The author defined three hypotheses that were tested by means of a questionnaire survey. Activating teaching methods were observed for frequency of use and preferences. The survey also deals with the application of teaching methods depending on teacher age and level of education.

**Key words:** the activation methods, questionnaire survey, teacher, curriculum reform, teaching method

## 1  Current view of teaching methods

Contemporary modern education views teaching methods much more in a comprehensive perspective than ever before and focuses more on natural and stable incorporation of these methods in the educational process.

At present, teachers are provided with a large number of teaching methods. Their implementation and free selection is also facilitated by the current curriculum. Through a free concept and creativity of the curriculum, the framework educational programmes allow teachers adequate and full professional self-realization. The variability of the methods applied is crucial in meeting the requirements for an individualized approach.

However, it is also important to note that no method acts in isolation but belongs to a complex of other factors affecting the teaching process. Each method is also closely linked with organizational forms of the teaching process. According to some authors (Maňák et al., 2003; Nelešovská et al., 2005) in certain cases the terms 'organizational form' and 'teaching method' are often confused and blended in meaning. We could simply say that a teaching method conveys the content of teaching to the students, and through the surrounding reality facilitates understanding and learning about the world they live in and are educated in. At this stage, teaching methods combine well with the content of teaching to reach the objectives of the educational process.

As mentioned above, some authors consider the teaching method a way of fulfilling teaching objectives. Therefore, the difference between the traditional concept of teaching models and non-traditional applications of teaching methods must be made. To a large extent, traditional methods include the activities, management and a dominant role of the teacher. There is also an opposing view of the teaching method preferring maximum pupil involvement in the educational process with a non-dominant teacher role. This approach requires a high degree of commitment on the part of students who should be interested in the content of teaching and use this method as a way of reaching their objectives.

To a large extent, the suitability and application of an appropriate and adequate teaching method in the educational process depends on the teacher. However, it would be incorrect to assume that only modern progressive methods are suitable for today's education. There are many pupils who require an individualized teacher approach; and some methods, ranked among modern and activating approaches, are unsuitable due to their action-like nature. It should be noted that through teaching methods and through fulfilling defined objectives, pupils acquire a number of skills, habits and attitudes, i. e. key competencies that further shape the pupils' personality and affect their life and professional orientation. Therefore, teaching methods should be understood and applied in a wider context.

The teaching method was described as a set of teaching activities of the teacher and learning activities of the pupils. According to Maňák and Švec (2003, p. 26) *"Teaching activities of the teacher as well as learning activities of the pupils include both **external activities** (observed) and **internal activities**. Teaching methods are usually described through the observable activities of the teacher and pupils (e. g. teacher's explanation of new subject matter, cooperative pupil activities during group work)."*

Teaching and learning activities include the following:
- Activity motive,
- Activity objective,
- Activity planning,
- Operational activity image (what should activity look like),

- Activity implementation (practical),
- Processing continuous information on activity correctness, adequacy and functionality,
- Decision making,
- Checking of activity results,
- Correction of further action.

By cyclic repetition of the components of teaching and learning activities, these activities are gradually adopted and improved. An important criterion in selecting appropriate methods is the teacher personality. Selecting an appropriate and adequate method influenced by teacher experience is based on a comprehensive approach to the subject matter with respect to the links between the fundamental components, structure and dynamics of the educational process.

The classification of teaching methods has been addressed by many experts (Maňák et al., 2003; Nelešovská et al., 2005; Kasíková, 1997; Kalhous et al., 2002); however, there is no unanimous agreement on a comprehensive and specific classification system of teaching methods. To develop a system of classification of teaching methods that would be suitable for all stakeholders and that would meet scientific procedures and be exhaustive seems a very difficult task. Many authors disagree on the classification of the division criteria.

Activating methods that support active thinking of the pupils and allow new methods of work, e. g. involving children in various projects or problem solving situations, should be used more often. For these reasons, pupils should be adapted to various methodical approaches and rational learning methods. Pupils should be provided with all competencies offered by the new curricular reform and implemented by the Framework Educational Programme for Elementary Schools (referred to as RVP ZV). These competencies can be formed and achieved by activating teaching methods.

*"Activating teaching methods are educational procedures that achieve educational objectives primarily through own learning work of pupils, while emphasis is put on thinking and problem solving (Jankovcová et al., 1988, p. 84)."* There is a number of activating methods.

A comprehensive concept of teaching methods is closely linked with the organizational form of teaching. Some authors (Maňák et al., 2003; Nelešovská et al., 2005) claim that the method of teaching significantly interferes with and changes the organization of lessons. The selection of an appropriate teaching method also determines the respective organizational form.

According to Švec and Maňák (2003, p. 131): *"…comprehensive methods provide teaching approaches with additional organizational forms and didactic means and reflect overall educational objectives to a greater extent than the previous groups of methods."*

With respect to these requirements, current emphasis is placed on the selection of methods through which significant pupil activation is achieved, and also problem-

oriented and heuristic methods that guide pupils to develop their own problem-solving approaches and to a large extent enhance their creativity.

According to Maňák and Švec (2003. p. 131), comprehensive methods differ from traditional and activating methods primarily because: *"…these are complex methodological structures that require a various but always coherent combination of and association between several crucial elements of the didactic system, such as methods, organizational teaching forms, didactic means or life situations."*


# 2  Research survey

The above mentioned facts that are also discussed in literature raised numerous questions and issues. These became the focus of the research survey.

The objective of the survey was to find out whether teachers use activating methods more than traditional or comprehensive methods and whether this is associated with their age or length of teaching experience. We also developed a research tool (questionnaire), which was provided to teachers in the survey schools to be used as a self-evaluation tool to investigate the application of activating methods in the educational process. The survey itself was based on a questionnaire method. The obtained data was evaluated and processed in an Excel spreadsheet and converted into charts and tables.

The questionnaire was structured according to general rules (Chráska, 2007). The questionnaire was designed to meet the research objectives and to address the respective research issue.

The first part of the questionnaire presents to the respondents the information, opinions and statements related to the research and explains the necessity of a questionnaire survey in monitoring the application of teaching methods. The questionnaire further specifies the procedures for filling in. The second part includes a total of 23 items aimed at monitoring the changes in strategies and methods.


## 2.1  Definition of the research sample

A total of 50 schools were asked to participate in the survey. As a result of the fact that many schools refused to cooperate if addressed in written, we approached them in person. Elementary school teachers involved in the research study were divided for objectivity reasons by means of stratified selection into subgroups according to the length of their teaching experience. From each subgroup a certain amount of teachers were randomly selected to make sure that all categories were included in the survey.

The research tool was distributed in person. The questionnaire research was carried out in elementary schools in the Olomouc Region and Moravian-Silesian Region

in the Czech Republic. The questionnaire was submitted to teachers in the first level of elementary school. The teachers addressed were from fully organized schools as well as mixed-class schools. A total of 203 teachers were addressed. Out of the total of 203 addressed teachers, 186 respondents returned the questionnaire monitoring the application of teaching strategies (methods), 17 questionnaires had to be rejected. For anonymity reasons, the questionnaires specified neither the name of the respondent nor the school.

Regarding the high rate of return of the questionnaires as a result of personal contact we believe that teachers are interested in what happens in their school and want to take an active part in improving the quality of the educational process with respect to the newly defined objectives.

***In dealing with the issue we asked the teachers the following question:***
Do you rather use traditional teaching methods and strategies or do you try to apply activating or problem solving teaching methods?

**Based on the definition of the research objective the following material hypotheses were formulated:**
*Hypothesis No. 1:*
In the educational process in elementary school traditional teaching methods prevail over activating and comprehensive teaching methods.
*Hypothesis No. 2:*
Teachers older than 36 years of age use traditional teaching methods more often than younger teachers.
*Hypothesis No. 3:*   Activating methods are used more frequently in the first level of elementary school compared with the second level.

## 2.2  Analysis of obtained data

The data acquired through the questionnaire survey was evaluated and processed in an Excel spreadsheet and was used to verify the hypotheses by means of the Pearson's chi-squared test of chi-squared independence for a contingency table.

These tests of significance were used because we monitored the dependence between two pedagogical phenomena captured by means of nominal measurement.

Evidence base for hypotheses
**Hypothesis No. 1**
In the educational process in elementary school traditional teaching methods prevail over activating and comprehensive teaching methods.

**Null hypothesis H$_0$:** The frequency of preferred teaching methods used in the educational process is roughly identical.

**Alternative hypothesis H$_1$:** The frequency of preferred teaching methods used in the educational process varies.

**Table 1:** Respondent answers to the question on prevailing teaching methods in the educational process in elementary school.

| | P | 0 | (P – 0) | (P – 0)$^2$ | (P – 0)$^2$/0 |
|---|---|---|---|---|---|
| Traditional methods | 407 | 400.33 | 6.67 | 44.44 | 0.11 |
| Other methods | 794 | 800.67 | −6.67 | 44.44 | 0.06 |
| Σ | 1201 | 1201 | | | 0.17 |

**Chart 1:** Respondent answers to the question on prevailing teaching methods in the educational process in elementary school.
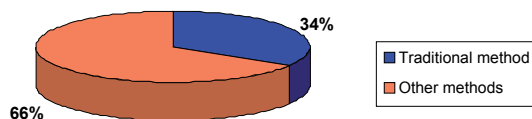


The critical value of the test criterion for the level of significance of 0.05 for a contingency table and three degrees of freedom is $\chi^2_{0,05} = 3.841$.
**The calculated value of the test criterion is lower than the critical value; the alternative hypothesis can thus be rejected and null hypothesis accepted.**

**Partial conclusion:** As far as the teaching methods are concerned we made a conclusion that the preferences of various teaching methods are evenly distributed. Comprehensive and activating methods do not prevail over traditional methods and teachers apply the methods evenly.

Further in the research we focussed on the effect of teacher age on the preference of the different teaching methods.

**Hypothesis No. 2**
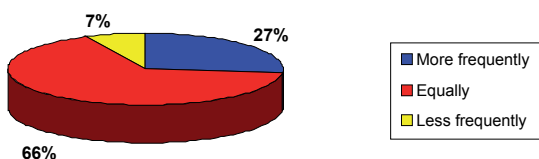**Teachers older than 36 years of age use traditional teaching methods more often than younger teachers.**
**Null hypothesis H$_0$:** There is no dependence between the reported frequency of traditional teaching methods and the age of the teacher.

**Alternative hypothesis H₁:** There is dependence between the reported frequency of traditional teaching methods and the age of the teacher.

**Table 2:** Respondent answers to the question on the frequency of use of traditional teaching methods

|  | Younger than 36 |  | Older than 36 |  | Σ |
|---|---|---|---|---|---|
| 1. (More frequently) | 143 | (124.48) | 264 | (282.52) | 407 |
| 2. (Equally) | 352 | (382.91) | 900 | (869.09) | 1252 |
| 3. (Less frequently) | 39 | (26.61) | 48 | (60.39) | 87 |
| Σ | 534 |  | 1212 |  | 1746 |

**Chart 2:** Answers of respondents younger than 36 years of age to the question on the frequency of use of traditional teaching methods



**Chart 3:** Answers of respondents older than 36 years of age to the question on the frequency of use of traditional teaching methods
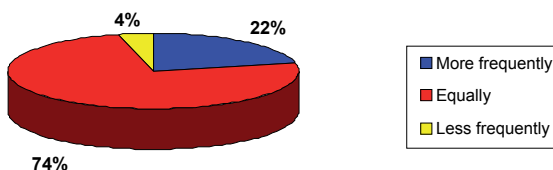


The critical value of the test criterion for the level of significance of 0.05 for a contingency table and three degrees of freedom is $\chi^2_{0.05} = 5.591$.
**The calculated value of the test criterion is higher than the critical value; the null hypothesis can thus be rejected and alternative hypothesis accepted.**

**Partial conclusion:** The preference of the use of traditional teaching methods depends on the age of the teacher. Teachers older than 36 years of age apply traditional teaching methods more frequently than younger teachers. By verifying the hypothesis we

confirmed the assumption that older teachers prefer traditional education rather than adopting any changes even though such changes are feasible.

We also focussed on whether the use of activating methods is influenced by the level of elementary school.

**Hypothesis No. 3**
**Activating methods are used more frequently in the first level of elementary school compared with the second level.**
**Null hypothesis H$_0$:** There is no dependence between the reported frequency of activating teaching methods and the level of elementary school.
**Alternative hypothesis H$_1$:** There is dependence between the reported frequency of activating teaching methods and the level of elementary school.

**Table 3:** Respondent answers to the question on the frequency of use of activating teaching methods

|  | First level teachers | | Second level teachers | | Σ |
|---|---|---|---|---|---|
| 1. (More frequently) | 273 | (263.65) | 76 | (85.35) | 349 |
| 2. (Equally) | 400 | (419.27) | 155 | (135.73) | 555 |
| 3. (Less frequently) | 56 | (46.08) | 5 | (14.92) | 61 |
| Σ | 729 | | 236 | | 965 |

**Chart 4:** Answers of first level respondents to the question on the frequency of use of activating teaching methods
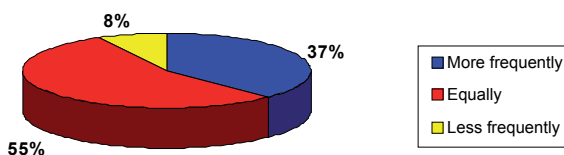


**Chart 5:** Answers of second level respondents to the question on the frequency of use of activating teaching methods
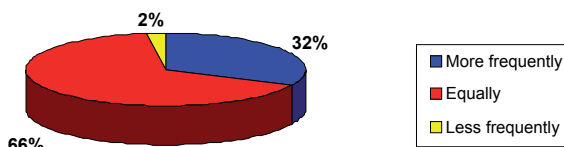
The critical value of the test criterion for the level of significance of 0.05 for a contingency table and three degrees of freedom is $\chi^2_{0.05} = 5.591$.
**The calculated value of the test criterion is higher than the critical value; the null hypothesis can thus be rejected and alternative hypothesis accepted.**

**Partial conclusion:** The preference of the use of activating teaching methods depends on the level of elementary school. Activating methods are more frequently used in the first level of elementary school compared with the second level. This finding corresponds with the specifics of primary school. Activating teaching methods are used with respect to various age categories. The younger the individual, the more it appears to be necessary to apply experiential learning in order to anchor cognitive knowledge in a permanent and accessible way.

# 3  Conclusion of the survey results

As mentioned in the initial chapter, teaching methods are dealt with by many authors. This issue is still very topical, particularly in the context of reviewing the current curriculum. After introducing the curricular reform in 2007, all stakeholders involved were convinced that teachers would accept the changes without complications and that activating methods would be used on a larger scale together with changed learning strategies focussed more on experiential learning. In 2013 it was revealed that the objectives are not fully achieved; therefore, the curriculum needs reviewing. This fact also influenced the use of the mentioned teaching methods.

In conclusion, attention should be drawn to the findings of the study, which indicate that teachers in the first level of elementary school approach activating and other comprehensive teaching methods more actively compared with second level teachers. This is likely to be caused by the specifics of primary school. The years of experience may confirm that these activating teaching methods and various teaching forms were used even before the reform because teachers working with younger-school-age children are required to adapt the style of teaching to their capacities and abilities and to attract and approach pupils.

It is also obvious that older teachers tend to use traditional teaching methods. These proven stereotypes can hardly be changed by the curricular reform.

# References

Gavora, P. (1996). *Výzkumné metody v pedagogice*. Brno: Paido.

Chráska, M. (2007). *Metody pedagogického výzkumu*. Praha: Grada.

Jankovcová, M., Průcha, J. & KOUDELA, J. (1988). *Aktivizující metody v pedagogické praxi středních škol*. Praha: SPN.

Jeřábek, J., Tupý, J. (2006). *Rámcový vzdělávací program pro základní vzdělávání*. Praha: Triton.

Jeřábek, J., Tupý, J. (2005). *Rámcový vzdělávací program pro základní vzdělávání*. Praha: VÚP.

Kalhous, Z., Obst, O. et al. (2002). *Školní didaktika*. Praha: Portál.

Kasíková, H. (1997). *Kooperativní učení, kooperativní škola.* Praha: Portál.

Kraus, J. (2008). *Slovník cizích slov.* Praha: Academia.

Maňák, J. & Švec, V. (2003). *Výukové metody*. Brno: Paido.

*Manuál pro tvorbu školních vzdělávacích programů v základním vzdělávání*. Praha: VÚP, 2005.

Nelešovská, A., Spáčilová, H. (2005). *Didaktika primární školy*. Olomouc: UP.

Uličný, O. (2000). Causa teatralizace: Ke kultuře veřejných projevů. In Slavíková, E. & Vyskočilová, E. *Psychosomatický základ veřejného vystupování*. Praha: Akademie múzických umění.

**Contact:**
PhDr. Martina Fasnerová Ph.D.
Faculty of Education, Palacký University Olomouc
Department of Primary and Pre-primary Education
Žižkovo nám. 5
779 00  Olomouc
E-mail: martina.fasnerova@upol.cz

# Methodological Materials for Teaching Media Education in the Czech Republic: Prematurely Obsolete or Insufficient Support?[1]

## Radim Wolák

**Abstract**

The submitted text is designed for pedagogues, who teach or want to teach the cross-curricular topic, media education, and also for Czech and foreign experts dealing with the field of media pedagogy and the integration of media education into the Czech school system. The author gives an overview of the offer of methodological materials in Czech, which teachers of Czech primary and secondary schools can use for media education. It describes in more detail the basic and most frequently methodological materials and manuals for teachers, available textbooks and also offers a list of Internet sources.

The text further summarizes findings of researches carried out among media education teachers investigating the situation in the field of integrating elements of media education into school plans and researching the changing needs of Czech teachers, who are responsible for the development of education connecting life with media. In the conclusion of the text, the author evaluates the current situation in the field of media pedagogy in Czech primary and secondary schools and refers to the problems that defend the full integration of media education into everyday school practice.

---

**Key words:** media literacy, media education, methodological materials, textbook, teaching aids.

# Media education in the Czech Republic as a subject of specialized interest

The process of introducing media education into school practice after the whole period of implementation of school reforms in the Czech Republic is the subject of specialized interest. The first specialized texts were focused primarily on the definition of the content of media literacy and media education (Verner 1999; Šeďová 2004; Bína 2005; Jirák, Wolák 2006; Verner, Bezchlebová 2007; Jirák, Wolák 2008). The attention was later focused on some aspects of introducing media education into specific schools (Hrdličková 2007); other specialized research focuses on how teachers and their students accept media education (Wolák, Jirák 2009; Wolák 2010b) and partial studies have been researched and the predominant approach to media education in practice in Czech schools (Smrčková 2010; Škapiková 2010; Ročňák 2012). In the last few years, the angle of research has broadened to include even the problems of pre-school education (Klímová 2010; Luštinec 2010) and parental mediation (Šeďová 2007; Sloboda 2010; Cigánková 2012). In 2012, the first extensive nation-wide study was undertaken, researching the level of media literacy of the Czech population that was related in some aspects also to the problems of media education at schools (Stav mediální gramotnosti v ČR/The Condition of Media Literacy in the Czech Republic 2011). During this period of introducing media education, a set of expert studies and monographs emerged, connected with the problems of the theory and conception of media literacy in the Czech context (i. e. Niklesová 2007; Jirák, Wolák 2007, Mašek, Sloboda, Zikmundová 2010; Niklesová, Bína 2010 etc.) and a comparison of the Czech concept of the systematization of media education with practice abroad (i. e. Kašpárková, 2010). Less attention has been paid to the researching of didactic approaches to media education and the analysis of available methodological tools for teachers (partial steps undertaken i. e. Kručayová 2012). The goal of the submitted text is to contribute to this discussion. An overview partly arises from the text published in the magazine *Komunikace, média, společnost (Communication, Media, Society)* (Wolák 2011b)*,* however, dealing with a broadened and updated overview**.** The author of the text, moreover, attempts to connect the results of the survey analyses to the partial results arising from the currently implemented research that looks into the current needs of media education teachers at Czech primary and secondary schools.

# The introduction of media education into the Czech school system: a brief summary of the situation

Media education entered the Czech education system in connection with the ongoing curricular reform focused (in a simplified way) on the deviation from strong curricula and their replacement by framework documents defining the content of education for each degree of education (more details on the reform i. e. Greger, Walterová 2007). The "framework programmes" – *Framework Educational Programme for Elementary Education* (http://rvp.cz/informace/wp-content/uploads/2009/09/RVP_ZV_EN_final.pdf) and the *Framework Educational Programme for Secondary General Education* (http://rvp.cz/informace/wp-content/uploads/2009/09/RVP_G-anj.pdf) – are based on *"a new education strategy, which emphasizes key competencies, their interconnectedness with the educational content and application of the acquired knowledge and skills in real life"* (*Framework Educational Programme for Elementary Education* 2009: 6) and serve as a common basis for teachers at schools who develop the curricula based on frameworks by themselves. Media education is defined in these documents together with some other topics as "*cross-curricular subjects*" – "*the thematic areas of current problems of the contemporary world*" (*Framework Educational Programme for Elementary Education* 2009: 91). Media education appeared in both framework programmes with the main goal to raise the level of media literacy and to contribute *"to the pupil's ability to engage in media communication successfully and independently"* (*Framework Educational Programme for Elementary Education* 2009: 104).

Although in our environment it is possible to find a distinct tradition of endeavours to introduce specific elements of media education (vide Jirák) into the education system, it is the first time in Czech history when media themes have become an integral part of primary and secondary education in a systematic way.

The introduction of media education into primary and secondary education was determined by the problem of the lack of properly qualified teachers from the very beginning. At the beginning of the reform (roughly 2005), teachers did not have any opportunity to obtain qualifications in the field of media education (in other words: no certified media education teachers were available literally within the whole country). Educators found themselves in an unenviable situation. Many teachers realized the importance of the new topic, because they could not ignore the increasing role of the media in the lives of children, but they did not know how to grasp the subject – often having been, in relation to the media, less experienced than their students. They were supposed to teach the topic without previous professional training, having lacked a comprehensive methodological and didactic support (Wolák, Jirák 2009).

The institutional supervisor of the reform, *Výzkumný ústav pedagogický v Praze (Research Institute of Education in Prague)* began to offer teachers the best results of evaluation of the introduction of new subjects in some schools (guidelines of good

practice), but it was rather a collection of small sub-themes and teaching ideas than a comprehensive and systematic guide to educational support. As revealed from the survey undertaken during that period among teachers – those who were personally engaged in the topic of media education – they began to teach media education and spontaneously created their own learning processes but it was their individual initiative (Hrdličková 2007). Teachers with no interest in the subject, who were forced into teaching the topic by school management, did not start teaching at all.

The civic associations and non-profit educational organizations responded to the situation described above and began to draft the first methodological materials, educational courses and support for teachers. In the period from 2005 to 2009, several long-term educational activities took place in the system of furthering education for teachers, targeting to help teachers to start up teaching media education and offering teachers the ready-to-use materials for teaching. However, experts from the field of media studies were also involved in the preparation of many of these courses, the quality of courses was questionable in many cases (media education was often confused with the use of modern technologies in teaching without critical approach, etc.).

In that period, expert research and university workplaces started to take part in the preparation of methodological materials up to the current period so the whole set of educational functions, methodological materials and supporting aids arose, which can make the situation easier for teachers. The important moment was also the creation of the documents *Doporučené očekávané výstupy (Recommended Expected Outcomes)*, (DOVZV 2011; DOVG 2011), that defined the educational outcomes more precisely and the goals of cross-curricular media education, which up to now had only been roughly defined.

In the description of the materials used, which are at the disposal of the pedagogues, the scholarly or popularized literature will not be looked at from the field of media studies (although its role concerning the needs of pedagogues of media education is undeniable) or even the titles focusing on the theory of media education and media literacy, but to the materials, which are directly specified as teaching or methodological aids for teachers at primary and secondary schools. It is possible to divide them into four groups: a) the methodological manual for teachers, b) the textbook solely for work with students, c) Internet portals and d) multimedia aids and other materials. Regarding the extent of this text, it is not possible to include all sources; therefore the overview focuses only on those the teachers have named in the implemented research.

# Former methodologies

Still as the discussion about the possibilities of the establishment of the media education as a new educational topic was still fresh, the book *Úvod do studia médií (An*

*Introduction to Media Studies)* by Graeme Burton and Jan Jirák came out (Burton, Jirák 2001), becoming the first textbook on media studies written in Czech, which was based on the interpretation of the Czech media landscape and about the domestic tradition of media studies. Although it is not primarily specified to media education teachers, it has become a popular aid for its clarity and comprehensibility and also thanks to the subject matters for practical exercises, which can develop media literacy and are conveniently incorporated into the lessons.

The first title, which appeared on our book market and promised insight to the field of media education was a book by Jiří Roth called *Mediální výchova v Čechách (Media Education in the Czech Republic)* (with the subtitle *Printed Media in Confrontation with the Internet, Radio and TV)*. The author of the book, then editor in chief of lifestyle monthly, in the introduction presents: "Although the publication bears the title media education, it is not a textbook. The education is meant rather as handing over experiences to the Czech media scene." (Roth 2005: 5). Roth's media education indeed brings a view in particular to the backstage of the production of the printed media. As the author emphasizes, it is about "the subjective view of a man from the field" (Roth 2005: 5), which should aid readers in their understanding of it, how printed media has emerged, who is creating them and for what purpose. Although it is not a real textbook, the text is supplemented by a number of practical examples, demonstrations and an illustrated visual material. The author always at the end of the chapter summarizes the basic findings and offers the possibilities to practice new knowledge and subject matter to further development, therefore – with awareness of the subjectivity of the author's view – the book can even serve as a useful supplement during media education lessons.

## Methodological manuals for teachers

The first comprehensive **methodological material** specified for media education teachers came about in 2006 and was called *Rozumět médiím – základy mediální výchovy pro učitele (Understanding Media – Foundations of Media Education for Teachers)* (Mičienka, Jirák 2006). The methodological material of the project Understanding Media, which through the financial support of the ESF was implemented by the non-profit organization *Partners Czech* in cooperation with the *Centre for Media Studies, Faculty of Social Sciences, Charles University in Prague* and in which it was set up in the Czech Republic for 300 pedagogues in the basic approaches to grasp the media problems in educational practice, consisting of methodological manuals and a multimedia CD-ROM. The methodological manual is divided into eight thematic units that respect the delineation of media education as it is defined in the curricular documents. Every unit is introduced with an introductory text, which serves the teachers as a theoretical summary offering a basic framing of the given problems and solutions to further studies,

the focus of individual chapters presents the methodological materials, the lesson for media education teaching in the form of a proposal of scenarios of teaching lessons. All subject matter is supplemented with exercise pages. The multimedia CD-ROM contains an electronic version of the manual and, in particular, demonstrations and materials (primarily dealing with media contents), which are possible to use during work with the manual. Because the manual and CD-ROM came out when the project was launched (2006), in 2007 and 2008, the updated CD-ROM versions were published, where there were more new lessons, materials, and even a list of a hundred important terms from the field of media studies.

The project *Understanding Media* was very successful as an educational operation and the methodological manual is a well-circulated material among teachers up today. The manual is currently sold out, the project was finished (2008) and the only way to get the material was to take part in the project and finish it**.** People interested in this methodology can purchase the book *Základy mediální výchovy (Basics of Media Education)* (Mičienka, Jirák 2007), that was put out by the Portál publishing house and that is connected to the material of *Understanding Media* (the lessons of the project have become a base for the texts of the publication, however, they have been supplemented and modified by the authors). The book is still in distribution, yet a clear disadvantage is the absence of a CD-ROM, which hinders its use by teachers in lessons.

*Být v obraze (Keeping Up to Date – Media Education with the Use of Audiovisual Surroundings)* is the title of the methodological material published by the organization *Člověk v tísni (People in Need)* in 2007 (Strachota, Valůch 2007). It deals with a set of audiovisual materials (mostly documentary films) accompanied by a methodological manual for teachers. The set contains fifteen lessons, whose text is placed in the manual and the audiovisual part on a DVD. More than ten hours of audiovisual materials create the films (both Czech and foreign), which are related to the problems of media. It is possible to work with the units of the films, however, the manual offers well-processed advancements for work with demonstrations (the methodology does not lack exercise pages, situations for reflection and evaluation). There are several activities assigned for every film that cover the basic topics of media education. The set *Keeping Up to Date*, thanks to its being founded on visual parts, presents an attractive – and quality – instrument for teaching media education. Its disadvantage is a relatively high purchase price.

The publication *Média Tvořivě (Media Creatively)* presents the next didactic-methodological support for media education teachers, which started as part of a project with the same name by the local organization, *Aisis* (Broklová 2008). The authors of the manual are expert lecturers, who led courses of media education for teachers in 2007 and 2008. In the preface it presents that the manual "should serve primarily as support for the integration of the cross-curricular theme of media education to many existing subjects and should dispel part of the image of pedagogues that 'media ed.' belongs mainly in Czech lessons and 'computers'". (Rutová 2008: 6) More than half of

the publication really creates the subject matter on the integration of elements of media themes to some subjects – and it does not stay only on the subjects of the Czech language and civics, the teacher finds even an interesting subject matter for the link to media education with art education, with geography, chemistry and physics. The following chapters such as Interpreting the Possibilities of Photography, Video in Teaching, and A School-wide Magazine or How to Lead an Editorial Team of a School Magazine Publication (compared against the aforementioned methodology) focus rather on the production approach to the integration of media education, and thus receive its title: *Media Creatively*.

All the aforementioned methodologies have several common features. They are specified for the teachers of the second half of primary schools and secondary school pedagogy. They started when there was a great demand for "instructions how to…" by the schools – methodology in the form of prepared scenarios of teaching lessons that the teacher can immediately use without significant previous preparation. The experts from the field of media theory and practice participated in making the structure of the texts; the activities were verified and reviewed by experienced pedagogues and lecturers. All the methodologies offer teachers the possibility to decide whether they will integrate the presented subject matter into the existing subjects, or they will use a separate time block – its concept and duration of activities suit rather the secondoption. *Understanding Media* attract attention thanks to an adequate blending of theoretical background with the methodologically well designed activities of high quality. *Keeping Up to Date* thanks to its use of documentary films. *Media Creatively* thanks to its varied offer of methods integrating media education into existing educational fields. These three publications provide teachers decided to participate in media education (and are coerced by the school management) withbasic methodological materials who are at the disposal through one hundred scenarios of teaching lessons covering a majority of thematic circles of defined cross-curricular topics in media education.

In conclusion, it is necessary to mention that although these are the most used aids they are not the only ones; in the last five years several inspirational texts have been written, offering topics of lessons. The publication *Mediální pedagogika – Média a komunikace v učitelské praxi (Media Pedagogy – Media and Communication in Teachers' Practice)* (Pavlíčková, Šebeš, Šimůnek 2009) also deserves attention; it contains "subject and thematically varying contributions whose common feature is the effort to overcome the space between the expert scientific discourse about media and the pedagogical practice of teachers" (Pavlíčková, Šebeš, Šimůnek 2009: 7). The text diverges from "the cookbook approach" to media education. Each of the chapters firstly theoretically anchors the following problem, and then will offer several ideas how to integrate the given theme into pedagogical practice. The publication *Media Literacy and Media Education* (a publication with a CD-ROM) by Eva Niklesová and Daniel Bína (Niklesová, Bína

2010) is very helpful. It deals with a set of study texts that are provided free of charge as study support for primary and secondary school teachers and is focused on explaining the basic terms from the media study field. Several projects connected to the topic of advertising are offered on a CD-ROM in the field of methodology.

The publication *Mediální výchova (Media Education)* by Pavel Verner (Verner 2007) could even be a great help to teachers for a basic orientation in the field of education to media literacy; it is also designed for primary and secondary school teachers and brings a brief overview of basic themes of media education. The book *K mediální výchově (To Media Education)* by Tomáš Frank and Věra Jirásková (Frank, Jirásková 2008) deals with media education and communicational strategies in practice. It is even possible to search for methodological inspiration in the publications *Výchova k mediální gramotnosti (Educations to Media Literacy)* (Bína 2005) and *Mediální gramotnost: nový rozměr vzdělávání (Media Literacy: a New Dimension of Education)* (Jirák, Wolák 2007).

Teachers who have decided to integrate media education in the form of **production activities** – the work of students editing a school magazine – can reach for several publications offering instructions for it, how to set up and organize the editing of a school magazine, as in the publication *Základy žurnalistiky pro redaktory studentských časopisů (The Basics of Journalism for Editors of Student Magazines)* (Navrátilová, Jeřábková 2004) published by the *Open Society* in cooperation with the Children and Youth Association at Horní Slavkov in 2004 (the publication is spread freely on the Internet). Another valuable and inspirational material for teachers can be the book *Mediální tvorba v kontextu vzdělávání: na příkladu česko-německého mediálně-pedagogického projektu o genetice (Media Structure in the Context of Education: the Example of a Czech-German Medial-pedagogical Project on Genetics)* (Sloboda 2011) by Zdeněk Sloboda. (For more materials see e. g. Bartošek, Daňková 2008 and Pokorný 2011.)

Teachers should also consult the *Manual of Examples of Good Practice* published by the *Research Institute of Pedagogy in Prague* as the implementer of school reform in 2007; it presents interesting methods of teaching and extra-curricular activities that were started in a pilot of new educational programs in sixteen piloted primary schools in the Czech Republic (Příručka příkladů dobré praxe, 2007). They make its chapters attractive by describing the experiences of pedagogues with the implementation of the school television and radio broadcasting.

# Textbook

In the offer of materials for teaching media education, one important ingredient had been missing for a long time: **a textbook** assigned to students. Recently, this gap has been attempted to be filled by *Mediální výchova (Media Education)* by Jan Pospíšil and Lucie Sára Závodná (Pospíšil, Závodná 2010). It is the first teaching text that deviates

from the methodology for teachers and is primarily intended so that students work independently (it is defined primarily for secondary school students). The interpretation of the textbook is illustrated with a number of visual appendices, graphs, diagrams, examples, and it quickly captures the reader's attention. Although in the visual material the pictures and graphics of the illustrated character prevail, supplementing them and the reproduction of the current materials that make it easier for students to develop an image about historical changes of some media products. The text of the textbook is also supplemented by small subject matters for reflection (or homework) that interestingly liven up the interpretations and can be taken into a deeper investigation of the discussed fields (for more, vide Wolák 2010c). The textbook in principle copies the basic thematical fields of the cross-curricular topic of media education as is delimited in the curricular documents. Like in the majority of textbook texts for school, there are even topics outlined in a basic contour and some of their aspects are left out, which is understandable regarding the extent and purpose of the publication. However, in the text it is coming to a relevant contradiction between the simplifications on the one hand and perhaps to excessive expertise on the other that is present in several passages. The contradiction "adequacy of the level of content" manifests itself most apparently in the workbook, which is a supplement to the textbook text. *Media Education – Workbook* (two notebooks – questions and answers) was published in the form of two separate publications and offers teachers instruments for using exercises (exercises, quizzes, other supplemental activities) and evaluations (tests) of awareness, which students acquire through work with the textbook. Up till now teachers had lacked such a aid in media education, which should serve to the evaluation of measuring cognition and the abilities of youth in the field of media problems, most the effort about its creation strikes on the difficult possibility of the precise definition of the amount of knowledge, which the "media literate" student should have at a primary or secondary school (*The Research Institute of Education* just last year published *The Recommended Expected Outcomes* for teaching cross-curricular topics, which delineate what the student should know, who studies media education). The effort of the authors to create a system of evaluation is pleasing, nevertheless, even here the question suggests itself whether what is practiced here, is necessary knowledge that a secondary school students should gain in the lessons of media education (the text is all too often aimed at the knowledge of technical terminology, of models of communication, of names of media theorists etc…). We are still waiting for a textbook, which would focus on the goals defined by *The Recommended Expected Outcomes*.

# Internet sources – methodological materials on-line

In the introduction of media education, several **web portals** appeared on the Internet, which tried to support the introduction of elements of media education into the teaching practice and were primarily specified for teachers. Some of them were bound to the aforementioned educational projects (i.e. *Understanding Media* www.rozumetmediim.cz and *Media Creatively* www.mediatvorive.cz) and their activity finished with the ending of the given projects (unfortunately, because both offered a number of materials for teachers, on the project pages of Media Creatively it was offered to download even several translations of British textbooks on media education). The Methodological Portal of the *Research Institute of Education* www.rvp.cz has a fundamental role at this time, which offers many texts and methodologies for media education teachers (created by media studies theorists and independent teachers). The portal for Media Literacy and Media Education www.medialnigramotnost.cz of the Faculty of Social Sciences, Charles University in Prague tries to be the starting point and signpost for all those interested in the problems of media education; teachers especially appreciate the ever widening offer of freely accessible methodological subject matter for teaching, which are the results of work of the Media Studies students of the Faculty of Social Sciences, Charles University in Prague. The Pedagogical Faculty, University of Ostrava works on a similar principle http://mediator.osu.cz/.

The *Reading Literacy and Project Teaching* portal www.ctenarska-gramotnost.cz – the interest for media education teachers lies in the section Reading Literacy and Media Education, where there are subsections Inspiration from Abroad (it is possible to find translations of curricular documents from the Canadian province, Ontario), School Magazines, The Competition of School Magazines, Tips for Teaching, and Sources for the Topic. Web sites that can be found interesting from the methodological point of view are the provoking pages for teachers www.skolamedii.cz – the project School Media in ethical connections is run by the College of Media and Journalism in Prague under the auspices of the Archbishopric of Prague and the Czech Bishop Conference – and the portal www.mediasetbox.cz of the project Media Set offering downloads of a carefully created methodology including worksheets (Krouželová 2010). A number of web portals of Czech primary and secondary schools can further serve as inspiration for teaching media education where teachers offer their experience and results of work in media education lessons, and also portals of educational centers (i.e. www.centrum-detske-komunikace.cz/) and of organizations operating children's media (i.e. www.radiodomino.cz and www.detskatelevise.cz). Important activities are created by the *Center for Media Education* www.medialni-vzdelavani.cz and the *Association for Media Pedagogues* www.medialnipedagogika.cz.

## Other sources

Teachers often take advantage of Internet portals which are not designed exactly for their needs when preparing their media education lessons; however, these offer an interesting and practical use of material (dealing with media blogs, Internet pages of media institutes especially the Czech Television andCzech Radio), regulating and self-regulating organs, research centers, portals intended for the safe use of the Internet etc.… – their overview would call for a separate study, i. e. www.rpr.cz, www.rrtcv.cz, newly started popularized portals www.detiamedia.cz and www.peoplemetry.cz).

In the conclusion of the text, it is necessary to mention **the multimedia aids and other sources for the topic.** Apart from those, which started in the projects described above, it is necessary to mention two aids that were not tied to the educational action primarily intended for pedagogues, even though they are usable in practice for teachers. The first one is the multimedia CD-ROM *Mediální studia na přelomu tisíciletí (Media studies at the Turn of the Millennium)* created by the Center for Media Studies, *Faculty of Social Sciences, Charles University in Prague* and the *National Museum, Prague* in 2000; apart from the technical articles from the field of media studies, it offers a number of visual materials, which are a convenient supplement to media education lessons. The second essential tool of this type is presented in the DVD *Česká média v proměnách 20. století (Czech Media in the Changes of the 20th Century)* (Bednařík et al. 2008), a material containing all multimedia materials presented at the *Golden Times of Media Exhibit* organized in 2005 by the *National Museum, Prague* (the DVD was put out by the *Faculty of Social Sciences, Charles University in Prague* and the *National Museum, Prague* in 2008).

Even an educational television programme can serve as a supplemental source in the lesson, the problems of the media have been looked into by the magazine *Věřte, nevěřte [Beyond Belief: Fact or Fiction]* of the ČT 24 channel and the Czech Television educational cycle about media *Být v obraze (Keep Up to Date)*, which is designed exactly for the use in teaching (Wolák 2010a).

## Conclusion

As the previous overview has indicated, the didactic-methodological vacuum, characteristic for the time at the outset of the integration of media education into the education system, appears to have been filled. Teachers who decide to implement elements contributing to the development of the media literacy of students in their pedagogical practice have a relatively wide range of instruments at their disposal that can help them start the lessons.

However the most current researches (the author of this text is just finishing a research focused on the investigation of current needs of teachers charged with teaching

media education) show that that many teachers take part in media education only formally (Jirák, Wolák 2010, Duben 2012). The most frequent reason given is that the media environment has changed and this change is not reflected by the available methodological sources. The truth is that the overwhelming majority of the described methods hardly deals with the issue of new, network media, the use of the Internet etc.… (in general, many of the methods started in the time when the word Facebook did not exist). The described tools are especially related to the traditional media and their contents, which today's youth are already ceasing using. Teachers paradoxically find themselves in a similar situation as at the outset of the reform process. This time they have a number of materials at their disposal but hardly any of them reflect the media reality of today's youth.

In that context the newly emerging projects appear to be very important, which try to provide teachers with tools for talking to children about the problems of the network media (etc.) (very important is the activity of the *Centre for the Prevention of Risky Virtual Communication* – http://www.prvok.upol.cz).

We can only hope that Czech media education teachers will soon wait to see not only quality methodological materials (the majority of which they create themselves), but even a deeper appreciation of their interest in the topic of media in the form of the creation of qualified university studies in the field of media pedagogy (that will provide them with updated findings).

# Reference

Bartošek, J. & Daňková, H. (2008). *Žurnalistika a škola: příručka pro učitele* mediální výchovy. Frýdek--Místek: Ing. Václav Daněk.

Bednařík, P. Cebe, J. Jirák, J., Köpplová, B. Kryšpínová, J. & Sekera, M. (2008). *Česká média v proměnách 20. století*. (DVD) Praha: Národní muzeum; Fakulta sociálních věd UK.

Bína, D. (2005). *Výchova k mediální gramotnosti*. České Budějovice: Jihočeská univerzita.

Broklová, Z. (2008). *Média tvořivě: pro 2. stupeň ZŠ a střední školy: mediální tvorba, mediální výchova, využití médií ve výuce, technické dovednosti*. Kladno: AISIS.

Burton, G. & Jirák, J. (2001). *Úvod do studia médií*. Brno: Barrister & Principal.

Cigánková, K. (2012). *Mediální výchova v rodině*. Praha: Univerzita Karlova v Praze. Thesis supervisor Radim Wolák.

DOVG. *Doporučené očekávané výstupy: Mediální výchova v gymnáziích*. Metodická podpora. 2011. Praha: Národní ústav pro vzdělávání, divize VÚP. (http://www.vuppraha.cz/wp-content/uploads/2011/10/Doporucene_ocekavane_-vystupy_-gymnazia.pdf.) ISBN 978-80-87000-77-9.

DOVZV. *Doporučené očekávané výstupy: Mediální výchova v základním vzdělávání*. Metodická podpora. 2011. Praha: Výzkumný ústav pedagogický. (http://digifolio.rvp.cz/view/artefact.php?artefact=29303&view=3251) ISBN 978-80-87000-76-2.

Duben, O. (2012). *Mediální gramotnost studentů gymnázií v oblasti sociálních sítí*. Praha: Univerzita Karlova v Praze, 2012. Vedoucí práce Radim Wolák.

Frank, T. & Jirásková, V. (2008). *K mediální výchově*. Praha: SPHV. (http://www.webhumanita.cz/files/KMedialniVychove.pdf)

*Framework Educational Programme for Elementary Education* (http://rvp.cz/informace/wp-content/uploads/2009/09/RVP_ZV_EN_final.pdf )

*Framework Educational Programme for Secondary General Education* (http://rvp.cz/informace/wp--content/uploads/2009/09/RVP_G-anj.pdf )

Greger, D. & Walterová, E. (2007). In Pursuit of Educational Change: The Transformation of Education in the Czech Republic. *Orbis scholae*, Vol. 1, No. 2, pp. 11–44. http://www.orbisscholae.cz/archiv/2007/2007_2_02.pdf

Hrdličková, L. (2007). *Mediální výchova a její zavádění do výuky na gymnáziích v Českobudějovickém kraji*. Praha, FSV UK. 53 pp. Thesis supervisor Radim Wolák.

Jirák, J. & Wolák, R. (2006). Mediální výchovy se bojíme zbytečně. *Rodina a škola*, 53(4), pp. 10–11.

Jirák, J. & Wolák, R. (2007). *Mediální gramotnost: nový rozměr vzdělávání*. Praha: Radioservis.

Jirák, J. & Wolák, R. (2008). Východiska a témata mediální výchovy. In Kapounová, J. (Ed.). *Soft kompetence v informační společnosti*. Ostrava: Ostravská univerzita v Ostravě, pp. 40–52.

Jirák, J. & Wolák, R. (2010). Nová média a mediální výchova v ČR. In Magál, S., Matúš, J., Solík, M. (Eds.) *K problémom mediálnej komunikácie II*. Trnava: Fakulta masmediálnej komunikácie UCM, pp. 111–120.

Kašpárková, L. (2010). *Mediální výchova v České republice a Velké Británii: porovnání přístupů*. Praha: Univerzita Karlova v Praze. 113 pp. Thesis supervisor Radim Wolák.

Klímová, B. (2010). *Mediální výchova v systému předškolního vzdělávání v České republice*. Praha: Univerzita Karlova v Praze, 101 pp. Thesis supervisor Radim Wolák.

Krouželová, D. et al. (2010). *Příručka mediální výchovy*. Pardubice: Koalice nevládek Pardubicka, 141 pp. (http://www.mediasetbox.cz/data/_text/000004/prirucka-medialni-vychovy.pdf )

Kručayová, A. (2012). *Metodické pomôcky pre učiteľov v oblasti mediálneho vzdelávania*. Praha: Univerzita Karlova v Praze. Thesis supervisor Radim Wolák.

Luštinec, O. (2010). *Mediální návyky dětí ve věku 5–6 let*. Praha: Univerzita Karlova v Praze, 111 pp. Thesis supervisor Radim Wolák.

Mašek, J., Sloboda, Z. & Zikmundová, V. (2010). *Mediální pedagogika v teorii a praxi: sborník příspěvků z mezinárodní konference o mediální výchově a pedagogice*: Plzeň, 17.–18. 6. 2009. Plzeň: Fakulta pedagogická ZČU, 229 pp.

Mičienka, M. & Jirák, J. (2006). *Rozumět médiím: základy mediální výchovy pro učitele*. Praha: Partners Czech, 218 pp.

Mičienka, M. & Jirák, J. (2007). *Základy mediální výchovy*. Praha: Portál. 296 pp.

Navrátilová, S. & Jeřábková, O. (2004). *Základy žurnalistiky pro redaktory studentských časopisů*. Horní Slavkov: Otevřená společnost, o. p. s. ve spolupráci se Sdružením dětí a mládeže Horní Slavkov. (http://www.zkola.cz/zkedu/zaciastudenti/studium/kabinetjazykuajazykovekomunikace/getfile.aspx?a=3965&p=20486. ISBN 80-903331-4-1).

Niklesová, E. (2007). *Teorie a východiska současné mediální výchovy*. České Budějovice: Pedagogická fakulta Jihočeské univerzity v Českých Budějovicích.

Niklesová, E. & Bína, D. (2010). *Mediální gramotnost a mediální výchova*. České Budějovice: Jihočeská univerzita v Českých Budějovicích.

Pavličíková, H., Šebeš, M. & Šimůnek, M. (2009). *Mediální pedagogika: Média a komunikace v teorii a učitelské praxi*. České Budějovice: Jihočeská univerzita v Českých Budějovicích.

Pokorný, M. (2011). *Redakční práce: jak připravit text k publikování*. Praha: Grada Publishing.

Pospíšil, J. & Závodná, L. S. (2009). *Mediální výchova*. Kralice na Hané: Computer Media.

*Příručka příkladů dobré praxe*. (2007). Praha: VÚP. Downloaded from WWW: http://pdpzv.vuppraha.cz/index.php?p=PDP&u=PDP_uvod.

Ročňák, J. (2012). *Mediální výchova na školách – kriticko-analytický či produkční přístup*. Praha: Univerzita Karlova v Praze. Thesis supervisor Radim Wolák.

Roth, J. (2005). *Mediální výchova v Čechách*. Praha: Tutor, 118 pp. ISBN 80-86700-25-9.

*RVPG – Rámcový vzdělávací program pro gymnázia*. (2007). Praha: VÚP. (http://www.vuppraha.cz/wp-content/uploads/2009/12/RVPG-2007-07_final.pdf. ISBN 978-80-87000-11-3)

*RVP ZV – Rámcový vzdělávací program pro základní vzdělávání*. 2007. Praha: Výzkumný ústav pedagogický v Praze, 126 pp. (http://www.vuppraha.cz/wp-content/uploads/2009/12/RVP-ZV_2007-07.pdf)

Sloboda, Z. (2010). Mediální výchova v rodině z pohledu české společnosti: dílčí výsledky z výzkumu. In Mašek, J., Sloboda, Z. & Zikmundová, V. (Eds.) *Mediální pedagogika v teorii a praxi.* Plzeň: PdF ZČU.

Sloboda, Z. (2011). *Mediální tvorba v kontextu vzdělávání: na příkladu česko-německého mediálně-pedagogického projektu o genetice.* Brno: Barrister & Principal.

Smrčková, D. (2010). *Školní média – tisk, rozhlas, televize, internet: na příkladu Olomouckého a Ústeckého kraje.* Praha: FSV UK. 197 pp. Thesis supervisor Radim Wolák.

*Stav mediální gramotnosti v ČR.* (2011). Výzkum úrovně mediální gramotnosti obyvatelstva nad 15 let. RRTV a CEMES. (http://www.rrtv.cz/cz/static/prehledy/medialni-gramotnost/vysledky-studie-15-plus.pdf)

Strachota, K. & VALŮCH, J. (2007). *Být v obraze: mediální vzdělávání s využitím audiovizuálních prostředků.* Praha: Člověk v tísni.

Šeďová, K. (2007). *Děti a rodiče před televizí: rodinná socializace dětského televizního diváctví.* Brno: Paido.

Šeďová, K. (2004). Média jako pedagogické téma. *Pedagogika*, 1, 2004, pp. 19–33.

Škapiková, Š. (2010). *Využití procesu tvorby mediálních sdělení v mediální výchově.* Praha: Univerzita Karlova v Praze. 111 pp. Thesis supervisor Radim Wolák.

Verner, L. (1999). *Mediální výchova: pojetí mediální výchovy jako součásti všeobecného vzdělání.* Praha, 65 pp. Thesis supervisor Jan Jirák.

Verner, P. & Bezchlebová, M. (2007). *Mediální výchova: průřezové téma.* 1st ed. Úvaly: Albra.

Wolák, R. & JIRÁK, J. (2009). Mediální výchova v ČR – rok poté. In Slobodová, B. & Višňovský, J. (Eds). *Quo vadis mass media: zborník z doktorandskej konferencie.* Trnava: Univerzita sv. Cyrila a Metoda, pp. 564–574.

Wolák, R. (2010a). Být v obraze: mediální výchova v ČT. In *Mediálna výchova v otvorenom priestore: zborník z konferencie 20. ročníka Ceny Dunaja*. Bratislava: Ex-production, pp. 103–106.

Wolák, R. (2010b). Mediální výchova očima učitelů. In: Luszczak, M., ed. *Quo vadis massmedia, quo vadis marketing.* Trnava: Fakulta masmediálnej komunikácie Univerzity sv. Cyrila a Metoda, pp. 563–572.

Wolák, R. (2010c). Učebnice mediální výchovy, aneb Písemka z Lasswella a DeFleura. *Mediální studia.* 4(1), pp. 80–82.

Wolák, R. (2011b). Učebnice a portály mediální výchovy v ČR. *Komunikace, média, společnost*. 1(1), pp. 113–119.

**Contact:**
Mgr. Radim Wolák
Katedra mediálních studií
Institute of Communication Studies and Journalism
Charles University
Smetanovo nábřeží 6
110 01  Praha 1
E-mail: wolak@fsv.cuni.cz

# Theoretical and practical aspects of health physical education in the Czech Republic

**Iva Dostálová, Martin Sigmund, Jana Kvintová**

**Abstract**

The article deals with the issue of health physical education and its theoretical definition. It provides an overview of the possibilities of further education in this area and informs of the state of health physical education in elementary and secondary schools as well as in universities.

　　Health physical education is based on the Framework Educational Programme and is classified in the field of Physical Education. The contents of health physical education are primarily compensatory exercises. Health physical education is focused on consolidating and improving the health of individuals with a physical impairment, which is based on an assessment of general practitioners for children and adolescents. Health physical education requires qualified educators; however, there is still a lack of them. Similarly, there is an insufficient number of health physical education departments despite the fact that there are more and more individuals suffering from a health impairment, especially with a weakened musculoskeletal system. Further training of qualified educators and thus qualified teaching of health physical education is necessary for strengthening and correcting the health condition of our trainees.

**Key words:** Health impairment, correction, physical education, compensatory exercise, teacher training.

# Introduction

The positive effect of physical activity on human health and harmonious development of an individual has been recognized since ancient times. As early as the third millennium BC, the Chinese used respiratory gymnastics as therapy. In ancient Indian medicine, they were aware of the importance that exercise brings to health. An ancient exercise system of yoga, particularly Hatha Yoga, is used even today. Greek physical gymnastics were individually targeted and supplemented with massages and dietary habits. The purposes of life for the Greeks were beauty, body fitness and nobility of mind called "Kalokagathia" (Škvára and Srdečný, 1973).

Much later, similar ideas were advocated by J. A. Comenius, for whom the ideal man was a healthy, fit, moral and helpful person. The idea of harmonious development of man was also embraced by the founders of the Sokol movement Tyrš and Fügner with a famous slogan, "In a healthy body there is a healthy spirit."

Therapeutic elements of health exercise formed the basis of the first orthopaedic institute in our country founded in 1839 by Dr. Hirsch. Remedial gymnastics was based on a Swedish concept of the Ling's physical education system built on physiological and anatomical knowledge. Three years later in Prague, the author of "Outline of Healing Physical Education," Jan Spott, established the first medical institute. During the following years other physical education handbooks emerged and therapeutic physical education was introduced. The need to care for the weak was completed in 1913 by the foundation of the Jedlička Institute in Prague, which was the "Institute for Treatment and Education of Cripples" (Škvára and Srdečný, 1973). Similar rehabilitation and orthopaedic institutes were also established in other cities.

In 1950 the Ministry of Education introduced "special physical education," which was optional on all stages of the educational system. Special physical education was primarily taken by students with orthopaedic problems. It took quite a long time to enforce voluntary forms of physical education for physically impaired individuals. In 1982 health physical education emerged as a voluntary form of physical education and the name was gradually being introduced in all types of schools.

Currently, health physical education is being systematically and intensively developed and is intended for individuals with health problems and aimed at health-oriented activities that have preventive as well as therapeutic importance and influence health condition of an individual in terms of optimization, stabilization or mitigation of progression.

# Objective

The objective of the article is to provide an overview of the issue of health physical education and its theoretical bases including the description of health physical education in elementary and secondary schools as well as in universities.

# Physical education

Physical education involves a wide range of organized and non-organized physical activities and represents an individual subject within the educational system.

## "School" Physical Education

Physical education is a mandatory subject in the Czech Republic usually consisting of two lessons a week. (In sport schools the number of lessons a week is usually increased by two lessons.) Due to changing living conditions, the number of physical education lessons appears insufficient to maintain basic health fitness of the organism. Students should be comprehensively encouraged to care for the physical, mental and social aspects of their personalities. They should strengthen their attitudes towards physical activities, be able to determine an appropriate daily routine with a sufficient amount of suitably selected physical activities and also should be able to relax and regenerate their stamina with respect to the ever-increasing pace of life.

Physical education must be taken by students classified in health groups I and II. They may also take any kind of sport at a top or recreational level in full extent in line with ontogenetic trends and gender-related peculiarities of the organism. Physical education programs are led by a qualified educator.

## Health Physical Education

Health physical education is not offered as a subject in all types of schools. Its integration into the educational process currently depends on the cooperation and initiative of the headmaster of the school and PE teachers, pressure exerted by the parents and collaboration with physicians. If health physical education is included among the subjects taught, it is usually one lesson a week. Due to the fact that even in PE lessons there is not enough space for proper posture correction, practising appropriate movement habits etc., similarly, the extent of health physical education is not sufficient to compensate for particular types of impairment.

Health physical education should be taken by student classified in health group III and is open to healthy students who wish to deepen their knowledge and practical

skills and use it as a means of prevention. At the same time, health impaired individuals can attend "school" physical education, in which the respective type of impairment is taken into consideration. Any sports activities should be of a recreation nature and should under no circumstances worsen their health impairment.

Health physical education is led by an educator with appropriate qualification in order to lead the trainees in a professional way and consult their health condition with a physician.

## Therapeutic Physical Education

Therapeutic physical education is led by an experienced physiotherapist in close collaboration with a physician. It is exclusively intended for sick individuals classified in health group IV who should not take "school" physical education.

# Definition of health physical education

Health physical education is a deliberately led didactic process, whose task is to provide physical competence to people with a health impairment. This particularly includes adoption of selected health-oriented physical skills (Hošková and Matoušová, 2007).

Hálková et al. (2001, p. 5) states that, "Health physical education is a form of physical education intended for individuals with a health impairment, i. e. individuals in health group III according to medical classification." A similar definition of health physical education comes from Kopecký (2010, p. 7), "Health physical education is a specific form of compulsory school physical education intended for children classified in health group III, or a form for individuals with temporary health impairment who cannot perform some activities in school physical education for health reasons."

A different definition was produced by Strnad (2005) who states that health physical education is a form of physical education process within our educational system. It is aimed at strengthening and improving the health of individuals with health impairment.

According to Strnad, Hendl and Kyralová (2007), the subject of health physical education is intended for students in health group III and fulfils health prevention as well as a therapeutic function.

A comprehensive view of health physical education underpinned by available literature sources, both past and contemporary, can be summarized in the following characteristics of health physical education:

"Health physical education is a specific form of physical education intended for individuals with health impairments and is aimed at health-oriented activities that have preventive as well as therapeutic results leading to strengthened and improved

health. Health impairment represents deviations from healthy physical development and can be of a temporary or permanent nature."

Health physical education is based on the Framework Educational Programme and is classified in the field of Physical Education.

From above it is obvious that health physical education is primarily intended for weakened individuals classified in health group III. The classification of individuals into health groups is based on Directive No. 3/1981 of the Ministry of Health of the Czech Republic on care and health during physical education and sport. The evaluation of health condition in relation to physical education is performed by general practitioners and sports physicians for children and adolescents. An overview of health groups is specified in Table 1.

**Tab. 1:** Health groups related to physical education

| Health group | Health condition | Physical education |
|---|---|---|
| I. | **Healthy individuals**, appropriately developed, with a high degree of fitness | School physical education and sport without limitation *(except age and gender-based peculiarities)* |
| II. | **Healthy individuals**, less trained | School physical education and sport without limitation *(except age and gender-based peculiarities)* |
| III. | **Impaired individuals** with permanent or temporary deviations from physical development | School physical education with exemptions according to type of impairment, **health physical education**, sport according to type of impairment |
| IV. | **Sick individuals** | Therapeutic physical education, exemption from school physical education |

There are a total of four health groups identified with Roman numerals. The first and the second groups include healthy individuals, who vary slightly in physical fitness between the two groups. The third group includes health impaired individuals, who have permanent or temporary deviations from physical development, physique or health condition. Health impairment does not allow them to take part in physical education or certain physical activities and exercises in full extent; these could be due to the nature of the impairment contraindicative. This group temporarily includes students after injuries for a period required for recovery; these students are temporarily exempt from mandatory physical education due to the nature of the injury by their physicians. The fourth group includes sick individuals.

The aim of health physical education is, in addition to all-round and harmonious development of an individual (as in the case of physical education), to influence the health condition of an individual in terms of optimization, stabilization or mitigation of progression. In case of functional disorder, if the defect is not fixed, or the impairment has not become chronic, we try to compensate the impairment. However, if the defect

becomes fixed, we try to stabilize the health condition, or at least prevent significant deterioration of the impairment. At the same time we strive to increase or maintain functional fitness of the organism.

In the area of education our aim is to deepen the knowledge of own impairment and the possible ways of remedy. Due to the fact that we also face temporary impairment, particularly in connection with the musculoskeletal system, i.e. sprains, fractures, etc. (exemption from school physical education for a period of several weeks and assignment to health physical education), it is important to educate the individuals also in terms of such short-term conditions. We try to deepen and strengthen basic motor skills and habits in an individual with regard to the type and degree of impairment (selection and choice of exercises, volume and intensity of exercise, self-correction during the day, ergonomic adjustments, contraindicative activities, etc.). The educational mission is to strengthen the relationship with physical activity, to be able to create adequate daily routine and appropriately care for the body not only physically but also mentally.

The content of health physical education should correspond with all the objectives defined – general, health, and educational. Likewise, the content should correspond with the type of impairment and respect the different age groups. The choice of aids in health physical education is based on physical education. We try to create a positive effect on health through physical exercise and physical activity

## Compensatory exercise in health physical education

Compensatory exercise focuses on a certain correction, which may involve modification of muscle imbalance, incorrect position of the articular segment, poor posture, and also poor respiratory function, etc. Therefore, various publications identify this type of exercise as corrective exercise, straightening exercise (derived from standing straight) or compensatory exercise, which is probably a term most accurately capturing the essence.

Dobešová (2011) states that compensatory exercise is designed for practicing optimum posture in various positions and during movement. Čermák, Chválová, Botlíková and Dvořáková (2000) identify balancing or compensatory exercise as activities which can be targeted as the components of the locomotive system to improve their functional parameters and thus balance the unfavourable ratio between the functional fitness of the locomotive system and its load resistance on the one hand and functional demands that are placed on it on the other. According to Bursová (2005), compensatory exercise is a variable set of simple exercises in exercise positions, which can be effectively modified using various equipment and aids. Hošková and Matoušová (2007) point out that due to the nature of compensatory exercise, it should be mainly included in the preparatory "school" physical education because it can very effectively influence the condition of the locomotive system – compensate muscle imbalance and prevent vertebrogenic difficulties.

Compensatory exercise comes from the word compensation, which means to reach mutual balance (from the Latin "com-pensó", i. e. balance). Compensatory or balancing exercise is a set of specific exercises that have a positive effect on individual components of the musculoskeletal system (muscles, ligaments, tendons, joints and bones) and also influence other organ systems and affect overall physical and mental development of an individual.

According to a specific focus and predominant physiological effect compensatory exercise is divided into the following in the narrowest sense:
Releasing exercise,
Stretching exercise,
Fitness exercise.

Physical exercise is practically performed in basic exercise positions (lie, support, front support, kneel, sit and stand), mastering of which is essential for proper compensatory exercise. If the initial exercise position is incorrect, compensatory exercise might not fulfil its compensatory function. On the contrary, it can be contraindicative.

For an individual to be able to properly take an exercise position, one must be capable of perceiving their own body, individual body segments, their mutual position, their position with respect to the mat, and their mutual cooperation. Similarly, one should be able to, throughout the whole movement, maintain a mutual position of various locomotive segments and fix them in the correct position. Therefore, the basic division of compensatory exercise is further extended with the following:
Self-awareness exercise,
Stabilising exercise.

Another logical sequence is represented by the respiratory system. It is obvious that for proper functioning of the muscles a sufficient amount of nutrients and oxygen is required. Breathing as such has a strong modulating function and, in a reflexive way, helps to decrease muscle tension. If we want to perform individual exercise shape, we need to learn proper breathing habits and breathing techniques, which is closely related with performing the exercises. Further differentiate compensation exercises. The following compensatory exercise is identified:
Respiratory exercise,
Relaxing exercise.

Respiratory exercises can also be used as separate exercises in case of respiratory impairment. Breathing is related with relaxation of the organism. Relaxing exercises release muscles and regulate mental tension. They are a means for inducing a harmonious balance in the body.

Further classification of physical exercise can be done based on various perspectives:
Balanced exercise,
Coordinating exercise,
Exercise to develop endurance,
Exercise to develop strength,
Exercise to develop speed,
Drill exercise,
Fitness exercise,
Health exercise,
Rehabilitation exercise etc.

In addition to physical exercise, mainly compensatory exercise, health physical education uses various kinds of physical activity, which is more of a recreational nature. These primarily include basic physical locomotion – waking and its various modifications ranging from walking, jogging over to various forms of Nordic walking. For younger age categories, they include diverse forms of climbing and climbing over, whereas older individuals enjoy appropriate physical activity such as swimming and a variety of physical activities in water. Currently, a large number of different exercise trends emerge and interconnect in different ways. It is always necessary to keep in mind the quality of the exercise or physical activity performed and one's own health impairment.

With respect to the educational objectives, health physical education will include a simple functional diagnostics so that impaired individuals have feedback and are able to capture the initial condition as well as any changes achieved through exercise or daily correction (for example, holding the respective body segment) and ergonomic modifications.

In health physical education we can use the same aids and equipment as in physical education. The basic aids include a soft mat, exercise mat, fitness mat, foam mat, etc. The basic equipment includes a gym carpet, vaulting box, bench, wall bars and climbing ladders. Further usable tools are mainly exercise bars, different kinds of expanders – therabands, aerobic bands, eight-shaped expanders and dumbbells or minor (low weight) weights designed for the limbs. Specifically designed aids include large balls and ovals – gymballs, fitballs, eggballs, and small balls – overballs, foam balls, antistressballs, etc. Acupressure tools used for exercise include acupressure rollers, balls and pads and massage tripods, massage octopuses and massage slippers. We can also use balance discs, ovals and mats. Newer exercise trends are, for example, bosu and roller pilates, circle pilates. Other aids include foam rollers, fitness flexi-bar, various types of sitting wedges, finger exercisers, exercise with powerball, etc.

# Forms of organization in health physical education

Health physical education is usually organized in regular exercise units. In terms of duration, the following forms of organization are distinguished:
Exercise unit (45, 60 or 90 minutes),
Half-day event,
Whole-day event,
Several days' event (weekend, long weekend, week).

In terms of institutions and facilities, the following can organize health physical education:
Elementary schools,
Secondary schools,
Universities,
Sports organizations,
Community organizations,
Individually in a home environment.

Within the educational system, health physical education is a non-compulsory subject and it is up to schools if they decide open it and make it available for students. Health physical education can be organized in schools as a voluntary afternoon form of exercise not only for pupils and students, but also for the wide public interested in strengthening their health. Among sports and community organizations, it is primarily Sokol with a strong tradition and the Czech Association Sport for All which established a Health Physical Exercise Board and issued a directive governing education in this area. Currently, health physical education can be offered also by private organizations and individuals with the required accreditation. Health physical education can also be applied directly in a home environment and its components should be an inseparable part of "school" physical education and quality sports training.

# Types of health impairment

Within the system of health physical education, health impairment is classified into three basic groups.

## Impairment of the musculoskeletal system

Disorders of muscle balance in the locomotive segments, disorders of neuromuscular coordination, hypermobility, hypomobility, poor posture;

Disorders and defects of the spine in the sagittal position – increased lumbar lordosis, increased thoracic kyphosis (round back) kypholordotic posture, flat back;

Disorders and defects in the lateral position of the spine – scoliotic posture and scoliosis;

Vertebrogenic disorders – post-traumatic conditions, post-operative conditions, chronic conditions;

Weakened lower limbs – weakened hip and knee joints, flat feet, foot defects and deformities, paresis, post-traumatic conditions, post-operative conditions, chronic conditions;

Weakened upper limbs – weakened shoulder and elbow joints, joint deformities, paresis, post-traumatic conditions, post-operative conditions, chronic conditions;

Osteoporosis, arthrosis.


## Impairment of internal organs

Impairment of the respiratory system – asthma, bronchitis, pneumonia, laryngitis, sinusitis, allergies and others;

Impairment of the cardiovascular system – hypertension, hypotension, cardiac arrhythmia, ischemic heart disease (myocardial infarction, angina pectoris), congenital heart defects, varicose veins, atherosclerosis, etc.;

Impairment of the endocrine system – diabetes mellitus, thyroid disorders, etc.;

Metabolic disorders – obesity;

Gynaecological impairment – menstrual cycle disorders, menopause, sterility, gravidity, incontinence, etc.;

Gastrointestinal impairment – stomach ulcers, hernia, etc.


## Impairment of the sensory and neural functions

Impairment of sight – shortsightedness, farsightedness, night blindness, colour blindness, strabismus, glaucoma, cataract, partial sight, etc.;

Impairment of hearing and the statokinetic system – hearing loss, balance disorder, disturbance in orientation, dizziness, etc.;

Neuropsychical disease – neurosis, psychosis, epilepsy, cerebral palsy, ADHD, anorexia nervosa and bulimia nervosa, Alzheimer's disease, Parkinson's disease, etc.

Each type of health impairment of an individual should be considered from more viewpoints, which will define the impairment. It must be considered whether the impairment is:

Congenital or acquired,

Of a functional or structural nature,

Temporary (post-traumatic condition) or permanent (chronic changes),

Acquired in childhood or adulthood.

The content of a health physical education shall be arranged especially according to the type of impairment and also in relation to age peculiarities and intellectual maturity of the individuals. Accordingly, appropriate means and aids targeted on improving the health condition of the individuals should be selected.

## Educational system in health physical education

In schools, health physical education should be led by teachers qualified in health physical education, in sports institutions by grade III – I instructors qualified in health physical education. A precondition for teaching health physical education in elementary and secondary schools is a good cooperation of teachers and physicians.

The Health Physical Education Board is a part of the Czech Association of Sport for All (ČASPV). Teaching of health physical education is based on a ČASPV Directive No. M – 8/1995/10-4 (effective as of 1 March 2010). To get grade III (basic) qualification in health physical education, an instructor must successfully complete an educational programme of 50 lessons (minimum age 18). For extended qualification – grade II, an instructor must complete 50 lessons (minimum age 18). An instructor of standardized grade I qualification must complete at least 50 + 10 lessons (minimum age 21). Standardized (accredited) grade I qualification has a minimum extent of 150 lessons and comply with the requirements of the Trade Act. The period of validity of the qualification, particularly in lower grades, might be time limited.

Based on achieved degree in physical education, grade III qualification in health physical education might be awarded to the following graduates: secondary nursing schools, field of study: Rehabilitation; higher vocational schools, specialization: Rehabilitation; Faculty of Physical Education and Sport, Charles University, field of study: Physiotherapy, Bachelor degree; and Faculty of Medicine, field of study: Rehabilitation, Bachelor degree.

In order to get grade III instructor qualification, graduates from the Faculty of Physical Education and Sport, Charles University, or any faculty of education, field of study: Physical Exercise, or any faculty of education, field of study: Teaching Physical Education (Bachelor as well as Master) are required to complete the subject of Health Physical Education in the respective study year by taking an exam. Detailed requirements for grade II and I instructors are detailed in the Directive.

Instructor qualifications in health physical education can also be awarded by other departments with the required accreditation. The subject of Health Physical Education was modified for the graduates from faculties of physical education and sport, especially after transition to a two-level study model – Bachelor and follow-up Master degree program. This modification included a decrease in the number of lessons, completion of the course only by a term exam in the Bachelor course, etc. This applies not only to single-subject and double-subject teaching studies of physical education but also to

other physical education and sport fields. The above implies that not every graduate from a physical education teaching course is qualified to lead health physical education, contrary to the original comprehensive five-year course.

# Health physical education in school educational programmes

Health physical education is based on the Framework Educational Programme and is classified in the area of People and Health. In terms of content, health physical education is classified in the field of Physical Education.

In his conclusions on the state of the subject of health physical education in our elementary and secondary schools, Strnad (2007) points out that the Framework Educational Programmes do not specify mandatory content, extent and conditions of education of students with health impairment and disability in the subject of health physical education. His research shows that 51 % of teachers have no experience with health physical education and, therefore, it cannot be anticipated that compensatory exercise will be included in the preparatory parts of physical education lessons. At the same time, as mentioned above, the proportion of children and young people with disorders of the musculoskeletal system increases. Similarly, Kopecký (2010) states that 50 – 60 % of children have poor posture, and therefore, should take special compensatory exercise. We also came to similar conclusions while monitoring the incidence of muscle imbalances in various population groups (Dostálová, 2002; 2005; 2007; Dostálová, Přidalová and Remsová, 2004; Dostálová, Riegerová and Přidalová, 2007).

# Current state of health physical education in schools

The latest comprehensive survey of the state of health physical education in elementary and secondary schools in the Czech Republic was performed by Strnad (2005). The obtained results reflect the long-term plight in this area at all levels and in all aspects of health physical education, whether it be elementary or secondary schools or universities; teachers, head-teachers, physicians or ministries.

Within the following grant project – Systematic monitoring of health impaired pupils and students in health physical education and proposals for improvements in the education system in the Czech Republic, administered by the Ministry of Education, Youth and Sports, a total of 1,330 schools and 56 general practitioners for children and youth were addressed (Strnad and Hendl, 2007; Strnad, Hendl and Kyralová, 2007).

The results are summarized by Strnad (2007) in several areas. The first is insufficient teacher qualification. The results show that 51 % of PE teachers lack experience in health physical education. Moreover, in spite of all their effort, it is impossible to allocate sufficient time for corrections in impaired individuals in PE lessons. After reaching a university degree, 75 % of addressed PE teachers did not pass any other educational course aimed at deepening their knowledge in health physical education.

Currently, health physical education is taught by 218 (16 %) of teachers out of the total number of addressed PE teachers (Strnad and Hendl, 2007). The responses of the teachers further indicate that there was a decrease in health physical education lessons in schools, mostly due to financial and timetable reasons, not because of insufficient teacher qualification. The decreased number of health physical education lessons is also influenced by the introduction other optional subjects. The reduced number of health physical education lessons is an issue not only in elementary and secondary schools but also in universities, which should, on the contrary, try to increase teacher qualifications in this area.

On the one hand there is a reduction in health physical education at all school levels, on the other hand there are more individuals with various types of impairment in lower age categories. The following table (Table 2) presents estimated incidence of different types of health impairment as viewed by physicians in secondary and elementary school students and reasons leading to exemption from school physical education as viewed by teachers (modified according to Strnad and Hendl, 2007 and Strnad, Hendl and Kyralová, 2007).

**Tab. 2:** Incidence of health impairment in elementary and secondary school students

| Representation of different types of impairment | | |
|---|---|---|
| Impairment | Physicians *Estimated incidence (%)* | Teachers *Reasons for exemption from PE (%)* |
| Locomotive system impairment | 33 | 51 |
| Respiratory system impairment | 14 | 25 |
| Cardiovascular system impairment | 3 | 13 |
| Neuropsychical impairment | 2 | 7 |
| Metabolic impairment | 3 | 5 |
| Sensory impairment | 5 | 2 |
| Gynaecological impairment | – | 3 |
| Allergy | – | 22 |
| Other types of impairment | – | 18 |
| Injuries | – | 18 |

It is obvious that even cooperation with physicians is not ideal. Both teachers and physicians have serious comments on the classification of students into health groups and on insufficient awareness of physicians in terms of what an individual can or cannot do in physical education, the length of exemption from school physical education in case of post-traumatic conditions, etc. These facts are also confirmed by students of combined study of Physical Education, Applied Physical Education and Teaching for Primary Schools who are on teaching practice and showed deeper interest in the health condition of the students.

## Conclusions

Health physical education has a unique place in the educational system. It is necessary to ensure qualified teaching of physical education and health physical education at all school levels and education of qualified teachers. Their knowledge and skills must be further deepened in order to ensure to support the health of students in terms of educational and health-related aspects.

## Acknowledgements

## References

Bursová, M. (2005). *Kompenzační cvičení*. Praha: Grada Publishing.

Čermák, J.,Chválová, O., Botlíková, V. & Dvořáková, H. (2000). *Záda už mě nebolí*. Praha: Jan Vašut.

Česká asociace Sportu pro všechny. (2010) *Směrnice ČASPV. M – 8/1995/10-4.*

Dobešová, P. (2011). *Didaktika TV 1*. Ostrava: Ostravská univerzita.

Dostálová, I. (2002). Rozbor svalových funkcí u dětí mladšího školního věku. In Riegerová, J. (Ed.) *Sborník V. celostátní konference v oboru funkční antropologie a zdravotní tělesné výchovy*. Olomouc: Univerzita Palackého, pp. 32–33.

Dostálová, I. (2005). Stav svalového aparátu dívek mladšího školního věku. In Nosek, M. (Ed.) *Sborník referátů z vědeckého semináře s mezinárodní účastí Pohybové aktivity a zdraví člověka*. Ústí nad Labem: Univerzita Jana Evangelisty Purkyně, pp. 24–28.

Dostálová, I. (2007). *Somatická charakteristika a analýza svalových funkcí dívek staršího školního věku se specificky zaměřenou pohybovou aktivitou. Disertační práce*. Olomouc: Univerzita Palackého, Fakulta tělesné kultury,

Dostálová, I., Přidalová, M. & Remsová, J. (2004). Stav svalového aparátu žáků 1. tříd základní školy. *Česká antropologie*. No. 54, pp. 62–63.

Dostálová, I., Riegerová, J. & M. Přidalová. (2007). Kvalita hybných funkcí svalového systému dívek staršího školního věku. *Česká antropologie.* No. 57, pp. 31–34.

Hálková, J. et al. (2001). *Zdravotní tělesná výchova.* Praha: Česká asociace Sport pro všechny.

Hošková, B. & M. (2007). Matoušová. *Kapitoly z didaktiky zdravotní tělesné výchovy.* Praha: Karolinum.

Kopecký, M. (2010) *Zdravotní tělesná výchova.* Olomouc: Univerzita Palackého, Fakulta tělesné kultury.

Strnad, P. (2005). *Současný stav vyučovacího předmětu zdravotní tělesná výchova na základních a středních školách.* Praha: Univerzita Karlova, Fakulta tělesné výchovy a sportu.

Strnad, P. (2007). Závěry výzkumné zprávy o stavu vyučovacího předmětu zdravotní tělesná výchova na našich základních a středních školách a z nich vyplývající doporučení. *Tělesná výchova a sport mládeže.* No. 73 (7), pp 19–24.

Strnad, P. & Hendl, J. (2007). Neutěšený stav zdravotní tělesné výchovy na základních a středních školách v České republice. *Tělesná výchova a sport mládeže.* No. 73 (5), pp. 9–18.

Strnad, P., Hendl, J. & KYRALOVÁ, M. (2007). Současný stav zdravotní tělesné výchovy na základních a středních školách z pohledu praktických lékařů pro děti a dorost. *Tělesná výchova a sport mládeže.* No. 73 (6), pp. 11–19.

Škvára, F. & Srdečný, V. (1973). *Teorie vyučování zvláštní tělesné výchově.* Praha: SPN.

**Contact:**
RNDr. Iva Dostálová, Ph.D., Martin Sigmund
Department of Adapted Physical Activity
Faculty of Physical Culture
Palacký University, Olomouc
tř. Míru 115
771 11  Olomouc, Czech Republic
E-mail: iva.dostalova@upol.cz

PhDr. Jana Kvintová, Ph.D.
Department of Psychology
Faculty of Education
Palacký University, Olomouc
Žižkovo nám. 5
771 40  Olomouc, Czech Republic
E-mail: jana.kvintova@upol.cz

# The potential of organized physical activity/physical education for active lifestyle

## Michal Kudláček

**Abstract**

We have to view the structure of sport preferences as a complex process reflecting the interactions between situational factors (socio-economic characteristics), motivational factors (reasons for taking part in sport activity) and needs, which are fulfilled through the realization of a particular activity.

The main objective of this survey was to analyze the structure of sport preferences and the level of physical activity (PA) of adolescents in relation with organized PA/physical education (PE).

The character of our research was online – an internet-based research. We used two questionnaires: 1. online version of the sport preferences questionnaire, 2. online version of the International Physical Activity Questionnaire (IPAQ). Both of them are accessible in the INDARES.COM project (www.indares.com).

The survey proved its importance in the adequate choice of offered physical activity programs for children of the junior and senior school age with the potential to create conditions and environment for healthy and active lifestyle.

The realization of the online survey approved to be a useful research technique, and if we are able to improve the current system and make it more attractive it has the potential to be really a beneficial research tool.

**Key words:** High school, physical activity, adolescence, health, sport preferences, online survey.

# Introduction

The importance of the healthy lifestyle topic is possible to declare by the increasing number of surveys and research projects solving this topic. This topic is dealt with not only in the area of kinanthropology (kinesiology) but also in other areas of scientific efforts, e. g. public health, hygienic, pedagogical or epidemiological areas.

According to the kinesiology authors, lifestyle is one of the most important factors having a huge impact on people's health. In addition, there have been changes in the lifestyle of children and youth (Andresen et al., 1999; Biddle et al., 2009; Dunn et al., 1999; Laujunen et al., 2009; U. S. Department of Health and Human Services, 2000). This change is obvious also among leisure-time activities. An inadequate amount of physical activity has a negative impact on the health status and is one of the biggest risks in relation to mortality.

We have to view the structure of sport preferences as a complex process reflecting the interactions between situational factors (socio-economic characteristics), motivational factors (reasons for taking part on sport activity) and needs, which are fulfilled through the realization of a particular activity.

Previously conducted surveys in the field of sport preferences concludes visible dynamic in the development of the structure of sport preferences (Frömel, Novosad and Svozil, 1999; Kudláček, 2008; Kudláček and Frömel, 2012; Rychtecký, 2006).

There is insufficient evidence from the previous studies dealing with the structure of sport preferences referring to the interconnection between individual factors (socio-economic status, organized/structured physical activity, location, etc.), although these factors can considerably influence the total level of physical activity as well as the structure of sport preferences. There is no separate factor explaining the heterogeneity of the structure of sport preferences (and not only sport preferences) across the population. The acquired data give us an approximate prognosis of demanded activities on the national, regional and also local level. These data can also serve as an audit tool of the usage of existing available sources of physical activity, facilities and programs. This information can form the basis for the development of new facilities or for the innovation of the existing facilities.

# Objective

The main objective of this survey was to analyze the structure of sport preferences and the level of physical activity (PA) of adolescents in relation with organized PA/physical education (PE).

According to the main goal we addressed these partial objectives:
1. To check the possibility of using an online survey in the high school settings.
2. To contribute to details and easy monitoring of sport preferences.

## Methods

The character of our research was online – internet-based research. We used two questionnaires: 1. online version of the sport preferences questionnaire, 2. online version of the International Physical Activity Questionnaire (IPAQ). Both of them are accessible in INDARES.COM project (www.indares.com) (Křen, Chemlík, Frömel, Fical and Kudláček, 2008).

The sport preferences questionnaire is designed for the purpose of finding information about the involvement of students/individuals in the sport activities within the organized/structured PA and unorganized/unstructured PA. Although there were some difficulties in the form of the creation of the sport preferences questionnaire (the questionnaire was already applied in the past but with a different content), we presume that this effort was fruitful. The sport preferences questionnaire is focused on 7 categories: 1. Individual sports, 2. Team sports, 3. Conditional activities, 4. Water sport activities, 5. Outdoor sport activities, 6. Martial arts, 7. Rhythmical and dancing activities; and one additional category 8. Sport activities – overall.

The IPAQ questionnaire is a method ranking to the category using (functioning on the basis of self-evaluation/self-assessment – these methods are called "self-report population surveys"). The IPAQ questionnaire was developed and tested for 15–69 year old population. It is a worldwide spread way of collecting of the data from the field of physical activity, which enables to compare the acquired data either on the national level or on the international level. The IPAQ questionnaire assesses physical activity in the complex range of different areas. Besides the facts about the intensity of physical activity and its overall level within one week, we can acquire a complex of important and inspirational information about respondents or about the environment they are live in.

The project was carried out in the high school setting. Schools were randomly selected and invited to take part in the project. Only those students were accepted in the overall analysis whose filled in both the questionnaires so that it was possible to connect the information from the sport preferences area to the information related to the area of physical activity.

The research sample (n = 333) consisted of students of different high schools in the Czech Republic. The sample of girls is represented by 216 respondents (age $16.66 \pm 1.12$ years, height $167.58 \pm 6.31$ cm, weight $59.06 \pm 9.57$ kg, BMI $20.98 \pm 289$). The sample of boys is represented by 117 respondents (age $16.23 \pm 1.18$ years, height $179.11 \pm 8.10$ cm, weight $69.57 \pm 11.05$ kg, BMI $2161 \pm 2.71$).

In accordance with many different factors (age, BMI, socio-economic status, location, presence/absence of organized PA) we tried to estimate possible trends in the physical activity development and also in the structure of sport preferences.

## Results

Considering the factor of organized PA we noticed significant differences in vigorous PA and total PA in the sample of girls (girls with organized PA are more active than the girls without organized form of PA). Similar results were noticed in the group of boys but the differences within each category were much bigger than in girls. Moreover, we found out a significant difference in the category of moderate PA in comparison with the group of girls.

Considering the issue of organized PA and meeting the PA recommendations, we found out that both – girls and boys – participated in any kind of organized PA – are meeting PA recommendations most often.

**Table 1:** The level of physical activity considering the factor of organized physical activity (girls) – (MET-min/week)

| Physical activity in particular groups according to organized/unorganized PA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Factor of organized PA (n) | Vigorous PA | | Moderate PA | | Walking | | Total PA | |
| | Mdn | IQR | Mdn | IQR | Mdn | IQR | Mdn | IQR |
| **No organized PA** (n = 87) | 120 | 690 | 770 | 1,350 | 1,188 | 2,211 | 3,006 | 4,054 |
| **With organized PA** (n = 129) | 720 | 2,100 | 1,265 | 2,097.5 | 1,633.5 | 2,384 | 4,168 | 5,350 |

Note: Mdn – median, IQR – interquartile range

The presence of organized physical activity in girls (Table 1) reached significant differences in vigorous PA ($H = 18.02$; $p = 0.000$; $\eta^2 = 0.083$), moderate PA ($H = 5.07$; $p = 0.024$; $\eta^2 = 0.023$) and also in total PA ($H = 9.45$; $p = 0.002$; $\eta^2 = 0.043$).

**Figure 1:** The level of physical activity considering the factor of organized physical activity (girls) – (MET-min/week)
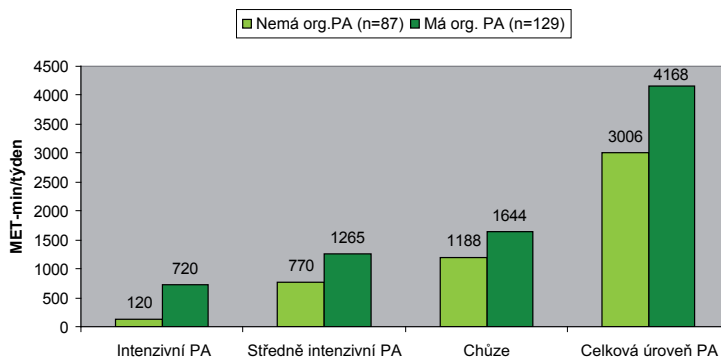


**Table 2:** Physical activity relating to factor of organized PA – ANOVA (girls)

| Physical activity | Organized PA | *n* | *H* | *p* | $\eta^2$ |
|---|---|---|---|---|---|
| Vigorous PA | NO | 87 | 18.02 | 0.000 | 0.083 |
| | YES | 129 | | | |
| Moderate PA | NO | 87 | 5.07 | 0.024 | 0.023 |
| | YES | 129 | | | |
| Walking | NO | 87 | 2.02 | 0.154 | 0.009 |
| | YES | 129 | | | |
| Total PA | NO | 87 | 9.45 | 0.002 | 0.043 |
| | YES | 129 | | | |

Note: n – sample size, H – Kruskal-Wallis ANOVA, p – level of significance, $\eta^2$ – coefficient "effect size"

**Table 3:** The level of physical activity considering the factor of organized physical activity (girls) – (MET-min/week)

| Physical activity in particular groups according to organized/unorganized PA | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Factor of organized PA (n) | Vigorous PA | | Moderate PA | | Walking | | Total PA | |
| | Mdn | IQR | Mdn | IQR | Mdn | IQR | Mdn | IQR |
| **No organized PA** (n = 35) | 210 | 840 | 1,162 | 1,320 | 1,039 | 2,277 | 3,222 | 3,681 |
| **With organized PA** (n = 82) | 1,590 | 2,700 | 1,732 | 3,235 | 1,411 | 2,392 | 6,350 | 7,219 |

Note: Mdn – median, IQR – interquartile range

The factor of organized PA had a bigger influence on the structure of PA in boys than in girls (Table 3) although the differences were recognized in the same types of PA (the differences were much bigger). The presence of organized PA reached significant values in vigorous PA, moderate PA and also in total PA (Table 4).

**Table 4:** Physical activity relating to factor of organized PA – ANOVA (boys)

| Physical activity | Organized PA | n | H | p | $\eta^2$ |
|---|---|---|---|---|---|
| Vigorous PA | NO | 35 | 19.80 | 0.000 | 0.17 |
| | YES | 82 | | | |
| Moderate PA | NO | 35 | 4.61 | 0.031 | 0.039 |
| | YES | 82 | | | |
| Walking | NO | 35 | 2.09 | 0.148 | 0.018 |
| | YES | 82 | | | |
| Total PA | NO | 35 | 11.63 | 0.000 | 0.100 |
| | YES | 82 | | | |

Note: n – sample size, H – Kruskal-Wallis ANOVA, p – level of significance, $\eta^2$ – coefficient "effect size"

**Figure 2:** The level of physical activity considering the factor of organized physical activity (boys) – (MET-min/week)
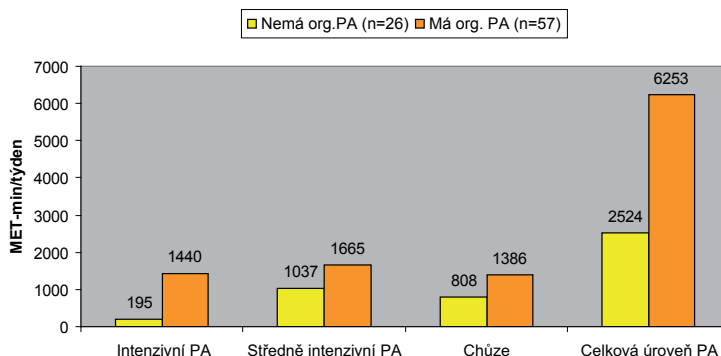


The structure of sport preferences in girl and boys was assessed in consideration with the gender factor. The main purpose of this part was to find out gender differences and other inequalities in the sport preferences structure.

**Table 5:** Sport preferences structure – Individual sports (inter-gender comparison)

| Individual sports | | |
|---|---|---|
| | **Boys** | **Girls** |
| **Athletics** | **9** | **9** |
| Badminton | 10 | 7 |
| Bowling (nine pins, snooker, pool, petanque) | 8 | 6 |
| **Ice-skating (figure skating, speedskating)** | **13** | **5** |
| **Cycling** | **1** | **2** |
| Golf (minigolf) | 11 | 14 |
| Canoying, rowing | 14 | 15 |
| Combined sports (triathlon, modern pentathlon) | 16 | 17 |
| Cross-country skiing (biathlon, nordic combination) | 15 | 16 |
| **Swimming** | **2** | **1** |
| Sport gymnastics | 17 | 13 |
| Squash (ricochet, racquetball) | 12 | 11 |
| **Shooting, archery** | **6** | **12** |
| **Table tennis** | **3** | **10** |
| **Tennis (soft tennis)** | **5** | **4** |
| **Downhill skiing (alpine, acrobatic, speed)** | **4** | **3** |
| **Snowboarding** | **7** | **8** |

Note: dominant activities and anticipated trends/development are in bold

The category of "Individual sports" was chosen as an example of the acquired results mainly because of the voluminousness of the results (Table 5). More significant differences were found out in various sport activities. The more prefered activites among girls are badminton, ice-skating and sport gymnastics. On the other hand – in boys the more prefered ones are golf, shooting, archery and table tennis. The differences between other sport activities were not significant. The overall correlation coefficient for the category of Individual sports was high (r = 0.76).

The respondents were also asked to mark the most prefered activity, and this part of our survey gave the following results. The most prefered sport activity in girls is modern dances (13 %), followed by cycling (8 %), cyclotourism (7 %), Latino-American dances (6 %) and sport aerobics (6 %). Other activites are in the minority.

The most prefered activity in boys is soccer (33 %), followed by floorball (11 %), tennis (8 %), motosports (6 %) and swimming (6 %). Other sports are in the minority but the number of mentioned sports is not so big as in girls.

## Discussion

The acquired results indicate that differences in sport activities between boys and girls are not so obvious. Despite a certain dynamic in the development of the sport preferences structure (compared to previous studies) we identified a certain group of sports, which is prefered on regular basis (e. g. football, floorball, basketball, running (jogging)). The most prefered activities in girls are – swimming, downhill skiing, cycling, volleyball, handball, floorball, basketball, power exercise, water exercise, kick-box (thai-box), Latin-American dances and modern dances. The most preferred activities in boys are – swimming, downhill skiing, cycling, football, florball, basketball, running (jogging), power exercise, diving, karate, kick-box (thai-box) and martial dances.

Regarding the PA survey, the following results were acquired. The total range of the amount of PA (average values) is in the interval from 2,372 MET-minutes/week in 15-years-old girls to 4,467 MET-minutes/week in 17-years-old girls. In the sample of boys we found out the average values from 4,270 MET-minutes/week in 16-years-old boys to 6,564 MET-minutes/week in ≥ 18-years-old boys. The amount of PA has an increasing tendency in both girls and boys, which is not identified by the previous surveys proclaiming a decreasing tendency of the amount of PA (Gordon-Larse, McMurray and Popkin, 1999; Harrel et al., 2005; Sallis, 2000; van Mechelen, Twisk, Post, Snel and Kemper, 2000). On the other side Aaron et al. pointed out that there was positive trend in boys (Aaron et al., 1993), compared to a negative trend in girls.

The main factor we worked with was the factor of organized PA. The organized form of PA is much more effective than the unorganized form of PA from the perspective of effectiveness. Moreover, organized PA of children and youth is positively correlated

with the frequency of leisure-time PA in adulthood (Kjønniksen, Anderssen and Wold, 2009). Considering the influence of the factor of organized PA we found no significant differences either in girls or in boys. The differences were noticed mainly in the category of vigorous PA and total PA, whereas the differences were much higher in boys than in girls.

The relation of organized PA to school PE is more than obvious, and we can use our results as an implication for the school settings. It can also serve as a tool of innovation of the currently offered sports programs and curricula.

Schools are important in shaping of values and beliefs in young people. If done well, physical education is one medium that can positively impact values associated with participation in recreation and sport.

Physical education programs in secondary schools have evolved over the years, moving from a more sports-oriented curriculum to a balanced approach that stresses the teaching of healthy lifestyle choices. PE design diversified programs that get students moving even if they are not inclined towards athletics.

Sports are a part of the physical education curriculum at most high schools, but fitness activities usually take a larger role. PE teachers are actively involved in designing the curriculum that provides health and fitness opportunities for their students. They want students to leave high schools with knowledge of areas that include cardiovascular fitness, body composition, endurance, strength, flexibility and stress management.

High school teachers are acutely aware of the challenges in trying to engage and sustain the interest of adolescents. In today's society, sport and physical activity touch most students, often playing a central role in their lives. This high level of involvement offers physical educators windows of opportunity to help students appreciate and critique the role of physical activity and sport in their own lives and in society. The curricular approach presented in this article describes one attempt to make a meaningful connection between what occurs in the name of physical education and the place of sport in students' live.

The quality and meaningfulness of school physical education have been questioned among practitioners. Even thought we know much about the purpose and benefits of school physical education programs, we know little about how to challenge students in physical education classes. Throughout the past decade, as a new century has approached, the quality of school physical education has been an ongoing focus in the physical education literature. In particular, the meaningfulness and contribution of physical education as a subject in today's schools have been questioned by teachers, students, administrators, and parents. Recent literature (Kirk, 1994; Lawson, 1995, 1998; Macdonald and Brooker, 1997; Siedentop, 1992; Stroot, 1994; Tinning and Fitzclarence, 1992) has analyzed the crisis of school physical education in term of loss of student interest, lack of identity of physical education as a subject, and lack of accountability for student learning.

What is one to make of the fact that physical education in the schools is meaningless, boring, and irrelevant while physical activities outside the school setting remain significant (Spencer, Edwards and Spencer, 1991; Tinning and Fitzclarence, 1992). School physical education has obviously failed by disregarding the nature of student culture, students' motivation to participate in physical activities, and their gender, socioeconomic, and ethnic backgrounds.

All school programs should provide the students with challenging educational opportunities.

## Conclusions

1. The survey proved its importance in adequate choice of offered physical activity programs in junior and senior school age with the potential to create conditions and environment for healthy and active lifestyle.
2. The presence of organized physical activity in girls reached significant differences in vigorous PA, moderate PA and also in total PA. There were differences in the same categories also in boys but the differences were much bigger.
3. Boys are more active than girls.
4. The sport preferences survey shows that the most prefered sport activities in girls are modern dances (13 %), cycling (8 %), cyclotourism (8 %), Latino-American dances (6 %) and sport aerobics (6 %).
5. The sport preferences survey shows that the most prefered sport activities in boys are soccer (33 %) followed by floorball (11 %), tennis (8 %), motosports (6 %) and swimming (6 %).
6. Despite particular dynamics in the development of the structure of sport preferences (compared to previous surveys) we can conclude that there is a group of sports, which stays on the top of the prefered ranking and they are relatively more stable (soccer, volleyball, aerobics, swimming).
7. Consideration of each particular factor (organized PA, age, gender, socio-economic status) is specific for each research sample.
8. The usage of this survey tool (INDARES) can help us anticipace the possible development or stability of prefered sport activities. This can serve us as a tool for optimization of the proposed physical activity programs/curriculum.

The realization of the online survey has approved to be a useful research technique, and if we are able to improve the current system and make it more attractive it has the potential to be a really beneficial research tool.

# References

Aaron, D. J., Kriska, A. M., Dearwater, S. R., Anderson, R. L., Olsen, T. L., Cauley, J. A. & Laporte, R. E. (1993). The Epidemiology of Leisure Physical Activity in an Adolescent Population. *Medicine & Science in Sports & Exercise: Applied Sciences.* No. 25 (7), pp. 765–883.

Andersen, R. E. Wadden, T. A., Barlett, S. J., Zemel, B., Verde, T. J. & Franckowiak, S. C. (1999). Effects of Lifestyle Activity Vs Structured Aerobic Exercise in Obese Women: A Randomized Trial. *The Journal of American Medical Association.* No. 281 (4), pp. 335–340.

Biddle, S. J. H., Soos, I., Hamar, P., Sandor, I., Simonek, J. & Karsai, I. (2009). Physical Activity and Sedentary Behaviours in Youth: Data from Free Central-Eastern European Countries. *European Journal of Sport Science.* No. 9 (5), pp. 295–301.

Dunn, A. L., Marcus, B. H., Kampert, J. B., Garcia, M. E., Kohl, H. W. & Blair, S. N. (1999). Comparison of Lifestyle and Structured Interventions to Increase Physical Activity and Cardiorespiratory fitness. *The Journal of the American Medical Association.* 1999, No. 281 (4), pp. 327–334.

Frömel, M., Novosad, J., & Svozil, Z. (1999). *Pohybová aktivita a sportovní zájmy mládeže*. Olomouc: Univerzita Palackého.

Gordon-Larsen, P., Mcmurray, R. G. & Popkin, B. M. (1999). Adolescent Physical Activity and Inactivity Vary by Etnicity: The National Longitudinal Study of Adolescent Health. *The Journal of Pediatrics.* No. 135, pp. 301–306.

Harrell, J. S., Mcmurray, R. G., Baggett, C. D., Pennell, M. L. Pearce, P. F. & Bangdiwala, S. I. (2005). Energy Cost of Physical Activities in Children and Adolescents. *Medicine & Science in Sports & Exercise: Applied Sciences,* no. 37 (2), pp. 329–336.

Kirk, D. (1994). "Making the Present Strange": Sources of the Present Crisis in Physical Education. *Discourse,* no. 15 (1), pp. 46–53.

Kjønniksen, L., Anderssen, N. & Wold, B. (2009). Organized Youth Sport as a Predictor of Physical Activity in Adulthood. *Scandinavian Journal of Medicine & Science in Sports,* no. 19 (5), pp. 646–654.

Křen, F., Chmelík, F., Frömel, K., Fical, P. & Kudláček, M. (2012). *Dotazníky PPA a IPAQ pro Indares.com* [Computer software]. Olomouc: Univerzita Palackého.

Kudláček, M. (2008). Sport Preferences Survey – Future of Martial Arts. *Archive sof Budo,* no. 4, pp. 101–105. ISSN

Kudláček, M. & Frömel, K. (2012). *Sportovní preference a pohybová aktivita studentek a studentů středních škol.* Olomouc: Univerzita Palackého.

Lajunen, H-R., Keski-Rahkonen, A., Pulkkinen, L., Rose, R. J., Rissanen, A. & Kaprio, J. (2009). Leisure Activity Patterns and Their Associations with Overweight: A Prospective Study among Adolescents. *Journal of Adolescence,* no. 32, pp. 1089–1103.

Lawson, H. (1995). School Reform, Families, and Health in the Emergent National Agenda for Economic and Social Improvement: Implications. *Quest,* no. 45, pp. 289–307.

Lawson, H. (1998). Rejuvenating, Reconstituting, and Transforming Physical Education to Meet the Needs of Vulnerable Children, Youth, and Families. *Journal of Teaching in Physical Education.* No. 18, pp. 2–25.

Macdonald, D. & Brooker, R. (1997). Moving Beyond the Crises in Secondary Physical Education: An Australian Initiative. *Journal of Teaching in Physical Education.* no. 16, pp. 155–175.

Rychtecký, A. (2006). *Monitorování účasti mládeže ve sportu a pohybové aktivitě v České republice.* Praha: Univerzita Karlova.

Sallis, J. F. (2000). Age-related Decline in Physical Activity: A Synthesis of Human and Animal Studies. *Medicine & Science in Sports & Exercise: Applied Sciences,* no. 32 (9), pp. 1598–1600.

Siedentop, D. (1992). Thinking Differently about Secondary Physical Education. *Journal of Physical Education, Recreation, and Dance,* no. 63 (7), pp. 67–73.

Spencer, S., Edwards, W. & Spencer, D. (1991). Practical Suggestions for Implementing Nontradi-tional/Adventure Education into the High School Curriculum. *Physical Educator,* no. 48 (4), pp. 206–210.

Stroot, S. A. (1994). Contemporary Crisis or Emerging Reform? A Review of Secondary School Physi-cal Education. *Journal of Teaching in Physical Education*, 13, no. 4, pp. 333–341.

Tinning, R. & Fitzclarence, L. (1992). Postmodern Youth Culture and the Crisis in Australian Second-ary School Physical Education. Quest, 44, no. 3, pp. 287–303.

U. S. Department of Health and Human Services. *Healthy People 2010: Leading Health Indicators*. 2000. Retrieved from http://www.healthypeople.gov/LHI/

Van Mechelen, W., Twisk, J. W. R., Post, G. B., Snel, J. & Kemper, C. G. (2000). Physical Activity of Young People: The Amsterdam Longitudinal Growth and Health Study. *Medicine & Science in Sports & Exercise: Applied Sciences.* Vol. 32, no. 9, pp. 1610–1616.

# Acknowledgements

**Contact:**
Mgr. Michal Kudláček, Ph.D.
Department of Recreology
Faculty of Physical Culture
Palacký University, Olomouc
tř. Míru 115
771 11  Olomouc
Czech Republic
E-mail: michal.kudlacek@upol.cz

# Reviews and short reports

# Workshop on the Amendment to the Act on Social and Legal Protection of Children

## Olga Štěpánová, Kristýna Velísková

On 16th April 2013 the Faculty of Education, Palacký University, Olomouc held the workshop Amendment to the Act on Social and Legal Protection of Children No. 359/1999 Coll. As Amended, with Effect from 1 January 2013 under the auspices of Dagmar Pitnerová. The workshop participants reflected the benefits and negatives of the application of the amendment in practice. The interpretation of the innovation of the Act on Social and Legal Protection of Children was presented by Zdeňka Šindelářová, head of the social department in Jindřichův Hradec.

The act is important for the practice of social work, especially for work with children and families of the department of social and legal protection of children. The participants of the workshop dealt mainly with changes in Act No. 359, which have significantly influenced the content of work of social workers. The change of assessment of a child's living situation is substantial for social workers and their outreach work. It covers the areas of housing, finance, education of parents, family and social situation or behaviour of the children or their state of health.

Zdeňka Šindelářová presented the modifications in individual child protection plans, focusing on the assessment of the situation of each child, not the family as a whole. The number of plans corresponds to the number of children in the family. Nevertheless the number of social workers has not been increased with the increase of administrative work.

A novelty in the act is Section 10 allowing organizing of case conferences to resolve specific situations of vulnerable children and their families, with partnership with parents, school representatives, law enforcement authorities in the social sector, police, prosecutors, professionals in the field of foster care and others.

Educational measures in Section 13 are complemented by imposing an obligation to use professional counselling or attend a 3-hours meeting with a mediator for the child, parent or person who has custody of the child. If the educational measure fails, the court may suspend a child from the custody of parents or others responsible for the child's upbringing for a period of up to three months; the total duration of the educational measure shall not exceed six months.

Another important point of the workshop was the submission of a proposal for removal of a child from the family. Before the execution, the municipality with extended powers is obliged to discuss the situation with parents and others responsible for the child's upbringing, organize a case conference, carry out actions arising from the evaluation of the child's situation and possibly impose an obligation to utilize vocational counselling. The reason for removal of the child must not be merely the inadequate housing or financial status of the parents of the child. But it is possible that a child lives in an appalling housing conditions and the social worker still does not have a valid reason for applying for the removal of the child from the family.

What was mentioned in the next part of the lecture was the time limit for ordering institutional care; it is imposed for the period of three years and can be extended, even repeatedly. Mgr. Zdeňka Šindelářová dealt with changes in foster care. This area is not only about the Act on Social and Legal Protection of Children, but also the Family Act. Among others, there are changes in the field of foster care; a newly established allowance at the end of foster care is the amount of CZK 48,000. Terminology is currently different – a "foster parent" is the caring person, and foster parents providing care for a transitional period of time are referred to as as registered persons by the law.

Students and lecturers took part in a final discussion about positive and negative changes in the Amendment of the Act from the perspective of future social workers studying the Faculty of Education, Palacký University, Olomouc. The lecturer provided students with the view of a professional worker, and so they left the workshop enriched with much knowledge and mainly with knowledge from practice, which encouraged their further development in the field of social work.

**Contact:**
Mgr. Olga Štěpánová, Mgr. Kristýna Velísková
Department of Education and Social Studies
Faculty of Education Palacký University
Žižkovo nám. 5
771 40  Olomouc

# Explanatory dictionary of fundamental terms in school prevention of risk behaviour

## Petra Hedrichová

A significant feature of the contemporary society is the existence and spreading of socially undesirable phenomena that are faced more and more frequently in various forms, not only as information on newspaper pages and other mass media but mainly in everyday life. Aggression, vulgarity, racism, hostility, bullying, criminality, diverse addictions and other demonstrations of risk behaviour become a common part of our life.

Risk behaviour, or prevention of risk behaviour is dealt with by several disciplines, thus it is possible to say that risk behaviour prevention is of an interbranch or interdisciplinary character what could have led to an inconsistent and inaccurate use of specialist terminology, and thus to inaccurate and inefficient communication among agents/providers of preventive interventions and services. M. Miovský (p. 10) adds to this in the introduction to the reviewed book: *"If we are to understand each other, we have to speak the same language and understand terms we use to denote partial phenomena, issues, interventions, target groups etc."*

Twenty authors from the entire Czech and Slovak republics participated in writing the *Explanatory Dictionary of Fundamental Terms in School Prevention of Risk Behaviour*, and their objective was to unite terminology in the field of school prevention and to

offer explanation of fundamental terms and concepts used in the area of prevention of risk behaviour.

The dictionary covers 28 main/primary entries in alphabetical order. Beside the Czech ones, English equivalent terms are given in all the primary entries. Primary entries form partial thematic groups.

Found can be, for example, primary entries dealing with the definition of normality in the field of primary prevention of risk behaviour from the statistical, socio-cultural, functionalist viewpoints and the point of view related to the norm of an ideal, with the definition of differences between social pathological phenomena and risk behaviour, preferred more frequently in the area of school prevention, or the theoretical concepts in primary prevention of risk behaviour, describing and explaining causes of problematical behaviour or the characteristic and task of risk and protective factors of risk behaviour.

There are also primary entries focusing on primary prevention, its types and basic levels of the implementation of prevention, the definition of target groups of primary prevention, efficient methods of primary prevention, including especially the activation methods (e. g. discussion, problem solving, situational methods etc.) and complex, or organizational forms of activities (group and cooperative work, project activities, critical thinking etc.), approaches implemented within primary prevention in the dictionary.

Other primary entries deal with the issue of minimal prevention school programmes, their quality certification, evaluation, implementation. An efficient minimal prevention school programme should include programmes focused on the development of social skills, life skills and self-management abilities, a set of rules for children's greater safety at school and school events, and programmes specifically aimed at particular forms of risk behaviour. Primary entries dealing with the environment of a programme implementation, primary prevention employees, intermediators or the field of education in primary prevention can be found here too.

The basic definition of each term is graphically presented in a frame at the beginning of each chapter. The next parts of the chapters frame and explain the given terms in a wider context. A part of each primary entry is a list of references (both Czech and foreign titles) and a list of recommended literature that can lead the reader toward wider and deeper knowledge of the particular primary entry or information on which theoretical construct, stream, concept was the basis of the explanation of the given term; according to our opinion this contributes to a higher educative potential of the reviewed book.

Clearer arrangement and orientation in the text is also helped by compound entries, secondary entries and key terms in bold. Furthermore, secondary entries are accompanied by a graphical symbol allowing finding the place where the particular term is explained in the context of another primary entry by means of the subject and name indexes, placed at the end of the book. Bold typed are also the names of significant

persons related to the given term. A list and explanation of the most frequently used abbreviations and a total list of works used are given at the end of the book. The reader will certainly appreciate a dictionary of fundamental terms in the Czech and English languages, situated also at the end of the dictionary.

The *Explanatory Dictionary of Fundamental Terms in School Prevention of Risk Behaviour* can be regarded a unique book of this type on the Czech market because it contributes to the unification of frequently inconsistent terminology in the field of risk behaviour prevention, and thus to more efficient communication among specialists from various branches dealing with risk behaviour prevention and efficient prevention in general. We believe that the authors fulfilled their set objective despite the fact that, as stated by them, this is the first version that can serve as a basis for further discussion.

This book can be recommended to all primary prevention workers – teachers, psychologists, sociologists, physicians, lawyers, local-government servants as well as university students of various majors and the general public because it provides valuable information and, above all, clear definitions from the field of primary prevention.

**Contact:**
Mgr. Petra Hedrichová
Faculty of Education, Palacký University, Olomouc
Žižkovo náměstí 5
771 40  Olomouc
petra.hedrichova@seznam.cz

# Degrees and Graduate Education: Strategy and Planning by Weihe Xie; Sunyu Wang; Bentao Yuan

## Yanyan Li

As an indispensable monograph to dissect the immensity and transformation of graduate education in China, the monograph is chiefly edited and written in Chinese by three professors in the Institute of Education Tsinghua University who are widely recognized experts specialized in graduate education in China. In this study, they sought to forecast the tendency of graduate education next decade including the structure and distribution of disciplines, the management and instruction of institutions, the quality and sympathetic system of graduate education in China. In the first place, an introduction of the monograph was generated by six segments, which were the background and significance of developing the degrees and graduate education, the considerable achievement and central problem in graduate education, the strategic demand and supportive condition to direct the graduate education system over a long period of time, the guiding ideology, strategic objective and evolving policy in medium and long term, the principal task in future, and the advice of measure in graduate education. Secondly, four sections were arranged as follows, the environment and circumstances, scale and structure, system of organization and management, and training and quality. And there were several chapters with respective subjects in each section.

  The first section introduced the domestic and international environment of graduate education in China. Facing with the parallels of globalization, the scientific revolu-

tion and the knowledge economy, various countries conducted coincident policies which constituted the convergent environment in graduate education all over the world. Simultaneously, the diversity of economic status, technological level, labor quality and higher education statement provided distinct supportive condition in the development of graduate education in each country. Accordingly, the target of cultivating the creativity of scientific elites was raised up in advancing the quality of graduate education next decade. They compared the worldwide development and analyzed the transformation in scale, structure and policy in graduate education. Finally, they concluded the achievement and shortage of Chinese graduate education in retrospect. In Section II, the researchers forecast the amount of postgraduates in master and doctoral program in a medium and long term on the perspective of international contrast. Respecting the number of samples and the statistic characteristics of regression results, a linear model was established to calculate the amount of postgraduates in master and doctoral program by substitution the predicted value of population growth, economy indicators, industrial structure and the stock of human resources into the equation. Based on the prediction pattern, they evaluated the structure of disciplines, way of training, and regional distribution in Chinese graduate education system. The increase of postgraduates in the doctoral program will slow down while amount of the masters has comparatively huge rise space from 2012 to 2012. Section III was the system of organization and management in graduate education in China. They generated the problems by systematic analysis and proposed several advice on policy. As a specific topic, the historical transformation of the academic degree system was reviewed in stages to discover the positive influence and negative deficiency on development. Another topic was the factor analysis on the adjustment and organization of professional disciplines in graduate education. They indicated the principle and orientation in regulating a variety of disciplines in practice. The last but not the least, the cultivation system and quality of graduate education proceeded to the next core item. In the first chapter of this section, the system of graduate education was analyzed in the theoretical foundation, historical transformation, current situation, existing problem and political advice. Secondly, the supportive condition and quality status were investigated by mixed methodology with the expert panel and questionnaires. Thirdly, there were several inspiration and suggestion from the research on their supportive system of graduate education abroad exclusively in America and Britian. Finally, the authors pointed out the characters and evaluation of quality in graduate education. They made a conclusion to shift the developmental and administrativecentre of gravity lower in graduate education.

   Graduate education is the ultimate level and relatively autonomous section in tertiary education which aims to train the professional human assets in fostering the advancement and originality in science and technology, to do scientific research in increasing the competition of nation, and to provide social service in creating the innovation-oriented country. Based on a longitudinal review on the transformation and

a transverse description of graduate education generated by investigation and analyzing, the tendency was clearly carried out in the development of next decade which would be a guidance for learners to get a closer inspection on graduate education, an research exhibition in graduate education for young researchers, a political reference for administrative segment in charge of graduate education. A clear structure was carried out by introducing the background, presenting the problem, analyzing the problem, conducting the survey, recording the effect, interviewing the participants, and drawing the conclusion. If it could be a textbook in education program, the discipline of Graduate Education could use it in the sphere of China. Additionally, there is a valuable and practical bibliography at the end of each chapter. As mentioned above, it is propitious to the authorities in government that in charge of the formulation and promulgation policies in education and researchers in graduate education field. They would benefit from reading this book to grasp the history and trend in Chinese graduate education mechanism and the tendency in the future decade.

**Contact:**
Yanyan Li, Mgr.
(A Ph.D. student)
Institute of Education and Social Studies
Palacky University in Olomouc
The Czech Republic
e-mail: liyanyan.upol@gmail.com

The initial conference of the VOICES Comenius international project took place in Brussels on March 20th–23th, 2013.

It is a project the participants of which are academics and students of ten European universities and teachers from their partner schools. The objective of the project is, besides other things, to create an international network of cooperating universities and primary schools, grammar schools, educational institutions and businesses engaged in the field of education.

The VOICE of European TeacherS (VOICES) will become a network, which connects students as future teachers, teachers, teacher trainers, researchers and persons of other institutes (connected to the educational field) in Europe.

The overall aim is to implement European Teacher competences (European Teacher competences developed during the projects of Face-it: 134362-LLP-1-2007-1-NL-COMENIUS-CMP and ETSize: 510134-LLP-1-2010-1-NL-COMENIUS-CAM) and European key-competences for lifelong learning in the curricula of schools and teacher training institutes.

The VOICE of European TeacherS (VOICES) network will give schools, teachers, students, teacher trainers, researchers and representatives of other institution in the field of education, the possibility to stay in contact, work together, start new projects and share best practice. Collaboration during projects and reflection on our activities are the keys in the learning processes within the network.

The VOICES project focuses on training of future teachers and further education of teachers in the field of international pedagogy studies. The main emphasis is put on research activities, the elaboration of theoretical starting points and their implementation in practice in these core areas:

Thematic Fields

1. European Diversity
2. European Identity (European awareness and cultural heritage)
3. European Citizenship
4. European professionalism (Knowledge approach, way of teaching, school concepts in Europe)
5. New Teacher education (teacher education in the 21st century, with an emphasis on blended learning and rich media)
6. Language competences (plurilingualism and early foreign language learning)
7. Early years development

The VOICE of European teacherS (VOICES) will be in social networks. The web site will be renewed and hosted on the address http://www.European-teachers.eu where it is possible to apply for all the offered courses (ETSize will stay as a part of the VOICES, used for in-service courses). The courses are designed for participating teachers from primary schools and first grades of grammar schools, students, postgraduate students of the pedagogy majors and academics interested in the given field.

The representative of the Czech Republic in this project is the Faculty of Education, Palacký University, Olomouc and two partner primary schools, the Heyrovského Primary School and the Primary School Jeřice. Teachers of these schools will participate in the prepared conferences in Derby in 2014 and Milan in 2015.

At the same time they will be lecturers of training courses under the umbrella title PAMPAEDIA – Omnes omnia omnino. This is not a random choice. The main terms are chosen in order to express the contents of the selected areas: Pedagogue, Action, Motivation, Partnership, Activity, Enthusiasm, Decision, Inspiration, Adventure. These training modules are about the analysis and presentation of still topical ideas of the founder of modern pedagogy, J. A. Comenius with regard to the contemporary, internationally accepted pedagogical concepts.

*"Our aim is not that everybody will do everything in the same way but we would like to inform, enrich and learn from each other."*                    Michaela Tomášková

PaedDr. Alena Jůvová, Ph.D.
National Project Coordinator
Department of Education and Social Studies
Faculty of Education, Palacký University, Olomouc
Žižkovo nám. 5, 771 40 Olomouc
Czech republic
Phone: 585 635 144
E-mail: alena.juvova@upol.cz