Faculty of Education Palacký University Olomouc

# IV/2013



# e-PEDAGOGIUM

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# Editorial

#### Dear readers,

in our fourth issue of the thirteenth year of the journal includes articles, which follow and complement commenced content-oriented line of research devoted to the issues of a teacher's personality, especially from the point of view of his responsibilities, preparation or teaching methods.

Authors who contributed to the current issue, got in to teaching positions through research studies devoted to the personality of the teacher in terms of inclusive pedagogy, social or optical theoretical bases of constructivist learning theory.

The article authors Vladimira Kocourková and Anna Šafránková deals with the roles of the teacher and his relationship to socially disadvantaged pupils in the Czech educational environment. The authors analyze the first results of the research, the task was to identify the specific characteristics of the attitudes of individual teachers.

Self-reflective diary as a research tool, and its possible use. This will be introduced by Adriana Wiegerová and Alena Lampertová.

More articles will focus on the research in the field of professional training of future teachers.

The team of authors under the supervision of Petra Matošková then examined the tacit knowledge of the students as a factor that can affect the success of studies at the university. The aim of the survey was to clarify the nature of this phenomenon.

Two possible approaches to psychosomatic preparation oriented on personal and social development of students' social pedagogy compares and analyzes Pavla Andrysová.

In the section devoted to reviews, short reports, then, in addition to several reviews, you will also find a message from Jana Majerčíková from a conference called Paths to Democracy in Education<sup>®</sup> XIV, which is our journal media partner.

As for the other concepts and possible courses of the journal e-Pedagogium in the coming year, we would like to focus on the following main topics:

Paradigms and theories in contemporary Czech and international Pedagogy.

Consilience and interdisciplinarity in terms of educational research.

Educational constructivism and its reflection in pedagogical theories.

Number three of the Journal in year 2014 which will come in September 2014, will be thematically focused on general pedagogy discourses in contemporary educational thinking, scientific literature, theory and practice.

We would therefore invite the authors send their contributions to these topics for a review process to the editor.

Thank you for your cooperation in 2013 and wishing you many personal and professional successes in 2014.

Board of editors of the e-PEDAGOGIUM journal

# Articles

# The Teacher's Role in the Reflection of Social Disadvantage<sup>1</sup>

# Vladimíra Kocourková, Anna Šafránková

#### Abstract

The paper attempts to explain the definition of socially disadvantaged pupils and the role of teacher in the Czech educational environment, because the characterization of this specific group of pupils is one of the important preconditions for setting adequate support and compensation precautions. The teacher is one of the important participants of inclusive educational environment and in a crucial position in terms of education of socially disadvantaged pupils is. The authors analyze the partial results of a research survey that was carried out in the Pardubice Region and in the Moravian-Silesian Region on the educational levels ISCED 1 and ISCED 2 and that aimed to identify partial characteristics of individual teachers' attitudes to socially disadvantaged pupils. The study presents the partial results obtained using semantic differential. The premise was that between observed groups of teachers were significant differences in the perception of the stated conceptual indicators.

Key words: social disadvantage, semantic differential, attitudes, teacher, identification of social disadvantage.

<sup>&</sup>lt;sup>1</sup> The contribution was written in the grant project IGA PdF\_2012\_043 titled *Analysis of Educational Aspects of Socially Disadvantaged Pupils*.

## Introduction

The profession of a teacher can be perceived in a close relation to educational potential of society and its development; a teacher is a bearer and mediator of education and plays a key role in the area of functioning of educational systems. Equally important is the teacher's reflection and, in some respects, anticipation of the society dynamics (Vašutová In Maňák, Jůva, 1998, p. 172).

Kellaghan (In Rabušicová, 2004, p. 22) states that despite the fact that family and school differ from the viewpoint of priorities, requirements, expectations, in organization of time and space, in their relationship to children and many other aspects, these two institutions share a common objective – to ensure an optimum development of a child. It is possible to talk about the complementary role of family and school in this context. The family variables can be thus perceived as significant determinants which can influence pupils' education (Starý, Dvořák, Greger, Duschinská, 2012). The first dialogue between a pupil and the educational system is usually realized in the school environment where the main role in education and optimization of the educational process is played by the teacher.

Thus it is logical that the tendency of accentuation of discussions in the field of teachers' professional development is increasing in both the conceptual and research areas at the present; this can be characterized as a "set of activities leading to the perfection of the execution of the profession of a teacher and the improvement of pupils' learning outcomes". (Starý, Dvořák, Greger, Duschinská, 2012, p. 12).

As stated above, despite the fact that the area of teachers' professional development can be examined from many perspectives<sup>2</sup>, the contribution focuses on the characterization of the significance of a teacher, the definition of the group of socially disadvantaged pupils in the context of the Czech educational environment and the presentation of outcomes of a research survey focused on the identification of its partial components of attitudes in relation to socially disadvantaged pupils because we think in correspondence with J. Pelikán and Z. Helus (1984) that pupils' education can be perceived, beside others, through the prism of their teachers; it is exactly the teachers' attitudes to pupils that indirectly influence the overall atmosphere in the class, and also influences particular pupils as well as the teachers' interaction with the particular class in return. In this sense it is also possible to consider the transmission of teachers' opinions towards children in correspondence with social-cultural transmission in the process of socialization – in some cases on the unconscious functional level.

<sup>&</sup>lt;sup>2</sup> This fact is evident also on the basis of a systematic analysis of the hitherto foreign sources related to the profession of a teacher in the book Profesní rozvoj učitelů, podpora učitelů pro zlepšení výsledků žáků (Starý, Dvořák, Greger, Duschinská, 2012)

# 1 Theoretical framework of the research survey – socially disadvantaged pupil

The mechanism of disadvantage on the basis of a child's social environment can be undoubtedly perceived from many perspectives. Social disadvantage can be related to a different cultural, value orientation and the mother tongue different from the school language. No less important factor related to social disadvantage is socioeconomic status (SES) of the child's family. On the basis of an OECD research (2012) it was found out that pupils from an disadvantaged socioeconomic environment are twice more likely to be less successful in education. A family's socioeconomic status positively correlates with the parents' investments in their children's future (Conger, Dogan, 2007). In this context it is possible to think of the assumption that families of higher socioeconomic status invest more time, finances, energy in their children's development and can place greater demands for academic success of their children. (Conger, Donnellan, 2007). Similarly, Kellaghan (1997) says that SES influences not only pupils' school outcomes but also the level on which children finish their education. The correlation of pupils' school success and their families' socioeconomic status is also dealt with by a PISA international research. The outcomes of this international research confirmed the correlation of pupils' school outcomes in reading literacy and socioeconomic statuses of children's families in the Czech Republic in 2009. (Palečková, Tomášek, Basl, 2010) The influence of the social and family environment on pupils' school outcomes was the object of examination in one of the best known studies by the sociologist Colman (1966). Beside others, this study proved that students from minorities or a financially poor family background or a segregated environment are influenced by their family background to such an extent that they reach poorer school outcomes more frequently than their classmates. What is important for a child beside the family's social capital according to Coleman (1988) is social capital of the community where the school is situated.

The definition of social disadvantage was elaborated in a more complex way by Havighurst (1961) as one of the first authors; he specifies socially disadvantaged pupils on the basis of three aspects: the characteristics of the child's family, the child's personality features and the family's social environment. J. Cleg and J. Ginsborg (2006) add that the definition of social disadvantage is not easy, and thus the characterization of this phenomenon by means of the family's socioeconomic status is frequently encountered.

Social disadvantage can be understood as a state formed by a combination of factors influencing a child's education. The form and scope of disadvantage can come in various shapes.

The group of socially disadvantaged pupils are included in the group of pupils of special educational needs from the viewpoint of the Education Act in the Czech Republic. According to this act socially disadvantaged pupils are:

- individuals coming from a family background of a low social cultural position;
- at risk of social pathological phenomena;
- individuals who have been ordered institutional care or adjudicated protection in a young offender institution;
- asylum seekers and participants in asylum procedure in the territory of the Czech Republic (s. 16 (4) Act no. 561/2004 Coll.).

The *Framework Educational Programme for Elementary Education* defines this group of pupils as individuals coming from a family background of a low social cultural and economic position for whom the integration into the educational mainstream can present difficulties due to language differences or due to their and their families' cultural patterns showing in behaviour, conduct, different value hierarchies, life styles, concepts of upbringing of children and relationships to education (Jeřábek et al., 2005).

It is evident that the issue of social disadvantage is very wide. One of the indicators of social disadvantage is the family's poverty that can be a consequence of many factors such as family break-up, failure of educational system, economic dependency, addictions or indebtedness (The Centre for Social Justice, 2006).

One of the factors necessary for adequate education of socially disadvantaged pupils is their individual support provided by their families which is not a matter of course as it is in the case of pupils without social disadvantage. Families which are not socially disadvantaged frequently invest a lot of money and time in their children's education beyond the scope of compulsory education in order to provide their children with quality education. (The Centre For Social Justice, 2007). It can be said in general that a family that is comfortably well-off is able to provide their child with stimulating toys, broaden the child's knowledge and skills by means of travelling and cultural and educational activities, do diverse sports with the child and, last but not least, provide the child with quality food, and thus form a basis for healthy eating habits. (Možný, 2002).

It is evident from the above brief characteristic of socially disadvantaged pupils that their exact definition is not easy (Němec, Vojtová, 2009). Education of these pupils can present a difficult task not only for particular educational policies dealing with this issue also from the perspective of the so-called inclusive education but also for teachers who are in everyday interaction with these pupils.

# 2 Role of a teacher in relation to socially disadvantaged pupils

The presence of socially disadvantaged pupils in the educational process places specific demands on teachers, including awareness, preparation for the multicultural environment in the class, social and communication competences related also interaction with

families of these pupils (obtaining relevant information of the pupil's situation not only within the school life but also after-school life adequately) and others. Wehlage (In O'Sullivan, Gilligan, 1997) believes that there are four values forming a teachers' positive character and providing them with support for successful integration of socially disadvantaged pupils into the educational process. These are:

- acceptance of responsibility for pupils' achievements;
- · teachers' belief in their practice and role;
- acceptance of the need of being persistent in relationship to these pupils who are frequently not ideal;
- manifestation of certain optimism and thus building on pupils' strengths and positive aspects.

A teacher provides specific care, motivating and activating teaching methods and forms of education developing individual conditions of pupils and strengthening positive perception of a heterogeneous team (Ministerstvo školství, mládeže tělovýchovy, 2009).

The issue of teachers' characteristics and their influence on education and performance in education can be found in a number of researches. One of the best known above mentioned researches, focusing on the area of equal opportunities in education, was conducted under the leadership of the American sociologist A. Coleman (the research report is frequently referred to as the *Coleman report* and is titled *Equality of Educational Opportunity*) in the 1960s in the USA. Beside others, this research focused on teachers' characteristics, attitudes and their influence on education of socially disadvantaged pupils. (Sheerens 2004, p. 3)

The issue of attitudes and their influence in general has been dealt with by many researchers; nevertheless highly specific researches in teachers' attitudes to their pupils are less represented (e.g. Potměšil, 2010), researchers in teachers' attitudes to pupils with social disadvantage are rather unique in the Czech environment. It is possible to assume on the basis of some conducted research surveys (e.g. Helus, Pelikán, 1984) that a teacher's attitude can influence a pupil's educational activities.

The contribution focuses namely on capturing differences in perception of connotative meanings of terms on the basis of an opinion that the role of a teacher in education of socially disadvantaged pupils is a complex issue of a multidimensional character because it is conditioned by many influences forming a complex. In this context it is rooted in the research in attitudes in the educational process by J. Pelikán and Z. Helus (1984) who found out that teachers' preference attitudes towards pupils influence indirectly the overall atmosphere in the class too, and influences back individual pupils as well teachers' interaction with the particular class. A particular pupil and his or her conduct and behaviour is always confronted with the idea of an ideal pupil the teacher has subjectively created in the teacher's consciousness (or subconsciousness) as well as other classmates. We believe that similarly to the above mentioned research by J. Pelikán and Z. Helus (1984) (where pupils of a higher index of adaptability, pupils of a quieter, more silent nature, standing out due to their activity and temperament got better evaluations) pupils who stand out from the "average" in a way will be undervalued. Such pupils may include also socially disadvantaged pupils (Kocourková, Šafránková, 2011).

# 3 Selected conceptual indicators from the perspective of semantic differential

#### 3.1 Purpose of the research survey

A part of the research survey was focused on finding the difference in individual perception of conceptual indicators related to the area of education of socially disadvantaged pupils. A difference between the final semantic space of teachers in the Pardubice and Moravian-Silesian region was also observed. One of the indicators of social disadvantage can be unemployment of parents and poverty arising from it. The selection of the research sample was intentional because the Moravian-Silesian Region is understood as one of the regions of the highest unemployment rate according to the data of the Czech Statistical Office, and thus it is possible to assume an increased number of socially disadvantaged pupils at schools. On the contrary, the Pardubice Region is a region of the sixth lowest unemployment rate in the Czech Republic in comparison with other regions. (Český statistický úřad, 2011) We assume that social characteristics of the regions also influence the perception of particular conceptual indicators by teachers of the ISCED levels of education 1 and 2. The main objective of the presented part of the research survey was to find out in what way teachers perceive selected conceptual indicators related to the area of education of socially disadvantaged pupils.

The *problem* was defined by the question whether there were differences between teachers in the Pardubice Region and teachers in the Moravian-Silesian Region in what way they understood selected conceptual indicators related to the area of education of pupils with social disadvantage.

The *hypothesis* was defined as follows: There are differences between teachers in the Pardubice Region and teachers in the Moravian-Silesian Region in what way they understand selected conceptual indicators related to the area of education of pupils with social disadvantage.

### 3.2 Semantic differential

Semantic differential is a specific method enabling to gain an insight into the individual meaning of terms in the respondents' interpretation. (Pelikán, 2011, p. 144). What is characteristic of this method is the interconnection of psycholinguistics, psychology of perception and psychology of individual consciousness (Maršálová, et al., 1990). This method was elaborated by Ch. Osgood and his colleagues (G. J Succi, P. H. Tannenbaum) on the basis of many studies; they stated that every term can be perceived on the basis of three aspects (evaluation factor, potency factor, activity factor) defining the position f such conceptual indicator in the so-called semantic space.

Osgood worked on the assumption that a certain object has both a denotative meaning and a connotative meaning with an individual (Osgood et al., 1975). It is possible to determine the individual meaning of key terms and their semantic proximity by means of this method (Osgood et al., 1975).

Despite the fact that semantic potential is regarded a method measuring attitudes<sup>3</sup> of an individual towards the given term by some authors; we are inclined to those authors who work on the assumption that this method cannot measure the conation of an attitude absolutely safely, and this is why we speak about partial components of an attitude, or about measuring of meanings (Nakonečný 1997, p. 100).

The principle of this method is similar to that of rating methods. Respondents record their opinions of assessed terms on several-points scales consisting of opposite adjectives (Chráska, 2007).

### 3.3 Characteristics of the research sample

The research sample consisted of teachers of elementary schools in the Moravian-Silesian Region and the Pardubice Region. Church schools, schools established specifically for children with disabilities, alternative and international schools were not included in the sample due to our endeavour to capture the specifics of common elementary schools. All the schools on the ISCED levels 1 and 2 in the selected regions (according to the list in the registry of elementary schools updated on November 24, 2011) were addressed. The research tool was available in the electronic form on a created website. A request for filling in the particular items was addressed to teachers of elementary schools in the selected regions and a request of filling in the questionnaire was sent to headmasters of these schools at the same time. E-mail addresses of teachers and headmasters of these schools were obtained from the directory of schools and educational institutions found by the Ministry of Education, Youth and Sports of the Czech Republic.

<sup>&</sup>lt;sup>3</sup> It is necessary to point out that attitude is a multidimensional subtle and difficult-to-be-captured variable consisting of cognitive, emotional and conative components (Katz, D., Stotland, E., 1959).

A total of 399 elementary schools were addressed. 251 elementary schools from the Moravian-Silesian Region and 148 from the Pardubice Region were addressed. A total of 197 questionnaires were returned. The following table characterizes the number of respondents according to regions. The basic research sample consisted of teachers of elementary schools on the ISCED levels 1 and 2 in the Pardubice Region and the Moravian-Silesian Region in the Czech Republic.

#### Table 1

Number of respondents according to regions	Number	of respondents	according to	regions
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Region	n <sub>.</sub>	f <sub>i</sub>
Moravian-Silesian	123	0.624
Pardubice	74	0.376
Σ	197	1

#### 3.4 Conceptual indicators and their assessment

Thirteen basic conceptual indicators related to social disadvantage were stated in the realized research survey on the basis of consultations with elementary school teachers and staffs of educational and psychological counselling centres. These conceptual indicators were: pupil with special educational needs, socially disadvantaged pupil, pupil of an ethnic minority, socially disadvantaged family, Roma, social disadvantage, inclusion, unstimulating family environment, homelessness, unemployment, poverty, culturally different environment and ethnic minority.

The respondents assessed the given indicators by means of 12 scales of semantic differential after being instructed to mark the field of the below mentioned polarity scales which most corresponds with their perception of the given term. Only one choice could be marked for each pair of polarities.

Evaluation factor: pleasant – unpleasant, beautiful – ugly, good – bad, bright – dark. Activity factor: rounded – angular, active – passive, fast – slow, sharp – dull. Potency factor: coarse – soft, strong – weak, deep – shallow, heavy – light.

The items of semantic differential were originally designed so that all the three factors (constructs) of individual perception of the selected terms by the respondents – the evaluation, activity and potency factors – were examined.

The outcomes of all the respondents' (n = 197) assessment in all the conceptual indicators were used for the basic verification of construct validity. The verification was conducted on the basis of a classic explorative factor analysis in which (contrary to the Osgood's classic semantic differential) only two common factors were extracted. The content analysis in fact concluded that the scales *pleasant* – *unpleasant*, *beautiful* – *ugly*, *good* – *bad*, *dark* – *bright* measure the *evaluation* dimension and the scales *slow* – *fast*,

weak – strong, dull – sharp, heavy – light measure the energy dimension<sup>4</sup>; the rest of the scales was left as "factor-impure" out of semantic differential as well as the further processing of the outcomes. It was confirmed by the explorative analysis (just as stated by M. Chráska, 2007) that the activity factor is a considerably subtle construct that can be interpreted incorrectly. The energy dimension expresses in this case to what extent a term is related with "effort", difficulties or activity.

### 3.5 Presentation of selected outcomes of the research survey

Differences among the ways of understanding of particular conceptual indicators in teachers in the Pardubice and Moravian-Silesian regions were verified by means of the Mann-Whitney U test as well as the Student t-test.

#### Table 2

Variable	Mann-Whitney U test (DATA-working) According to variables pol4-DOTDEM Marked tests are significant on level p < .05000										
variable	Sum of rank scores b	Sum of rank scores a	U	Z	Sign p	Z (corr)	Sign p (corr)	N			
ZSVP-h	7165.000	12338.00	4390.000	-0.41416	0.678760	-0.42170	0.673248	74			
ZSVP-e	7542.000	11961.00	4335.000	0.55608	0.578157	0.56120	0.574660	74			
SZV-h	7208.500	12294.50	4433.500	-0.30191	0.762722	-0.31162	0.755330	74			
SZV-e	7016.000	12487.00	4241.000	-0.79864	0.424501	-0.81621	0.414379	74			
ZEM-h	7096.500	12406.50	4321.500	-0.59092	0.554578	-0.61527	0.538376	74			
ZEM-e	6744.000	12759.00	3969.000	-1.50051	0.133483	-1.56521	0.117534	74			
SZR-h	7144.500	12358.50	4369.500	-0.46706	0.640461	-0.47712	0.633280	74			
SZR-e	6772.000	12731.00	3997.000	-1.42826	0.153218	-1.46559	0.142760	74			
ROM-h	7245.000	12258.00	4470.000	-0.20772	0.835445	-0.21091	0.832956	74			
ROM-e	6788.500	12714.50	4013.500	-1.38568	0.165845	-1.43609	0.150977	74			
SZ-h	7378.000	12125.00	4499.000	0.13289	0.894279	0.13515	0.892494	74			
SZ-e	6960.500	12542.50	4185.500	-0.94185	0.346269	-0.98990	0.322226	74			

Mann-Whitney U-test (indicators 1–6)

Explanatory notes: h – evaluation factor, e – energy factor, ZSVP – pupil with special educational needs; SZV – socially disadvantaged pupil; ZEM – pupil of an ethnic minority; SZR socially disadvantaged family; SZ – social disadvantage.

<sup>&</sup>lt;sup>4</sup> The energy dimension shows what Osgood's potency and activity factor show in total. (Chráska, 2007, p. 228)

Variable	Mann-Whitney U test (DATA-working) According to variable pol4-DOTDEM Marked tests are significant on level p < .05000									
Variable	Sum         Sum           of rank         of rank         U         Z         Sigr           scores b         scores a					Z (corr)	Sign p (corr)	N		
INCLN-h	6848.500	12654.50	4073.500	-1.23086	0.218377	-1.29060	0.196843	74		
INCL-e	6595.500	12907.50	3820.500	-1.88370	0.059606	-2.00496	0.044968*	74		
NRP-h	7063.000	12440.00	4288.000	-0.67736	0.498179	-0.68952	0.490495	74		
NRP-e	7440.000	12063.00	4437.000	0.29288	0.769616	0.29520	0.767840	74		
BZD-h	7153.500	12349.50	4378.500	-0.44383	0.657165	-0.47113	0.637549	74		
BZD-e	7515.000	11988.00	4362.000	0.48641	0.626678	0.49476	0.620773	74		
NEZ-h	7004.500	12498.50	4229.500	-0.82831	0.407494	-0.83931	0.401297	74		
NEZ-e	7682.500	11820.50	4194.500	0.91863	0.358291	0.93721	0.348654	74		
CHUD-h	7441.500	12061.50	4435.500	0.29675	0.766659	0.29911	0.764858	74		
CHUD-e	8114.000	11389.00	3763.000	2.03208	0.042147	2.09361	0.036295*	74		
KOP-h	7580.500	11922.50	4296.500	0.65543	0.512194	0.73773	0.460679	74		
КОР-е	7445.500	12057.50	4431.500	0.30707	0.758791	0.39885	0.690004	74		
NM-h	7000.500	12502.50	4225.500	-0.83863	0.401675	-1.06100	0.288689	74		
NM-e	6787.500	12715.50	4012.500	-1.38826	0.165058	-1.99558	0.045981*	74		

#### Table 3 Mann-Whitney U-test (indicators 7–13)

Explanatory notes: h - evaluation factor; e - energy factor; INCL - Inclusion; NRP - unstimulating family background; BZD - homelessness; NEZ - unemployment; CHUD - poverty; KOP - culturally different environment; NM - ethnic minority.

Values of significance p < 0.05 are marked in Tables no. 2 and 3. Only three indicators (INCLUSION, POVERTY and ETHNIC MINORITY) demonstrated statistically significant differences among assessment of the conceptual indicators by teachers from the Moravian-Silesian and Pardubice regions, namely in the energy dimension.

#### Table 4 *T-test of students (indicators 1–6)*

Variable	t-tests; grouped:pol4-DOTDEM (DATA-working) Group 1: b Group 2: a									
	Mean Pardub.	Mean MoravSil.	t	df	Sign p	N <sub>b</sub>	Na	Std Dev b	Std Dev a	
ZSVP-h	3.891892	3.922764	-0.27190	195	0.785986	74	123	0.817280	0.743228	
ZSVP-e	4.211712	4.135501	0.58274	195	0.560739	74	123	0.751608	0.961781	
SZV-h	3.858108	3.843496	0.14033	195	0.888543	74	123	0.678790	0.724568	
SZV-e	3.601351	3.646341	-0.39483	195	0.693398	74	123	0.596679	0.863613	
ZEM-h	3.804054	3.835366	-0.27759	195	0.781624	74	123	0.818525	0.734002	
ZEM-e	3.770270	3.850949	-0.65129	195	0.515625	74	123	0.774254	0.880060	
SZR-h	3.530405	3.508130	0.19343	195	0.846826	74	123	0.786174	0.780746	
SZR-e	3.468468	3.631436	-1.15890	195	0.247914	74	123	0.803188	1.036504	
ROM-h	3.226351	3.260163	-0.25278	195	0.800707	74	123	0.930982	0.895914	
ROM-e	3.824324	4.070461	-1.65711	195	0.099106	74	123	0.865758	1.086640	
SZ-h	3.040541	3.004065	0.23619	195	0.813534	74	123	1.041129	1.054840	
SZ-e	3.720721	3.783198	-0.44757	195	0.654959	74	123	0.673542	1.080531	

Explanatory notes: h – evaluation factor; e – energy factor; ZSVP – pupil with special educational needs; SZV – socially disadvantaged pupil; ZEM – pupil from an ethnic minority; SZR – socially disadvantaged family; ROM – Roma; SZ – social disadvantage

#### Table 5 T-test of students (indicators 7–13)

	t-tests; grouped:pol4-DOTDEM (DATA-working) Group 1: b									
Marta bla					roup 2: a					
Variable	Mean Pardub.	Mean MoravSil.	t	df	Sign p	N <sub>b</sub>	Na	Std Dev b	Std Dev a	
INCL-h	4.040541	4.086721	-0.30495	195	0.760732	74	123	1.026220	1.031240	
INCL -e	3.570946	3.782520	-1.71304	195	0.088295	74	123	0.760227	0.883570	
NRP-h	5.734234	5.899729	-0.96279	195	0.336847	74	123	1.253282	1.114513	
NRP-e	5.111486	5.022358	0.45035	195	0.652960	74	123	1.456058	1.274356	
BZD-h	1.711712	1.810298	-0.62449	195	0.533033	74	123	1.034157	1.095679	
BZD-e	3.261261	3.173442	0.39623	195	0.692369	74	123	1.452726	1.537835	
NEZ-h	2.047297	2.182927	-0.92705	195	0.355045	74	123	0.953253	1.018312	
NEZ-e	3.797297	3.636856	0.75153	195	0.453243	74	123	1.260351	1.554128	
CHUD-h	2.304054	2.313008	-0.05906	195	0.952967	74	123	0.910621	1.096097	
CHUD-e	4.063063	3.525745	2.56028	195	0.011216	74	123	1.269806	1.512551	
KOP-h	4.094595	4.135501	-0.37008	195	0.711725	74	123	0.761558	0.745157	
КОР-е	4.081081	4.034553	0.56931	195	0.569803	74	123	0.477415	0.597403	
NM-h	3.932432	3.975610	-0.46263	195	0.644145	74	123	0.412808	0.735727	
NM-e	3.927928	4.037940	-1.41672	195	0.158160	74	123	0.350126	0.609881	

Explanatory notes: h – evaluation factor; e – energy factor; INCL – Inclusion; NRP – unstimulating family environment; BZD – homelessness; NEZ – unemployment; CHUD – poverty; KOP – culturally different environment; NM – ethnic minority.

The more sensitive Student t-test confirmed the statistically significant difference in the assessment of conceptual indicators in teachers from the Moravian-Silesian and Pardubice regions only in one indicator (POVERTY), namely in the energy dimension.

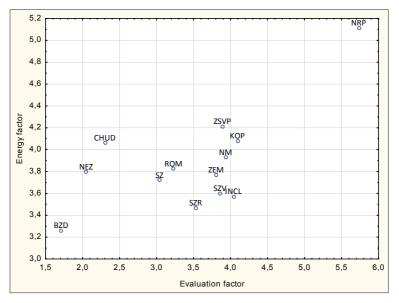
The outcome may be related to the difference between the regions in the number of socially disadvantaged persons (as well as the higher unemployment rate), and thus to the respondents' different experience. It is evident from the table that the teachers from the Pardubice Region relate the term POVERTY to greater "demanding nature", "difficulty" and "troubles".

The teachers from both the Pardubice and Moravian-Silesian regions perceive the term POVERTY "negatively" from the perspective of the evaluation factor in comparison to the other conceptual indicators. It is necessary to note that the evaluation factor characterizes the perception of the term on the basis of our primary evaluation (i.e. in the context of "the good" and "the evil").

A better idea can be got from the graphic image of semantic spaces of teachers from both the regions in Charts no. 1 and 2 based on the average evaluation of particular conceptual indicators what was verified also on the level of mode due to great sensitivity of the arithmetic mean for extreme values.

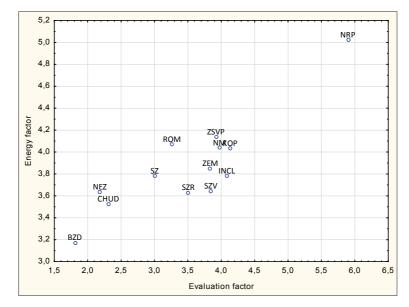
#### Chart 1

Semantic space of teachers of the Pardubice Region



Explanatory notes: ZSVP – pupil with special educational needs; SZV – socially disadvantaged pupil; ZEM – pupil from an ethnic minority; SZR – socially disadvantaged family; SZ – social disadvantage; ROM – Roma; NRP – unstimulating family environment; BZD – homelessness; NEZ – unemployment; CHUD – poverty; KOP – culturally different environment; NM – ethnic minority; INCL – Inclusion.

#### Chart 2



Semantic space of teachers of the Moravian-Silesian Region

Explanatory notes: ZSVP – pupil with special educational needs; SZV – socially disadvantaged pupil; ZEM – pupil from an ethnic minority; SZR – socially disadvantaged family; SZ – social disadvantage; ROM – Roma; NRP – unstimulating family environment; BZD – homelessness; NEZ – unemployment; CHUD – poverty; KOP – culturally different environment; NM – ethnic minority; INCL – Inclusion.

The data obtained from the respondents from both the regions are identical in the following. The highest values in the evaluation and energy factors in both the regions are demonstrated in the term UNSTIMULATING FAMILY ENVIRONMENT what seems surprising from our perspective because this term was evaluated as relatively positive (the evaluation factor) with an investment of relatively great energy (the energy factor). This situation can be explained by the fact resulting from the entire matter of the examined issue of education of socially disadvantaged pupils in the Czech educational environment because the definition, specifics and characteristics of unstimulating family environment can be demanding for teachers from the diagnostic viewpoint; thus the high average value of both the factors can be explained by the assumption that teachers did not know "how to deal with the particular term". It is apparent from the table that teachers perceive the terms INCLUSION and CULTURALLY DIFFERENT ENVI-RONMENT relatively positively. The terms PUPIL WITH SPECIAL EDUCATINAL NEEDS, SOCIALLY DISADVANTAGED PUPIL and PUPIL FROM AN ETHNIC MINORITY and ETHNIC MINORITY are perceived neutrally up to slightly negatively from the viewpoint of the

evaluation factor. The term SOCIALLY DISADVANTAGED FAMILY was perceived more favourably in the evaluation factor by the respondents from both the examined regions in comparison to the above mentioned conceptual indicators, nevertheless more positively than the term ROMA and the term SOCIAL DISADVANTAGE; these are evaluated rather negatively by the respondents in comparison with the other terms. A relatively significant value difference can be observed in values of the above mentioned terms and the following terms which are evaluated more negatively by the respondents. These are the term UNEMPLOYMENT and POVERTY. The term HOMELESSNESS is perceived in the most negative way.

The term PUPIL WITH SPECIAL EDUCATIONAL NEEDS was labelled as the most "difficult", "demanding" and "problematic" by the respondents from the viewpoint of the order of particular terms according to the average score in the energy factor related to change, effort, activity; in our opinion this is understandable because this group of pupils includes pupils with physical handicap, physical disadvantage and social disadvantage according to the Education Act (s. 16 Act no. 561/2004 Coll.). It is a large group of pupils whose education in the educational mainstream places specific demands on teachers. The terms CULTURALLY DIFFERENT ENVIRONMENT, ETHNIC MINORITY, ROMA and PUPIL FROM AN ETHNIC MINORITY are perceived similarly by the respondents and related to a relatively greater deal of energy. The terms SOCIAL DISADVANTAGE and POVERTY were given a similar score in the energy factor; the terms UNEMPLOYMENT, SOCIALLY DISADVANTAGED PUPIL and SOCIALLY DISADVANTAGED FAMILY relate to a somewhat smaller deal of energy. The term demanding the smallest deal of energy is HOMELESSNESS according to the respondents.

# Conclusion

A teacher's role in the area of education of socially disadvantaged pupils and surmounting of their disadvantage is absolutely crucial. Partial outcomes of a research survey focused on partial aspects of attitudes in relation to education of socially disadvantaged pupils were presented in the contribution.

Semantic differential used in the research survey enables a deeper insight in the individual understanding of particular terms related to the examined reality (in the case of the presented research survey in the area of education of socially disadvantaged pupils). (Pelikán, 2011, p. 149). The processing of the data obtained by means of this method enables us to gain a better insight in the teachers' concept of the examined area from their point of view.

The research survey was based on the assumption that there are differences between the respondents' perception of terms related to education of socially disadvantaged pupils in the Pardubice and Moravian-Silesian regions. The starting point was especially sociocognitive theories documenting a great number of social factors influencing the educational process in relation to a child. These factors can be e.g. the influence of classmates, teachers, pupils' self-evaluation, their relationships to their parents, their cultural and social background – these can influence their relationship to education. (Bertrand, 1998)

The research survey demonstrated that the teachers from the Pardubice Region relate the conceptual indicator POVERTY to greater "effort", "difficulties" than the teachers from the Moravian-Silesian Region. This situation may be conditioned by the fact that, beside others, teachers' attitudes are influenced also by social environment in which they act and by their individual experience.

We believe that it is appropriate to focus on the role of teachers, their position and competences in relation to education of all pupils (this fact is even intensified in the case of education of socially disadvantaged pupils) because it is possible to search opportunities for an optimum support of teachers only on the basis of the definition and specification of the above mentioned facts; this is because according to the OECD study *Teachers Matter* (2005) it is the quality of teachers and their pedagogical work that is the most important factor influencing the students' performance.

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# A Teacher's Diary as a Research Instrument

# Adriana Wiegerová, Alena Lampertová

#### Abstract

The focus of this paper is the entry to the school practices by novice teachers. Difficulties in the teaching of novice teachers were observed and critical events of the first year in the school environment are described. Critical events are viewed through statements of novice teachers in interviews and in diaries of teachers. Teachers kept diaries throughout the first year in the primary school. The paper offers authentic statements of teachers and analyses problem situations in adaptation of teachers in the school terrain.

Key words: novice teacher, critical events, diaries of teachers, adaptation of teachers in the school terrain

# Introduction

One of the options of how to analyse the daily work of a beginning teacher in the praxis is to analyse the teacher's diary. One could say that the teacher's diary is, to a certain extent, a continuation of student-teaching portfolio that was being developed when carrying out the obligatory student teaching as a part of university studies. However, the teacher diary's already provides a real reflection of the school life. It is not a simulation created during student teaching under more ideal conditions. More ideal conditions involve also for example the fact that faculties can choose their own lab schools. The teacher's diary is however a mirror of reality and of what the teacher actually goes through in the given moment, in the given situation. The beginning teacher can depict problems as well as joys encountered daily which opens up new possibilities for a further analysis. The diary serves as a "listening friend" for the given subject. An internal dialogue takes place during writing which has an important self-reflective value for the teacher.

The diary opens the door to a secret, unchartered world, to a fragile reality, which is another reason why it stirs interest in educational research. According to the authors Maňák, Š. Švec, V. Švec (ed.), the diary is a "personal document of a subject serving to depict experienced and subjectively perceived situations and events" [3]. It is the subjective experience of a teacher and all events in school that he/she considers to be important and which he/she believes have an impact on him/her that can bring new knowledge in the life of a beginning teacher. Taghilou [4] considers the diary to be the simplest way of targeted reflection of a teacher and his/her reflective instruction. The teacher's diary is used in educational research more sporadically. It is because teachers disclose their internal experiences when writing the diary and the processing of statements is often time demanding. The work on one's own teacher diary, though time demanding, is unquestionably important in terms of the teacher's progress, improvement and analysis of one's own processes of self-evaluation. In other words, it is an investment in one's own improvement. Zeki [5] also emphasised the positive aspects of using a diary in the teaching profession in his works. He argues that the teacher's diary is an important self-regulating strategy. If we thus see the beginning teacher as a "novice" in the school-life reality, then writing a teacher's diary can significantly impact the development of his/her professional competencies. Penso, Shoham, Shiloh [6] emphasise, based on the analysis of their research, that the level of reflection of a beginning teacher is very low. Šimoník equally points out [7] that beginning teachers are not able to undergo objective self-reflection and to evaluate their work. That is why a diary of a beginning teacher can support the development of the mentioned areas. It can also serve as a means of facing excessive emotions that accompany the first steps of a teacher in school. After the end of the working time, only few beginning teachers can "reset" their thinking and not think about what they went through during the day. That is the reason why writing a diary can be a certain instrument of materialising feelings and opinions that are hard to describe in words. To a certain degree, we can thus say that writing a diary can have therapeutic effects as well. The work of a teacher is rich in interactions, especially in the process of primary education, because the beginning teacher is in the position of a class teacher. He/she is in constant contact with students, teaches them, educates them, listens to family stories, monitors the situation in the group of children, deals with ordinary conflicts in group, and oversees the safety of children. Teachers can process their opinions in a diary. These are often more authentic in this form. After some time, the teacher can come back to the given situation. He/ she can then better analyse what happened, how he/she responded and managed to deal with the given situation.

Writing a teacher's diary is an interesting research instrument. It enables to detect: Process of introduction into the school environment in a fine, sensitive way with unique expression value; Art of work of a beginning and introducing teacher; Dealing with the new environment on the part of the beginning teacher; Work of the teacher body; Habits and stereotypes of the teacher body; School management. Maňák, Š. Švec and V. Švec (ed.) [3] distinguish between two forms of a diary - the structured and non-structured form. The structured diary should contain a clear set of instructions about what and how to write indicating a specific example of what is correct. The subject must exactly know what is expected to be recorded, in what time interval, in what extent and with what purpose. Clarity is ensured if one page covers one period of study - a day, week or month. At the end, several pages should be left for free notes. The non-structured diary on the other hand, unlike the structured one, enables a deeper analysis. A researcher can find implications that could not be found in a structured diary. Considering the great number of subjects, it is however more time demanding to process. Another positive aspect is that it creates a more open atmosphere, because subjects of research know what the researcher is examining. The written statements of subjects are free and the scope of statements does not have to be limited, unless the nature of research requires it. Based on the research results that we are currently analysing [9] we believe that we can talk also of another form of diary processing, which is the combined form. As the name suggests, it is a certain combination of the above-mentioned forms. When creating such a form of diary, it is possible to put down the feelings and opinions in an unstructured way first. Based on these, concept categories can be developed with more structured lines. Such a process or working with the combined diary provides researchers with initial freedom when carrying out the research, when searching for various implications and meanings. It consequently enables more precise specification and focusing on the examined phenomena and their deeper analysis. Naturally, working with the combined diary requires focused cooperation of the researcher and the subject of research.

From the aspect of the educational research it is necessary to describe the positive and negative aspects of applications of such developed research instrument.

Advantages of working with a diary include the following:

- It enables to describe situations that are harder to handle in person;
- The subject can come back later to his/her statements later (the subject can e.g. add something later);
- It has therapeutic effects;
- It enables reflection of one's own work;
- · It minimises the feeling of the subject that research is involved;
- It creates better conditions for preventing distortion of statements, since they are recorded by the subject him/herself;

- The subject him/herself can decide when the diary is to be written and how much time will be devoted to it;
- The subject can choose the form in which he/she will write the diary electronic, written.

The following can be considered as disadvantages:

- Demanding attracting of subjects for research sample (due to the length of research, time required for frequent writing);
- From the aspect of participating subjects recording their ideas instead of an interview which is shorter;
- · Possible briefness in writing in case of non-structured form of diary;
- Possible complexity, disputability in the interpretation of the acquired data.

The possible disputability in the interpretation of the acquired data can be prevented if the researcher applies also other methods and techniques apart from the diary. That way, the acquired data gain completeness and provide clearer findings.

In the following part we plan to introduce some experience from our own research to our readers that we started to perform in **September 2011**. The fundamental pillar of our research efforts was the fact that we wanted to find out how teachers feel when starting their first job – what they experience at school.

Before using the diary method, we conducted unstructured interviews with teachers and it was the first phase of the research. Already during them the categories started to crystallise that we focused on later. After the interviews we asked the teachers to start writing their own diary. It was not easy to persuade the colleagues to perform this type of data collection. Since processing of the diary by a teacher is a demanding and mainly a lengthy process. The person that decides to provide their own remarks by means of a diary must have confidence in you.

In the second phase of the research each teacher was asked to write their first feelings, experiences that they remembered from the first month at school. The task was as follows: *"Describe how was your first month at school in the position of a teacher beginner."* This phase of processing the diary had an unstructured form.

We started the data collection by means of a diary as of the first week in October 2011. However, a person's perception of the same situation may change over the time. Right due to this reason it was necessary to capture emotions, experiences, thinking and initial experience of a teacher beginner from the course of events at school.

In the period **from the start of October to January 2012** the teachers completed their diaries every week in an unstructured form. Their task was to write down everything that they considered being important from their point of view. Right upon this continuous analysis the categories gradually start to show, which are interesting for the research. We would like to share data processing from this phase of the research with our readers.

# 1 Preparation of the teacher

One of the teachers said during the unofficial interviews during September that she does not write preparations in the same way as she used to do during her university studies. However, in October she said the following: *"I started to write preparations during the weekend for the following two weeks; it takes half a day but then the whole week is excellent and everything is alright and without any unnecessary chaos."* After less than one month she gradually realises the importance of preparation. However, the question is what they actually mean under preparation. In the picture (*Figure 1*) we can see a certain example of preparation for one day. The teacher considers the contents of the day to be important; specifically she focused on Slovak language. But certainly it was not the only subject that they had at that time.

Figure 1 Preparation for the lesson

M. 10. 2011 utorok · W, w, U, u · obranky na latali pracorný list - mali w
plakikár +3 - Maxine U u
plakikár 32-33 + Dú 33 druhá polorisa

# 2 Knowledge of the school as an organisation

Another category includes the process of gaining knowledge of the school and its operation. One of the teachers stated during the second week of October: *"I still cannot get used to supervision on the corridor"* (Figure 2). Other records were rather related to the completion of class books while several of them faced a conflict between what they expected and reality. However, in their case there was no "shock from reality" as stated by Veenman (1998). *"I expected that we will make plans together but very soon I realised how wrong I was."* 

In the following statement we can see the contrast between what the teacher wanted and what she actually does. *"It is the end of October and we started to complete the class book, whereas I am not writing what I am doing right now but what is in my plans. I got into a slightly vicious circle that I cannot affect and I shall keep spinning in it during the whole year; however, the moral of it for me is that during the holidays I am surely going to prepare plans for my class processed only by me." At the end she expressed her desire for change and for remedy. In another case the class book and the qualification list was submitted but the materials to derive from were missing. <i>"During the first two weeks I got the class book and the qualification list but the issue for me was that I still did not see any plans or curriculums or similar matters."* 

Figure 2

ryknut na door dile ni mirim

## 3 Cooperation with parents

Teachers' work is constantly under control in a certain way. It is an extremely demanding process when the teachers think about what the environment thinks about them and how they shall look in the eyes of others. Parents represent a significant feedback for the work of a teacher. The teacher seeks certainties to support their conviction that they chose the right job and that he/she is a good teacher.

The following lines demonstrate this matter. "A mother wrote to me that her daughter is sick and will not come until Wednesday and I wrote back to her to let the child undergo medical treatment and I am also going to the doctor tomorrow. And then she wrote back to me that if I am going to be sick the entire week then she would rather leave her at home ha ha ... this is a compliment. "

Communication with parents through electronic post is a source of good feelings from one's own work. One of the teachers stated a concrete problem that appeared with the following continuation. "There was a fight of seven boys in the class (due to a game of dogs on the 'carpet' during the big break. We were in the classroom as it was raining outside. I wrote a note to all the seven of them – He was fighting with his classmates during the big break." After reading the note, the parent of one of the pupils became angry and wrote a mail to the teacher. It was described in the diary as follows: "the father does not understand why I wrote a note and I should use other punishment and he wants to meet me." (Figure No. 3) The problem was resolved in a personal meeting. In this case communication through internet is useless since it became another source of stress for the teacher.

Figure 3

v briede narrala bilka medmich chlaps (R döroðu hny na pockor na "koherei" - vella puestarka - Ame v triede - ronka pri ) n nedmin mm mapsiala porname peldarka no til

### 4 Cooperation with the lead-in teacher

The relation between a teacher beginner and a lead-in teacher is extremely important in the process of adaptation education. Some teachers are lucky and they can approach their lead-in teacher with their troubles without any problems, as for example in this case: *"this week I must inquire what exactly we are going to deal with because I do not understand some of the topics in the time and thematic plans and so I have to ask the lead-in teacher what to do and how."* 

However, sometimes it happens that the two players in the process of education do not fully realise their tasks that result from this relation. Then the teacher beginner feels that they were not provided all the information according to their ideas and another needless problem might appear. The following lines interpret a similar case: *"The time-table makes me angry – I did not know that I can amend it during September according to my needs – the lead-in teacher did not tell me anything about it."* However, after some time partial remedy may come about. *"Improvement in the relation with the lead-in teacher but she still does not provide me with all the necessary information"* (Figure 4).

#### Figure 4

north hoden - Kom ho v milbehu so posie poden seta -

Currently the research is in the third phase. The stage of the unstructured data collection has finished and the basic categories for are being formed for their further shaping. This time the teachers shall process their remarks in the categories formed by us.

From the viewpoint of the second phase of the research we can describe some effects of the process how the teacher beginners establish themselves at the school. They blend together with the individual statements in the diaries. The processes in question are the following:

- doubts (about themselves, about colleagues comparison),
- seeking certainties (through feedback)
- effort to meet subjective expectations.

Analysis of the first year of the teacher beginner's at work could bring several interesting findings. Last but not least it could point out to what should be avoided already during the university studies so that then the students and the future teachers face less problem situations and so that the university prepares them for their future job in a better quality.

Writing a diary by a beginning teacher could become an obligatory part of the process of introduction during the adaptation training in order to achieve targeted improvement of self-reflective competencies. However this could lead to a loss of openness on the part of the monitored subject. Beginning teachers could adjust the written data in their fear about who the readers of their diary can be. I therefore point out that the teacher's diary should become neither an instrument of legislative aid nor of formal strategies of life-long education. The applicability of the diary always depends on the purpose it is supposed to serve. Internet blogs or websites are currently used as new forms of diary. A diary of a beginning teacher brings new knowledge. It opens possibilities to see the "internal experiences" of a teacher, enables to analyse the school environment and last but not least supplements the whole range of research instruments in education-oriented research.

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# The Influence of Tacit Knowledge on the Behaviour of College Students

# Jana Matošková, Martina Polčáková, Michaela Baňařová, Eliška Sobotková, Martin Jurásek, Terézia Růžičková

#### Abstract

Tacit knowledge is one of the factors that influence the success of studying at colleges. The aim of the study overview is to clarify the principle of the mentioned phenomenon. Students owning tacit knowledge are often unaware of it, although tacit knowledge influences their actions. Tacit knowledge impacts also on their assumptions, beliefs and feelings. The ability to form tacit knowledge quickly and to develop it is one of the demonstrations of so-called practical intelligence. Students who have tacit knowledge are able to adapt their behaviour to an academic setting and so play a successful role. They also prepare themselves for their position in future work and to achieve their life aims successfully. Moulding of tacit knowledge can be facilitated by the setting created by teachers but the key role in this process belongs to the students themselves.

Key words: Tacit Knowledge, Academic Tacit Knowledge, Behaviour of Successful Students, Tacit Knowledge Moulding.

# Introduction

During the period 2001 to 2010 the number of college students in the Czech Republic has increased from 204,000 to almost 400,000 (ANON. 2012). In the academic year 2012/2013, 72,554 students were placed into studies at colleges for the first time

(ANON. 2013). However, not all of them will finish their studies successfully. From the report of Kleňhová and Vojtěch (2011, p. 7) results show that approximately 15% of students leave college early. Most of the drop out students give up in the second year of their studies (Kleňhová and Vojtěch 2011, p. 7). This fact is not very optimistic because as Jirotková (2010) says a successfully completed level of education has quite a significant effect on a student's success in the labour market.

Whether a student finishes the college successfully or not is influenced by many factors – who the students are, their predispositions for studying, their commitment, health and gender etc., what their abilities and skills are, what they do and how they act. Some others factors are for example their creature comforts, luck, time, setting and opportunities. The aim of the article is to explain the substance of one factor that influences the success of studying at university – the principle of tacit knowledge of college students (so-called academic tacit knowledge). The paper is a study overview which is based on the content analysis of expert publications and on the authors' experience gained from solving thematically focused projects.

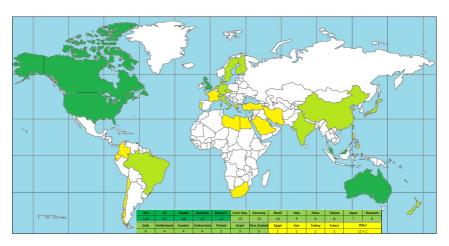
## 1 Tacit knowledge

Since the time when the Hungarian scientist Michael Polanyi used the term "tacit knowledge" for the first time, several years have passed but interest in this phenomenon has not passed. Now in the framework of the current project being solved we have analysed 225 publications dealing with tacit knowledge.

Most authors of publications about tacit knowledge come from the U.S.A. followed by Great Britain, Canada and Australia. In the Czech Republic matters regarding tacit knowledge are reported by Mládková (2011, 2008, 2005, 2004b, 2004a) and Matošková (2008). Some authors deal with tacit knowledge within the framework of knowledge management, for example Truneček (2004), Vymětal (Vymětal et al. 2005), Hudcová (2006) and Šícha (2002). At the Faculty of Management and Economics, Tomas Bata University in Zlín a grant project was solved during the years 2008 to 2010 which dealt with managerial tacit knowledge (Gregar et al. 2011, Anon. 2010b). A graphical illustration of the interest regarding tacit knowledge, according to the number of authors, has been done on the basis of the publications analysed and is demonstrated in Fig. 1.

#### Fig. 1

Interest regarding tacit knowledge according to the number of authors in the world who deal with tacit knowledge (own elaboration on the basis of analysed expert publications, valid at 28. 3. 2013)



## 1.1 Tacit knowledge contra explicit knowledge

In expert literature the principle of tacit knowledge is explained in connection with explicit knowledge. McQueen (1999) characterises explicit knowledge as contextual rules "what to do in a given situation" or descriptions of a process in the form of a document or a book which can be used by others in managing their actions in situations where they do not have enough necessary experience or understanding for the situation. Johnson et al. (2002) use the term codified knowledge, instead of explicit knowledge, and they describe it as "structured data and instructions that are necessary for its elaboration" or as "knowledge reduced into a symbolic representation". Generally it can be said that explicit knowledge is knowledge which is expressed in a formal way (by letters, words, numbers or other symbols). In contrast to explicit knowledge, tacit knowledge means the knowledge in human minds (and so not written or said) but which does not mean that some tacit knowledge (or its parts) cannot have an explicit form. It is possible to use the metaphor of an iceberg (see for example Fetterhoff et al. 2011; Haldin-Herrgärd 2002). Only a small part of human knowledge is above the surface, thus visible and expressed, while the rest is below the surface of human awareness and may not be documented for various reasons - e.g. impossibility, inattention, and undesirability.

In a slightly narrower concept, tacit knowledge can be defined on the basis of a content analysis of expert publications in the following way: Tacit knowledge is practical know-how that exists in human minds, in the background of our awareness. It is formed and modified on the basis of experience and by an influence of interactions with the setting. The term "know-how" does not mean only some technical or physical "knowing how" but also "knowing how to gain a desirable result" as well as "knowing what to do to gain such a desirable result" and "knowing when to do it" (Anon 2004). The word "practical" indicates that it is knowledge which is connected with the realisation of an action.

Some authors name some concrete examples of tacit knowledge, e.g.

- knowing how to write a scientific paper (Elton 2010),
- chefs knowing how to choose and how to combine ingredients and how to act to achieve a final product which they want to cook (Mulder and Whiteley 2007),
- knowing how to persuade others about the value of your idea (Torff and Sternberg 1998),
- knowing how to negotiate successfully a business contract (Vymětal et al. 2005),
- knowing how to successfully lead a team (Vymětal et al. 2005),
- knowing how to make a violin (Krogh et al. 2000),
- knowing how to fix plaster (Busch a Richards 2000),
- knowing how to cycle (Mládková 2005),
- knowing how to drive (Mládková 2005),
- knowing how to operate a machine (Mládková 2005),
- knowing how to work with sophisticated software (Mládková 2005).

#### 1.2 Tacit knowledge moulding

Cejpek (according to Švarcová 2008) and Mládková (2005, 2004b) says that if we create tacit knowledge, we make a path in our brain or a connection among neurons in several parts of our brain and the signal runs on its way. If the knowledge is not fully acquired the signal moves more slowly from one neuron to the next neuron. Frequently used connections between neurons force, ramify and bend to enable an easier transit of an impulse.

Insch et al. (2008) claim that tacit knowledge is created in our brain from information (pieces of knowledge) which can arise from our setting, motivation, opportunities or exposure to something. These pieces of knowledge are confirmed and broadened on the base of experience by verification, trial-error and by reflecting on gained lessons.

Sternberg and Wagner (1992) as well as Nestor-Baker and Hoy (2001) show that the amount of tacit knowledge grows with experience but the amount of experience is not so important as the ability to learn from experience and to use gained knowledge.

Many authors, e. g. Edwards and Schleicher (2004), Germain and Quinn (2005), Leonard and Insch (2003), Liao (2005), Nestor-Baker and Hoy (2001), Matthew and Sternberg (2009), Krishnaveni and Sujatha (2012), Senapathi (2011), Waldman (2008), Rosman, Biggs and Hoskin (2012), Sternberg et al. (2001), Fox (1997), Sternberg (1997), Giunipero et al. (1999), Elton (2010), say that tacit knowledge is gained mostly by way of implicit and informal learning because tacit knowledge is often not taught directly. However, according to Sternberg (1995) and some others authors, e.g. Brockmann and Anthony (2002), Fox (1997), this does mean that at least some tacit knowledge cannot be taught. For example courses on how to speak in public and how to apply for a job etc. can be taught.

## 1.3 Manifestation of owning tacit knowledge

The fact that people have tacit knowledge manifests itself for example in the following ways:

- we sometimes act spontaneously without previous thinking about it and often without being aware of why we act in that way (Gourlay 2002, Rolf according to Toom 2006),
- we sometimes are not able to explain how we do something we are not able to express it with words, numbers or other symbols (Gourlay 2002, Rolf according to Toom 2006),
- we sometimes know what to do and what not to do in a given situation, but we are not able to explain how it happens that we know it (Peterson a Walker 2005),
- we manage some actions (we have appropriate skills) see e.g. Peterson and Walker (2005).

Authors agree that tacit knowledge influences our actions – see e.g. Mohamed (2010), Freitas and Macedo-Soares (2001), Deed and Gomez (2010), Haldin-Herrgärd (2002), Bennett (1998), Švec (2003). According to some authors tacit knowledge influences not only actions but it also influences our attitudes, assumptions (ANON. 2004; Elton 2010) and feelings (Zhang and Han 2009).

## 1.4 The Importance of tacit knowledge

Sternberg (1997) says that tacit knowledge enables individuals to achieve their valuable goals. Similarly, Wagner (1985) mentions that to be successful in a work setting requires among others tacit knowledge. Armstrong (2001) mentions that (explicit as well as tacit) knowledge gaining and its activation assists people to succeed in their everyday efforts. Probably therefore Sternberg and Wagner (according to Fox 1997) and Colonia-Willner (1999) consider tacit knowledge gaining and using to be an important aspect of success in work.

The importance of tacit knowledge consists in the fact that tacit knowledge is necessary for successfully coping with some situations (Bennett 1998; Ambrosini and Bowman 2001; Büssing and Herbig 2003). Individuals learn on the base of experience which factors are the most important, how certain behaviour is understood, how people react, how events progress and so they form tacit knowledge. According to Baumard (1996) tacit knowledge plays a key role especially in understanding ambiguous situations.

Tacit knowledge also helps individuals to deal with a new situation – to adapt to it, to modify it or to fulfil some gaps in formal training (Gourlay 2002; Colonia-Willner 1999). According to Sternberg (Sternberg et al. 1993; Sternberg 1995) tacit knowledge is used also in decision-making if the setting is suitable or not and if not whether a new setting should be found or if the current setting should be modified somehow to be more suitable.

Baumard (according to Gourlay 2002), Choi (2001), Haldin-Herrgärd (2000) connect tacit knowledge with expertise. Swap et al. (2001) agree with that fact and explain that all experts go through several levels of gaining knowledge (apprentice – journeyman – master, alternatively beginner – advanced – expert). Only tacit knowledge separates masters from journeymen and journeymen from apprentices. That is because most tacit knowledge consists of recognising a situation as suitable for using a specific procedure or for action on a pattern or in recognising that a procedure is not useful in such a situation because it appeared previously to be faulty. (Eraut 2000; Leonard and Sensiper 1998). Experts have in their long-term memory extensive databases of knowledge which give them patterns of actions and so enable them to decide about the next steps without considering a whole range of possible strategies. Novices miss such knowledge. Therefore novices have a tendency to keep rules and procedures which they were taught without considering any differences in context. On the other hand real experts have enough qualifications to be able to distinguish among different contexts and to decide quickly about the next steps (Anon 2010a; Giunipero et al. 1999).

According to the findings of Bennett (1998), Brockmann and Simmonds (1997), Leonard and Sensiper (1998) also Germain and Quinn (2005) tacit knowledge can help:

- to define a problem better and to realise what is important,
- to understand the meaning of information and to create a compact unit from it,
- to judge the impacts of actions,
- to see which problem needs a radical solution and which is better to be solved diplomatically,
- to recognise small details which can be important for the success of the action.

Therefore thanks to tacit knowledge decision-making leads to a higher probability of a successful problem resolution. Additionally, Mládková (2004b, 2005) and Cejpek (according to Švarcová 2008) believe that when we have tacit knowledge then the process of decision-making is faster.

## 2 Academic tacit knowledge

A project currently being solved at the Faculty of Management and Economics TBU in Zlín, deals with academic tacit knowledge. Academic tacit knowledge is not a new term. In other countries several publications aimed at academic tacit knowledge appeared at the end of 20<sup>th</sup> century. Authors of expert texts about tacit knowledge include Sternberg and Wagner (Sternberg et al. 1993; Wagner 1985), Leonard and Insch (2005), Somech and Bogler (1999), Insch, McIntyre and Dawley (2008), Edwards and Schleicher (2004). In the Czech Republic there has not been an effort to deal with the tacit knowledge of college students. An exception is the study made by Švec (2003, 2002) which takes notice of tacit knowledge with pedagogy students.

On the basis of the study mentioned above expert sources and literature dealing with tacit knowledge generally, academic tacit knowledge can be defined as the individual and practical knowledge of students of bachelor and master study programmes. The knowledge is connected within the college setting. It helps students to cope with situations they are exposed to and helps them to achieve their goals. Such situations are related to coping with study requirements, with learning, interactions with other students and teachers and also gaining practical experience. The knowledge, as the principle of tacit knowledge implies, is gained on the basis of experience and often without any direct help from others. Often students are not aware that they have such knowledge and that it helps them to achieve their goals.

Sternberg et al. (1993) and Insch et al. (2008) claim that academic tacit knowledge is necessary for success at college. According to Wagner (1985) the ability to form it is a mark of so-called practical intelligence. Schmidt and Hunter (1993) and Woo et al. (2004) designate it as a possible indicator of school performance which Somech and Bogler (1999) also confirm.

Examples of academic tacit knowledge are "knowing how to pass an exam" (Leonard and Insch 2005; Insch et al. 2008), academic writing (Elton 2010; Tschannen-Moran and Nestor-Baker 2004) and "knowing how to negotiate in a given setting" (Tschannen-Moran and Nestor-Baker 2004). We can also add skills that are presented by Price and Maier (2010) – coping with stress, time management, "knowing how to take notes", "knowing how to gain the maximum from lectures", "knowing how to manage team work", "knowing how to make a presentation", "knowing how to read expert literature".

Insch et al. (2008) have even suggested a classification of academic tacit knowledge. They distinguish:

- cognitive (self-motivation and self-organisation),
- technical,
- and social.

From the publication of O'Donovan et al. (2004) it seems that one influence on tacit knowledge forming can come from a teacher, from their way of giving tasks followed by feed-back. However, the main role belongs to the students themselves.

The owning of academic tacit knowledge as well as the ability to form the knowledge quickly and to development it manifests itself in the behaviour of students. From literature on studying it seems that a successful student:

- goes to school regularly (Insch et al. 2008; Yazedjian et al. 2008),
- goes on time (Sternberg et al. 1993; Leonard and Insch 2005),
- joins actively in the classroom (Insch et al. 2008; Leonard and Insch 2005; Somech and Bogler 1999),
- participates in group work besides direct classwork (Insch et al. 2008; Yazedjian et al. 2008; Leonard and Insch 2005),
- speaks with teachers, e.g. after lessons or in their consultation hours (Insch et al. 2008; Yazedjian et al. 2008; Sternberg et al. 1993; Leonard and Insch 2005; Somech and Bogler 1999),
- finishes their tasks on time (Leonard and Insch 2005; Sternberg et al. 1993; Leonard and Insch 2005),
- reads the recommended texts (Sternberg et al. 1993),
- makes detail notes (Sternberg et al. 1993),
- regularly goes through their notes from the lessons (Leonard and Insch 2005; Somech and Bogler 1999),
- consults with experienced students regarding expectations and requirements in subjects (Leonard and Insch 2005; Somech and Bogler 1999; Insch et al. 2008),
- decides on priorities and on actions (Leonard and Insch 2005; Tschannen-Moran and Nestor-Baker 2004),
- takes part in activities of student organisations (Leonard and Insch 2005),
- uses different organisational instruments like planners, calendars, lists of tasks, folders, dividers (Prevatt et al. 2011),
- uses an outline to identify main ideas (Prevatt et al. 2011),
- utilises their own instruments like diagrams, graphs, summaries, time axes, notes in texts, highlighting, underlining etc. (Prevatt et al. 2011),
- makes relationships which give them social support as well as professional challenges and stimulation (Tschannen-Moran and Nestor-Baker 2004; Leonard and Insch 2005) – they make and cultivate relationships with people who
  - have skills that they do not have themselves,
  - have similar interests and compatible personalities,
  - have power,
- focuses on a concrete area and profiles it (Tschannen-Moran and Nestor-Baker 2004),

- asks for feed-back (Tschannen-Moran and Nestor-Baker 2004),
- communicates with administrative employees e.g. secretaries, librarians, workers from IT department – to gain useful information (Somech and Bogler 1999).

## Conclusion

Tacit knowledge belongs to factors which influence the success of individuals in their lives. Therefore it is desirable to know more about its formation, moulding, development and identification. It is confirmed by the popularity of the topic in foreign literature. Additionally, academic tacit knowledge is connected with an important period in professional preparation. The ability to form and develop such knowledge can be connected with assertion on the labour market. Information about concrete tacit knowledge related to a student role in a given academic setting can be used in managing and facilitating the adaptation of new students in a college setting, in supporting tacit knowledge formation and in the individualisation and differentiation of studies. Because of the reasons mentioned above, the research of academic tacit knowledge seems useful.

The topic academic tacit knowledge is also linked to a project currently being solved at the Faculty of Management and Economics, TBU in Zlín. Its aim is to prepare an instrument for academic tacit knowledge measurement. The instrument could be used as a complement to the standard psychological tests being used. It will be possible to use it for example with students' self-diagnostic and self-development. It may also help in the search for talented students.

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# Selected Personality Traits and Stress Management in Current University Students of Education, Physical Culture and Natural Science

Martin Sigmund, Jana Kvintová, Iva Dostálová

#### Abstract

Recently there has been a growing interest of the professional community in the issue of health in university students as they represent the national capital and future investment of every society. University students thus constitute a specific population group. The factors influencing students' health are strictly specific and are considered to be related to academic study. The main stressogenic factors include academic overload, constant pressure to be successful and competition among classmates. Generally, the population between twenty and thirty years of age represents a group with the lowest morbidity and mortality rate. However, some results of research studies aimed at risk factors influencing university population indicate that the health condition in university students is generally worse compared with non-student population of the same age. Similarly, there is a higher prevalence of psychological distress in university students in comparison with working non-student population of the same age. In the prevention of negative stress and its negative consequences an important role is played by adequate coping strategies that are integral part of stress management. This issue is addressed by the present study of current university students. Our research study involved a total of 522 students of Palacký University, Olomouc, namely from the Faculty of Education, Faculty of Physical Culture and the Faculty of Science. The study indicates some preferences in coping with stress situations in current university students based on gender differences and study specialization. The presented findings have practical applications in approaching the defined target group in the area of university educational and psychological counselling.

Key words: coping, men, women, adultus, health, counselling.

## Introduction

In principle, stress situations are not undesirable. On the contrary, they mobilise the organism, stimulate an individual to learn and search for new ways, elicit higher performance, but under certain circumstances (in case of inadequate escalation of demands with respect to the possibilities of an individual) become a source of undesirable conditions and reactions. Some authors distinguish load from stress since these two terms differ in meaning. For these authors, load presents a level which the organism is capable of withstanding, and they consider it a stimulating factor without which the organism would stagnate (Kebza, 2005). From a psychological point of view, load situations include, apart from stress, conflict and frustration from a quality perspective, while stress is a common denominator of loads in terms quantity response (Hošek, 2001). According to this author, demanding life situations can be divided into categories such as inadequate tasks (requirements higher than the capacity of an individual), problem situations (an individual faces a problem and has limited abilities and skills to solve it), conflicts (the essence is a dispute), frustration (blocked fulfilment of desired goals), deprivation (unmet needs in the long run).

Recently there has been a growing interest of the professional community in the issue of health in university students as they represent the national capital and future investment of every society. University students thus constitute a specific population group. Generally, the population between twenty and thirty years of age represents a group with the lowest morbidity and mortality rate. However, some results of research studies aimed at risk factors influencing university population indicate that the health condition in university students is generally worse compared with non-student population of the same age. Similarly, there is a higher prevalence of psychological distress in university students in comparison with working non-student population of the same age (Roberts, Golding, Towell, & Weinreb, 1999; Adlaf, Gliksman, Demers, & Newton-Taylor, 2001; Dyrbye, Thomas, & Shanafelt, 2006). Therefore we focus on an important part of the stress management that is the preference of optimal coping strategies.

The factors influencing students' health are strictly specific and are considered to be related to academic study. The main stressogenic factors include academic overload, constant pressure to be successful and competition among classmates. In some countries these factors include financial limits and concerns about the future (Lu, 1994; Omigbodum et al., 2006; Lee et al., 2007). Undesirable stress influences not only students' health but also their academic achievement (Hamaideh, 2011). At the same time, academic distress, load situations and coping preferences are affected by gender, selected study specializations, overall duration of academic study or social and adaptation influences.

Particularly the relationship between intersexual differences and various coping strategies leads to relatively ambiguous conclusions (Hamilton, 1988; Frydenberg & Lewis, 1993; Stern et al., 1993; Renk & Creasey, 2003). Some comparative studies consistently report a higher frequency of psychological distress in women than in men (Hankin & Abramson, 1999; Cyranowski et al., 2000; Denon, Prus, & Walter, 2004). In terms of dealing with load situations, for example Janke and Erdmann (2003) claim that men use undervaluation and rejection of guilt more frequently, whereas women tend to use the strategy of need of social support, escape tendency, perseveration, resignation and self-accusation, substitute satisfaction and avoidance. As far as the relationship between age and preferences of coping strategies is concerned, the authors revealed that younger individuals tend to use substitute satisfaction, need of social support, resignation and self-accusation.

Another important aspect could be the cognitive aspect and overall perception of a current load situation. This can result from a number of divergent variables in terms of perceiving load situations with consequent differences in the preference of various coping strategies. Therefore, in current university students there can be significant coping differences with respect to study specializations.

The main objective of the present study is to extend the knowledge on selected personality traits and strategies of coping with load situations in a specific group of university students with respect to gender differences and the diversity of their study specializations. The purpose of the findings is a transfer to practical applications in approaching university students, particularly in the area of university educational and psychological counselling.

## Material and methods

#### Subjects

The study involved a total of 522 students from three Faculties of Palacký University. Specifically the students were from the Faculty of Physical Culture, Faculty of Education and Faculty of Science (Table 1). The survey and data collection was conducted according to a predetermined time plan in 2010 and 2011.

In the context of our research a present university student was any individual properly enrolled as a full-time student whose age was adequate to the respective university grade. In terms of age, the study involved younger adults aged 19 to 26. Most students were in the categories of 20, 21 and 22 years of age (n = 420). With respect to age, these age categories represent in total more than 80% of the whole sample.

#### Table 1

	Number of participants	Men / Women
Faculty of Education	218	11 / 207
Faculty of Physical Culture	118	50 / 68
Faculty of Science	186	38/116
TOTAL	522	131 / 391

Characteristics of study participants (n = 522)

#### Ethical aspects

The study was conducted in compliance with ethical aspects. The survey involved adult individuals on a voluntary basis. Each participant was informed of a possibility to terminate participation at any stage without giving any reason and without any sanction. All data was processed anonymously, it was impossible to identify specific probands. The survey participants consented to anonymous data processing and use for scientific purposes.

#### Psychological assessment

In the study, we used standardized psychodiagnostic methods. To assess personality traits we used a five factor personality inventory (Big Five) – NEO (Hřebíčková & Urbánek, 2001) and the EPQ-R Questionnaire (Senka, Kováč, & Matejík, 1993). Coping strategies were assessed using the Stress coping strategy questionnaire – SVF 78 (Janke & Erdmann, 2003).

#### Statistical analysis

For each variable, basic statistical quantities were calculated and distribution normality verified. Result processing was made using parametric as well as non-parametric statistical methods. Normality was assessed using the Shapiro-Wilk normality test. To assess the differences and rate of significance between independent samples, the Mann-Whitney U test was used. Multiple value comparison was made using the Kruskal-Wallis test and correlation dependences were assessed by Spearman's correlation. The level of statistical significance was tested at  $p \le 0.05$ ;  $p \le 0.01$ . Effect of size was assessed using Cohen's *d* (Cohen, 1988; Thomas, Nelson & Silverman, 2011). Statistical data processing was carried out using the Statistica programme, version 10.0 (Statistica, Tulsa, USA).

## Results

Monitored personality characteristics (psychoticism and traits of "Big five") and coping strategies are presented in relation to the whole sample of university students (Table 2). Overall, we can state that our sample of university students in basic personality characteristics is not significantly different from the average normative values.

# Table 2 Selected personality traits and coping in university students

	Mean ± SD (n = 522)	Range
Neuroticism	23.1 ± 4.89	7–39
Psychoticism	3.0 ± 1.57	0–10
Extraversion	23.2 ± 3.72	14–38
Openness	24.4 ± 3.51	12–35
Agreeableness	26.3 ± 4.17	15–39
Conscientiousness	27.6 ± 3.68	17–38
POZ	13.5 ± 2.17	5–20
NEG	12.2 ± 3.56	2–24

Legend: SD - standard deviation; POZ - total positive coping; NEG - total negative coping

In terms of mutual correlations in the whole sample of university students we revealed a significant positive correlation between the level of extraversion and using positive strategies. At the same time, with an increasing level of extraversion the preference of using negative coping strategies significantly decreases. There is also a significant positive correlation between an increased level of neuroticism and a frequent use of negative stress coping strategies ( $p \le 0.05$ ) (Table 3).

	POZ	NEG	POZ 1	POZ 2	POZ 3
Neuroticism	-0.0937*	0.5021*	-0.1273*	0.0748	-0.1121*
Psychoticism	0.0504	-0.2012*	0.2268*	-0.0313	-0.0652
Extroversion	0.2675*	-0.0357	0.1721*	0.2095*	0.1692*
Openness	0.2370*	0.0181	0.1573*	0.1593*	0.1424*
Agreeableness	0.1413*	0.1701*	0.0990*	0.1085*	0.0830
Conscientiousness	0.2013*	0.1633*	0.0153	0.1280*	0.2598*

#### Table 3 Personality traits and coping – Spearman's correlation

Legend: POZ – total positive coping; NEG – total negative coping; POZ 1 – positive coping 1; POZ 2 – positive coping 2; POZ 3 – positive coping 3; \* – statistical significance  $p \le 0.05$ .

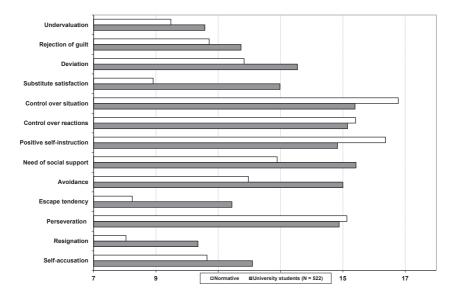
Interestingly, the analysis of individual stress coping strategies indicated specific differences in the preference of individual coping strategies between the sample of university students and normative values (Figure 1). University students significantly prefer positive strategies compared with normative values. Specifically, these are positive strategies of type I and type II. These are especially strategies such as undervaluation, rejection of guilt, deviation and substitute satisfaction. The most significant difference between the sample of university students and average normative values was identified in the values of substitute satisfaction. On the contrary, positive strategies of type III are all below average normative values. These include the following strategies: control over situation, control over reactions and positive self-instruction.

The category of 'singular' strategies includes particularly the strategy of need of social support and avoidance. The strategy of need of social support appears significantly higher in the sample of university students compared with average normative values. There is also a relatively significant difference in an increased preference of avoidance in students compared with normative values.

Similarly, negative strategies are used much more frequently compared with normative values. Negative stress coping strategies are represented by four strategies. In the sample of university students we revealed that they prefer escape tendencies much more compared with average normative values. Also, the values of increased resignation and self-accusation are higher in the monitored students. The negative coping strategy of perseveration is almost identical with normative values in university students.

#### Figure 1

Comparison of average gross score values of individual coping strategies in current university students with normative values



In terms of overall strategies and gender differences, the study revealed a significantly higher use of positive coping strategies in the sample of men at  $p \le 0.05$ . On the contrary, in the sample of women a significantly higher degree of preference of negative stress coping strategies at a level of statistical significance of  $p \le 0.000$  (Table 4) was observed.

Coping	Mean ± SD (Man = 131)	Range	Mean ± SD (Woman = 391)	Range	p	d
POZ	13.90 ± 2.25	4.9–19.7	13.35 ± 2.13	4.9–19.6	0.05	0.25
NEG	10.89 ± 3.95	2.0-23.0	12.63 ± 3.31	3.3–23.5	0.001	0.50
POZ 1	12.55 ± 3.55	1.0-24.0	10.70 ± 3.07	1.0–23.5	0.001	0.58
POZ 2	12.37 ± 3.56	1.5–21.0	13.57 ± 3.19	2.0-22.5	0.001	0.36
POZ 3	15.58 ± 2.76	9.0–23.3	14.98 ± 2.63	3.3-24.0	0.044	0.23

#### Table 4 Coping and gender

Legend: POZ – total positive coping; NEG – total negative coping; POZ 1 – positive coping 1; POZ 2 – positive coping 2; POZ 3 – positive coping 3; P – Faculty of Physical Culture; E – Faculty of Education; N – Faculty of Science; SD – standard deviation; H – (Kruskal-Wallis) test score; Comp. – comparison; p – statistical significance; \* –  $p \le 0.05$ ; \*\* –  $p \le 0.01$ ; \*\*\* –  $p \le 0.001$ ; d – effect size; NS – no significance

Overall positive strategies are thus significantly higher in men than in women, this also applies to positive strategies POZ1 and POZ3. Significantly higher values of positive strategies grouped under POZ 2 were identified in the sample of women. This applies particularly to a higher preference of strategies such as deviation and substitute satisfaction.

In terms of individual strategies, the study revealed that men significantly prefer the strategy of undervaluation compared with the sample of women. At the same time, men reported a higher degree of rejection of guilt. Both these strategies fall within the POZ 1 subtest.

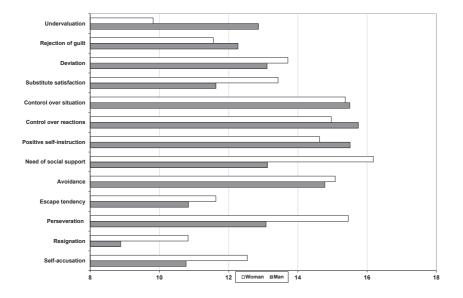
The POZ 3 subtest includes the strategies of control over situation, reactions and positive self-instruction. The need of control over situation is almost identical in men and women, but men reported a higher value of control over reactions. At the same time, men reported a higher degree of the coping strategy of positive self-instruction.

The biggest difference in comparing the preferences of individual stress coping strategies between the sample of men and the sample of women was revealed in the strategy of need of social support. This 'singular' coping strategy is significantly higher in the sample of women compared with men. Similarly, another unclassified strategy of avoidance is higher in women.

An analysis of negative stress coping strategies (NEG) revealed that overall negative strategies are significantly higher in women. At the same time, all individual negative coping strategies (escape tendency, perseveration, resignation, self-accusation) are higher in women than in men. There are significant differences especially in perseveration, resignation and self-accusation (Figure 2).

#### Figure 2

Gender-based comparison of average gross score values of individual coping strategies in current university students



An inter-faculty comparison revealed that positive strategies are most frequently used by university students of sport, followed by students of science and education. As far as negative coping strategies are concerned, the highest values were reported by students of education and science. The lowest degree of preference of negative stress coping strategies was found in students of sport.

A comparison of using coping strategies between university students of sport and a sample of students from the Faculty of Education and Faculty of Science revealed that university students of sport use significantly more positive stress coping strategies and at the same time significantly less negative coping strategies compared with university students of education and science (Table 5).

#### Table 5

	Mean ± SD	Range	Н	Comp.	р	d
POZ						
Р	13.9 ± 2.22	4.9–19.7	0.474400	P-E	0.011*	0.33
E	13.2 ± 2.08	5.7–18.4	p = 0.0088	P-N	NS	
N	13.6 ± 2.20	4.9–19.6	p = 0.0000	E-N	NS	
NEG						
Р	11.1 ± 3.67	2.3–23.5	12.0000	P-E	0.001***	0.43
E	12.6 ± 3.35	4.0-23.0	13.96892	P-N	0.009**	0.47
N	$12.4 \pm 3.60$	2.0-21.3	<i>p</i> = 0.0009	E-N	NS	
POZ 1						
Р	11.9 ± 3.48	1.0-24.0	0.0422.41	P-E	0.009**	0.40
E	10.6 ± 3.15	1.5–19.0	p = 0.0069	P-N	NS	
N	11.4 ± 3.22	1.0-20.5	p = 0.0009	E-N	NS	
POZ 2						
Р	13.5 ± 3.11	4.5-20.0	0.2050064	P-E	NS	
E	13.3 ± 3.17	2.0-22.5	0.2958864	P-N	NS	
N	13.2 ± 3.63	1.5–21.0	<i>p</i> = 0.8625	E-N	NS	
POZ 3						
Р	15.5 ± 2.81	3.3–23.3	7.0(1704	P-E	0.030*	0.26
E	14.8 ± 2.59	7.3–22.7	7.861704 p = 0.0196	P-N	NS	
N	15.3 ± 2.65	7.0-24.0	p = 0.0190	E-N	NS	

Coping in university students of education, physical culture, and science

Legend: POZ – total positive coping; NEG – total negative coping; POZ 1 – positive coping 1; POZ 2 – positive coping 2; POZ 3 – positive coping 3; P – Faculty of Physical Culture; E – Faculty of Education; N – Faculty of Science; SD – standard deviation; H – (Kruskal-Wallis) test score; Comp. – comparison; p – statistical significance; \*–  $p \le 0.05$ ; \*\*–  $p \le 0.01$ ; \*\*\*–  $p \le 0.001$ ; d – effect size; NS – not significant.

An analysis of the results of individual stress coping strategies with respect to a selected study specialization indicated that university students of sport dominate also in individual positive strategies and at the same time use much less negative coping strategies (Table 5).

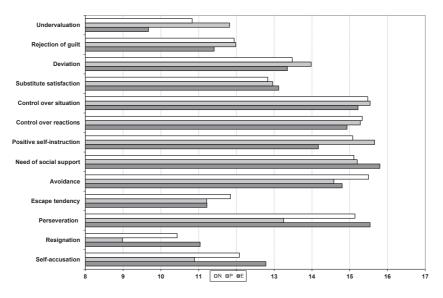
An important strategy for coping with load situations in a sample of students of sport appears positive self-instruction. Simultaneously, these individuals reported a lower degree of need of social support and avoidance. As far as negative strategies are concerned, students of sport reported by far the lowest values of perseveration, resignation and self-accusation.

In terms of individual strategies, university students from the Faculty of Education use much less the strategies of undervaluation and rejection of guilt and reported a low level of positive self-instruction and at the same time a high degree of need of social support. As far as negative stress coping strategies are concerned, university students from the Faculty of Education reported the highest scores in perseveration, resignation and self-accusation (Figure 3).

In terms of individual strategies, a sample of university students from the Faculty of Science oscillates between the values of students of sport and students of education. If we wanted to characterize the students from the Faculty of Science in terms of coping strategies, these are individuals with the lowest identified need of substitute satisfaction, lowest need of social support and at the same time highest level of avoidance and escape tendency (Figure 3).

#### Figure 3

Comparison of average gross score values of individual coping strategies in current university students with respect to their study specialization



Legend: E - Faculty of Education; P - Faculty of Physical Culture; N - Faculty of Science

## Discussion

University students reported a relatively high affinity for stressors. It is believed that a high stress level affects not only students' health but also their academic performance. The most common group of stressors appear to be self-imposed stressors followed by

exogenous pressures. The most frequent responses to stressors are cognitive answers (Hamaideh, 2011). In general, university students report a significantly higher degree of harmful stress compared with common population (Stallman, 2008; Walsh et al., 2010). An important preventive factor reducing individual stress appears to be the selection of students for enrolment in specific courses. It can be assumed that appropriate and targeted selection decreases possible stress during academic study (Kožený, Höschl, & Tišanská, 2002). Such tool can be for example a discrimination analysis or monitoring academic performance by means of a structural model (Kožený, Tišanská, & Höschl, 1998; Kožený & Höschl, 1996).

As far as the monitored personality variables and coping in our sample are concerned, we revealed a significant positive correlation between neuroticism and using negative coping strategies. An increased degree of neuroticism is often defined as one of fundamental personality traits with a significant effect on coping (Hamaideh, 2011). Vollrath and Torgersen (2000) claim that university students who report a high degree of neuroticism and a small degree of conscientiousness have a high vulnerability to stress and its negative coping. A group of students who reported a low degree of neuroticism and a high level of conscientiousness was ranked among those with the most favourable stress profile and effective coping. **Neuroticism is significantly correlated with university stress and has a substantial effect on the onset of somatic symptoms (Lu, 1994).** Students with a high neuroticism score generally report a lower performance need and a high score of avoiding load situations (Komarraju & Karau, 2005). Optimum personality characteristics include an increased rate of extraversion, openness, conscientiousness and agreeableness, which has a positive effect on the preference of using positive coping strategies.

An analysis of stress coping strategies in our sample of university students indicated that university students have considerably higher values of using positive as well as negative strategies compared with average normative values. University students clearly prefer positive strategies of type I and type II. These strategies include particularly undervaluation, rejection of guilt, deviation and substitute satisfaction. The highest difference between the sample of university students and average normative values was identified in the values of substitute satisfaction. On the contrary, positive strategies of type III are all below average normative values. These strategies include control over situation, control over reactions and positive self-instruction. The survey revealed a significantly increased need of social support in the sample of university students. On a larger scale, students also apply the strategies of avoidance, escape tendency, resignation and self-accusation.

In terms of gender differences a significantly higher use of positive coping strategies was revealed in the sample of men. On the contrary, in the sample of women, a significantly higher value of preference of using negative stress coping strategies was identified. However, women use positive strategies such as deviation and substitute satisfaction more than men, whereas men prefer much more the strategy of undervaluation. At the same time, men reported a higher level of rejection of guilt, increased control over reactions and positive self-instruction. An interesting finding was that the need of control over situation was almost identical between men and women, whereas men reported a higher value of control over reactions.

A comparison of preferences of individual stress coping strategies revealed the highest difference between the sample of men and the sample of women in the strategy of need of social support. This 'singular' coping strategy was significantly higher in the sample of women compared with men. The results of our research indicating that women use the strategy of need of social support more often corresponds with the results of Frydenberg and Lewis (1993), who in their study focused on coping strategies concluded that women have a higher need of social support compared with men. At the same time, women reported a higher coping strategy of avoidance. This corresponds with the conclusions of Heiman (2004), who also claims that women tend to use emotional and avoidance coping strategies on a much larger scale than men.

As far as individual negative stress coping strategies are concerned, overall negative strategies are significantly higher in women. Similarly, all individual negative coping strategies (escape tendency, perseveration, resignation, self-accusation) are higher in women than in men. Considerable differences are especially in perseveration, resignation and self-accusation.

The results of our research correspond with the findings of Janke and Erdmann (2003), who claim that men report higher values in the subtests of undervaluation and rejection of guilt, whereas women report higher values in the subtests of need of social support, escape tendency, perseveration, resignation and self-accusation. The results also indicate women's tendency to higher values of the subtests of substitute satisfaction and avoidance (negative strategies).

However, Nelson et al. (2001) claim that coping styles and social support present moderating variables between stress and distress and at the same time relate relative health to academic achievement. The authors confirmed that students with better academic achievement are healthy, experience a lower degree of stress, have increased social support and use more positive and less negative coping styles. Another interesting finding was that students who used venting of emotions as a coping style also required more medical treatment and reported a higher degree of subjectively perceived stress as a result of academic responsibilities.

In spite of the fact that our results positively confirmed a significantly higher use of positive strategies in men and a significantly higher preference of negative strategies in women, it can be assumed that current choices of coping strategies are influenced by the degree of academic achievement and subjectively perceived stress as a result of academic responsibilities. Individual strategies cannot be thus related only to gender. We must consider a whole complex of factors influencing the preference of various load

coping strategies. Foster et al. (1996) state that there are no significant gender-based differences in stress sources. The largest amount of distress tends to be attributed to the curriculum that needs to be covered, followed by exams and exam results. Similarly, no significant gender-based differences in the level of stress were proved. The preference of individual coping strategies rather depends on satisfaction in social support, self-efficacy, perception of stress and specific load situations (Trouillet et al., 2009).

An analysis of the relationship between coping strategies and specializations revealed that most positive strategies are used by university students specialized in sports. A comparison of using coping strategies by university students of sport and a sample of students of education and science indicates that university students specialized in sports use considerably more individual positive stress coping strategies and much less negative coping strategies compared with university students of education and science. An important strategy for coping with load situations in students of sport appears positive self-instruction. At the same time, these individuals reported a lower need of social support and avoidance. A decreased level of need of social support in students of sport is also concluded by Masten et al. (2009), who compared students of sport with students of medicine and psychology.

In our research, an increased need of social support was reported by students from the Faculty of Education. These students also indicated a higher score in perseveration, resignation and self-accusation. These findings could have been influenced, to a certain extent, by a high proportion of women in this sample.

On the contrary, the lowest need of social support was found in a sample of students from the Faculty of Science. This might be influenced by extraversion, which was the lowest in this sample. We also believe that students of science are more focused on their field of study and devote it more time beyond their academic responsibilities. This could also be supported by another finding – the lowest need of substitute satisfaction in these students. At the same time, students of science reported the highest use of avoidance together with high escape tendencies. This imbalance in the preference of individual strategies in students of science seems adverse and should be considered in psychological university counselling. As far as individual coping strategies are concerned, university students from the Faculty of Science oscillate between the values of students of sport and students of education.

In terms of negative strategies, students of sport reported clearly the lowest values of perseveration, resignation and self-accusation. It can be assumed that these strategies are applied less by students of sport as these individuals are rather used to load situations. As a result of their specialization and sports development they encounter a sense of victory and certain satisfaction as well as defeat and frustration. These situations can then have a positive effect on personality development and the formation of overall mental resilience and the ability to cope with load and increase frustration tolerance. As far as psychology of resilience is concerned, Hošek (2001) claims that adequate physical load has a health preventive effect and controlled sports activity has an anti-stress, anti-depression, affiliative, recuperation, entertaining, meliorative, harmonizing and anti-involution function. It thus forms a personality of an individual in the context of personality resilience ('hardiness'). An important element of personality formation appears a certain modification of the motivation structure in relation to self-regulation mechanisms and overall motivation formation (Stuchlíková & Man, 2009). This could explain a significantly higher preference of positive coping strategies in students of sports and at the same time significantly lower use of negative strategies in comparison with students of 'purely' theoretical subjects.

Kebza and Šolcová (2008) consider mental resilience a multi-dimensional multifactorial phenomenon. They view resilience as a 'fuzzy set' that consists of personality, social and somatic-based resources, some of which are fundamental for resilience, while others are marginal and some belong to other psychological constructs.

To complete the picture of coping with load situations in current university students, some trends related the length of study and current grade are considered.

In terms of overall positive stress coping strategies and length of study we observed that university students of grade one use these strategies the most. As far as overall negative coping strategies are concerned, we revealed the lowest proportion in students of grade one and the highest proportion in students of grade four. In general, however, no significant differences between various grades were identified. An interesting finding is a certain trend of an increased use of negative coping strategies with higher grade.

It was further observed that university students of grade one reported increased values of positive coping strategies and at the same time lower values of negative stress coping strategies. Stern, Norman and Komm (1993) investigated study-related stressors and claim that students of grade one use more self-accusation strategies and problem-solving styles compared with students of higher grades. At the same time, younger students use more emotional strategies and have stronger social support from friends compared with older students (Heiman, 2004).

Students of grade two oscillate around average values and are not distinguished by specific strategies with respect to length of study. An interesting finding is the highest need of social support. This could be explained by the fact that students in grade two are still at the beginning of their study and are not fully adapted to academic life.

As opposed to students of grade two, third graders are characterized by the lowest values of the strategies of need of social support and avoidance. Their most frequently applied strategy is substitute satisfaction. This finding could lead to an assumption that students in grade three are fully adapted to academic study and related aspects. They are half way through their study, i.e. they have overcome difficult beginnings and are still far from graduation. This could explain the highest observed value of substitute satisfaction. Adapted students of grade three are obviously able to pursue activities not fully related to their study and solve certain barriers or failures by means of substitute

satisfaction. In this age category it would be interesting to perform a study of procrastination with respect to academic responsibilities. Furthermore, students of grade three were observed to have the highest degree of resignation tendencies, even though the strategy of escape tendency was the lowest of all monitored grades.

Students of grade four are characterized by increased application of positive strategies of a control type with an increased tendency to avoidance. In terms of overall negative strategies this is a group with the highest use of this type of strategies. In particular, these include an increased rate of perseveration and escape tendency with increased values of resignation and self-accusation. As far as interpersonal stressors are concerned, Stern, Norman and Komm (1993) state that students of grade four tend to use confrontation coping strategies as opposed to e.g. first graders. According to the authors, however, interpersonal differences do not play a role in the selection of coping strategies.

## Conclusions

In terms of strategies for coping with load situations, university students use significantly more positive as well as negative coping strategies compared with normative values. As far as individual strategies are concerned, university students prefer positive strategies such as deviation and substitute satisfaction. At the same time, a higher need of social support and avoidance was observed. The most frequent negative coping strategies included an increased degree of escape tendency and avoidance. Coping strategies in current university students are significantly influenced by gender differences. Men apply much more positive strategies whereas women tend to use negative stress coping strategies. As far as study specialization is concerned, university students of sport use significantly more positive coping strategies and at the same time significantly less negative coping strategies compared with students of education and science. The presented findings have practical applications in approaching the defined target group in the area of university educational and psychological counselling.

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# The Psychosomatic Basis of the Social Pedagogue's Behaviour

## Pavla Andrysová

#### Abstract

This article aims to outline the possibilities and partially the content of psychosomatic preparation that results in the pedagogue's condition, which is understood to be the student's readiness to act authentically in open social situations. It also includes a comparison of two approaches concerning personal and social development of social pedagogy students.

**Key words:** psychosomatic preparation, psychosomatic condition, self-reflection, psychosomatic disciplines, social psychological training.

## Introduction

In this article which is one of the outputs of GA ČR no. 406/09/1220 project (the project's name is "Determination and competence development of social pedagogues in professional preparation"), we would like to outline the aspect of social pedagogy students' education that involves personality development including its social dimension. This education is achieved through psychosomatic (non-object) disciplines. In the conclusion of the article we offer a comparison of two approaches, namely social psychological training as it is common practice, and psychosomatic preparation.

## 1 Psychosomatic disciplines

In this place we would like to acquaint the reader with the contents of the individual psychosomatic disciplines as they are taught at the Department of Authorial Creativity and Pedagogy, The Theatre Faculty of the Academy of Performing Arts in Prague (DAMU) and as they have been transformed into the preparation of social pedagogues at the Department of Pedagogical Sciences, Faculty of Humanities, Tomas Bata University in Zlín.

The term psychosomatics is known especially as a medical term when doctors talk about psychosomatics, thus emphasizing the influence that the patient's mind has over his or her physical health. The conception of the psychosomatic approach as we understand it is the way that a person evaluates his or her existence as a physical and psychical unity. Any discipline that takes only one of the two factors to practice it as a sort of an instrument for a purpose is not considered to be psychosomatic. A psychosomatic discipline is therefore recitation and speech training, it is a dialogic action with the inner partner, as well as vocal training, movement training and author writing and reading (Hančil, 2005). The supporting pillar of this conception is a dialogic action with the inner partner. These disciplines develop psychosomatic condition.

#### Picture 1

The relation between psychosomatic disciplines



#### 1.1 Dialogic interaction with the inner partner

The author of this specific form of dialogue is Professor Ivan Vyskočil. It is basically a dialogue of the individual with oneself when he or she has to capture the dynamics of his or her feelings using words, voice, movement, and other means. In the presence of

the others one learns to be oneself. Dialogue should not be mere conversation, verbal replies, but real behaviour growing out of body involvement (Hančil, 2005).

The philosophic basis of this conception comes from the person who embarks upon the interaction he or she considers important with his or her whole human being. With his or her whole human being he or she acts and perceives. He or she has not developed some of his or her talents, and he or she has neglected the others. He or she comes back and again he looks for a personal "natural world" as Patočka (1995) calls it. He or she does this all concretely using his or her own body. Thus not merely in the area of guesses and words. The student focuses on things as a matter of course at first sight, and he or she is asked to reconsider, re-examine and re-acquire them on a more conscious and higher level.

As the cardinal meaning of this conception is education forming a creative and partner personality, it is not only about techniques for mastering voice, speech, movement, etc.; but it is about searching for a way of becoming and – with Fromm's verb – of being one's own voice, one's own speech, one's own movement, etc., of recognizing one's personality dispositions, accepting them, being in harmony with them, and developing them (Fromm, 2001).

The students are required to act for themselves as a matter of fact with their inner partner in a situation of public privacy. The participants are told to take their time, and to suppress their tendency "to be good".

The assignment for the one who starts to practise is always the same: Try dialogic interaction with oneself. With oneself as a partner/partners. We all have an experience of this and anticipation of what and how it might be. So it is evocative of something that is known, but is often suppressed, or forgotten.

A dialogue in this approach means a soliloquy. Looking into the problem, topic, from at least two sides, checking out the alternatives. It advises us against the one-sidedness of our views, bias, stereotypes, and old clichés. The opportunity to deliber-ate, discuss and act these things with the inner partner in a situation of public privacy, should lead to a better perception and ability to act openly and accept openly as well.

Should we use the terms from psychoanalysis, analytical psychology, or transactional analysis, both we and those in us can be Freud's Ego, Super-Ego, and Id in the conscious – unconscious mind, Jung's Self and Ego in the conscious, unconscious, and collective unconscious parts, Jung's Extrovert and Introvert, Berne's Parent, Adult, and Child, Perls'Topdog or Underdog. Or also Buber's Ich – Du, Ich – Es, or yin – yang and so on. For us: small – big, younger – older, clever – stupid, experienced – inexperienced, Don Quixote and Sancho Panza, Laurel and Hardy, etc.

The inner partner has our body and voice of a different tuning, different involvement, characteristics different from what we are when we enter the interaction. The human world is a world of meanings and relationships. Every A has its B, yes no, every question has its own not one and not pre-defined answer (Slavíková, 2005).

### 1.2 Author reading and writing

As the integrating discipline is a dialogic interaction, then the author reading and writing connected with stage presentation acts as an output discipline. Vyskočil practises it in two forms: a collective seminar, or an individual activity. The basic model is very simple: the participant writes and Vyskočil gives him or her reflection. First the student has to write a story, then an essay, and an interview to better realize the principles and characteristics of these three genres, after that the students can write as he or she pleases. The requirement is the regularity of writing so that the participant tries to perceive and practise creativity, thought, and utterance as common option, so that this systematic activity creates promptness. What is unique is that within the seminar the text does not work as written, but solely as spoken. The author reads it to the others so he or she also becomes its listener, further is in the situation of direct communication and learns to formulate the text as utterance addressed to specific people in a specific situation, learns to find oral gesture, communicativeness, and contact. In the collective seminar every reading is followed by open discussion about the text and manner of utterance. The text is here primarily taken as an expression of latent bodily gesture and action. The students are deliberately discouraged from ambitions of being an artist, i.e. a writer in this case, but they are turned back to the primary communication (Čunderle, 2001).

#### 1.3 Recitation and speech training

Vyskočil connects recitation and speech training – as another discipline taught in Department of Authorial Creativity and Pedagogy – to ethics and solidarity. He sets it (and other disciplines alike) apart from the context of art and puts it into wider and more primary human relations.

In the same way as in other disciplines, recitation also pays basic regard to the body. In accordance with the ideas of Emanuel Frynta, Vyskočil talks about speech as an oral gesture, as a bodily gesture proceeding in a gesture of speech. According to these tendencies, recitation or speech training is a domain of Vítězslava Fryntová who attended the same acting education as Ivan Vyskočil. She leads the student to learn to find maximum communicativeness and concrete of the text, to try to give it an authentic oral gesture, and to learn to talk to it – so that speech is really a means of communication and sharing. The dramaturgy of training texts of Vítězslava Fryntová is based on primarily spoken texts, with expressive oral gesturing, most of them are texts written in Czech: stories about law suits by František Němec, short stories by Jaroslav Hašek, Karel Poláček, Bohumil Hrabal, Frynta's poems, etc. However, for didactic reasons the training starts with e.g. social life catechism by Jiří Guth Jarkovský, or older cook

books' recipes which are perfectly suitable to realize the basic logical structure and to create a concrete image of the communication.

## 1.4 Vocal training

We consider voice – whether in verbal or non-verbal form – an important medium that transcends us with its range and thus enables us to come out of ourselves and come back into ourselves and the others. The breath that puts rhythm into our action is not any less important either. Vocal training has been dealt with since the very beginning by docent Libuše Válková.

While thought and written word activates human intellect, spoken word puts into the communication not only intellect but also body. Singing expresses immediately experienced and felt state of human psychosomatic basis in relation to the world, environment, concrete human situation and existence. Moreover, singing utterance is a sound quality and also an utterance of psychosomatic harmony. At the same time it is a demonstration, embodiment of relaxation and health, quality of the individual's organism.

There is a connection, causality between voice and personality; voice cultivation has a depth – in its impact still not appreciated – meaning for the psychological development of a person. Vyskočil says: "Without a voice one does not have a personality. With an impaired voice one also has one way or another impaired psyche. One is not freely oneself." And Válková (2000) adds: "A speaker makes sounds out of the spirit of the language, while a good singer forms sounds bodily."

#### 1.5 Movement training

The aim of movement training is to reach understanding when body and movement is able to reflect thought precisely and multi-dimensionally. When the individual uses it to support and multiply the effect of one's verbal utterance or to express diverse relation to one's dialogue with the partner. Body language develops its own "text", turns the utterance upside down, and so on. It is incorporated into the overall situational context with nonverbal action and thus it fully involves the whole body.

Movement training started in the 1970s at elementary schools of art where it was taught by Milena Moravcová, the arrival to DAMU began a more constant cooperation with Zdenka Kratochvílová and Eva Kröschlová. Generally speaking, the desired aim of this training is to awaken spontaneity and creativity of one's own body, to set it free from automatic stereotypes and to return to the primary bodily existence (Čunderle, 2001).

## 2 Psychosomatic condition

By way of these disciplines, one comes to psychosomatic condition. One tries and discovers the potential of oneself in the presence of the others, without unnecessary fears of embarrassment because mistake is here viewed as natural part inevitable either at school or in everyday life. According to Vyskočil it is: *"a kind of maturity, readiness, promptness, and sometimes also a need, fancy, drive to perform, act, behave, experience in public in a direct, immediate, spontaneous, creative, and productive way, freely and responsibly"* (Vyskočil, 2000, p. 7).

Psychosomatic condition which can be defined as "capability" or "promptness" is no doubt one of the benefits of psychosomatic disciplines, but if these are (viewed from the final perspective) Fink's "Oasis of Happiness", they are definitively not Eden of Ease. In psychosomatic disciplines, joy is born of trying and searching regardless the immediate result. Often condition is built and its level tested not in successful moments but in times when you are "banging your head against a brick wall" and manage to change this difficult situation into an easy one.

Condition is formed on the basis of repetition and is the real result of the discipline. Just because of condition hidden reserves mobilize in a person at the right time and enable one to come through a difficult situation safely (Hančil, 2005).

The study of these psychosomatic disciplines is reflected in detail by the teacher as well as the participants. This ubiquitous self-reflection teaches the person receptivity to oneself so that one can achieve one's real authentic being.

## 3 A comparison of social psychological training and psychosomatic disciplines

One of the requirements that an individual is expected to do during this preparation is keeping a self- reflection diary. These reports usually take the form of personal accounts or commentary on current state, on the way the participant experiences the lessons of the psychosomatic preparation, what new things he or she learns and realizes, and what new potentials of his or her development the participant sees.

The aim of these reports is besides other things, the development of the ability to ask and answer questions relating one self, other people, events and activities.

These self-reflective reports are a prerequisite of all psychosomatic disciplines. According to Švec (2007) self-reflection is a part of cognition and learning, it is the basis of self-regulation of the participant's activities. Self-reflection that is written down is the "memory" of the participant's experiences, feelings and what he or she deduces from this knowledge. However, it is not only self immersion, not only introspection, but it is also a view of the future, it means the awareness of how I am able to keep improving my capability, or condition.

In the following table we will try to compare two approaches – namely the common social psychological training and psychosomatic disciplines. The given categories and conclusions come from the content analysis of students' self-reflection diaries that they kept during the whole time of preparation.

#### Table 1

#### A comparison of social psychological training and psychosomatic disciplines

Category	Social psychological training	Psychosomatic disciplines	Statements in the students' diaries
Rules	They are given in advance, which keeps the person within close bounds, it restricts the student to the things that are focused on. The person is thus lead through the training rather than finding one's own way.	Almost none. The person thus gets almost infinite space for searching one's own topic. Important factors are personal maturity and experience. It also takes a lot of time and internal motivation from the students.	*SPT: 1) There are given rules, at any cost you have to answer the question or assignment you get. In a certain way limited, closed. **PSD: 1) There are no limits given, you can do what you want. I experienced a lot of feelings (embarrassment, agitation, indifference).
Communication	Frequent group or pair work, therefore the necessity to communicate with other members of the group. This has been aimed at since the pre-school age and it is surely important, however, it is nothing innovative.	The emphasis is put on discovering communication with one's own self (one's inner partner/partners), which can understood as a new dimension. This confirms the presumption that we often cannot be one's own partner. Now the students are wanted to search for the meaning of the utterance, slow down, take notice of the somatic tension, which is often new and difficult.	SPT: 1) I had to talk it out in a group. 2) There is more work in groups. PSD: 1) I use facial expressions to deeply express the feelings in the given text.
Self-knowledge	Considering the self-knowledge activities the students reflect that they do not learn anything new about themselves.	The students claim that in the situations of "searching the inner partner" they naturally and better learn about themselves. They are well aware that they cannot help other people unless they know themselves sufficiently.	<ul> <li>SPT: 1) I gave a true description of myself; however, I do not know whether I learned anything new about myself, quite possibly not. 2) Most people were sincere to themselves, at least I think so, but I wasn't, it is too difficult for me.</li> <li>PSD: 1) I felt a bit uncomfortable. I didn't know what to do with my own movements.</li> <li>2) I'm much more self-aware when I have to deal with myself in front of other people.</li> <li>3) You saw it on your own how you act in various situations. 4) You don't have to pretend. 5) Some of us don't want to talk about themselves much, but the interaction makes them to. 6) I am more aware of my movements and my voice.</li> </ul>

Category	Social psychological training	Psychosomatic disciplines	Statements in the students' diaries
Responsibility	As for feelings, the students reflect more relaxation, but also less responsibility = less effort. The students do not feel responsible for their solutions because they sense the unreality of the situation. They react to the artificially created situation by an artificially created reaction for which they do not bear so much responsibility. They are just having a good time.	The fact that "I have to rely on myself only" tends to create more nervousness and tension, but at the same time it produces more responsibility for one's behavior. Author reading makes the students realize more responsibility for the communicated content, they want to argue what they wrote and then read. By reading their text they want to attract attention of the others, they take care of its interpretation.	SPT: 1) It was up to me what I say or do, less responsibility = less effort. 2) I liked it. It was fun. I had a good time. PSD: 1) When I read my own text, I feel responsible for its content. 2) I try to read in such a way so that it is an experience for the listeners; I do not read it for myself but for them. 5) I take the trouble to write the text, so I stand for it. I want to deliver a message.
Creativity Relates to Rules	The students reflect that they do not have to invent anything new, unless they want to, so they simply follow the instructions. They understand the instructions as a sort of boundaries.	The situations themselves which are not limited by the instructions, make the students act spontaneously and feedback creatively. The awareness of the emphasis on now and here parallels the work of social pedagogue and helping professions in general. The confirmation of the fact that if the person does not have precise instructions for the activities undertaken, then one has to act creatively.	SPT: 1) If I don't want to, I don't have to think too much and just stay within limits. 2) I miss inspiration; at any cost you have to answer the question or task you get. 3) I do the assignments in the same way even after a long time pause. PSD: 1) I do the assignments in psychosomatic disciplines differently each time. 2) I could use creativity. 3) It hindered me much less because there is less stuff that I have to stick to.

ŘIHÁK, T. Komparace přístupů v rámci osobnostně sociálního rozvoje studentů sociální pedagogiky. Bakalářská práce. Zlín: UTB, 2011.

\*SPT = Social psychological training, \*\* PSD = Psychosomatic disciplines

We are aware that the results shown here cannot be generalized. What is essential for us is the knowledge of the fact that both approaches have their place and reason and they can supplement each other. Yet, it would be interesting to determine whether the typology of the student's or participant's personality has any influence on the preference of the one or the other of the given approaches. And if, or how much, this choice is influenced by personal maturity and life experience. A general overview of these issues was published by Chudý, Š., Jůvová, A. & Neumeister, P. (2011).

## Summary

The personality development has been a natural part of all social psychological trainings for a long time; however, in our approach we intended to draw attention to the often ignored psychosomatic dimension in its unity that we understand to be the essential part which cultivates personality in its integrity. If we are to prepare social pedagogues who should be able to help their clients, then it is necessary to prepare not only erudite experts but also strong personalities that have a partner relationship with themselves, since a mature personality is a personality capable of creating relationships, which we consider to be one of the key competences not merely within the scope of social pedagogy studies.

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## **Reviews and short reports**

# Inspiration for Pedagogic Research and Practice

## **Martin Gregor**

Vala, J. & Fic, I. (2012). Poetry and Yyoung Readers: Researching the Acceptance of Specific Poems. Hanex: Olomouc.

The authors Jaroslav Vala and Igor Fic have set a difficult task for themselves in this monograph focused on the research of specific poems reception by young readers. Using selected research methods they wanted to provide everyone, not just active teachers, a view into student perception and interpretation of poetry in specific poems. As the authors themselves state, the research presented in this publication was conducted with the financial support from the Grant Agency of AS CR as part of the research project called Research and Reception of Poetry by Pubescent and Adolescent Readers (P 407/11/0594). For the semantic differential research Jaroslav Vala and Igor Fic selected these poems and authors:

Emanuel Frynta – Trychtýře (Funnels), Antonín Sova – Jarní noc (Spring Night), Alexandr Sergejevič Puškin – Mračno (Cloudy), Jan Kašpar – Puberta (Puberty), Bohuslav Reynek – Dřeváky (Clogs), J. H. Krchovský – Co jsem to měl... (What did I have...), Paní Ise – Jarní déšť (Spring Rain) and Vladimír Holan – Poslední list (Last leaf)

The selection of authors and their work is targeted and it is highly suitable for further research and application directly in pedagogic practice. The authors of the monograph selected poems, which they presumed would be close and comprehensible for the children (*Puberty; Funnels*), including lyrics about nature, impressionism and romance (*Spring Rain; Spring Night; Cloudy*) as well as multilayer poems and according to our opinion ones that are more difficult to understand (*Clogs; Last Leaf*). We especially appreciate the incorporation of the poem *What did I have... by J. H. Krachovský*, a con-

temporary author, still living, whose poems have not yet appeared much in primary school reading books or other anthologies.

The objective of the semantic differential research was to discover how the students at the age of 12–15 years perceive various types of poems and how they interpret them. The author of the methodology for this research Jaroslav Vala hereby continues some of his previous works, e.g. the monograph named *Poetry in Literary Education* (2011) and continues in the research of lyrical poetry reception using the semantic differential method and the verification of own research tool. We see the contribution of this monograph to be not only in the area of pedagogic theory, pedagogic research, but also in pedagogic practice from the perspective of the literary education didactics. He offers further options on how to work with specific poems at schools and how to lead students to think about all the meanings of the texts.

The semantic differential research results are completed by essay observations and commentaries by the literary critic Igor Fic. He offers not only his personal interpretation insight, which can serve as a certain guide for everyone and not just for people from the ranks of active teachers and their students, a challenge to think, to debate, but perhaps also encouragement. Igor Fic also evaluates the resulting research – students' commentaries. His observations are direct, comprehensible and educated while providing teachers with strong support in looking for their own paths and possibilities in the didactic potential of the interpreted poems. This enriches and livens up the entire monograph, points to a possible and successful merger between pedagogic research and the needs as required by the everyday pedagogic practice.

Another undisputable benefit of this publication, even from the perspective of application options in further pedagogic research, is the decision made by the authors to use the research of the reception of certain poems and also the qualitative focus group research method. The research participants, grammar school students at the age of 15–16 years interpret three selected poems from the original collection in a group discussion (*What did l have...; Spring Rain; Last Leaf*) and thereby offer an insight into their own thinking, visions, experience in reading and life, personal interpretation of selected poetry in an effort to get closer to all its meanings without a teacher's intervention. They thus reflect the depth of their personal experience. We believe that the application of this specific research method is a tossed glove for all researchers as well as teachers in direct pedagogic practice.

The publication *Poetry and Young Readers: Researching the Reception of Specific Poems* has a clear and lucid structure. It proves that the method of quantitative pedagogic research (semantic differential) and the qualitative method (focus group) can also be successfully and effectively combined and utilized when researching the reception of specific poems. The book contains many inspirational suggestions for pedagogic researcher and literature teachers at all school levels, which lead them and their students to see that it is possible to deepen personal experience brought on by poetry text, to understand them better and express them. We are convinced that this monograph will attract the interest of all who wish and have the courage to set out on a path of research, perception and studying the magical power of poetry.

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## Educational Values in Contemporary School

### Eva Nováková

BEREŹNICKA, M. (2010). Wartości kształcenia we współczesnej szkole. Krakow: Wydawnictwo Naukowe UP.

The author of "Educational Values in Contemporary School", doctor Małgorzata Bereźnicka, works in the famous Pedagogical University of Krakow, Poland. She is an author of over thirty articles in the field of education and co-author of several textbooks on integrated teaching for primary schools as well as on mathematics for special schools. Her book "Educational Values in Contemporary School' was published in 2010. As E. Kameduła writes on its cover, for a long time both theorists and practitioners have been demanding some actions to remedy the situation in the educational system which does not meet the expectations of politicians, teachers as well as parents' and students' environment. Małgorzata Bereźnicka's work can serve as an inspiration for solving a number of problems and support the initiatives taken by the implementers of educational activities. The book includes four chapters. In the first chapter the author introduces basic concepts of values in school education: in both educational theory and educational practice. She specifies European modern trends in education, analyzing the data from books, newspapers and documents and also resulting from her interviews with educators and teachers. She describes the situation of education in the Polish reformed school, focusing especially on the junior high school (gimnazjum), since that is a meaningful stage in life as far as building a system of human values is concerned. Then she comments on the universal nature of values in upbringing and education (in spite of the multiplicity of categories and divisions of the term), on the basis of pedagogical, psychological, sociological and philosophical literature connected with axiological issues in education: books, articles, conference materials and reports. Finally the author characterizes and defines educational values important in the modern school, presenting her own list of such values.

The list created by Małgorzata Bereźnicka, along with her characteristics of thirty two educational values, was related with Jacques Delors' report for UNESCO – *Learning: the Treasure Within* where the description of the four pillars of future education can be found. So, she distinguished three groups of values. The first group is connected with two pillars, "learning to know" and "learning to do", and it includes ten cognitive-intellectual values: truth, objectivity, cognitive utility, cognitive interest, cognitive independence, criticism, rationality, efficiency, effectiveness, communication skills. The second group is connected with the third pillar, "learning to live together, learning to live with others", and it relates to ten moral and social values: good, altruism, responsibility, social commitment, patriotism, tolerance, partnership, subjectivity, autonomy, human relationships. The third group is connected with the fourth pillar, "learning to be", and it includes twelve values divided into three subgroups: creative ones(self-fulfillment, self-study, self-shaping and creative thinking); aesthetic ones (beauty, association with art, aesthetic experience); health and ecological ones (physical health, mental health, fitness, safety, protection of physical and mental environment).

In the second chapter the author presents her research which aim was to find out what educational values appeared in social expectations considering education. To do so, the two most popular polish newspapers ("Rzeczypospolita" and "Gazeta Wyborcza"), with its over 400 articles, considering keywords *values* and *education*, had been analyzed. She found out that educational values had been mentioned relatively rarely, and they were treated mostly as secondary subjects. The chapter includes also the analysis of the education curriculum: fourteen secondary schools training programs, edited after the reform of 1999 and issued by one of the largest Polish pedagogical publishers, and ten core curriculums – two for elective classes and eight for interdisciplinary courses. The general conclusion of the analysis of both the articles and the curriculums were quite similar, the leading role of cognitive-intellectual values and moral-social ones could be observed.

In the third chapter the author presented results of her main research, a survey which had been carried out among 170 teachers and 713 students of junior high schools in Southern Poland. Both groups had to fill in analogue questionnaire survey containing questions relating to their work (teachers) or to their school reality (students). The issues were dealing with aspects such as: the meaning given to educational values in school practice; the ways to implement them; assessment of the effects of their realization; positive and negative factors influencing it and finally – the preferable changes for the more efficient and successful activities connected with implementing values. The final findings are presented in the last chapter. The author answers the main questions, mainly: which educational values are exposed in didactic theory, which ones appear in social expectations, in core curriculums and finally – which are implemented in students' training. Comparing the above data, she draws some conclusion useful for school practice.

The book by Małgorzata Bereźnicka contains a huge amount of information dealing with education in general as well as Polish education and it can be a precious source of knowledge of values, especially educational ones. Also the rich bibliography with over 300 positions is worth underlining. Furthermore, the research conducted by the author was very intricate, elaborate, multistageous and multi-threaded and the analysis seems to be not only interesting because of the similarities and differences, both between theory and practice and in the opinions of teachers and students, too. The issues presented in the book, especially the results of the authors's research can be useful for teachers at all levels (especially those working in secondary schools), school headmasters, educators, pedagogues, lecturers and students of pedagogical courses, as well as for all those who are indifferent to field of education.

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# History of Education – Journal for Anglo-saxon and International History of Education

### Eva Dvořáková Kaněčková

*History of Education, Journal of the History of Education Society*, 2013, vol. 42, no. 1–4 (online).

Historical aspects in education are nowadays very popular issues, which are presented by discipline history of education (or history of pedagogy). In international perspective the main role is assumed by Anglo-Saxon areas, which also took the initiative role for the formation of international thematic, methodological and approach framework in given discipline. As an example we can bring the British peer-reviewed journal History of Education, Journal of the History of Education Society creating a very important platform for international exchanging of outputs in crucial areas. The main interest is geared to original research and major reviews of books in the history of education. Generally, published papers deals with both formal and informal education systems, comparative education, policy-making, the politics and experience of education and pedagogy. Key topics include feminism, femininity and feminization, the second world war; education and economic performance, education and national identity; education in Wales and Scandinavia; ways of seeing education and schooling emerging historiographies; and reforming lives such as progressivism, leadership and educational change. But it also provides options for publishing peripheral or specific topics. The tradition of a journal dates back to the 1970s, whose long duration provides a gualitative and permanent quarantee.

A part of the review, will be focused on the current year of 2013 when they were issued in a total of 4 issues in volume 42. Current topics will be monitored by published studies that may also outline further research possibilities in the Czech environment. Within the period under review, a total of 21 studies was published which are thematically very diverse. Generally, studies can be divided by several criteria, such as: by the period they work with, by locations, by the degree of education to which attention is paid and by perspective of thematic grip. In the following conception particularly two periods of interest can be observed. The majority of studies focus on the period

of the late 20th century especially to its second half, partly then to the 19<sup>th</sup> century and the first half of the 20th century. There we miss interest in older periods, such as the ancient, medieval or early modern concepts of education that are traditionally at marginal interest. Locally, most articles are focused on British and American education, but there are mentioned also Canadian, New Zealandean, Finish, Sweden, Dutch, Japanese or Nigerian regions. Increased interest can be observed for higher education traditionally accompanied by studies dealing with comprehensive education. Thematically, the contributions primarily devoted to wide aspects of educational contexts that are conceptualized from the perspective of political, philosophical, social, economic or national aspects. Considerable attention is devoted to international influences by prevailing paradigms, such as progressivism in American or Japanese education, pragmatism, ideas of Froebel etc. On the other side we lack interest in a traditional issue of institutionalization of education, by which are brings new turn into history of education which goes more deeply behind school institutionalisation. Only one paper deals with the issue of girls' education, from the pen of Ruth Watts that focused on aspects of the formation of higher medical education of girls in Birmingham turn of the 19<sup>th</sup> century and beginning of the 20<sup>th</sup> century. Especially interesting is the paper focused on neuroscience and the impact of historians of education and its contribution to this new field, which brings new and interdisciplinary view of history of education.

Journal also presented a special section focus on sources and interpretations, which contain usually one contribution per issue. Here can be experienced a new approach to issues of childhood and history of education, using new sources, such as public debates that shape the concept of childhood. Further can be recorded new approaches and historical resources to the area of girls' education, involving power tools of knowledge in the form of book collections at girls' schools.

Finally we can positively assess particular importance of the journal, which is seen especially in an international perspective, broad thematic, methodological and interdisciplinary approach that can bring new sources of inspiration also to Czech investigator environment. Therefore the journal can be recommended to all those interested in the history of education.

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## Conference Paths to Democracy in Education<sup>®</sup> XIV

December 2013 Velké Bílovice, Czech Republic

"University Teacher – a Position between Instruction and Research", this was the primary topic of the XIV conference as a part of the series of international scientific events under the title Paths to Democracy in Education. Organizational team chose traditional dates and place for the conference from 4<sup>th</sup> to 6<sup>th</sup> December (so at St Nicolas Day) in favorite Seminar Hotel Akademie in Velké Bílovice.

Citizen's Association Education – science – Research from Bratislava and Department of School Education of Faculty of Humanities UTB in Zlín were the main organizers of the conference with the participation of Institute of Pedagogy of Faculty of Pedagogy and Psychology UKW in Bydgoszcz, Institute of Education and Social Studies of Faculty of Education UP in Olomouc, Department of Education of Faculty of Education UKF in Nitra and Association of Professors of Slavonic Countries in Sofia.

Already through the invitation card, the participants of the conference were impelled to reflect an intersection of two work realms of university teacher being instructor and researcher and how does the teacher think about his/her double roles. The aim of the conference was also to initiate the reflection on the motivation preceding development of scientific and research activities of the participants in their profession. If these university teachers (and not only them) were looking for an event to reflect this theme when preparing their presentations and during debates but also with the benefit of hindsight, they found it in Velké Bílovice.

Meeting of academics from the universities in Czech and Slovak Republic, Bulgaria, Poland, China and Russia was varied by participation of the students from Faculty of Humanities UTB and Faculty of Education UHK as well as the researchers from National Institute for Certified Educational Measurements in Bratislava (NÚCEM) who are the cooperators of the Department of School Education of Faculty of Humanities in Zlín.

Plenary session on the first day of the conference was initiated by inspiring speech of doc. Ing. Anežka Lengálová, Ph.D., a dean of Faculty of Humanities UTB in Zlín. Following plenary discussions were led in the spirit of other inspiring performances of long-standing participants of the conference – prof. PhDr. Jiří Mareš, CSc, prof. PhDr. Peter Gavora, CSc. and prof. PhDr. Peter Ondrejkovič, DrSc. Their papers didn't leave any doubt that the conference would benefit from not only scientific but also human potential. Plenary session continued with very interesting papers presented by doc. PaedDr. Adri-

ana Wiegerová, PhD. and Mgr. Jan Kalenda, Ph.D. Follow-up discussions concerned mainly the questions related to position and employment of doctoral and postdoctoral researchers in actual university educational system and then the questions concerning transformation of university environment and the learning content provided.

Next two conference days continued with discussions and workshops in sections where all participants could listen to many ideas reflecting the main theme and the key questions of the conference. Almost fifty participants presented their papers related to primary conference topic of current status, visions, possibilities and limits of academic research and their subject of interest also referred to university teacher and his/her thinking and reasoning and the role of novice university teacher. Inspiring performances offered the presentations of empirical findings realized by the participants as well as their theoretical knowledge and conceptual approach to solve the problems of university teacher in an intersection of instruction and research. The performances ranked among the most interesting were presented by prof. dr hab. Ewa Filipiak, dr Ewa Lewandowska, prof. dr hab. Božena Muchacka, doc. PhDr. Tomáš Svatoš, Ph.D., PaedDr. PhDr. Jiří Dostál, Ph.D., dr hab. Iwona Czaja-Chudyba, doc. PhDr. Milan Klement, Ph.D. Mgr. Yanyan, Li, Dr Magdalena Grochowalska, prof. PhDr. Emilia Rangelova, DrSc., doc. aedDr. Hana Horká, CSc., Mgr. Jana Kratochvílová, Ph.D., Mgr. et Mgr. Lenka Grůzová, Assoc. Prof. Elena Zheleva, doc. PhDr. Tomáš Čech, Ph.D., Mgr. Petr Soják, Ph.D., Mgr. Eva Machů, Ph.D., Mgr. Hana Navrátilová, Mgr. Monika Szimethová, PhD., Mgr. Zuzana Danišová, PhD., PhDr. Zuzana Petrová, PhD. and Mgr. Ilona Kočvarová, Ph.D. Also talented bachelor and master students Marek Linke, Bc. Petra Kovalová and Bc. Soňa Kočicová presented their empirical findings during the work in sections which was a good example of interconnection of university research and education.

Discussions resulted from the participants' presentations were completed by the poster presentations of the colleagues from Adam – social rehabilitation institution – and from NÚCEM. The members of this institution introduced their idea of improvement of quality of education at primary and secondary schools using electronic measurement of pupils according to their quality parameters.

Academics who are obliged to publish regularly, had a chance to follow the presentation of professional journals e-PEDAGOGIUM and Sociální pedagogika in the early evening. The conference was also livened up with selling exhibition of books from the publishing house Portál and short speech of their representative.

All interviews and discussions which hadn't finished before the end of plenary session and conference sections, were communicated during the conference dinner and social event in a pleasant atmosphere with the participants sitting behind the round table.

The conference "University Teacher – a Position between Instruction and Research" created conditions for the description and communication on professional situation of a university teacher. At the same time it exposed the context of current university edu-

cation from the perspective of the academics. It's evident that the solution to indicated problems must be accentuated in the next events. The series of international scientific events <sup>®</sup> Paths to Democracy in Education continue in 2015 as 15th jubilee conference with opportunity to discuss all these questions.

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Článek I. Smetáčkové "Genderová rovnost ve výsledcích: znevýhodňují české školy chlapce, nebo dívky?", který byl publikován v e-Pedagogiu, č. 1, 2013, je dedikován na projekt "Kritická místa matematiky na základní škole – analýza didaktických praktik učitelů" (Grantová agentura ČR, P407-11-1740). Projekt má řadu výstupů, například monotematické číslo časopisu Orbis Schole, č. 2, 2012, či monografii Rendl, M. – Vondrová, N. a kol. (2013). Kritická místa matematiky na základní škole očima učitelů. Praha: Pedagogická fakulta Univerzity Karlovy.

The article by I. Smetackova "Gender equality in achievements" published in E-Pedagogium, 2013, no. 1, is dedicated to project "Critical places of mathematics at the elementary and the lower secondary schools – analysis of didactic practices of teachers" (Czech Science Foundation, P407-11-1740). Within the project was prepared a monothematic volume of Orbis Schole, 2012, no. 2, and the book Rendl, M. – Vondrová, N. a kol. (2013). Critical places of primary mathematics through the eyes of teachers. Praha: Pedagogická fakulta Univerzity Karlovy.

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