SCHOOL SELF-CONCEPT OF ADOLESCENTS AGED 10-15 IN SLOVAKIA AND IN CZECH REPUBLIC. COMPARATIVE STUDY

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ABSTRACT
The contribution is focused on the school self-concept of adolescents. The school self-concept is very important psychological and educational problem because of the relation between the self-concept and school performance and because of the relatively low count of the relevant diagnostics methods. The comparative study is based on the data from Slovak and Czech adolescents aged 10-15 and is the result of the research cooperation between the Department of Psychology (Faculty of Arts, Palacký University Olomouc) and Department of Educational and School Psychology (Faculty of Education, Constantine the Philosopher University in Nitra). We assumed that there exists the difference between the Slovak and Czech population in the school self-concept. Our research sample consists of approximately 5 900 adolescents (4 200 Czech and 1 700 Slovak adolescents). As a research method we used the SPAS (Student's Perception of Ability Scale), concretely version III which was standardized in Slovakia and in Czech Republic by Matějček and Vágnerová in 1992, named as Questionnaire of Children's School Self-Concept. Because of the age of the standardization we modernized the method through the item reformulations and formal design of the method. As a general result we acquired no significant difference in between the Slovak and Czech adolescents in global school self-concept and we can't accept our assumption. Hereby we realized the gender and age comparisons which are a part of our contribution.

Key words: adolescence, school self-concept, SPAS, comparative study

INTRODUCTION

General self-concept

Self-concept represents a psychological concept which is native to Psychology right from its founding. It is already related to James, who perceives the human psychic as a dual entity, consisting of a pure Self and empirical Self (Blatný, 2001). Baumeister (2005) defines the self-concept as a complex of individual believes about one-self which consists of personal attributions about what the self is.

Self-concept is a factor which influences the psychical regulation, orientation and stability of activity (Balcar, 1983) and indirectly influences through ideal Self, self-esteem, self-evaluation or self-efficacy. Its unidirectional influence is given by the traditional structure which has its cognitive, affective and conative character (Greenwald, Pratkanis, 1984).

The cognitive aspect of the self-concept is based on the assumption that there exists the declarative and procedural knowledge about the self. This knowledge represents the content of the self and the processes of the self, which were named by Greenwald (1980) as beneficence and effectance. These two words were joined to the term benefectance. The cognitive aspect of the self is also represented by the various hypothetical form of self, for example ought self (Higgins, 1987), undesired self (Ogilvie, 1987), ideal self (Rogers, 1951), possible selves (Markus, Nurius, 1986) etc.

The emotional aspect of the self is mainly connected with the components named as self-competence and self-liking (Tafarodi, Swann, 1995). Self-competence expresses the personal belief about the ability to produce the desired outcomes. Self-liking expresses the perception of the social relations and their influence on the self-perception. These terms express two sources of the emotional aspect of the self-concept – inner and outer.

The conative aspect of the self-concept can be derived from the Higgins's theory of self-discrepancy (Higgins, 1991), specially the concept of the self-guides, and the concept of the self-mastery (Bandura, 1997). The self-guides are life standards which belong to the content of the ideal and ought self. They motivate the behaviour and give it the emotional charge. Motivated behaviour leads to the comparison between the actual and desired state. The result can be the consistency or the inconsistency. The consistency expresses the desired behaviour and the inconsistency expresses the undesired behaviour which has to be changed.

We can summarize that the self-concept, a hypothetical mental structure, which (1) has a cognitive, affective and conative element, (2) is derived from social experience represented mainly by the closest relationships, (3) issues from the human activity and need of self-definition, (4) is derived from the ability to perceive the requirements of

outer environment and internalize subjectively transformed contents of these expectations, (5) has more forms which function is the regulation and stabilization of behaviour, as well as interpretation of specific experience in a particular context.
We can also define some characteristics of the general self-concept. According to Shavelson et al. (1976), the self-concept is: (1) organized and structured, (2) multifaceted in the concordance with the category system individual interpretation of the group categories, (3) hierarchical, based on the moving to inferences about the self in subareas (academic and non-academic), (4) relatively stable, but dependent on the specific situations and consequences of the behaviour, (5) multifaceted in the relation with the increasing age, (6) descriptive and evaluating, (7) differentiated from the other personality constructs.

Academic Self-Concept

At this moment we come to the thought to what extent perception of ourselves is influenced by the perception of us by other people. Matějček, Vágnerová et al. (2006) write about personal and social basis of self-evaluation. Personality basis is based on comparison of own abilities with one another. Social basis is established on comparison of own abilities with the abilities of others (which are similar to the person in age, gender, etc.). Another specific category of formative social influences represent reactions of reference persons, who are parents and teachers in the child age. Their tendencies to identify the causes of successes/failures at school, satisfaction/dissatisfaction with school results, emotion reactions related to school performance, possible discrepancies and conflicts between parents and teachers significantly influence child's self-constructs and his/her self-confidence.
Self-concept is a variable which is dependent on individually specific concordance of various factors (according to Matějček, Vágnerová et al., 2006), like personal characteristics, stability and integration of personality, frustration tolerance, emotional support of close ones, social positions in peer groups, etc. Undoubtedly, it is dependent also on emotional experience, or emotional resilience (Matějček, Vágnerová et al., 2006) residing in the ability to deal with negative emotions (anxiety, fear, doubt, sadness, shame, guilt) which can occur by performance that is not adequate to child's abilities and it can influence his/her further aspirations, interest for work, attitude towards work, motivation in general and from the point of interpretation of own performance also the attitude towards oneself, mirroring into self-evaluation. Emotions in pre-school and school age strongly influence child's performance and so represent a mediator which catalyses circular character of regulation-interpretation system of perception, own competence.
Basal personality structures, to which self-evaluation also belongs, represent generalized beliefs which were created based on a bigger or lower number of experiences with a specific occurrence. In case of self-evaluation we could speak about the ability to produce the expected performance. It is nevertheless not fixed to any specific situation in a child´s age, or environment which would explicitly control the development of abilities. The situation changes after a child enters the school. Based on the confrontation with school environment and its requirements, self-evaluation as a generalized belief is formed into specific element in the form of school self-concept (Matějček, Vágnerová et al., 2006). Formation of school self-concept is dependent on the development of cognitive functions like it is specific for a specific development stages.
Children who have just entered the school are not able to differentiate their own abilities and abilities of other children yet. They are fully dependent on the opinion of teachers and parents. In the school age, expectations and requirements of adults represent a norm of required behaviour which the children transform into normative ideas about themselves (self-concept). They try to identify with this idea and fulfil it (Poledňová, Stránska, Kmětíková, 2009). In the second or third grade of primary school the children already realize that different persons have different abilities and are able to fulfil different tasks than others. However, they are not able to generalize this experience yet. Around their 10^{th} year the children can already evaluate their own abilities in a more complex and integrated way. The child becomes aware of differences from others and his/her self-evaluation is more durable against outer influences. In pubescence comes to decrease of self-evaluation, children are more unstable, less self-confident. The self-confidence wouldn't change in this period in spite of the possible deviations caused by actual events in the life of pubescent person (according to Vágnerová, Klégrová, 2008).
All these processes related to the ontogenetic development are strongly connected to the development of the school, or more precisely to an academic self-concept. It is demanding to design the model of the academic self-concept within some research. At least three important models can be identified in the history of this problem.
The Shavelson model (Shavelson et al., 1976) is based on the influence of the academic self-concept on the main areas of the school subjects – Math self-concept, Science self-concept, History self-concept, English self-concept.
The Marsch model (Marsch et al., 1985), first-order model assumes the multilateral relations between the main domains of the academic self-concept – Math self-concept, Physical Science self-concept, Foreign Language self-concept, English self-concept.
The Marsch/Shavelson model (Marsch, 1990), higher-order factor model, distinguishes the Mathematics self-

concept and the Verbal self-concept which can be considered to be uncorrelated. Marsch (1990) assumed the Mathematics self-concept influences the Math self-concept, Physical Science self-concept, Biological Science self-concept, Economics Business self-concept, Academic self-concept and partially Geography self-concept and History self-concept. Marsch (1990) assumed the Verbal self-concept influences English self-concept, Foreign Language self-concept, History self-concept, Geography self-concept, Academic self-concept and partially Economics Business self-concept and Biological Science self-concept.
All these models are very important for understanding of the academic self-concept. Especially, the third one looks very effective one (according to results of Brunner et al., 2009).
We have to note that in the process of the general self-concept development and academic self-concept development there is very important to regard also on the non-academic self-concept. It consists of the social self-concept, emotional self-concept, physical self-concept and it is determined by the relations with peers, significant others, particular emotional states, physical ability and physical appearance (Shavelson et al., 1976).

THE STUDY

The research sample

The research sample consists of 1 704 Slovak adolescents in the age from 10 to 15 and 4 183 Czech adolescents in the age from 11 to 15. The total amount of the research sample was 5 887.
The Slovak research data were acquired in 5^{th}, 6^{th}, 7^{th}, 8^{th} and 9^{th} grades of primary schools and in 1^{st}, 2^{nd}, 3^{rd}, 4^{th} grades of the eight-years grammar school in all districts of the Slovak Republic, except Bratislava's district, it means 7 districts. The average age of the pupils was 12.45 years old with standard deviation 1.50 year old. The amount of the boys and girls was relatively balanced (837 boys and 867 girls).
The Czech research data were acquired in 6^{th}, 7^{th}, 8^{th} and 9^{th} grades of primary schools and in 1^{st}, 2^{nd}, 3^{rd}, 4^{th} grades of the eight-years grammar school in all districts of the Czech Republic, it means 14 districts. The average age of the pupils was 13.00 years old with standard deviation 1.25 year old. The amount of the boys and girls was relatively balanced (2 004 boys and 2 179 girls).
Both research samples were representative. The total amount of the pupils of the school age were 230 531 in the Slovak Republic and 348 678 in the Czech Republic in 2014.

The research method

We have chosen the Questionnaire of Children's School Self-Concept. It is standardized method published in 1992 (Matějček, Vágnerová 1992). It consists of 48 items which are agreed or disagreed by the respondents. The questionnaire contains of six scales saturated by eight items: General Abilities, Mathematics, Reading, Spelling, Writing, Self-Confidence. It is also possible to calculate the total score of the school self-concept.
The possible range of the point is from 0 to 8 in the subscales. The total score is the range from 0 to 48. The score can be standardised into the stens.
The questionnaire was created as a Czech, respectively Czechoslovak modification of the questionnaire SPAS (Student's Perception of Ability Scale) from F.J. Boersma and J.W. Chapman (1979 in Matějček, Vágnerová, 1992). It was modificated into the SPAS III form in 1987. The reliability of the subcale measured by Cronbach α is 0.89 and more. Our measurements in 2014 showed the Cronbach α in the range from 0.70 to 0.86.

The research hypotheses

We hypothesized that:
H1: there exists the difference between the Slovak and Czech adolescents in the school self-concept.
H2: there exists the difference in the school self-concept in the relation to the age of the adolescents.
H3: there exists the difference in the school self-concept in the relation to the gender of the adolescents.

FINDINGS

We applied Statistical Program for Social Science 20.0 while testing hypotheses. As a statistical method, we applied t-test and ANOVA. We consider a standard level of significance $\alpha \leq 0.05$ which points to significant differences among research groups.
Results of analysis are displayed in Tables 1-15. In the table 1, there is the general comparison of the school self-concept in both the Slovak and Czech research samples. In the table 2-8 there are the comparisons of the school self-concept in both the Slovak and Czech research samples according to age. In the table 9-15 there are the comparisons of the school self-concept in the Slovak and Czech research sample according to gender.

Table 1 The comparison of School Self-Concept subscales in the Slovak and Czech research samples

			N	M	SD	t	p
SPAS	General Abilities	CR	4 148	3.66	2.169	0.787	0.431
		SR	1 646	3.71	2.211		
	Mathematics	CR	4 148	4.39	2.328	6.230	0.001
		SR	1 633	4.81	2.241		
	Reading	CR	4 148	5.51	2.480	0.281	0.779
		SR	1 631	5.49	2.332		
	Spelling	CR	4 148	4.22	2.799	1.126	0.365
		SR	1 656	4.13	2.726		
	Writing	CR	4 148	4.64	2.531	0.000	1.000
		SR	1 638	4.64	2.437		
	Self-Confidence	CR	4 148	3.97	2.222	0.620	0.535
		SR	1 630	4.01	2.170		
	Self-Concept	CR	4 133	26.41	9.421	1.697	0.089
		SR	1 454	26.90	9.613		

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 2 The comparison of General abilities subscale in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	General abilities	10 years old	194	3.95	2.144	-	-	-	-	-
		11 years old	272	3.88	2.175	577	3.95	2.170	0.438	0.661
		12 years old	354	3.53	2.154	964	3.74	2.115	1.589	0.112
		13 years old	354	3.79	2.290	1 028	3.57	2.200	1.605	0.108
		14 years old	330	3.71	2.257	1 077	3.59	2.213	0.857	0.391
		15 years old	142	3.32	2.089	507	3.57	2.108	1.251	0.211

F = 2.261 p = 0.046 F = 3.976 p = 0.003

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 3 The comparison of Mathematics subscale in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Mathematics	10 years old	199	5.66	2.006	-	-	-	-	-
		11 years old	268	5.46	2.072	582	5.26	2.281	1.221	0.222
		12 years old	349	4.68	2.275	964	4.74	2.277	0.421	0.673
		13 years old	354	4.67	2.223	1 028	4.31	2.314	2.549	0.011
		14 years old	321	4.35	2.177	1 083	3.98	2.277	2.582	0.009
		15 years old	142	4.04	2.301	506	3.81	2.247	1.072	0.284

F = 17.867 p < 0.001 F = 44.266 p < 0.001

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 4 The comparison of Reading subscale in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Reading	10 years old	196	5.36	2.353	-	-	-	-	-
		11 years old	267	5.33	2.404	581	5.60	2.438	1.504	0.132
		12 years old	349	5.30	2.307	963	5.67	2.428	2.471	0.014
		13 years old	347	5.72	2.293	1 029	5.41	2.506	2.035	0.042
		14 years old	328	5.70	2.298	1 084	5.49	2.467	1.372	0.170
		15 years	144	5.35	2.355	507	5.38	2.530	0.127	0.898

F = 2.138 p = 0.058 F = 2.075 p = 0.081

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 5 The comparison of Spelling subscale in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Spelling	10 years old	196	4.95	2.521	-	-	-	-	-
		11 years old	275	4.44	2.696	581	4.38	2.750	0.300	0.764
		12 years old	356	3.90	2.641	966	4.29	2.758	2.306	0.021
		13 years old	354	3.94	2.753	1 027	4.06	2.831	0.692	0.488
		14 years old	330	3.86	2.836	1 084	4.20	2.810	1.920	0.055
		15 years old	145	4.03	2.749	508	4.33	2.804	1.141	0.254

F = 5.845 p < 0.001 F = 1.693 p 0.149

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 6 The comparison of Writing subscale in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Writing	10 years old	196	4.89	2.406	-	-	-	-	-
		11 years old	267	4.80	2.389	581	4.75	2.566	0.269	0.787
		12 years old	355	4.70	2.433	965	4.81	2.515	0.711	0.477
		13 years old	351	4.46	2.415	1, 028	4.58	2.510	0.781	0.435
		14 years old	328	4.73	2.366	1, 084	4.56	2.498	1.093	0.274
		15 years old	141	4.05	2.479	507	4.59	2.544	2.241	0.025

F = 2.889 p = 0.013 F = 1.842 p = 0.118

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 7 The comparison of Self-Confidence subscale in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Self-Confidence	10 years old	191	4.58	1.931	-	-	-	-	-
		11 years old	271	4.37	2.079	578	4.50	2.125	0.836	0.403
		12 years old	351	3.81	2.154	965	4.23	2.177	3.103	0.002
		13 years old	347	4.02	2.177	1 027	3.90	2.226	0.873	0.382
		14 years old	329	3.83	2.253	1 082	3.66	2.225	1.210	0.226
		15 years old	141	3.43	2.262	505	3.71	2.172	1.341	0.180

F = 7.287 p < 0.001 F = 19.195 p < 0.001

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 8 The comparison of School Self-Concept in the Slovak and Czech research samples according to age

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Self-Concept	10 years old	167	28.96	9.038	-	-	-	-	-
		11 years old	231	28.45	10.244	571	28.40	9.319	0.066	0.946
		12 years old	311	26.29	9.471	961	27.50	9.485	1.956	0.051
		13 years old	318	26.97	9.358	1 022	25.82	9.606	1.875	0.061
		14 years old	296	26.16	9.697	1 073	25.45	9.218	1.159	0.246
		15 years old	131	24.50	9.188	502	25.38	8.919	0.999	0.318

F = 5.042 p < 0.001 F = 15. 039 p < 0.001

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; F = F-value; p = significance

Table 9 The comparison of General abilities subscale in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	General abilities	boys	802	3.68	2.202	1 988	3.72	2.189	0.436	0.662
		girls	842	3.74	2.208	2 169	3.62	2.155	1.362	0.173
			t = 0.587	p = 0.557		t = 1.558	p = 0.119			

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 10 The comparison of Mathematics subscale in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Mathematics	boys	793	4.92	2.234	1 995	4.74	2.311	1.872	0.061
		girls	838	4.69	2.239	2 172	4.08	2.303	6.564	< 0.001
			t = 2.085	p = 0.037		t = 9.037	p < 0.001			

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 11 The comparison of Reading subscale in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Reading	boys	793	5.14	2.350	1 994	5.22	2.456	0.785	0.432
		girls	836	5.82	2.267	2 174	5.78	2.461	0.408	0.683
			t = 5.982	p < 0.001		t = 7.154	p = 0.001			

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 12 The comparison of Spelling subscale in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Spelling	boys	805	3.44	2.610	1 995	3.64	2.727	1.778	0.075
		girls	849	4.78	2.680	2 175	4.77	2.751	0.090	0.927
			t = 10.293	p < 0.001		t = 13.449	p < 0.001			

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 13 The comparison of Writing subscale in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Writing	boys	797	3.87	2.310	1 993	3.61	2.352	2.651	0.008
		girls	839	5.37	2.286	2 176	5.60	2.283	2.478	0.013
			t = 13.242	p < 0.001		t = 27.701	p < 0.001			

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 14 The comparison of Self-Confidence subscale in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Self-Confidence	boys	788	3.94	2.153	1 989	3.95	2.242	0.107	0.914
		girls	840	4.07	2.192	2 172	4.00	2.187	0.788	0.431
			t = 1.296	p = 0.195		t = 0.569	p = 0.560			

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

Table 15 The comparison of School Self-Concept in the Slovak and Czech research samples according to gender

			SR			CR			t	p
			N	M	SD	N	M	SD		
SPAS	Self-Concept	boys	699	24.92	9.266	1 975	24.85	9.361	0.170	0.864
		girls	753	28.73	9.564	2 158	27.84	9.247	2.253	0.024
			t = 7.700 p < 0.001			t = 10.308 p < 0.001				

Legend: CR = Czech Republic; SR = Slovak Republic; N = count; M = mean; SD = standard deviation; t = t-value; p = significance

We found out:

- the only one significant difference between the Slovak and the Czech adolescents in the school self-concept. Particularly, it is the difference (t = 6.230; p = 0.001) in the subscale Mathematics (table 1).
- the difference in General abilities subscale in the Slovak sample (F = 2.261; p = 0.046) and in the Czech sample (F = 3.976; p = 0.003) according to age. The differences between the countries are not significant (table 2).
- the difference in Mathematics subscale in the Slovak sample (F = 17.867; p < 0.001) and in the Czech sample (F = 44.266; p < 0.001) according to age. The comparison of the countries showed the difference only in the group of 13 (t = 2.254; p = 0.011) and 14 years old adolescents (t = 2.282; p = 0.009) (table 3).
- no significant difference in Reading subscale in the Slovak sample and in the Czech sample according to age. The comparison of the countries showed the difference only in the group of 12 (t = 2.471; p = 0.014) and 13 years old adolescents (t = 2.035; p = 0.042) (table 4).
- the difference in Spelling subscale in the Slovak sample (F = 5.845; p < 0.001) according to age. The comparison of the countries showed the difference only in the group of 12 years old adolescents (t = 2.306; p = 0.021) (table 5).
- the difference in Writing subscale in the Slovak sample (F = 2.889; p = 0.013) according to age. The comparison of the countries showed the difference only in the group of 15 years old adolescents (t = 2.241; p = 0.025) (table 6).
- the difference in Self-Confidence subscale in the Slovak sample (F = 7.287; p < 0.001) and in the Czech sample (F = 19.195; p < 0.001) according to age. The comparison of the countries showed the difference only in the group of 12 years old adolescents (t = 3.103; p = 0.002) (table 7).
- the difference in the total score of the school self-concept in the Slovak sample (F = 5.042; p < 0.001) and in the Czech sample (F = 15.039; p < 0.001) according to age. The differences between the countries are not significant (table 8).
- no significant difference in Reading subscale in the Slovak sample and in the Czech sample according to gender. The differences between the countries are not significant (table 9).
- the difference in Mathematics subscale in the Slovak sample (t = 2.085; p = 0.037) and in the Czech sample (t = 9.037; p < 0.001) according to gender. The comparison of the countries showed the difference between the Slovak and Czech girls (t = 6.564; p < 0.001) (table 10).
- the difference in Reading subscale in the Slovak sample (t = 5.982; p < 0.001) and in the Czech sample (t = 7.154; p = 0.001) according to gender. The differences between the countries are not significant (table 11).
- the difference in Spelling subscale in the Slovak sample (t = 10.293; p < 0.001) and in the Czech sample (t = 13.449; p < 0.001) according to gender. The differences between the countries are not significant (table 12).
- the difference in Writing subscale in the Slovak sample (t = 13.242; p < 0.001) and in the Czech sample (t = 27.701; p < 0.001) according to gender. The comparison of the countries showed the difference between the Slovak and Czech boys (t = 2.651; p = 0.008) and girls (t = 2.487; p < 0.013) (table 13).
- no significant difference in Self-Confidence subscale in the Slovak sample and in the Czech sample according to gender. The differences between the countries are not significant (table 14).
- the difference in the total score of the school self-concept in the Slovak sample (t = 7.700; p < 0.001) and in the Czech sample (t = 10.308; p < 0.001) according to gender. The comparison of the countries showed the difference between the Slovak and Czech girls (t = 2.253; p = 0.024) (table 15).

CONCLUSIONS

We can't accept our hypotheses because of the results which are not clear. But in our findings there are some partial results which we want to comment.

The school self-concept of the Slovak and Czech adolescents are very similar according to average mean and variability of the data represented by standard deviation. The self-evaluation of the abilities in Mathematics is the only significant difference in the global comparison. The partial differences between the Slovak and Czech adolescents were found in Mathematics in the group of 13 and 14 years old and the in group of girls, Reading in

the group of 12 and 13 years old, Spelling in the group of 12 years old, Writing in the group of 15 years old and in the group of the boys and girls, Self-confidence in the group of 12 years old, Self-concept in the group of girls. These are some partial differences between the countries.

More important are the differences which we acquired within the countries in the relation to age and gender. We found that the believes about general abilities (both countries), about abilities in Mathematics (both countries), about the abilities in Spelling (Slovak Republic), about the abilities in Writing (Slovak Republic), about the Self-confidence are decreasing in the relation to increasing age.

Further we found that the believes about abilities in Reading, about abilities in Spelling, about abilities in Writing, about Self-confidence, and the Self-concept are higher in the group of girls (both countries). The believes about abilities in Mathematics are higher in the group of boys (both countries).

These findings are important in the relation to educational psychology and teaching. The decreasing of the school self-concept can be connected with out-of-intellect factors, especially the motivation of the pupils and the class atmosphere. So the challenge for the teachers and the parents of the pupils is the motivational aspects of the education and the support of the healthy relations in the class and in the school. We know the school achievement in the main subjects is decreasing with the increasing age (Matějček, 2011) and that the attitude to the school is declining with the increasing age. And these findings may be the risk factors which can lead to production of the problem behaviour in the adolescence. The support of the emotional and cognitive motivation, creation of the human and democratic school environment can be in the relation to the self-regulation and autonomy support the way of the prevention of the problem behavior.

The gender difference described in the text above showed the stereotypical reinforcement of the boys' believes about their abilities in Mathematics representing technical thinking despite of the fact the girls achieve better results than boys in Mathematics and the other subjects in general in the Slovak Republic. This is the proclamation of that the girls' effort to learn something is not supported by teachers and that the hidden curriculum can be also the specific factor which can demotivate the pupils, in this case the girls, to try to develop own personality according to personal goals. The formative influences reflecting the decreasing of the school self-concept certainly have the impact on the general self-concept which is also decreasing and can be connected with characteristics as helplessness, amotivation, alexithymia, depression, anxiety, loss of the life meaning, hostility, incompetency, deregulation of the behaviour etc.

REFERENCES

Balcar, K. (1983). *Úvod do studia psychologie osobnosti*, Praha: SPN.

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), pp. 191-215.

Blatný, M. (2001). *Sebepojetí v osobnostním kontextu*, Brno: Masarykova univerzita.

Baumeister, R.F. (2005). Self-concept, self-esteem and identity. In V.J. Derlega, B.A. Winstead, W.H. Jones. (Eds.) *Personality: Contemporary theory and research* (pp. 246-280). Toronto: Thoomson Wadsworth,.

Brunner, M., Keller, U., Hornung, C., Reichert, M., & Martin, R. (2009). The cross-cultural generalizability of a new structural moel of academic self-concepts. *Learning and Individual Differences*, 19, pp. 387-403.

Greenwald, A.G. (1980). The totalitarian ego: Fabrication and revision of personal history. *American Psychologist*, 35(7), pp. 603-618.

Greenwald, A.G., & Pratkanis, A.R. (1984). The self. In R.S. Wyer, T.H. Srull (Eds.) *Handbook of social cognition* (pp. 129-178). Hillsdale, N.J.: Erlbaum,.

Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41 (9), pp. 954-969.

Marsch, H.W. (1990). The structure of academic self-concept: The Marsch/Shavelson model. *Journal of Educational Psychology*, 82, pp. 623-636.

Marsch, H.W., Smith, I.D., & Barnes, J. (1985). Multidimensional self-concepts: Relations with sex and academic achievement. *Journal of Educational Psychology*, 77, pp. 581-596.

Matějček, Z. (2011). *Praxe dětského psychologického poradenství*. Praha: Portál.

Matějček, Z., & Vágnerová, M. (1992). *Dotazník sebepojetí školní úspešnosti dětí*, Bratislava: Psychodiagnostika.

Matějček, Z., & Vágnerová, M. (Eds.) a kol. (2006). *Sociální aspekty dyslexie*, Praha: Karolínum.

Ogilvie, D.M. (1987). The undesired self: A neglected variable in personality research. *Journal of Personality and Social Psychology*, 52(2), pp. 379-385.

Poledňová, I., Stránska, Z., & Kmětíková, T. Sebepojetí dětí se specifickými poruchami učení, in I. Poledňová (Ed.) *Sebepojetí dětí a dospívajících v kontextu školy* (pp. 79-94), Brno: Masarykova univerzita,.

Rogers, C.R. (1951). *Client-Centered Therapy: Its Current Practice, Implications and Theory*. Boston: Houghton Mifflin.

Shavelson, R.J., Hubner, J.J., & Stanton, G.C. (1976). Self-Concept: Validation of construct interpretations, *Review of Educational Research*, 46(4), pp. 654-664.

Tafarodi, R.W., & Swann, W.B. (1995). Self-liking and self-competence as simensions of globa self-esteem: Initial validation of a measure. *Journal of Personality Assesssment*, 65 (2), pp. 322-342.
Vágnerová, M., & Klégrová, J. (2008). *Poradenská psychologická diagnostika dětí a dospívajících*, Praha: Karolínum.