EDITORIAL BOARD

FOREWORD

Dear readers, dear colleagues!

We have entered into the third year of our journals existence. In the life of children, the third year is a turning point as they become pre-schoolers, start going to kindergarten, they are meeting new friends and discovering the world – new horizons are opening for them.

It is a pleasure that our scientific journal is gradually finding its place both in Slovakia and abroad. On the pages of the this issue of our journal we can again meet interesting topics that can thanks to their up-to-dateness address you professionals as well as pedagogues and research workers who deal with the questions of education.

Three studies, three articles, two reviews and information about a new project form the content of the new issue.

The unifying aspect of the first three studies is university and secondary school students while every author deals with the topic from a different point of view. Jarmila Novotná with co-authors of the study Ľ. Verbovanec and Ľ. Török focused on creativity and motivation in higher education teacher training. The need to realize targeted intensive programmes of student motivation and creativity development, to eliminate fear, anxiety, tension, and stress from the educational process, to improve creative performance, and to contribute to the increase in educational quality in pregradual preparation comes from their research.

Petr Hlaďo deals with the analysis social influences in the transition of Czech students between educational levels and to the labour market. He compares the opinions of students of 40 lower secondary schools and 20 secondary vocational schools on the autonomy of students in decision making regarding their education and future career as well as various social influences on it.

Petra Lajčiaková brings an unusual view on development and at the same time on the significant relationship between moral judgment and the influence of study specialization of university students. The author suggest a matter of discussion on the methods of moral judgment competencies development in university students.

The next section of the journal consists of three professional articles. One of them is dedicated to children, Dana Kollárová describes how support

therapies help pupils with special educational needs and she shares her experiences with the use of the elements of creative drama and drama therapy with 5th - 9th grade students.

Ján Bajtoš and Iveta Kmecová introduce an analysis of selected results from the research of textbooks' efficiency in technical education in relation to preparing for a knowledge-based society.

The main issue of Jana Petnuchová's article is the importance of vocational education and training for young people's preparation for the labour market and for the development of their skills that should correspond with the requirements of the labour market. It is a long neglected issue both in practice and in professional publications.

The published reviews of professional publications bring interesting observations. The first one was written by Peter Bogdan who reviews a methodological book by K. Nagy Emese (2012).

In the second review, Silvia Matúšová writes about a publication by Viola Tamášová et al. (2013) dealing with the current questions of the quality of adult education and lifelong education in five European countries.

The final pages of this issue of the journal are dedicated to Slávka Hlásna's information about a grant project titled "Socio-Educational Training as an Innovative Form for the Lifelong Education of Teachers at Secondary Vocational Schools" – being solved by the collective of pedagogues from the Dubnica Technological Institute.

We hope, dear readers, the wide range of issues that Acta covers give you inspiration to write further articles and motivation to our mutual cooperation in educational activities.

Viola Tamášová
Editor

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

STUDIES

Creativity and Motivation in Higher Education Teacher Training

Jarmila Novotná – Ľubomír Verbovanec – Ľuboš Török*

Abstract: The main research subject of this study is a teacher. Our goal is to contribute to changes in teacher training in the direction of developing their motivation and creative potential, so that creative personalities of students could be subsequently developed. We chose the methodological concept of a natural developing experiment, in which we study the dynamics of changes in motivation and creativity of student teachers. In the scope of extensive research concept we used various methods to record scores before and after the experiment, such as IMB, DMV, IPOT, WKOPAY and Torrance Figural Test of Creative Thinking. The results were subjected to a quantitative evaluation by means of conventional statistical methods, such as the significance of differences in arithmetic means and index analysis. These were subjected to a qualitative analysis. As a result, conclusions were drawn from the study of future teachers' motivation and creativity. The results have shown significant arguments in favour of aimed and intensive motivational and creative development programmes. As it follows from our findings, interesting also for theories on educational process, the elimination of fear, anxiety, tension and teaching stress can humanise educational environment and also change motives for improving one's creative performance. The goal of our experiment is to contribute to the improvement of undergraduate teacher training and participate in progressive changes in the educational system.
Key words: humanistic education, motivation, creativity, creativity and motivation development strategies, undergraduate teacher training, creative programmes and stimulation of creativity and motivation in undergraduate teacher training.

* Jarmila Novotná, Dubnica Institute of Technology in Dubnica nad Váhom, Dubnica nad Váhom, Slovakia; doc.jn1@gmail.com

Ľubomír Verbovanec, Dubnica Institute of Technology in Dubnica nad Váhom, Dubnica nad Váhom, Slovakia; verbovanec@dti.sk

Ľuboš Török, Constantine the Philosopher University in Nitra, Nitra, Slovakia; ltorok@ukf.sk

1 Introduction

At present, the concept of motivation and creativity is associated with almost all modern human activities. They are often mentioned in connection with school and teacher's personality.
The analysis of the term *motivation* illustrates a wide range of problems and variability of its understanding. Their detailed analysis, however, is not our goal. As many authors (Hrabal, 1989, Pardel, 1977, Szobiová, 2004, Zelina, 1995 etc.), whose ideas were influenced by foreign "classic authors" and their works, we understand motivation as *an aggregate of factors which stimulate, energise and coordinate the process of human behaviour, as well as experiencing relationships between the outside world and themselves.*
Therefore, motivation in the educational process has got a dual role. It is a means of learning process and the aim of education at the same time (Sollárová, 1985). It cannot be divided because each change in motivation of learning activity is dependent on the motivational sphere of personality and vice-versa (Torrance, 1988). However, it can be stimulated in many ways. Firstly, *the external motivation can be turned into internal motivation.* For this reason, it is important to create such atmosphere which would include incentives saturating specific needs. Such stimulated motivation is based on their changes (for example, competing elements in teaching can change the social needs, and on the other hand, problematic teaching can change cognitive needs) (Hlavsa, 1985). Secondly, the motivational component of educational activities is *goal-setting and goal-acceptance*.
The change in the student's cognitive needs in specific creative teaching conditions can be achieved by *problematic and creative tasks*. The problem solving can be *externally and internally* motivated (when the motivation comes from our needs, self-realisation and purposeful learning for oneself). A third possibility also exists in case the task given from the outside is *internalised* and a man accepts it as his/her own without any pressure from the outside (Jurčová, 1979; 1984). The entire process of motivational cycle is emotionally and positively harmonised, which is the basis of self-regulation. Satisfying one's needs does not necessarily mean the end of motivation, but the oscillation of its intensity and gradual slower or faster suppression of its level depending on the stimulating effect of the environment. The demand for knowing one's needs, motives and most importantly to motivate a personality to a creative activity in teaching is easier said than done.
Internal motivation is a prerequisite for the development of a creative personality since the biggest factor influencing progressive human self-realisation and realisation as a whole is a dynamic sphere, i.e. motivation, control and creativity.
At present, creativity is a significant phenomenon. Therefore, the purpose of our study is contribution to the development of those who will play a major role in

education of children, youth and future teachers. Teacher training is one of the most discussed topics concerning changes in education round the world today. Our country is also looking for approaches to conceptual changes in teacher training (sometimes these efforts lead only to partial innovations). Mainly in the support or development of activity, independence, and creativity amongst future teachers we see the possibility of conceptual change in education (Königová, 2007; Kusá, 2006). We would like to mention the fact that a systematic, theoretical and experimental research in this area is mostly done by psychologists who prove that certain creative, divergent and productive thinking parameters can be improved by means of creativity programmes, influencing the attitude, creation of creative procedures and methods. Our purpose is also driven in this direction. Its aim is to study and influence the most flexible factor beginning to take part in education, that is, the teacher's personality in creativity.

There is a whole list of proposals on how to support and develop a creative personality. From reflexive practice techniques through observation of student teachers, team teaching, metacommunication, clinical writing, video-practice, life-story writing, simulated situations, role-playing up to the most self-contained **concept of creative teaching** (Dargová, 2001). This is aimed at stimulation of the whole creative potential of a personality. It becomes a human imperative.

We distinguish two trends in approaches to the stimulation of a creative teacher's personality. (Biehler – Snowman, 1990). The first one outlines the way to eliminate obstacles of a creative expression of a personality. The second one prioritises the awakening, stimulation and creativity cultivation. Creative programmes belong to relatively new possibilities. Their advantage is that they are less unrestrained, less dispersed, which enables us to study their effects more thoroughly. In the end, our research is connected with the attempt to develop such a programme and subsequently to verify it experimentally. Dynamic and synthesising nature of creativity as a human tendency to realise one's capabilities and possibilities were situated into the programme, which indicates and respects the particularities of developing creativity amongst future teachers in undergraduate teacher training. *The first particularity* is perceived in terms of creativity stimulation of future teachers. In this case, creativity has got two stages. The first one focuses on the development of general creative abilities, such as figural, verbal, behavioural creativity on the level of fluency, flexibility and originality (Guilford's model). The second one is applicative, that is we assign such tasks and cases which are taken directly from educational life supposing that a teacher will be able to do something similar in practice (for example, student – teacher relationship, climate, curriculum etc.). *The second particularity* means that as far as creativity is stimulated and developed in a personality, it is usually cognitive creativity, intellectual creativity and creativity in thinking. However, a teacher must be creative not only in thinking,

but also in feelings, motivation, socialisation, communication, cooperation etc. Therefore, we cannot focus only on mental and cognitive creativity, but we should extend it beyond the borders of creative abilities in the manner of behavioural style of the future teachers.

We consider the aforementioned to be the basic starting point of this creative programme formulation, which was named Creative Teacher (Marušincová, 1989). We respected the real university conditions. The key elements were creative tasks which are motivating (including collative properties, such as surprisingness, newness, curiosity, frequent drama during assignment of tasks, cognitive insecurity connected with a contradiction of the problem formulation, difficulty and also trust or confidence found in a personality, the problem solving and its constant encouragement focusing on the development of fluency, flexibility, originality, imagination, emotions, (Jurčová, 1993) evaluative thinking, strategies, such as a creative game, staging and situational methods) and creative climate (creativity is developed in the climate of truthfulness, trust, self-confidence, security and strategies, such as improvisation, pantomime, sociodrama etc.).

The Creative Teacher programme included three inter-related parts:

The first one focused on creation of a favourable socio-creative climate (these exercises help increase self-confidence of a personality in the group; activities are usually simple, non-contrastive, funny, but they begin the process of introspection, i.e. insight into oneself).

In the second part the attention was focused on the "self-concept" of personality, that is, on "I" as a starting point for self-knowledge, trying to find oneself, introspection and identifying emotions, self-awareness (exercises are aimed at a cognitive, emotional, evaluative, active or conative area of self-awareness; students should understand and realise the fact that their self-awareness structure creates an aggregate of a real image about themselves – a conviction associated ideas of an individual on how they accept their current tasks, roles etc.); social image (a conviction associated with images of an individual on how others see and perceive it) and individual image (images of who they wish to become); acceptance, congruence and empathy are seen as an organic part of a human self-concept.

The third one was a shift towards educational practice of a future teacher. It is focused on the development of creativity and creative cooperation in a group. Not only mental functions and processes of the future teacher's personality, but also the philosophy of a creative life are practised, that is, creative feelings, motivation towards learning and creativity, creativity in socialisation, human relationships, creativity in axiology and metacreativity.

Before demonstrating the results of our experiment we would like to point out the fact that the issue of creativity and motivation is not to be considered completely examined. Therefore, the results that we came up with cannot be absolute, and so we are open to the given issue.

2 Methodology and research methods

2. 1 Research goals

In connection with a theoretical basis of motivation and creativity study in terms of education and our research intention, we were interested in answers to the following questions:

What motivation is a prerequisite for the development of creativity in student teachers? Which motives prevail? What are the standpoints of future teachers towards creativity? How do they judge themselves in terms of creativity? What creative potential do they really have? Is it possible that stimulation and creative performance in teacher training as such can be changed intentionally? If so, how?

The main goal was to experimentally verify the effectiveness of our programme called Creative Teacher in undergraduate teacher training, that is to study the dynamics in motivational changes, in self-evaluation of creativity and most importantly in the creative performance of future teachers.

The secondary goal was to create the Creative Teacher programme, which would support motivation towards creativity and, at the same time, develop a creative potential of future teachers in natural conditions of their undergraduate study.

The complex goal was to direct future teachers towards self-changing tendency, which would lead to creation of such competencies that are required for progressive changes in the current educational system.

2. 2 Research problems

The main problem was to create a programme which would motivate and stimulate a creative potential of future teachers. In connection with this problem, we tried to solve the issue of motivational and developing programme elements, their adequacy and effectiveness. It was not a simple task to think through the time available for implemented changes which should be shown. Another problem was seen how objectively we can evaluate such changes. The objective evaluation of these changes was also perceived as a stumbling block. In relation to this, we have to consider and choose such performance and self-evaluation methods or tests, by means of which we could find out motivation, self-judgement of the students' creativity and their creative performance. The following questions came to mind in these terms: Will the programme be manifested in the given tests? Will the specific transfer occur? Which non-specific transfers will occur?

Another challenging problem of our experiment was the interpretation of the obtained results and data. Since both motivation and creativity are psychological phenomena, our research was interdisciplinary oriented. The research, but also the interpretative scope had a psychodidactic character.

2. 3 Research tasks

- to create a programme called Creative Teacher with a dominant position of methods, techniques and strategies for cognitive motivation, tasks with collative variables, creative problem solving and creative personality characteristics which would develop creativity itself;
- to prepare and choose methods, techniques and strategies in order to verify the effectiveness of our Creative Teacher programme;
- to choose a research sample;
- to discover score in affective, cognitive and effective motives of motivation amongst students and study their dynamics of changes under the influence of the programme in the direction of their changing tendency;
- to discover changes in creativity performance, i.e. on the level of creative abilities in factors, such as fluency, flexibility and originality before and after the experiment;
- to evaluate the effectiveness of the experiment by means of statistical processing of the results and qualitative analysis.

2. 4 Hypotheses

In connection with the research goals we set a general hypothesis:

H: We assume the Creative Teacher programme will significantly affect the development of motivation and creativity in the experimental group compared to the control group.

From the general hypothesis we deduced the following hypotheses:

H1: Under the influence of the Creative Teacher programme in the experimental group the total score of motivation in learning (score in affective, cognitive and effective motives) will statistically increase.

H2: By implementing the Creative Teacher programme in the experimental group the attitude of the students towards creativity and self-judgment of their own creative prerequisites will be significantly changed.

H3: By implementing the Creative Teacher programme in the experimental group a creative performance within factors of fluency, flexibility and originality will significantly increase.

2. 5 Nature of research

From the standpoint of our research goal we chose an experiment that is defined as a type of empirical research in which a researcher manipulates and controls one or more variables (independent variables) and observes dependent variables in relation to the accompanying changes. These changes in the dependent variables are caused by manipulation with the independent variables. Although it takes a lot of time and organisation, it is most accurate. It also enables us to observe the relevant variables in the time dimension. The ex ante measurement

allows to equalise the samples of both groups upon the beginning of the experiment or eventually to control the initial variables. Its methodological advantage is seen in the fact that it enables us to study several variables at the beginning and at the end of the experiment and also to combine self-evaluation methods, which are more focused on experiencing (WKOPAY) along with performance measures (IMB, CIRCLES).
The control of systematic external dispersion (the effect of unwanted independent variables) was secured by random assignment of conditions to the experimental groups.
Since the groups were equal at the beginning, the conditions of EG and CG were randomly assigned to them.

2. 6 Research methods
For data retrieval the following methods have been used:
IMB – questionnaire on the motivation to learning – by the Hungarian author Béla Kozéki. It determines the overall level of a student's motivation to knowledge acquisition, i.e. also to self-improvement. In addition, it tracks the structure of motivation, the dominant triad, in three areas: cognitive, affective and effective. Its advantage is the fact that students mark only those motifs that really influence their learning process. It is based on the theory of external and internal motivation. It is created specifically for students and the school and determines the most significant motives derived from factor analyses of the students' motivational structures.
WKOPAY – *What Kind Of Person Are You?* – is a questionnaire on the self-evaluation of one's personality creative potential created by Torrance and Khatena and it was adapted to our conditions by Zelina (he changed the names of some factors, so that they correspond better to the question wordings, etc.). The questions arranged in pairs are being repeated in a modified form always with a new question in the pair and the subject has to choose one of the alternatives. Five personality factors are monitored which according to the theory by Torrance and Khatena condition creativity: self-confidence, inquisitiveness, intuition, industriousness and awareness of others. The authors assumed that the higher the score in these five personality factors is, the more do the participants evaluate themselves with higher personality creative potential.
TTCT – Torrance Test of Creative Thinking – consists of three figural tests. From this set we have chosen the subtest CIRCLES, which was prepared with the norms on the Slovak population by Jurčová. Such a test has proven suitable in determining the participants' ability to produce divergent figural units. It assesses the fluency, flexibility, and originality of the productions. The results between control and experimental groups and between ex ante and ex post measurements can be compared.
For the processing and analysis of the data, the following statistical methods have been used:

Paired t-test used for dependent samples tests the difference in mean values in one group (between ex ante and ex post). We have used it to determine if the difference in mean values is random or statistically significant. ***Unpaired t-test*** **used for independent samples tests the difference in mean values of two groups (between EGs and CGs).** We have used it to determine if the difference in mean values is random or statistically significant.
Unpaired and paired t-tests may be also used with small samples (50), but only when the assumption of normal distribution is met and the variances of these groups do not differ significantly. Normality has been determined by the normality test. If the test rejects normality, we use the non-parametric alternative, the **Mann-Whitney U test** which tests the difference in medians (which was also our case).
The qualitative interpretation of our findings was difficult, since we were in an interdisciplinary (psycho-pedagogical) research field. Therefore, we carried out not only the quantitative but also **qualitative, causal and descriptive analyses**.

2. 7 Research sample
The research was carried out at the University of Prešov, in particular at the Faculty of Humanities and Natural Sciences in Prešov. When choosing the research respondents, we assigned the conditions of control experimental groups to already existing student groups, to the so-called clusters, and not individuals. This means that we use the cluster or group selection. To ensure the representative character of the retrieved data, we adhere to the following conditions: **the experimental and control groups are the same size and are internally homogenous.**
Altogether, 188 participants joined the research: 96 students in two EGs and 92 in two CGs. Such a choice and arrangement of the sample was due to the changes in teacher training at the UP in relation to the internal reform of universities and the changes in contents and time allocation of the pedagogical-psychological disciplines. One CG and EG took courses according to an original programme of teacher training and the second CG and EG according to a new programme. *We have divided and labelled the sample as follows:*

- *The students of "core courses" (later only CC)* – the groups CG_CC (44 students) and EG_CC (51 students) in the original study programme named "core courses".
- The students of "social studies and pedagogical-psychological essentials" (later only SSPPE) – the groups CG_SSPPE (48 students) and EG_SSPPE (45 students) in the new programme of training future teachers.

We carried out the experiment in two semesters in each experimental group and in the natural conditions of the university undergraduate teacher training. The students CC_EG took part in the Creative Teacher programme as a part of the following subjects: intro to didactics and general pedagogy and psychology of

creativity and the students SSPPE_EG took part in the Creative Teacher programme as a part of the following subjects: general didactics and cooperative teaching. The experimental groups were taught by a university lecturer - associate professor (docent) with PhD. In the control groups, where the programme was not implemented, the teaching was carried out by traditional methods by a university lecturer with PhDr. or PhD. The guarantor of the contents of all the listed subjects was associate professor (docent) with PhD. The experiment was carried out in the range of 40 forty-five-minute lessons over two semesters. The third part consisted of a block of 6 forty-five-minute lessons (3 two-hour lessons) carried out in extracurricular time. The overall programme range was 52 lessons. As undesirable variables in the experiment, we eliminated the influence of environment and communication between students mainly by optical cross-comparisons of both control and experimental groups according to the original and current study plans.
The variables that have been chosen for the expected changes in the experiment were a part of the programme for creativity development in undergraduate teacher training. They include different motivational strategies, therapeutic techniques, divergent tasks and activations of evaluative and self-evaluative thinking.

2. 8 Research procedure
The input for our experiment with ex ante and ex post measures in EGs and CGs included an overview of theoretic and research-based creativity problems, the definition of objectives and hypotheses and the assignment of a methodological approach for our research. Afterwards we prepared a block of tests for measuring the relevant variables.
Subsequently, we carried out initial measurements in all groups in the range of one week. The instructions and motivation to the individual tests were standardised and compliant with the mentioned procedures.
After the initial measurement, the Creative Teacher programme was carried out in the experimental groups. In the control groups, the university teaching continued in a traditional way, i.e. the lectures and seminars prevailed. The lectures were dominated by the explanations of topics from the subject syllabus and the seminars included the usual essays and thematic presentations. The lessons were focused on What? (e.g. What is creativity? What are the methods for creativity development? etc.), not on How? In some of the CG seminars the experience methods, solving and modelling of problem situations and teamwork were also used, but their choice was intuitive and random, in accordance with the topic of the lesson.
After the experiment, we carried out output measurements in all the EGs and CGs. This measurement was done under the same conditions and with the same instructions as the initial one but this time we wanted to determine the changes that occurred due to the elapsed time and due to the influence of the programme.

These steps provided us with material for the quantitative and qualitative analysis.

3 Results and survey interpretation

3. 1 Motivation for teaching

We begin the interpretation of data with an IMB survey by means of which we seek to prove or reject the first hypothesis. We hypothesise that the creativity development programme will help improve the overall motivation in all three of its constituent parts, i.e. cognitive, affective and effective. An IMB survey has been used in the testing of variables. The scores, as shown in the following tables, can very well reach a minus value as negative-value answers are to be subtracted from positive-value ones.

Motivation IMB (CC_ before experiment)						**Motivation IMB** (SSPPE_ before experiment)			
		affective	**cognitive**	**effective**	**total**	**affective**	**cognitive**	**effective**	**total**
control group CG	mean	5.23	4.95	4.91	15.48	4.96	4.33	4.39	13.89
	deviation	1.15	1.1	0.98	2.9	1.27	1.19	1.03	3.2
experimental group EG	mean	5.11	5.18	5.03	15.84	5.07	4.76	4.79	14.61
	deviation	0.99	0.97	0.89	2.4	1.18	1.07	0.97	2.97
t-test		0.541	1.071	0.619	0.655	0.427	1.808	1.904	1.373

Tab. 1 Motivation of students measured by IMB questionnaire before the experiment

Legend for Table 1 – 4
mean – arithmetic mean
deviation – standard deviation
t-test – statistical significance of differences
** – statistical significance of differences on level α=0.05 (95%)*
*** – statistical significance of differences on level α=0.01 (99%)*
**** – statistical significance of differences on level α=0.001 (99.9%)*

In Table 1 we summarise the results of evaluation in groups CC_CG and EG, and SSPPE_CG and EG before the experiment. In studying motivation we have noticed no statistically significant variance between CC_CG and CG within the entire motive triad. However, we have observed very low levels of motivation with all three variables. An interesting fact is that at the beginning of the evaluation group CC_CG exhibited a dominance of affective motivation over cognitive and effective, whereas in group CC_EG cognitive motivation prevailed over affective and effective. In group SSPPE_CG effective motivation seems to be the most prominent one, followed by effective and cognitive. Even so, the differences are not statistically relevant. The value order of the variables with EG_SSPPE is the same as in the control group, which proves the similarity of both groups. Ex ante and ex post measurements with group CC_EG after the experiment are shown in Table 2.

Motivation IMB CC before and after experiment					
		affective	**cognitive**	**effective**	**total**
experimental group (ex ante)	mean	5.11	5.18	5.03	15.84
	deviation	0.99	0.97	0.89	2.4
experimental group (ex post)	mean	5.92	7.14	6.22	19.02
	deviation	1.37	1.12	1.11	3.3
t-test		3.222^{**}	8.949^{***}	5.643^{***}	5.241^{***}

Tab. 2 Motivation of CC_EG students measured by IMB questionnaire before and after the experiment

The data demonstrate the following:
The order of variables in group EG_CC has changed after experimental interference. While cognitive motivation still dominates, effective and affective motivations have swapped positions. We have, however, not assessed the statistical relevance of the changes since the scope and aims of our research required an assessment of the overall motivation rise. Still, these results may very well become a basis for further research. After comparing ex ante and ex post measurements, we claim that effective motives with EG_CC have risen in prominence. The rise of value from 5.11 to 5.92 represents a 0.01 significance level. In order to prove hypothesis 1 it was also necessary to assess the score rise with cognitive and effective motivation. Effective motivation based on the comparison between ex ante and ex post measurements has reached 0.001% significance. This is based on the average change from 5.03 to 6.22. Cognitive motivation, displaying the highest value right from the start, has in average

shifted from 5.18 to 7.14 in the course of the experiment, which stands for a 0.001 significance level. It is the cognitive motivation which interests us mostly both in this study and in the programme we are promoting. It is the motivation which definitely plays a key role both in teaching and in learning to be creative. The willingness to learn and gain knowledge is important in the development of individual creativity.
The overall score of motivation has reached a 0.001% significance level in ex ante and ex post measurements and this proves hypothesis 1.
Since our experiment entailed the participation of two experimental groups, ex ante and ex post measurements have been used with group SSPPE as well. Based on the measurements, the following has been demonstrated (Table 3):

Motivation IMB SSPPE before and after experiment					
		affective	**cognitive**	**effective**	**total**
experimental group (ex ante)	mean	5.07	4.76	4.79	14.61
	deviation	1.18	1.07	0.97	2.97
experimental group (ex post)	mean	5.87	6.13	5.96	18.43
	deviation	1.03	1.28	1.07	3.12
t-test		3.436***	5.552***	5.470***	5.983***

Tab. 3 Motivation of SSPPE_EG students measured by IMB questionnaire before and after the experiment

By means of experimental interference the order of variables has changed with group EG_SSPPE. Before interfering, affective motivation evidenced the highest values, followed by effective and cognitive. After interfering, cognitive motivation has earned the highest score, followed by effective and affective. Even so, it cannot be said that the creativity development programme has influenced the order of variables. This is because the order of variables has changed in the control groups as well, and this happened without the adoption of the programme. Yet our goal is to trace down constituent parts of motivation. One of them is affective motivation which has shown the lowest increase of the variables (see Table 4). Regardless of that, with its average difference between 5.07 and 5.87 at the final measurement it has reached a relevance level of 0.001. Cognitive motivation has been rising most notably of all the variables (4.76 at the start, 6.13 at the end). The statistical relevance of the values is 0.001. With effective motivation, we have also noticed a significant rise (4.99 at the start, 5.96 at the end) which equals a relevance level of 0.001. The overall motivation has increased on a 0.001 level after the application of our programme.

To reach a full account of the data after the experiment we decided to compare the results from the control and experimental groups. This enabled us to verify the hypothesis about the effectiveness of the programme. The data is summarised in Table 4.

Motivation IMB CC after experiment						**Motivation IMB** SSPPE after experiment			
		affective	**cognitive**	**effective**	**total**	**affective**	**cognitive**	**effective**	**total**
control group	mean	5.07	4.73	4.87	15.1	4.35	4.41	4.28	13.1
	deviation	1.49	1.08	1.04	3.4	1.19	1.21	1.13	3.23
experimental group	mean	5.92	7.14	6.22	19.02	5.87	6.13	5.96	18.43
	deviation	1.37	1.12	1.11	3.3	1.03	1.28	1.07	3.12
t-test		2.865*	10.520***	6.021***	5.633***	6.496**	6.589***	7.727***	7.997***

Tab. 4 Motivation of students measured by IMB questionnaire after the experiment

As we compared the results between the control groups before and after the experiment, we have noticed almost no differences in the variables, although the students from both the control and experimental groups were taking the same study plan. However, the order in the motivation triad has changed. Before the experiment, affective motivation dominated over effective and cognitive in group CG_ SSPPE. After the experiment, affective motivation has still proved the most prominent, followed by cognitive and effective. Affective motivation has reached an average value of 4.35 in group CG_ SSPPE, whereas in group EG_ SSPPE, which has participated in the Creative Teacher programme, it has reached the value of 5.87. This adds up on a 0.001 significance level. The statistics of affective motivation have increased in both CC and SSPPE experimental groups. Based on the data provided in Table 4, we can say that a statistically relevant increase in EGs over CGs has occurred. With the second examined variable, cognitive motivation, we have seen a significant increase in value (4.41 in CGs compared with 6.13 in EGs). The given values have been evaluated by means of a t-test on significance level of 0.001. We have seen a

statistically relevant change in cognitive motivation and this leads to prove hypothesis 1.
After the implementation of the Creative Teacher programme, the overall motivation of EGs has increased in the way we hypothesised. The increase has reached a significance level of 0.001, which proves that the Creative Teacher programme has visibly affected the given variables.
Conclusions from the verification of hypothesis 1:

1. After the experiment conducted with two EGs, the score in cognitive, effective and affective motivation has risen in both ex ante and ex post measurements. A score rise has also been proved when the results of ex post measurements in CGs and ESs were compared. This proves hypothesis 1.
2. Cognitive motivation score has been changing most significantly. Cognitive motivation has risen where affective motivation decreased.

3. 2 Self-evaluation of creativity

		WKOPAY CC_ before experiment						**WKOPAY** (SSPPE_ before experiment)					
		SFC	**INQ**	**INT**	**IND**	**AWR**	**total**	**SFC**	**INQ**	**INT**	**IND**	**AWR**	**total**
control group	arithmetic mean	6.93	11.34	3.88	4.97	5.46	32.78	7.11	9.86	4.33	5.26	7.03	34.1
	standard deviation	3.18	2.97	2.93	2.11	2.58	13.32	2.73	2.39	3.02	2.05	3.12	13.11
experimental group	arithmetic mean	7.09	10.48	3.74	5.39	4.91	32.05	6.99	8.97	5.07	5.73	6.65	33.95
	standard deviation	3.34	3.22	2.49	2.37	2.83	14.05	2.47	2.16	2.73	2.17	3.36	12.69
t-test		0.24	1.331	0.249	0.896	0.973	0.256	0.22	1.86	1.223	1.062	0.56	0.055

Tab. 5 Motivation of students measured by WKOPAY questionnaire before the experiment

Legend for Table 5 – 8
sfc. – self-confidence
in. – inquisitiveness
int. – intuition
ind. – industriousness
awr. – awareness of others
t-test – statistical significance of differences
*** – statistical significance of differences on level α=0.05 (95%)*
*** – statistical significance of differences on level α=0.01 (99%)*
**** – statistical significance of differences on level α=0.001 (99.9%)*

The WKOPAY test has been adopted to prove or reject hypothesis 2. This test uses five variables closely related to creative skills, namely industriousness, self-confidence, inquisitiveness, awareness of others and intuition. In order to verify what we hypothesise we conducted initial measurements in EGs and CGs of groups CC and SSPPE. The summarised data from the creativity self-evaluation tests is shown in Table 5.

With self-confidence, closely related to creativity self-evaluation, all examined groups have shown the second highest variable score. Inquisitiveness has reached the highest score of variables. On the contrary, intuition, a quality enabling us to intuitively make the right decisions, has scored the lowest. With industriousness and awareness of others no statistically relevant difference between the groups has been proved. Such results lead us to believe that, interestingly enough, groups EG_CC_SSPPE and CG_CC_SSPPE act very alike in self-evaluating creativity.

A summarised overview of the EG_CC results is provided in Table 6 and 7. The following has been demonstrated:

With self-confidence in EGs the score has risen from ex ante 7.09 to ex post 10.41. The difference is on significance level 0.001. The creativity development programme has stimulated both the evaluation of one's qualities and the self-confidence in coping with creative tasks. Inquisitiveness has also increased, reaching a significance of 0.001, which leads to conclude that the students have become much more interested and enthusiastic about the new teaching methods. It is intuition which has increased the most – from an average of 3.74 to 9.06. This also represents a significance of 0.001%. On the other hand, industriousness has exhibited the lowest difference between initial and final measurements, having ended up on significance level 0.05%. This variable represented the all-important ability to work under pressure. Teachers are under continuous, long-term pressure in the workplace, so based on the results from our experiments, we assume that future teachers can cope with frustration. The awareness of others variable has increased greatly after the experiment, from 4.91 to 8.23. It is a statistically significant difference of 0.001. The overall self-evaluation of creativity in EG_CC has reached an ex-ante-ex-post statistically significant difference on level 0.001%.

The influence of the creativity development programme has proved to be statistically significant in all variables, most notably with awareness of others and least notably with industriousness. This result has come up in all of the examined groups after ex ante and ex post measurements. The overall creativity self-evaluation of students based on the comparison between groups CG and EG_CC has reached a level of 0.001. This result can be taken as factual proof of hypothesis 2.

The experiment results with group EG_ SSPPE are visualised in Table 6 and Table 7. We interpret them in the following way:

Self-confidence has reached a statistical significance level of 0.001. With inquisitiveness we see the highest increase between the average ex ante (8.97) and ex post (14.37), which stands for a 0.001 significance level. Even though the average difference between intuition values is not as high as with the previous variables, it also bears evidence of the influence of the creativity development programme. The significance is 0.001. Industriousness and awareness of others exhibit levels of statistical significance of 0.05 and 0.01 respectively. Although they have reached a lower level of statistical significance, we still may consider them relevant and appropriate enough to back the hypothesis. The overall creativity self-evaluation with group EG_ SSPPE, as with EG_CC, has reached a significance level of 0.001. This result does in fact prove hypothesis 2 which claimed that our programme will improve the participants' creativity self-evaluation.

For correct verification of hypothesis 2 we have compared the results of CG and EG_ SSPPE after the experiment and these are shown in Table 7. The differences between the CG and EG_ SSPPE variables have reached the level of statistical significance. The overall score in the creativity self-evaluation of students after comparing groups CG and EG_ SSPPE is significant. The increase is proof of hypothesis 2. The increase proves hypothesis 2.

		WKOPAY CC before and after experiment						**WKOPAY** SSPPE before and after experiment					
		SFC	**INQ**	**INT**	**IND**	**AWR**	**total**	**SFC**	**INQ**	**INT**	**IND**	**AWR**	**total**
experimental group (ante)	arithmetic mean	7.09	10.48	3.74	5.39	4.91	32.05	6.99	8.97	5.07	5.73	6.65	33.95
	standard deviation	3.34	3.22	2.49	2.37	2.83	14.05	2.47	2.16	2.73	2.17	3.36	12.69
experimental group (post)	arithmetic mean	10.41	13.82	9.06	6.68	8.23	48.6	10.17	14.37	8.14	7.06	8.91	49.24
	standard deviation	4.11	3.82	3.21	2.95	3.11	16.9	3.76	4.13	2.54	2.66	3.28	16.07
t-test		4.231**	4.518**	8.825**	2.300*	5.351**	5.087**	4.796**	7.884**	5.544**	2.620*	3.243*	5.053**

Tab. 6 Self-evaluation of students' creativity measured by WKOPAY questionnaire before and after the experiment

		WKOPAY CC CG_EG after experiment						**WKOPAY** SSPPE CG_EG after experiment					
		SFC	**INQ**	**INT**	**IND**	**AWR**	**total**	**SFC**	**INQ**	**INT**	**IND**	**AWR**	**Total**
control group	arithmetic mean	6.88	11.15	4.08	5.31	4.82	32.64	6.98	9.33	5.13	5.21	6.83	34.06
	standard deviation	3.69	3.58	2.97	3.11	3.03	16.08	4.01	3.99	2.82	3.14	3.34	17.01
experimental group	arithmetic mean	10.41	13.82	9.06	6.68	8.23	48.6	10.17	14.37	8.14	7.06	8.91	49.24
	standard deviation	4.11	3.82	3.21	2.95	3.11	16.9	3.76	4.13	2.54	2.66	3.28	16.07
t-test		4.329^{***}	3.460^{***}	7.722^{***}	2.178^{*}	5.336^{***}	4.644^{***}	3.908^{***}	5.920^{***}	5.338^{***}	3.023^{**}	2.994^{**}	4.369^{***}

Tab. 7 Self-evaluation of students' creativity measured by WKOPAY questionnaire after the experiment

Conclusions from the verification of hypothesis 2:

1. Executing our experiment in which we implemented the Creative Teacher programme the level of self-assessment of one's own creative assumptions has increased in both experimental groups. It has been proved not only in the ex post evaluation of both experimental groups, but also in comparison of control and experimental groups in ex ante and ex post measurements.
2. Interesting from the point of view of dominance of variables, the highest score has gained curiosity over self-consciousness. These variables had the highest score before and after the experiment, hence the effectiveness of the programme is not related to the order of studies variables. The mentioned fact can serve as an inspiration for further research.

3. 3 Changes in creative performance

In order to assess students' creative performance, the figural test of creativity - Circles - has been applied. It has been used to verify the third hypothesis in which we presumed the effectiveness of the Creative Teacher programme in creative performance, especially in the factor of flexibility, fluency and originality. In connection to these findings, we do not consider this method in our experiment as a priority. By its implementation we executed a preliminary testing in CC and SSPPE samples. The findings are shown in Table 8.

CIRCLES CC_CG_EG before experiment						**CIRCLES** (SSPPE_ before experiment)			
		flu	**flex**	**orig**	**total**	**flu**	**flex**	**orig**	**total**
control group	arithmetic mean	18.6	14.9	1.32	35.33	18.9	15.1	1.12	35.72
	standard deviation	5.23	4.17	0.91	10.1	6.71	5.07	0.86	12.34
experimental group	arithmetic mean	19.1	14	1.27	35.02	18.4	14.3	0.96	34.87
	standard deviation	5.27	3.96	1	9.98	6.29	5.13	0.68	11.84
t-test		0.41	1.07	0.251	0.149	0.03	0.76	0.98	0.335

Tab. 8 Students' creative prerequisites measured by CIRCLES test before the experiment

Differences in ex ante measurements have been in all creativity factors minimal, statistically significant. A higher average score of originality in the CC group has EG (Table 8) and in the SSPPE group CG (Table 8), while the differences are statistically not significant. A cross-comparison between control and experimental groups of the both studied samples shows little difference in the score of creative capacities. It, therefore, proves the equality of control and experimental groups before the experiment.
After executing the experiment on our sample, we have concluded the following results (Table 9):

CIRCLES CC before and after experiment						**CIRCLES** SSPPE before and after experiment			
		fluency	**flexibility**	**originality**	**total**	**fluency**	**flexibility**	**originality**	**total**
experimental group (ante)	arithmetic mean	19.07	13.99	1.27	35.02	18.4	14.33	0.96	34.87
	standard deviation	5.27	3.96	1	9.98	6.29	5.13	0.68	11.84
experimental group (post)	arithmetic mean	22.38	16.82	2.32	42.04	22.21	18.35	2.34	43.86
	standard deviation	5.92	5.09	1.13	11.9	5.35	5.11	1.17	11.32
t-test		2.828**	2.958**	4.711***	3.054**	3.102**	3.742***	6.930***	3.697 ***

Tab. 9 Students' creative prerequisites measured by CIRCLES test before and after the experiment

- Ex ante and ex post measurements in the EG_CC have proved the increase of fluency mean values from 19.07 to 22.38. The given variable has increased under the influence of the creativity development programme to a 99% with a 0.01 statistical significance level. Before the experiment, flexibility in EG_CC was around 13.99. Our experimental intention has caused the increase of this variable to 16.82. Thus, it has achieved an increase on a 0.01 statistical significance level. Originality as the most relevant variable has not achieved a significant difference in mean values, even though by implementing the programme for creativity development its increase is on a 99.9% level of statistical significance. Overall creative abilities in EG_CC have risen from 35.02 (ex ante) to 42.04 (ex post). It represents a highly increased score on a 0.01% statistical significance level. By implementing the creativity development programme in EG_CC, all analysed variables by means of the Circle test have significantly increased, thus proving hypothesis 2.
- In ex ante and ex post measurements in EG_SSPPE we have observed the increase of mean values in fluency from 18.40 before the experiment to 22.21 after executing the experiment. We have achieved a difference on a 0.01 statistical significance level. The development of flexibility

has been even more successful as its mean value has shifted from 14.33 to 18.35 on a 0.001 statistical significance level. Originality has a similar statistical significance level. The mean value in original figural drawings has increased from 0.96 to 2.34. The difference in values has a 99.9% of statistical significance level. Since the overall creative performance has marked statistical significant differences, we can conclude that also the third hypothesis has been proved.

To conclude the experiment, we compare ex post measurements between CG and EG (Table 10).

CIRLES (CC_CG_EG after experiment)						**CIRLES** (SSPPE after experiment)			
		fluency	**flexibility**	**originality**	**total**	**fluency**	**flexibility**	**originality**	**total**
control group	arithmetic mean	18.57	14.23	1.37	34.6	18.8	15.2	1.18	35.72
	standard deviation	5.68	5.12	1.02	11.62	5.53	4.66	0.93	10.96
experimental group	arithmetic mean	22.38	16.82	2.32	42.04	22.2	18.4	2.34	43.86
	standard deviation	5.92	5.09	1.13	11.9	5.35	5.11	1.17	11.32
t-test		3.405***	5.440**	11.900**	3.039***				

Tab. 10 Students' creative prerequisites measured by CIRCLES test after the experiment

Differences between EG_CC and CG_CC are more obvious than in EG before and after the experiment. While the mean value in fluency in CG was 18.57, in ex post measurement in EG it was 22.38. Differences on a 0.001 significance level have been demonstrated also in flexibility, originality and the overall score in creative abilities (Table 18). These results prove hypothesis 3.

Differences between EG_SSPPE and CG_SSPPE are as follows (Tab. 10):

Fluency and flexibility have in comparison between the control group and experimental group increased on a 0.01 significance level. The data are similar to those from ex ante and ex post measurements in the experimental group as these were quite equal. A more relevant difference has been achieved in case of originality and the overall creative performance where the statistical significance of differences oscillates at 99.9%.

Conclusions from the verification of hypothesis 3:

- This experiment aimed at testing the effectiveness of our Creative Teacher programme for creativity development in the experimental

groups of undergraduate teacher training has proved a significant increase of creativity. Having experienced the development of individual elements of creative performance, we can claim this hypothesis has been proved. The score of experimental group in ex ante and ex post measurements has risen and at the same time, respondents' creativity (EG over CG) has statistically changed. The effectiveness of the programme has been demonstrated in all factors of creativity, mainly in fluency, flexibility and originality. We can confirm the influence of our programme on the development of creative abilities as demonstrated by Circle test in both experimental groups of CC and SSPPE.

These observed changes in creative performance and overall abilities of the undergraduate student teachers are raison d'être of creative education which should be performed chiefly by future teachers. A traditional understanding of education, on the other hand, impedes a creative potential as the stereotype does not take concern in subjective formation.

4 Discussion

Current requirements for a teacher's personality are based on humanization of education conditions and his own creativization. Therefore, a new requirement for modernization of the content and methods applied in undergraduate teacher training has emerged. Also our research was conducted in this sense. Our intention was to find the level of students' motivation for learning, performance and how their creative thinking and skills can be stimulated. Our experiment was oriented on the development of motivation in learning and creativity. We studied cognitive, effective and affective motivation out of which the highest score has been seen in cognitivization leading to creativity. The gained data prove our hypothesis in which we state that motivation in creativity can be developed by implementing a programme for developing creativity.

Creativity was a significant watched variable. No matter how we call it in the context with personality - creative ability or creative performance - it is in a relation with this very personality, its life and utterly significant for the one's fulfilling existence.

Creative ability and performance in our experiment were analysed by using Circles test. Individual factors of creativity - fluency, flexibility and originality - were stimulated by implementing the Creative Teacher programme. In our experiment we managed to increase all studied variables on a statistical significance level, thus giving a proof to our hypothesis.

It was our attempt to evaluate the effectiveness of the creativity development programme in undergraduate teacher training regardless learning outcomes.

5 Conclusions

In conclusion we observe that our goals have been fulfilled as follows:
The basic goal was to prove the effectiveness and significant influence of the Creative Teacher programme on increase of motivation and creativity. We have proved the Creative Teacher programme significantly influences both creativity and motivation of future teachers. As it follows from the results, the Creative Teacher programme is effective bringing a significant improvement in creativity and motivation of the students in EG.
The secondary goal was to formulate information on reliability of applied methods. We can say that all of them have demonstrated a normal distribution of score at mean values (but some subtests of Circle creativity test). Data, especially in CG, prove a good reliability of the applied methods. Due to intentional changes in EG the situation was different and therefore we think it is not correct to observe reliability in this group, but rather confirm our intention to make these expected changes to happen.
A more general goal of this study was to demonstrate new knowledge on more effective planning of teaching strategies that would increase the creativity and motivation of undergraduate students of teacher training becoming thus important components and part of creative teaching concept. We hope our findings and their interpretation will become an inspiration for others working in this sphere.

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

Analysis of Social Influences in the Transition of Czech Students Between Educational Levels and to the Labour Market

Petr Hlad'o*

Abstract: The paper deals with the transition of Czech students of lower secondary schools (ISCED 2A) and vocationally oriented upper secondary schools (ISCED 3A and 3C) between educational levels and to the labour market. The theoretical introduction describes the specifics of career decision making of Czech pupils and synthesizes some important empirical findings on social influences on this decision. The core lies in a survey designed by the National Institute of Education, School Counselling Centre and Centre for Further Education of Teachers. The instrument of data collection was questionnaires for students of final years of lower secondary and upper secondary schools. Data collection took place in 2011 at 40 lower secondary (n=779) and 20 vocationally oriented upper secondary schools (n=442). The paper compares the views of these groups of respondents on student's autonomy in the choice of further education and occupation, and social influences on students' career decision-making.
Key words: career decision-making, school choice, career choice, choice of further education and occupation, lower-secondary school, upper-secondary school, significant others, parents, friends, family.

1 Introduction

Education is one of the key factors which, through the study program completed (Teichler, 2007), field of study (Reimer, Noelke, and Kucel, 2008) and the corresponding range of professions available (Velden and Wolbers, 2007; Heijke and Meng, 2006) co-determines the social status of an individual on the social ladder. The chosen educational path also affects to a large extent the success in the labour market and the possibility to continue in tertiary education. Career decision-making determines not only the individual educational trajectories, but can also pose a potential risk of exclusion at the economic, individual, social, group or spatial level. Whether the chosen course of education and career

* Petr Hlad'o, Institut of Lifelong Learning, Mendel University in Brno, Brno, Czech Republic; petr.hlado@mendelu.cz

corresponds to the possibilities and interests of an individual is also important in terms of healthy personality development, individual satisfaction, success and use of his or her social potential (cf. Holland, 1997).
Career decision-making has therefore long been receiving great attention abroad. This is evidenced by a number of studies, mainly in the United States, Great Britain, Germany, Switzerland, Austria, France, etc. (cf. White, 2007; Görtz-Brose and Hüser, 2006; Whiston and Keller, 2004; Schulenberg, Vondracek, and Crouter, 1984). Similar trends can be seen recently also in the Czech Republic (e.g. Walterová, Greger, and Novotná, 2009; Walterová et al., 2009; Trhlíková, Vojtěch, and Úlovcová, 2008; Smetáčková, 2005; Katrňák, 2004) and Slovakia (e.g. Vendel et al., 2007a; Vendel et al., 2007b).

2 Specifics of career decision-making of Czech students of lower and upper secondary schools

The first group in focus is students of the 9th grades of lower secondary schools (in the Czech Republic known as *basic school, základní škola*) who are completing compulsory school attendance. These students are usually aged 14 – 15 years. In their decision-making, students of lower secondary schools (ISCED 2A) have to answer an important question whether to continue in further education at an upper secondary school or to enter the labour market. Only a minor part of lower secondary school students leave for the labour market. After finishing ISCED 2A, most Czech students choose branch-oriented secondary education completed by a school-leaving examination or a vocational/apprenticeship certificate (ISCED 3C). This is also evidenced by the current statistical data (Czech Statistical Office, 2011). The data indicate that the choice of secondary school for the majority of Czech students also means a choice of a profession which is carried through the choice of a specific field of study. This trend is different from other OECD where a greater part of the population goes through general education at the upper-secondary-school level than in the Czech Republic (see Organisation for Economic…, 2009).
The other group is students of graduate years of branch-oriented upper secondary schools completed by a school-leaving examination (ISCED 3A) or a vocational/apprenticeship certificate (ISCED 3C). Studies at a branch-oriented upper secondary school significantly affect an individual and influence his or her further course of education and career perspective. Fields of studies at secondary vocational schools are designed primarily to prepare graduates for profession and in contrast to more general education at secondary grammar schools (*gymnázium* in Czech), the vocational component is present to a larger extent (Kleňhová and Vojtěch, 2011). Students of these types of upper secondary schools who are leaving the educational system have a sufficient professional

qualification for entering the labour market. Students of fields of studies both with and without a school-leaving examination have to decide at the end of upper secondary school whether to remain in initial education (tertiary education after upper secondary school is only accessible for graduates of fields of studies with a school-leaving examination) or enter the labour market and look for their first job.

However, psychologists and career theorists agree that adolescents are not sufficiently mature for a responsible career decision-making (e.g. Hirschi and Läge, 2007; Nilsson and Åkerblom, 2001; Super, 1990). Young people lack information about educational possibilities and the world of work and due to their low level of self-knowledge they do not know how high their individual potential is (cf. Gati, Krausz, and Osipow, 1996). They are incapable of fully embracing and understanding all the important objective determinants of such decision-making and do not know themselves very well. The result is that in the transition between educational levels and when entering the labour market they often do not make an optimal choice and soon recognize that their decision was not correct, and in many cases they have to change their previous decision.

Although career decision-making which students of lower secondary and upper secondary schools in the Czech Republic have to make is not an irreversible act, any revision or change of the original decision is associated with expenditure of considerable effort. This situation is described in a textbook for basic school students as an analogy of a train station and a train for the choice of course of education and career is similar to the train station. *"Once you get on a certain train, you can change during the journey, and thus decide on your further route, but the basic direction of your journey is already set. The more you want to change it, the more effort it will cost you."* (Strádal, 2001, p. 153)

3 Empirical findings on the influence of social environment on career decision-making

An analysis of Czech and foreign empirical studies reveals that career decision-making is influenced in particular by social environment in which students live. In this decision-making process, the role of *parents* is particularly important (ft. Hlaďo, 2010; Görtz-Brose and Hüser, 2006; Whiston and Keller, 2004; Schulenberg, Vondracek, and Crouter, 1984, etc.). It appears the main stimuli of career decision-making are parents (Foskett and Hesketh, 1997). However, the role of parents is far more important. In Anderson's (2004) view, parents are not only the most sought consultants of students but they are also considered the most effective source of advice and information. Furthermore, students list parents as the most important factors influencing their career decision-making (Walterová, Greger, and Novotná, 2009; White, 2007).

Another issue that appears in studies of career decision-making is the influence of *peers, peer groups and friends*. Evidence of their influence is represented to a lesser extent than with parents and family (cf. White, 2007). On the basis of an analysis of studies we can conclude that peers play a primary role in career decision-making mainly in providing information (cf. Taylor, 1992).
A frequently discussed issue within career decision-making is the role of teachers and career advisers. Several studies emphasized the marginal role of teachers (Harris, 1992), career advisers (Lawrence, 1992) and career education and counselling in general (Bates, 1990). Students usually place the influence of teachers and counselling staff on their career decision-making behind their families or peers and evaluate their help as less beneficial (Metheny, McWhirter, and O'Neil, 2008).
Career decision-making is a specific and unique process that takes place in the given circumstances in which an individual lives. Although empirical evidence suggests a significant influence of family, research findings are often inconsistent. This situation complicates not only a clarification of the issue but also a synthesis of research findings which could be further built upon.

4 Empirical survey objectives, methodology and hypotheses

The empirical survey is focused on finding up-to-date information about career decision-making of students of lower secondary schools and fields of studies of branch-oriented upper secondary schools with and without a school-leaving examination. It was designed by the *National Institute of Education, School Counselling Centre and Centre for Further Education of Teachers* within the VIP Career II project. The following partial objectives were set in the empirical survey: to evaluate and compare opinions of students as to who in the family should decide on the course of education and career and to evaluate the influence of social environment on the decision-making process.
The instrument of data collection was *questionnaires*: (1) for students of the 9th grade in the given academic year (in case of lower secondary school students – ISCED 2A); (2) for students of final years of branch-oriented upper secondary schools studying in fields of studies providing full secondary vocational education with a school-leaving examination (ISCED 3A) or in three-year fields of studies graduates of which receive secondary vocational education with a vocational/apprenticeship certificate (ISCED 3C).
779 students of lower secondary schools and 442 students of upper secondary schools took part in the research. Of the total number of respondents of upper secondary schools, 244 were students of fields of studies with a school-leaving examination (55%) and 198 students of fields of studies without a school-leaving

examination (45%). Data collection took place in March and April 2011 (academic year 2010/2011) at forty lower secondary schools and twenty upper secondary schools in four of fourteen regions in the Czech Republic.
The data was first analysed using basic statistical techniques. In the case of scale items, relative frequencies were calculated and in the case of social influences, the arithmetic mean was determined, which expresses the coefficient of the influence on career decision-making. Subsequently, hypotheses were tested:

1) In comparison with lower secondary school students, upper secondary school students are more likely to believe that school choice is only their concern and parents should not interfere.
2) In comparison with lower secondary school students, upper secondary school students are more likely to believe that the choice of their future occupation is only their concern and parents should not interfere.
3) The career decision-making of lower secondary school students is, as they believe, influenced by their own decision rather than their parents' activity.
4) The career decision-making of upper secondary school students is, as they believe, influenced by their own decision rather than their parents' activity.
5) There are no differences between lower and upper secondary school students in the evaluation of the influence of friends on their career decision-making.

Dependencies between variables were determined by a chi-square test. Selected data were grouped into four-field tables and odds ratio was calculated for it. The differences between variables were tested using a test of differences between two ratios.

5 Views of students on their own autonomy in career decision-making

In connection with career decision-making we aimed at finding out who, in students' views, should decide on the choice of school and profession. In the questionnaire, students were asked to express their opinions on two statements. In the first one, on a four-point scale they had to mark their opinions on whether choice of school should be influenced mainly by parents or whether choice of school is only their concern and parents should not interfere. The second scale question focused on the role of parents in deciding on the choice of further profession (occupation). Students could either mark a view that the choice of future profession should be influenced mainly by parents or that decision-making was only their concern.
Students of lower secondary schools stated in their answers that it is them who

should decide on the future school. 87% of surveyed students believe that school choice is mainly their concern and parents should not interfere. Only 13% of students thought that school choice should be particularly influenced by parents. Even more radical views were expressed by students in case of deciding on the future profession (occupation). 91% of lower secondary school students were inclined to believe that the choice of future profession is their issue and parents should not interfere. Only 9% supported the opposite view that the choice of future profession should be influenced mainly by parents.

91% of surveyed *upper secondary school students* stated that school choice was mainly their "business" and parents should not or should rather not interfere. In other words, students should choose their school mainly by themselves. Only 9% of students were inclined to the view that parents should influence school choice partially or fully. Similarly to students of lower secondary schools, students of upper secondary schools are quite radical in their views on career choice. 94% of upper secondary school students believed that career choice was only their concern. Mere 6% of students believed to a greater or lesser extent that the decision on the future profession should be influenced by parents.

The chi-square test showed that there are statistically significant differences in the answers of lower secondary school students regarding autonomy in school choice ($\chi^2(3) = 53.035$, $p < .000$, Cram. $V = 0.210$) and in career choice ($\chi^2(3) = 39.243$, $p < .000$, Cram. $V = 0.181$). A comparison of students' views on the basis of descriptive statistics shows that students of upper secondary schools have stronger believes than students of lower secondary schools that the choice of school and the choice of future career are solely their concern in which parents should not interfere. This fact is understandable since during adolescence a gradual emancipation from the family occurs in students, which is reflected in the students' views on their own autonomy in the choice of further course of education and career. On the basis of the test performed we reject the hypothesis that students of upper secondary schools believe more strongly than students of lower secondary schools that the choice of school ($OR = 1.467$, $p = .066$) and the choice of future career ($OR = 1.598$, $p = .063$) is only their concern in which parents should not interfere.

6 The influence of the students' social environment on the decision on further course of education and career

In order to find out what influences are reflected in the students' career decision-making, we presented them with a scale question in the questionnaire: *"Who, what and to what extent influenced you in the decision where to go after completing school?"* In each source of influence (own decision, parents, siblings, other relatives, friends, friends from social networks, teachers, form

teacher, educational consultant, school psychologist, pedagogical-psychological consultant, employment office expert), the students could choose from the following scale options: great influence, little influence, and no influence. We calculated relative frequencies and influence coefficients (see Tab. 1, Fig. 1, Fig. 2). It is true that the lower the coefficient is, the higher the perceived degree of influence of the social source is.

Table 1: Social sources of influence on career decision-making as seen by students of lower and upper secondary schools

Social source of influence on career decision-making	Answers of lower secondary school students (in %)				Answers of upper secondary school students (in %)			
	Great influence (1)	Little influence (2)	No influence (3)	Influence coefficient (*M*)*	Great influence (1)	Little influence (2)	No influence (3)	Influence coefficient (*M*)*
(Student's) own decision	91.2	8.2	0.5	1.09	63.0	27.8	9.3	1.46
Parents	40.3	55.5	4.1	1.64	27.6	55.1	17.3	1.90
Siblings	7.4	27.5	65.1	2.58	8.2	28.5	63.3	2.55
Friends	9.6	48.5	41.9	2.32	12.1	46.0	41.8	2.30
Friends from social networks	2.0	11.2	86.9	2.85	2.1	10.8	87.1	2.85
Teachers (other than form teacher)	4.2	31.3	64.5	2.60	4.0	19.6	76.5	2.72
Form teacher	2.3	33.9	63.8	2.62	4.0	22.0	74.0	2.70
Educational consultant	5.2	26.4	68.4	2.63	3.3	12.1	84.6	2.80
School psychologist	1.6	7.1	91.3	2.90	2.3	5.8	91.8	2.89
Pedagogical-psychological consultant	5.9	18.1	76.0	2.70	2.6	6.3	91.1	2.89
Employment office expert	2.6	19.8	77.6	2.75	3.0	13.8	83.2	2.80
Other relatives	7.1	43.5	49.4	2.42	5.9	24.6	69.5	2.64

* The lower the coefficient, the higher the perceived degree of influence of the social source on career decision-making

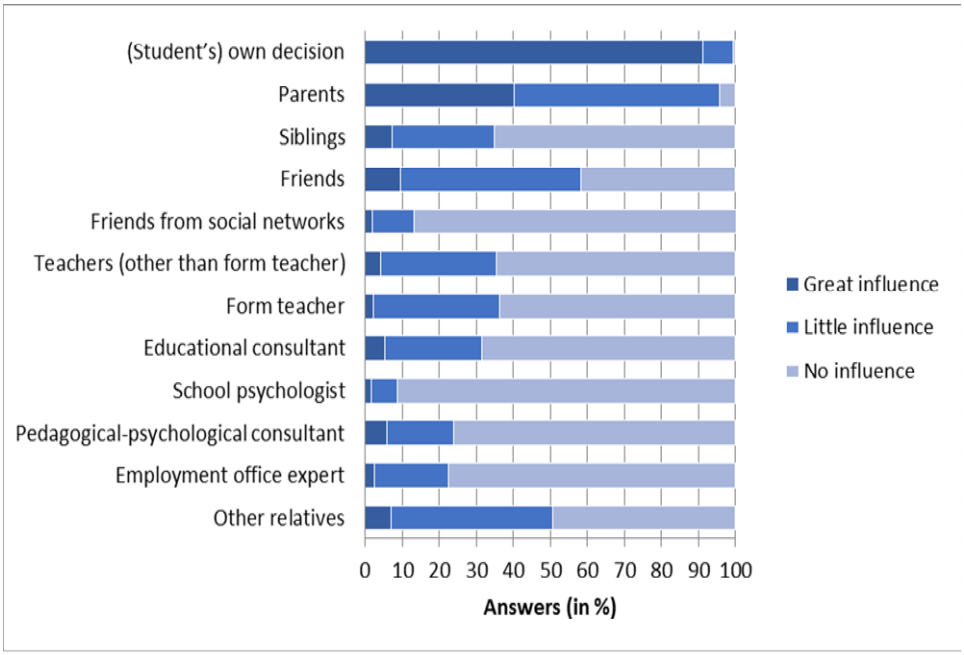

Fig. 1. Social sources of influence on career decision-making as seen by students of lower secondary schools

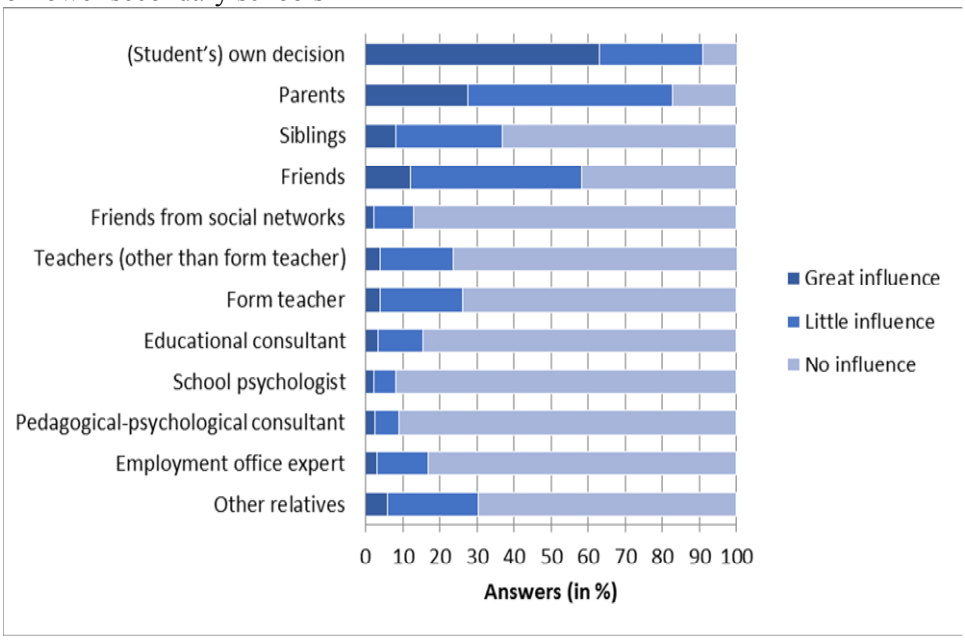

Fig. 2. Social sources of influence on career decision-making as seen by students of upper secondary schools

Students of both lower secondary schools (M = 1.09) and upper secondary schools (M = 1.46) attributed the greatest influence on decision-making to *their own decision*. In both groups of respondents, their "own decision" placed first, based on the influence coefficient.

91% of lower secondary school students stated that they had a great influence on the decision "where to go after school", 8% had little influence and only 1% had no influence. 63% of surveyed upper secondary school students believed that it was them who had a great influence on the decision, 28% were inclined to little influence and 9% of students said they had no influence on the decision what to do after completing upper secondary school. Since the chi-square test proved statistically significant differences ($\chi^2(2) = 155.090$, $p < .000$, Cram. $V = 0.358$) in answers of both groups of respondents, we calculated the odds ratio for the aggregated values in the four-field table. It appeared that students of lower secondary schools attribute to themselves almost six times greater influence on the decision "where to go after school" than students of upper secondary schools do ($OR = 6.124$, $p < .000$).

The influence of *parents* on the students' career decision-making ranked second. It follows from the values of the influence coefficient that students of both lower secondary schools (M = 1.64) and upper secondary schools (M = 1.90) attribute to parents, on average, fairly little influence. Approximately 40% of lower secondary school students attribute a great influence to parents. Almost 56% of students attribute little influence to parents and 4% attribute no influence. Only 28% of upper secondary school students attribute a great influence to parents. 55 % of students admit little influence of parents and 17 % attributed them no influence.

Students of lower ($OR = 15.207$, $p < .000$) and upper secondary schools ($OR = 2.047$, $p < .001$) are, as they believe, influenced by their own decision more strongly than by the influence of parents, which corresponds with the findings of Czech as well as foreign studies (cf. Walterová, Greger, and Novotná, 2009; Beinke, 2006; Smyth, 1993; Forster, 1992; Walford, 1991; Thomas and Dennison, 1991). It follows from a more detailed analysis that a greater influence is attributed to parents by lower secondary school students ($OR = 1.769$, $p < .05$).

Although students tend to disparage the influence of parents on career decision-making, our empirical study showed that in fact they do use their advice in their decision-making. Approximately 20% of lower secondary school students use their parents' advice "where to go after school" fully and 69% use their advice in part. Only 8% of lower secondary school students do not use their parents' advice at all. Remaining 3% of students either did not receive any advice from their parents or were not able to answer this question. Approximately 12% of upper secondary school students use their parents' advice in their career decision-making fully and 72% use their advice in part. Only 8% of upper secondary school students do not use their parents' advice at all. The

remaining students either did not receive any advice from their parents or were not able to answer this question.

Other social sources had a smaller influence on students' career decision-making. Parents were followed by *friends* (the influence coefficient being $M = 2.32$ in lower secondary school students and $M = 2.30$ in upper secondary school students). No statistically significant differences between lower and upper secondary school students have been proven in the evaluation of the friends' influence on career decision-making ($\chi^2(2) = 155.090$, $p = .364$, Cram. $V = 0.041$). The fact that, based on the influence coefficient, friends ranked third is understandable. In this development period, students separate gradually from their parents. Increasingly important roles in their lives are played by peers. They are the source of social learning and serve as a support in the process of creating one's own identity. Students try to find someone among peers who they could absolutely trust and with whom they could share their inner feelings. Friendships become an important source of emotional support, understanding, they help develop social skills and provide corrective experience.

In case of *lower secondary school students*, friends were followed by other relatives ($M = 2.42$), siblings ($M = 2.58$), teachers ($M = 2.60$), form teachers ($M = 2.62$), educational consultants ($M = 2.63$), pedagogical-psychological consultants ($M = 2.70$), employment office experts ($M = 2.75$), friends from social networks ($M = 2.85$), and school psychologists ($M = 2.90$).

In case of *upper secondary school students,* friends were followed by siblings ($M = 2.55$), other relatives ($M = 2.64$), form teachers ($M = 2.70$), teachers ($M = 2.72$), educational consultants ($M = 2.80$), friends from social networks ($M = 2.85$), school psychologists, and pedagogical-psychological consultants (both $M = 2.89$).

Testing of the students' answers using the chi-square test did not prove any statistically significant differences between the evaluation of influence of relatives, siblings, teachers, form teachers, educational consultants, pedagogical-psychological consultants, employment office experts, friends from social network and school psychologists on career decision-making of lower and upper secondary school students.

7 Discussion and conclusion

Although students of lower and upper secondary schools tend to believe that career decision-making in the transition between educational levels and to the labour market should be mainly an autonomous concern of a student, our findings show a considerable influence of the family. We have found out that students at both levels of education are in their career decision-making influenced more strongly by parents than they are by their siblings, other

relatives, teachers and career consultants. Previously conducted research studies show that the form of influence is set by the family environment and its characteristics but also by the functionality of the family, emotional support, interactions, communications, models in family and overall support from parents (cf. Whiston and Keller, 2004; Schulenberg, Vondracek, and Crouter, 1984).

Despite the mentioned importance of friends, relationship with parents is still in the first place. Especially in the case of emotional problems, relationship conflicts and making important life steps they first contact their parents and only in the second place they seek friends, classmates and other peers (Langmeier and Krejčířová, 2006).

We have found out that the influence of siblings and broad family (grandparents, aunts, uncles, cousins, etc.) on students' career decision-making is rather negligible. Despite this finding their role in students' career decision-making is significant. Siblings are a source of challenge and competition, a means for comparing capabilities and forming professional identity (Altman, 1997). Older siblings are an important source of information about schools and a factor influencing the formation of future plans related to education and profession (Tucker, Barber, and Eccles, 2001). The effect of other relatives rests mainly in indirect influence. Relatives who carry out an interesting profession become models for some students (Kučera, 2005). It is common to share work stories within broad family, which inspire and influence students in their career decision-making. Students may be influenced by how the relatives talk about work or education; or members of broad family form students' attitudes towards education, work and individual occupations (Lankard, 1995).

In terms of teaching and counselling practice we have to point out the very low influence of teachers and counsellors. Teachers and counselling staff also play a specific role in career decision-making. Teachers assess a student in each subject. A qualified teacher is able to diagnose not only the level of knowledge and skills, but also manifestations of talent, interests and possible learning difficulties of the student. Teachers along with parents also act in shaping educational and professional aspirations. Teachers help individuals with the formation of their real professional goal and perspective, and equip them with competences necessary for self-knowledge, planning and decision-making. Since students spend a lot of time at school, teachers have a considerable potential to become a key source of information, advice and help. Moreover, school subjects provide enough space for quality influence from the part of teachers, because they can systematically develop students' interest in the field, provide qualified information on fields of education, content and perspectives of individual professions.

The finding that students and parents attribute a lower degree of influence to counselling staff does not probably stem from the poor quality of counselling services but rather from their infrequent use by students. We see causes of this trend in students' insufficient knowledge about information and counselling

possibilities of the career counselling subjects, little experience with their use, and their unsatisfactory accessibility.
Although it is not possible to unambiguously determine how the roles of each actor in career decision-making change in time, parents, friends, siblings and broad family are directly as well as indirectly involved in the whole decision-making process. Despite evidence of a significant influence of the family we still know very little about the role of parents in career decision-making. An important question for further research is how parents affect the decision-making process in the transition between educational levels or to the labour market and influence students' final decisions.

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

The Influence of Study Specialization on the Moral Reasoning in University Students

Petra Lajčiaková*

Abstract: Significant importance has been attributed to moral judgment with regard to the moral and complex personal development of an individual. The study is focused on the moral thinking of university students, being interested in whether or not and to what extent does the university students´ specialization of study affect their moral judgment. A total of 180 students participated in the survey, half of them with technical specialization and the other half with humane disciplines. The Moral Judgment Test was used as a research tool for measuring their moral reasoning. The results showed a significant relation between the students´ moral reasoning and study specialization. Students with humane study specialization showed a much higher level of moral reasoning, referring to an input in the discussion on the method of developing university students´ moral competences.
Key words: moral reasoning, study specialization, technical studies, human studies.

1 Introduction

Lately, also thanks to the increasing amount of social problems, morals have become a frequently discussed topic. Accordingly, we have reported an increasing popularity of a rather young psychological discipline – moral psychology. Taking into account its subject of interest, moral psychology has found a relatively wide application also in social sciences; using own methodology tools, terminology apparatus and own research procedures. As a psychological discipline it pays attention to an individual´s psychical life with primary focus on the motivation of human activity, it is aimed to reveal how and why people do and behave in a particular way, referring to the analysis of ontological changes in the individual´s psychic.
The moral judgment competence plays a key role in the area of psychological moral research. Professional literature offers many views on moral judgment that

* Petra Lajčiaková, The Catholic University in Ružomberok, Ružomberok, Slovakia; lajciakova@ff.ku.sk

are divided in three areas by Klimešová (2009): (1) moral judgment based on the observation of social rules, (2) moral judgment resulting from inner values, and (3) moral judgment defined as a moral competence.

Moral judgment competence is by psychologists a long-term sought bridge between moral values on one hand and moral behavior on the other hand. As Lind (2008) said, moral judgment competence joined separately researched moral parts – moral judgment and moral behavior. This statement had been inspired by Kohlberg (1984) who specified moral judgment competence as an ability to make moral decisions and subsequently act there upon. Moral judgment competence represents the ability of an individual to make moral judgments based on his/her inner principles and then to act in compliance with such judgments. It is an ability to judge and respond to ethical, affection and social justice of a situation (Nucci, Narvaez, 2008). Piaget (1952, 1965) uses a synonymic term "moral adulthood" that reflects both respecting of rules and the sense of social justice.

The moral judgment process is better described in Lind´s dual aspect theory of moral behavior and development (2008) where the first aspect "moral principles" saturates the affection part and the second aspect "the principles - conditioned behavior" specifies the cognitive part. Cognitive dimension implies knowledge, findings, information offered by the society in which the individual lives. They are cognitive maps related to moral issues that represent the basis of moral judgment by the subject in order to assume a moral standpoint. The affection dimension includes the application of own offered moral schemes that necessarily imply the emotional experience of own moral behavior. Of course, it results in the experience acquired on basis of own response in particular moral situations. Both the cognitive and affection aspects represent jointly two inseparable and integral parts - the whole within which they can be distinguished only theoretically.

The form of education has been shown as the major factor supporting moral judgment development (Kohlberg, 1984; Schlaefli et al., 1985; Wilson et al., 1992; Rest et al., 1999; Lind et al., 1985; Lind, 2008). No factor has proven comparable effects so far, resulting from prepared empirical studies to which the moral judgment subject matter in relation to various correlates represents a permanently actual topic.

Riesch et al. (2000) monitored moral judgment among nursing students in order to descriptively research the moral judgment of future nurses at the end of their educational process. Slováčková conducted a research in 2001 dealing with the comparative monitoring of moral judgments and moral attitudes of Czech and foreign students of medicine. Based on her research outcomes, it can be paradoxically stated that the level of moral judgment with Czech students during the study showed a decreasing trend. Moral judgment of the Czech students has significantly decreased with increasing age and study grade compared to non-significant judgment increase in case of foreign students of medicine. Self et al.

(1998) reached similar results of decreasing moral judgment of medicine students during their university studies. In the context of the mentioned research studies, Branch´s contribution (2000) on the stimulation of medicine students´ moral judgment is very interesting.

Considering the moral judgment level, Schillinger-Agati and Lind (2003) compared Brazilian and German university students. Approximately 700 university students participated in the study resulting in the findings that while the German students can be definitely considered as representatives of progressivism, the Brazilian ones showed a different moral consideration example. On one hand, they had expected an increasing trend in the university students´ moral judgment level, there was also expected orthodox thinking tendency on the other hand, taking into account traditional religious background caused by a different quality of education.

Cultural differences within moral judgment became a research subject of further empiric studies as well, e.g. Gump et al. (2000) compared moral judgment of Mexican Americans with Anglo-Americans; Zhang (2012) monitored moral judgment of Chinese adolescents from various provinces; Chaganti (2012) brought into attention the differences between Indian students from various areas; Slovak and German university students were confronted by Lajčiaková (2009) etc.

Moral judgment is a vital topic attracting the attention of domestic and foreign researchers. In relation to the nature of study, education form and quality, Auvinen´s research team (2004) studied moral judgment in Finland, longitudinally monitoring moral judgment development during the educational process – nursing specialization. Based on their research outcomes, King and Mayhew (2002) created an organizational frame for the university education context analysis. They had summarized 172 studies, applying the Defining Issues Test (Rest, 1979) and the results indicate that significant benefits were acquired by the university students within the moral judgment development process during teamwork. The type of university, study specialization or academic disciplines have proven as irrelevant factors. Lind (2011) also talked about education with included the forming of moral attitude in relation to ideals and towards the development of moral competences.

Teaching ethical conduct represents also a part of sport education. Chatzopoulos et al. (2008) verified the validity of the Moral judgment test (MJT-PE) with these students. The research group consisted of 281 respondents, men and women and the research analysis confirmed the validity of the moral judgment construction with the score positively correlating with the original test version results (MJT). The moral judgment of sport lecturers was subject to research conducted by Henkel and Earls (1985). Their study was aimed to determine characteristic types of moral judgment and its variability with regard to gender, education and couching experiences. The biggest differences were reported in the coach sub-team. The whole group of 47 sport lecturers reached the score by

37,8% lower than comparable groups in other analogical empiric studies. Desplace´s research work (2007) dealt with managerial education effects on moral judgment. He stated that the students´ discussions about ethical issues within university managerial studies significantly and positively influence the moral judgment of university students.
The above-mentioned empiric studies have inspired us to conduct a research on the influence of study specialization on the moral judgment of university students. The research aim was to immerse deeper into the moral judgment of university students, taking into account their study specialization.

2 Methodology

2.1 Purpose

We were interested in the relation between the moral judgment level and their study profiling and subsequently to find out whether the study specialization affects their moral judgment. Moreover, our attention was focused on the moral judgment differences between the students of humane and technical study specializations.
Since moral judgment represents a dynamic process subject to various changes, we focused on the actual moral judgment level of the students.

2.2 Hypotheses

Based on the above-mentioned research outcomes and goals, we presumed that the study specialization type closely correlates with the moral judgment level (H1). Furthermore, we expected that there is a statistically significant difference between the students of humane and technical specializations in the moral judgment level, being in favor of the students of humane disciplines (H2). We supposed that the students of humane disciplines, considering their study contents, are more frequently exposed to decision-making processes related to solving moral conflicts than those with technical specializations and that it very positively influences their moral judgment development.

2.3 Participants

The research group consisted of 180 university students, thereof 90 students of the 2nd grade attended humane-oriented study programs and 90 students of the 2nd grade attended technical study programs. The average respondents´ age referred to 20.58 years. Considering the gender, there were 100 women and 80 men participating in the research.

2.4 Instrument

The Moral Judgment Test (MJT, Lind, 2008) was used to measure the level of moral reasoning. In this test, vignettes with moral dilemmas are presented and questions are posed that require the respondent to make a moral judgment and choices on moral action regarding parties in the dilemma and to give an appreciation of the quality of the moral arguments.

The MJT measures how a subject deals with arguments that oppose his or her position on a difficult moral problem. The main score, the C-score or C-index, reflects the degree to which judgments about moral arguments are determined by moral reasoning as opposed to opinion agreement. The MJT confronts a person with a moral task, not only an assessment of moral attitudes or values. Individuals who show consistency in their judgments of pro and contra arguments receive high level of moral reasoning (Lind, 2008, p. 200).

The C-score of the MJT ranges from 1 to 100. C-score is sometimes graded low or pre-conventional (1-9), medium or conventional (10-29), high or post-conventional (30-49) and very high (above 50).

Independent variables (features of the situation)			**Dependent variables (pattern of behavior)**		
I. Context of dilemma	**II.** Stage of moral reasoning	**III.** Quality of the argument *(pro/contra)*	Evaluation of the arguments´ acceptability by subject *(24 items, 9-point scale)*		
Workers´ dilemma *(To take the law into their own hands)*	1 2 3 4 5 6	Pro Contra	Completely unacceptable -4 -3 -2 -1	0	Completely acceptable +1 +2 +3 +4
Doctor ´s dilemma *(Mercy-killing dilemma)*	1 2 3 4 5 6	Pro Contra	Completely unacceptable -4 -3 -2 -1	0	Completely acceptable +1 +2 +3 +4

Tab. 1 *Design of the Moral Judgment Test*

The methodology reliability was verified by our research group. This scale produced a Cronbach alpha of .59 for the entire sample. The participants were also asked to specify their ID data – age, gender and study specialization.

3 Results

Based on the research data, the following are selected results through which you can acquire a more detailed insight into the university students´ moral judgment subject matter.
The first hypothesis monitored the proximity of correlation between the university students´ moral judgment level and their study specialization. We were interested in the relation between two variables – study specialization and moral reasoning within a group of university students. We presumed that the study specialization would significantly correlate with the students´ moral judgment level. Correlation analysis revealed that there is a significant relation between two monitored factors - study specialization and moral reasoning ($r =, 575$; $p < .001$). The C-score values are essentially associated with the university students´ specialization. Accordingly, we can state that our first hypothesis on the existing close correlation between the study specialization type and moral judgment level has been proved.
Table No. 2 shows that the students of humane disciplines are characterized by a higher average C-score than those of technical specializations in the term of particular dilemmas´ solving and total C-score. Based on the reached C-score value, the students of humane disciplines reached a very high score in case of the doctor ´s dilemma, a high score in case of workers´ dilemma and their total reached C-score reflected a high level of moral judgment. However, the students of technical disciplines reached lower score values. The C-score values reached in case of both doctor ´s dilemma and workers´ dilemma indicate the medium level of moral judgment similar to the total C-score.

Study specialization	**N**	**C-score (doctor´s dilemma)**	**C-score (workers´ dilemma)**	**Mean C-score**
Human studies	90	54.3	49.5	38.5
Technical studies	90	24.6	28.7	27.5

Tab. 2 *The C-score of the students of human and technical studies*

We were interested in statistical significance of the mentioned differences between the moral judgment by the students of human and technical specializations. We expected higher moral judgment level at the students of human disciplines. During the study within particular courses they are more exposed to solution of various moral situations than the students of technical specializations.

	F	**Sig.**	**t**	**df**	**Sig. (2-tailed)**	**AM**	**SD**
Moral reasoning	.000	.001	.279 .268	178 167.194	.000 .000	13.56	2.02

Tab. 3 *Comparing groups (t-test), significant at p < .001)*

Based on the analysis of results (t-test of statistical significance – table No. 3) it is apparent that there is a statistically significant difference between the monitored groups – students of humane and technical specializations differ in the moral judgment level with observed difference being in favor of the students of humane specializations ($t(178) = .268$; $p < .001$). We can state that our second hypothesis of a statistically significant difference in the moral judgment level between the students of humane and technical specializations was proved. The statement was supported by the fact that the students with humane study orientation are confronted with various moral-based conflicts and a wide pallet of moral issues during the study within selected courses.

4 Discussion

The research objective of our study referred to effects of study specialization on the moral conclusions of university students. At first, we focused our attention on the relation between study specialization and moral judgment. We were interested whether or not a relationship exists between the selected variables and if yes, how close is such a relationship. Correlation analysis confirmed a statistically significant positive relation between the study specialization and moral reasoning of the university students. Subsequently, we focused on effects of study specialization on the students´ moral judgment. We expected a statistically significant difference in the moral judgment level between technically oriented and humane oriented students with the higher level attributable to students of humane specializations. Our presumption was confirmed; the monitored research groups of university students differed in the moral judgment level – students of humane specializations reached higher average score in moral judgment. Auvinen et al. (2004) reached similar conclusions, documenting a statistically significant relationship between the nursing study specialization and moral judgment level at the students in the

longitudinal study and confirmed the influence of this study specialization on moral judgment. These research conclusions were supported by another empiric study with similar research objective – the relation between ethical education and moral sensitivity at the nursing students (Park et al., 2012). These conclusions have made the authors to think about assisting professions. Nurses have an important place among the assisting professionals referring to a rather broad range of various occupations (e.g. social workers, physicians, psychologists, psycho-therapists, lecturers, etc.). Demands laid on the assisting person´s personality are undoubted. In this term and in relation to our research objective, we should not neglect the moral competences of assisting professionals, referring to the tool of the implementation of the assisting profession content, representing the relation between the assisting person and the client. In this relation we are able to explain a significant relation/effect of study specialization within the assisting professions on moral judgment of future assisting professionals.

Our findings related to the effects of study specialization on moral judgment of university students have been supported by further conclusions of similar empiric studies. Schlaefli et al. (1985) proved a positive influence of humane study programs on university students´ moral judgment. Rose (2012) documented similar results in his empiric study.

We have to take into account also the study limitations in relation to our research conclusions.

Participants came from a limited number of universities in Slovakia. A larger sample from different universities in Slovakia could have enhanced the possibility to generalize the results and to increase the power of the study to detect significant differences and associations.

5 Conclusion

Our study offers the insight in moral considerations of university students with both humane and technical specialization. Based on the research conducted by us, the asked research question whether the study specialization of university students has something to do with their moral judgment level should be answered particularly and positively.

In the context of the research outcomes of our study, we can state that there is a strong relation between the students´ moral judgment and their study specialization in case of humane study orientation. University students of humane specialization showed a higher level of moral judgment than their technically oriented colleagues.

The ability to think and judge morally represents one of the general educational goals of a university. There is a question how the moral competences can be

developed and strengthened. Lind (2003) recommends to forget the traditional models and replace them with an open, democratic educational approach full of trusting and supporting atmosphere, where the students will be able to develop all their abilities in the best possible way. Group discussions resolving semi-real dilemmas seem to be a highly efficient tool. They are moral conflicts that do not jeopardize any of the attendees but could cause real contradiction between moral principles accepted by an individual on one hand or result in dispute between the participants on the other hand.

Research studies confirmed that persons learning how to solve conflicts of contradictory values and principles were able to resolve daily life conflicts in a more efficient manner (Heidbrink, 1985; Lind 2003).

The moral dilemma discussion is aimed to develop moral judging, moral competences (to participate on moral discussions related to interpersonal conflicts, to assume responsibility for own decisions and to integrate moral emotions in moral judgment) and thus to avoid force and power application to conflict solving (keeping a calm and peaceful dialogue). The essence of moral dilemma discussion is that hypothetical dilemma solving on the "protected" academic forum stimulates similar competences that are necessary to overcome actual dilemmas appearing in the day-to-day life. The moral dilemma discussion could be compared to vaccination, i.e. it stimulates the body´s (subject´s) ability to fight with a virus through inoculation of a weakened virus tribe dose.

The moral dilemma discussion has practical utilization from elementary schools through colleges, high schools and universities up to lifelong education. For example, the moral dilemma discussion represents an integral/mandatory part of ethical subjects in Mexico and the Columbian government recommends this method to its schools, especially to the faculties of medicine (Lind, 2006).

The paper has drawn attention to the moral reasoning among university students. Further studies in this field, extended to different countries and different study specializations, may help to improve the moral reasoning of university students. With a better understanding of moral reasoning within university students, various counselling or educational implications can be derived for assisting students to develop holistically in terms of moral thinking, moral sensitivity and moral behavior as they venture into the world of work. However, as Kohlberg (1973) said, the demands and opportunities that are provided by higher education may be indispensable for the development of moral reasoning.

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

ARTICLES

Education for Jobs – Preparation for the Labor Market

Jana Petnuchová*

Abstract: The article describes importance of vocational education and training (VET) which can play a central role in preparing young people for work, developing the skills of adults and responding to the labor market needs of the economy. The aim of this article is to highlight the definitions and understandings of vocational education and training (VET). Countries are now giving the long-neglected topic of vocational education and training dramatically increased profiles, reflecting recognition of its economic function. Many countries are recognizing that good initial vocational education and training has a major contribution to make to economic competitiveness.
Keywords: vocational education, vocational teacher, educational and training programs, labor market needs.

1 Situation in Europe

Many of unskilled jobs which existed in OECD countries a generation ago are fast disappearing, either because they have been replaced by technology or because these countries cannot compete with less developed countries on labor costs. Instead, OECD countries need to compete on the quality of goods and service they provide. That requires a well-skilled labor force with a range of mid-level trade, technical and professional skills alongside those high-level skills associated with university education more often than not, those skills are delivered through vocational programs (Field and Kuczera, 2010).
Vocational education and training (VET) can play a central role in preparing young people for work, developing skills of adults and responding to the labor-market needs of the economy. It means building a foundation of basic and

* Jana Petnuchová, Constantine The Philosopher University in Nitra, Nitra, Slovakia; jana.petnuchova@ukf.sk

transferable skills into vocational qualifications to reflect a world career flux and development rather than one job for life. It means renewal of the career guidance profession to deliver active guidance for all young leaders, well-informed by knowledge of the labor market and vocational as well as academic pathways. It means ensuring that teachers and trainers in VET programs have up-to–date industry experience (OECD, 2009).

Initial VET is designed to fill the gap providing the needed skills, and research has shown that it can yield good economic returns from the public investment involved. Countries with strong initial VET programs like Germany have been relatively successful in tackling youth employment (OECD, 2010).

Historically, many vocational programs were conceived as a stepping stone to a single target occupation. But increasing educational opportunities have challenged this. More and more young people including students in vocational programs now expect to enter tertiary and other postsecondary education. For example, one quarter of Dutch upper secondary vocational students continue into tertiary VET and around three-quarters of Korean upper secondary vocational students do so (OECD, 2010).

Among general academic skills numeracy and literacy are increasing importance in the labor market and weaknesses in these fields are very common those in vocational programs. VET programs need to give sufficient weight to these skills and students should be systematically assessed at the point of entry to vocational programs as to ensure a basic minimum of skills and identify those in need targeted support (Eurostat, 2002).

In a review of adult education and vocational training in Europe, Tuijnman draws on a range of studies carried out throughout Europe to identify general trends in European training, and while he states that countries are moving in different directions, the one common trend he identifies is the marked quantitative growth in vocational education and training (VET). Thus, the concerns of governments and employers alike about vocational training have been reflected by an increased investment into this area. A number of European studies have argued that economic success depends on having a competitive „high-tech“ industry and that previous under investment into VET have undermined European efforts to respond to changing economic conditions, thus most European countries are now placing a „heavy emphasis on policies to improve job training“ (Tuijnman,1992).

Governments in countries such as France or Germany have taken a strong role in creating training structures and providing legislative back-up. France, for example has provided individual rights to training leave, and has a remissible training levy on all employers. In Germany, there is a compulsory employer membership of training bodies (Keep, 1993).

- In 1991 the National Institute of Adult and Continuing Education stated that 7 percent of employees had had no recent training or education opportunities at work (Forrester et al., 1995)

- In 1991 an Employment Department report "Skills need in Britain" found that 29 percent of British companies have no training plan and 34 per cent have no training budget (Forrester,1995)
- In Germany about 67 per cent of all workers possess vocational qualifications, in the UK the figure is about 36 per cent (Keep,1993)
- In Slovakia for example only 30-35 percent employed got over vocational training for new jobs (Ministry of Education, Science, Research and Sport of the Slovak Republic).

2 Teachers and their place in vocational education and training (VET)

As in general education, the key component in a good vocational program is a good teacher. The current workforce ages, many countries are facing a shortage of teachers and trainers in VET institutions. Part-time work should also be promoted, with trainers in VET institutions working part-time industry, thus sustaining their industrial know-how. But, in industry a different problem emerges. Trainers and supervisors of apprentices and trainees in companies often have no specific pedagogical preparation or other preparation. Although research evidence shows that such pedagogical preparation has positive outcomes (OECD, 2010).

The growth of open learning in the context of vocational education has highlighted the tension between open Access and open pedagogy (Robinson, 1989).

Appropriate pedagogical and other preparation for supervisors of interns, trainers and apprentices in workplaces should be provided, adapting the level of preparation to the nature of the workplace learning being provided (OECD, 2009).

On 22 September 2005 in Copenhagen (OEDC, 2005) the chief civil servants of education ministries from across the OECD opened a two-day discussion. Their agenda was wide-ranging. They have been asked to identify their most important policy priority in education in the coming years. The answer they gave surprised many, for it was neither schools nor universities, but in fact, vocational training and education (VET).

Three factors stand out as reasons for growing interest of policy makers in VET: economics, strains in the system and previous neglect.

Economics **-** since OECD countries cannot compete with less developed countries on labor costs, they need to compete in terms of the quality of goods and services they provide. That means highly skilled labor force, technical and professional skills alongside those high-level skills associated with university education (Field and Kuczera et al., 2010).

Strains - there are strains in VET system. One of them is the lack of workplace training places, and another is the lack of trainers. In some countries the rapid expansion of tertiary education has undermined school-based VET. For example in the United States a new terminology of „*career and technical education*" has replaced „*vocational education and training"* to reflect an orientation towards a career rather than a single occupation (OECD, 2010).
VET has been ***neglected***. Challenging issues like how to go about teaching practical skills, or the rapid expansion of tertiary programs, have received limited attention. The perceived low status of VET has therefore also been a barrier to engagement in the sector and how it has been viewed analytically. One object of this review is to remedy this past neglect (Lugvig and Pfeiffer, 2005).
Vocational education and training (VET) includes education and training programs designed for, and typically to a particular job or type of job. It normally involves practical training as well as the learning or relevant theory. It is distinct from (academic) education-for example in mathematics, which is relevant to a very wide range of jobs. Education and training for some high level professions such as medicine and law meets the definition even though they are not normally described as VET. Initial VET includes programs mainly designed for and used by young people under 30 at the beginning of their career and commonly before entering the labor market. It includes many upper secondary and tertiary programs. Continuing VET is all other sorts of VET, including enterprise training of employees and training provided specially for those who have lost their job (OECD, 2010).

3 National systems of vocational education and training.

National systems of VET are very diverse-and indeed in some countries it makes little sense to refer to it as a single „system". Many countries have extensive vocational programs at upper secondary level while others, particularly English–speaking countries, tend to postpone such programs to post-secondary level. Among countries for which data are available in 2009 survey (OECD, 2011), in 13 OECD countries, the majority of upper secondary students pursue pre-vocational or vocational education.
In most OECD countries with dual – system apprenticeship programs (Austria, Germany, Luxembourg, the Netherlands, and Switzerland) and in Argentina, Belgium, China, the Czech Republic, Finland, Italy, Norway, the Slovak Republic, Slovenia, and Sweden at least 50 percent of upper secondary students are enrolled in pre – vocational or vocational training programs (in Brazil, Canada, Chile, Estonia, Greece, Hungary, Iceland, India, Indonesia, Ireland, Israel, Korea, Japan, Mexico, New Zealand, Portugal and the United Kingdom at

least 60 percent of upper secondary students are enrolled in general programs even though pre-vocational) vocational programs are offered (OECD, 2011).
Vocational programs among OECD countries offer a different combination of vocational programs and students can enroll in, but many OECD countries delay vocational training until after graduation from upper secondary education. While vocational programs are offered as advanced upper secondary education in Austria, Hungary, Spain, similar programs are offered as post-secondary education in Canada (OECD, 2011).
Young people with an insufficient level of education are often at a greater risk of unemployment and other exclusions than their more educated peers. In many OECD countries the transition from education to the market labor has become longer and more complex - providing an opportunity, or creating the necessity – to combine learning and work to develop skills adapted to the labor market.
The return to or continuation of studies is an option for adults to increase or diversify their skills and make them more adaptable to the changing demands of the labor market. In times of increasing unemployment, and of a potential structural evolution in the demands for skills, some countries, such as Chile, have established specific policies to encourage adults to follow tertiary – type B studies. The general rises in unemployment rates in OECD countries between 2008 and 2009 did not lead to a significant increase in enrolment among adults in this period. There is also no direct correlation between growth in enrolment rates between 2008 and 2009 and the increases in unemployment rates that were seen between 2007 and 2008 in some OECD countries because other factors, such as labor force mobility within the European Union and unemployment benefits, may influence adults´ decision to return to education (OECD, 2011).
Quintini and Manfredi (2009) discuss different transition patterns from school to work across OECD countries. They note that in countries with regulated labor markets and strong apprenticeship systems such as Germany, about 80 percent of school leavers succeed in integrating into the labor market. Such countries contrast with countries with regulated labor markets but without strong work-based training integrated into the formal school system, such as Italy and Spain where more than a third of young people end up in unemployment or inactivity. The German transition is impressive, especially the transition rate of graduates from vocational high school who have the same employment rate as tertiary graduates at the beginning of their career (OECD, 2010).

4 Crossroads

Young people in education make choices - to study another foreign language, take advanced math, or opt for a vocational catering course and etc. These choices are hard, and can have lasting consequences. They are also constrained:

some options are not available or not funded by government. Students and employers preferences may overlap but there also will be some differences. Employers expect VET to provide them with the best employees equipped with skills they need. Policy makers for VET (as for other parts of education) have to decide how far to give students the programs they prefer and how far to provide the programs corresponding to employer needs. In addition, countries can only provide vocational programs where they have the teachers, the trainers, and the facilities necessary to the task (Field, Kuczera et al., 2010).

In VET as in other many public policy areas, some countries are seeking to use the market as a device for increasing efficiency. One potential advantage of competition is that it may force the system to respond to student preferences in respect of the mix of provision, VET institutions offering an attractive programs will lose both students and funding (Bradley et al., 2001).

Given that the benefits of VET are realized both by students and employers, an effective VET system needs to reflect both employer demand and student preference. The relative weight given to these factors varies across countries. But optimal balance depends on factors including:

- **Who pays**? If students pay most or all of the costs of VET courses-for example at postsecondary level-then the mix should be equivalently dominated by student preference
- **Student age** – younger, school-age students may less able to make longer –term career decisions, so student preferences for certain vocational programs should be balanced by attention to labor market outcomes, particularly where provision is free of charge to the student
- **Breadth and orientation of program** – programs with a large element of general skills, often designed to prepare students for the next level education, as well as direct labor market entry, need to be constrained so tightly by employer demands.
- **Predictability** – in some sectors, like in education and health care, labor force requirements may be more predictable then in some others (Field and Kuczera, 2010).

The rationale of vocational programs is that they will provide the skills needed in future jobs. But the shape of future labor market is inevitably misty. Many OECD countries (Australia, Canada, Ireland and Finland) forecast trends in employment mainly by occupational categories often a time horizon of five to ten years (Neugart and Schomann, 2002).The European Union has also created medium-term skills forecasts in the EU as a whole and in each member country (CEDEFOP, 2008). The 2008 Spring European Council called for a comprehensive assessment of skills requirements in Europe up to 2020 (fig.1). This request was also taken up in the June 2008 Council conclusions „Anticipating and matching labor market needs, with special emphasis to youth – a job and skills initiative".

Levels	2001	2015	2020
Armed forces	1,197	1,165	1,130
Professionals	25,482	31,111	33,275
Technicians and associated professionals	31,733	38,691	41,502
Clerks	25,088	22,044	21,436
Service workers, shop and markets workers	28,717	32,017	32,702
Skilled fishery workers and agricultural workers	8,960	6,082	5,549
Plant and machine operators and assemblers	17,304	17,85	18,260
Elementary occupations	21,137	26,480	28,064

Fig.1 Employment by occupation EU25 (CEDEFOP, 2008).

5 Conclusion

Various studies highlight the importance of general content in the curriculum. In modern economies an increasing number of jobs, including blue-collar jobs, require sound generic skills. A study from the United States (Levy and Murnane, 2004) suggests that technological change has made problem solving and complex communication skills much more important in the labor market. The development of these skills is underpinned by good literacy and numeracy skills (Levy and Murnane, 2004).

Labor markets change rapidly and often unpredictably. As virtually all workers will need to acquire new skills during their career, literacy and numeracy are particularly valuable in the long run (Kézdi, 2006). Strong literacy and numeracy skills are associated with better performance on the labor market.

For some students in VET programs, very weak basic skills are a serious difficulty. Basic skills problems are widespread, damaging, often unrecognized, but remediable. It follows that there is a very strong argument for systematically assessing the literacy and numeracy skills of students at the point of entry to vocational programs so as to identify people in need of support. In Belgium, for

example, jobseekers complete a quick-scan test and, if necessary, are directed to adult basic education centers (Basic Skills Agency, 1997).
In many countries, surveys show that employers strongly value soft skills, such as the ability to work in a team, communication skills and work discipline. In Austria for example a survey found that the lack of soft skills, such as reliability and adequate manners, was a common reason for rejecting apprenticeship applicants (Schneeberger, 2007).
Other skills, such as entrepreneurship, are highly relevant to many occupations to which VET leads, but have been often neglected in traditional vocational programs. Some countries have recognized the importance of entrepreneurial skills and have created programs in this area. In Belgium the Flemish agency for Entrepreneurial Training (Syntra Vlaanderen) aims to stimulate entrepreneurship. It offers a range of training programs, including courses in business management, entrepreneurial training as part of apprenticeships, and specific entrepreneurial training at ISCED 4 level (Field and Kuczera, 2010).

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

Analysis Evaluating the Results from the Research of Textbooks´ Didactic Efficiency in Technical Education

Ján Bajtoš – Iveta Kmecová*

Abstract: At present we consider education to be one of the most important permanent priorities which greatly influences the prosperity of all countries. Education should enable students to integrate into the dynamically developing society. In this regard, education is the main factor of social prosperity. Therefore, each school is responsible for the level of education they provide (Bajtoš, Orosová 2011). In our contribution, we present some selected results of the investigation focused on the observation of the didactic efficiency of the textbooks in technical education. We bring in some partial valuation results of the education quality of Economics at the Technical High School in Hlohovec. Further, we bring in the results from the didactic test achieved by a group of students. We compared the results of the students from the "standard" class and the "experimental" class. In the end, we outline the need of upgrading the efficiency of the educational process.
Key words: textbook, teaching text, didactic efficiency of the textbook, efficiency of the educational process

1 Introduction

Schools should provide quality preparation for the expectant profession. This highly depends on the educational aids – including textbooks. All schools should realize this fact and do the necessary procedures to provide good education. A graduate should obtain education and knowledge corresponding with their field, as well as related fields. Therefore, connecting school with real life is very important (Bajtoš, 2007, Turek, Albert, 2005).
Our ambition to gain efficiency in the educational process (in order to enable students to learn with the least effort possible and obtain optimal results, etc.) is based on the demands of the society in the 21st century. There were many various aspirations, as we know from the history of didactics, e.g. education

* Ján Bajtoš, Dubnica Institute of Technology in Dubnica nad Váhom, Dubnica nad Váhom, Slovakia; bajtos@dti.sk
Iveta Kmecová, The Technical High School, Hlohovec; kmecova.ivet@gmail.com

content corrections, implementation of several educational concepts which should adjust or lower the contrast between what schools provide students, and what the age they live in expects from them (Petlák, 2008).
We can make the conclusion from the facts mentioned above, that it is the school that is greatly important for the life of a graduate. Schools should provide students good preparation. It is absolutely necessary for them in order to adopt and develop competences in a correct way.
From this point of view, it is important to observe the didactic efficiency in technical education and, at the same time, we must verify the quality of existing textbooks. If any deficiency is detected, then there is a need of making corrections of the content or designing new educational texts (Bajtoš, 2003, Kmecová, Bajtoš, 2010).

2 The didactic efficiency research of the textbooks in technical education

2.1 Goal of investigation

The main goal of the investigation was to observe and check the didactic efficiency of the chapters of the Economics textbook that we formed at the Technical High School in Hlohovec and also to check the quality of our teaching text in relation to the results of the educational process in the subject Economics.
We formulated these partial goals to fulfil the main goal:
– to learn students´ opinions and requests for the existing textbooks of Economics at the school,
– to form a new teaching text for 20 lessons,
– to find out whether the redrafted teaching text is suitable and understandable for students,
– to experimentally check the didactic efficiency of our chapters on a group of students from the 3rd grade of the Technical High School in Hlohovec,
– to learn the results of the teaching process using our chapters compared with the existing textbook,
– to learn the students´ attitude to the quality of education,
– to suggest some recommendations how to improve the educational process of Economics.

2.2 Object of investigation

The object of our investigation was to check the didactic model of teaching with the use of our textbook´s chapters and comparison of its efficiency with one of the existing textbooks, comparison of the students´ knowledge and the students´ satisfaction with the educational process using our chapters.

2.3 The main hypothesis of the investigation

On the basis of our goals we defined the main hypothesis:
H: Teaching the subject of Economics using our textbook will be more effective than when using the ordinary textbook.
We divided the main hypothesis into 5 partial ones to be able to verify the main hypothesis.

2.4 Partial hypotheses

H1: Students from the "experimental" class will gain better results in the didactic test of Economics than students from the "standard" class.
For the verification of H1, we used cognitive, objective, "NR" test. The achievement of each student was compared with other students.
H2: At the end of the experiment, the students in the experimental class will rate the educational process more positively than the students from the standard class.
H3: "Comprehensibility of the formed teaching text evaluated by Cloze test will be higher than 65%."
H4: The comprehensibility of our educational text will be positively rated in the experimental class.
H5: At the end of the experiment, the students in the experimental class will suggest to continue learning the subject of Economics from our newly designed chapters of the textbook.

2.5 Sample of investigation

H1: Students from the "experimental" class will gain better results in the didactic test of Economics than students from the "standard" class.
For the verification of H1, we used cognitive, objective, "NR" test. The achievement of each student was compared with other students.
H2: At the end of the experiment, the students in the experimental class will rate the educational process more positively than the students from the standard class.
H3: "Comprehensibility of the formed teaching text evaluated by Cloze test will be higher than 65%."
H4: The comprehensibility of our educational text will be positively rated in the experimental class.
H5: At the end of the experiment, the students in the experimental class will suggest to continue learning the subject of Economics from our newly designed chapters of the textbook.

Field of study/class	Class	Number of students
Machine engineering /experimental class	III. MSZ	16
Electrical engineering /experimental class	III. ET	10
Car mechanic /standard class	III. AO	19
Mechanic serviceman Carpenter/standard class	III. MOSTEM	26
Altogether		**71**

Tab. 1 *Investigation sample*

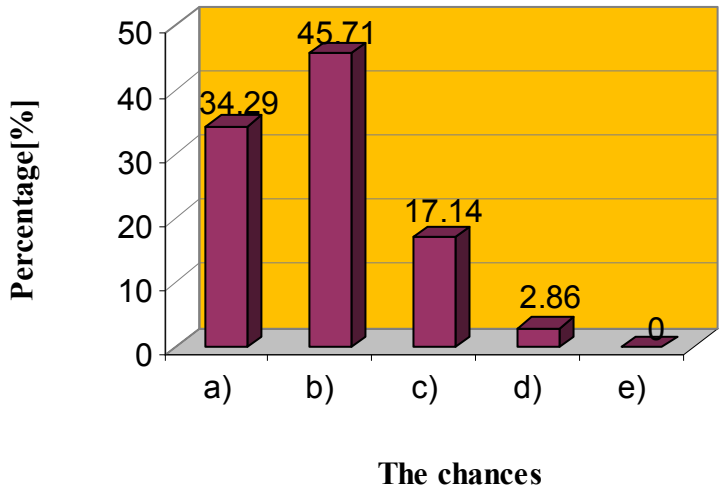
2.6 Methodology

Before the investigation, there was a research which the aim of which was to find out some opinions and requests of the students about the quality of textbooks in technical education. As a result we obtained some useful information – the level of textbooks´ quality before the investigation itself. For the realization of the research on the didactic efficiency of the new Economics textbook, we used the following methods and techniques: natural pedagogical experiment, survey method, Cloze test, didactic test, statistical methods of the elaboration of results and literature study.

3 Results

We bring in a selection of results from the research (Kmecová, 2010):
Task 1: What is your attitude to the subject of Economics, should it continue to be taught by using the newly designed educational text?

Fig. 1 *The opinions of students from the experimental class (degree and apprentice form of study together) about teaching Economics using the newly designed educational text*



a) I strongly agree, b) I agree, c) I agree and also disagree, d) I disagree, e) I strongly disagree

The highest percentage of the students from the experimental class (45.71%, that is 16 out of 35 students) stated b) possibility – I agree that the subject of Economics should be taught by using the newly designed educational text. Overall, 34.29% of the students chose the possibility a) – I strongly agree. Based on these statements (see Fig. 1), we can allege that hypothesis H5 was confirmed.

3.1 Statistical verification of the research hypothesis:

Hypothesis H1 : Students from the „experimental“ class will gain better results in the didactic test of Hypothesis H1: Students from the „experimental“ class will gain better results in the didactic test of Economics than students from the „standard“ class.

For the verification of H1, we used cognitive, objective, “NR“ test. The achievement of each student was compared with other students.

In Tab. 2 we bring partial results in the didactic test of students from the degree form of study.

Degree form of study – class	
Experimental class	**Standard class**
$n_1 = 16$	$n_2 = 10$
$\bar{x}_1$ [body] = 20.75	$\bar{x}_2$ [body] = 16.60
$s_1^2 = 1.96$	$s_2^2 = 12.71$
x_{max} [body] = 22	x_{max} [body] = 21
x_{min} [body] = 19	x_{min} [body] = 10

Tab. 2 *Results in the didactic test of students from degree form of study*

In our investigation, we selected the score of the ascending DT for quantitative sign, in the cognitive area for calculation, non-parametric U-test by Mann and Whitney for big counts.

H_{zero}	There are no differences between the achievement of the students from the experimental and standard class.
$H_{alternative}$	There are some differences between the achievement of the students from the experimental and standard class.

We compared the calculated figure 11.13 with the critical figure (Chráska, 2007, p. 97).
Calculated figure u > 1.96 - than critical figure
We rejected the zero hypothesis at the level of importance 0.05 preferring the alternative hypothesis. There were important statistical differences between students of the "experimental" and "standard" class. This detection was the same for both forms of study.
Concluding statements:
Hypothesis H1 was confirmed (degree and apprentice form of study).
Graphical depiction of the results from the final didactic test in the experimental and standard class (degree and apprentice form of study) – Fig. 2-5.

Fig. 2 *Results from the didactic test of students from experimental class in degree form of study*

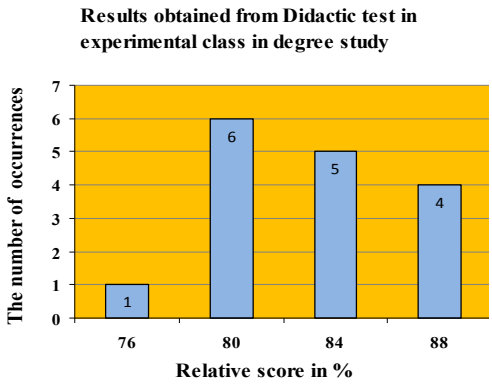


Fig.3 *Results from the didactic test of students from standard class in degree form of study*

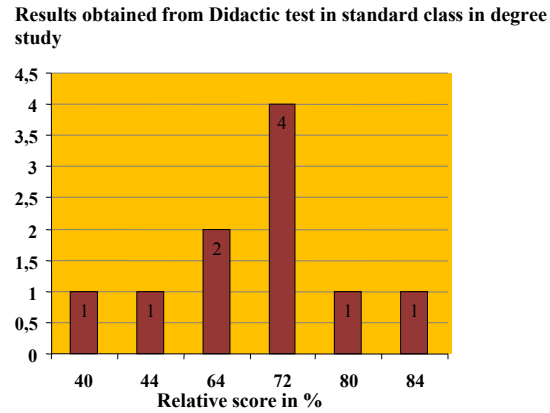


Fig. 4 *Results from the didactic test of students from experimental class in apprentice form of study*

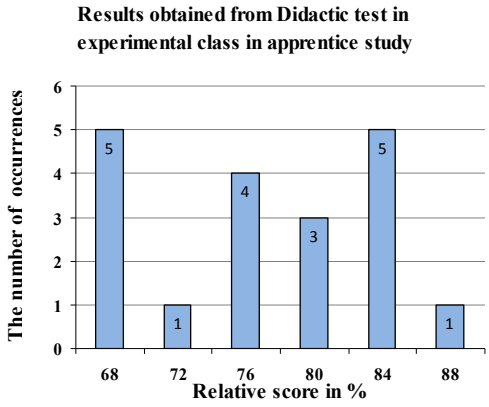
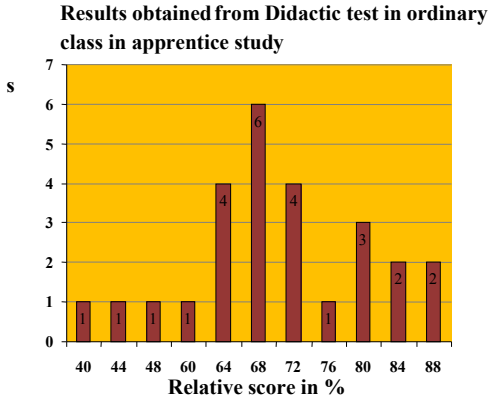


Fig. 5 *Results from the didactic test of students from standard class in apprentice form of study*



Hypothesis H2: Students from the experimental class will judge the educational process more positively than students from the standard class.

We used the Mann and Whitney U-test for verification. We verified the hypothesis by survey (it consisted of 24 tasks) focused on the education quality and the quality of the educational process. We bring in partial results from evaluation of the survey focused on education quality rating.

Analysis of Task 2

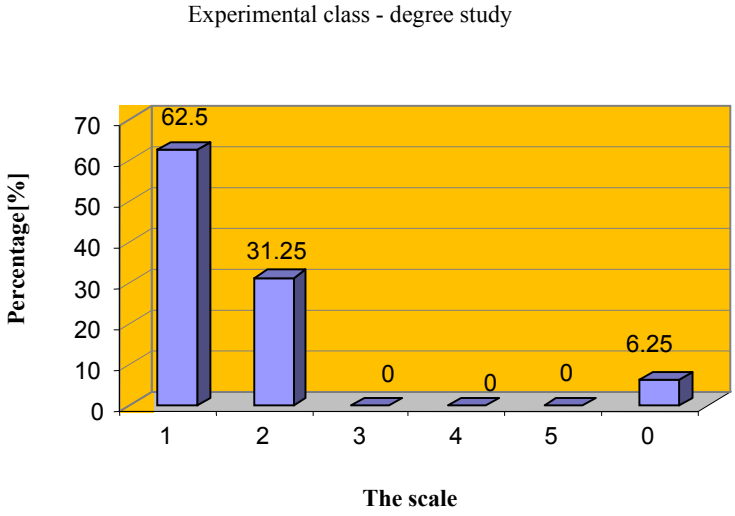
Using the scale 1, 2, 3, 4, 5, 0 (1 - excellent, I am very satisfied, 2 - very good, I am satisfied, 3 - good, sometimes I am satisfied, sometimes not, 4 - bad, I am not

satisfied, 5 - very bad, I am not satisfied at all, 0 - I don´t know), try to rate following method of economic education.

■ work with the textbook 1 2 3 4 5 0

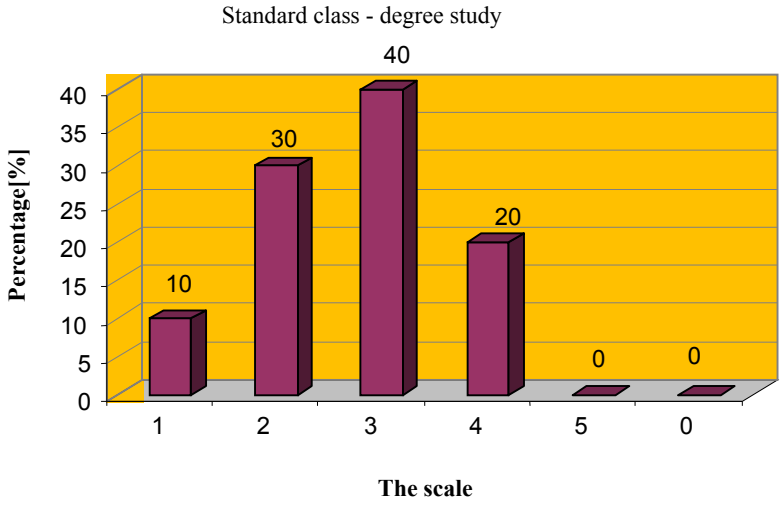
Fig. 6 Attitudes of students from the experimental class (degree study) to the method of education – working with text 1 2 3 4 5 0

Fig. 6 *Attitudes of students from the experimental class (degree study) to the method of education – working with text*



In the experimental group (degree form of study) – 62.50% respondents rated the method of working with text by mark 1 - excellent and only 6.25%, that is 1 respondent out of 16 stated the mark 0 - I don´t know. The results are presented in the Fig. 6.

Fig. 7 *Attitudes of students from the standard class (degree study) to the method of education – working with text*



In the standard group (degree form of study) – 40.00 % respondents rated the current textbook by mark 3 - good and two of them by mark 4 - I am not satisfied. None of the respondents rated this method by marks 5 and 0. The results are presented in the Fig. 7.

Hypothesis H3: "Comprehensibility of the formed teaching text evaluated by Cloze test will be higher than 65%."
We verified this hypothesis by Mann and Whitney U-test. The calculated figure 8.46 (apprentice study) and 29.09 (degree study) was higher than the critical figure (in tables) u krit(0,05) =1.96, which was the reason of refusing the zero hypothesis and accepting the alternative hypothesis. There were statistically important differences between the number of points in Cloze test from the experimental and standard class (in both forms of study).

Fig. 8 *Average number of completed words in Cloze test in apprentice study – experimental and standard class*

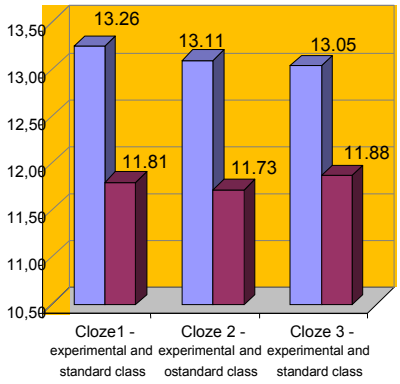
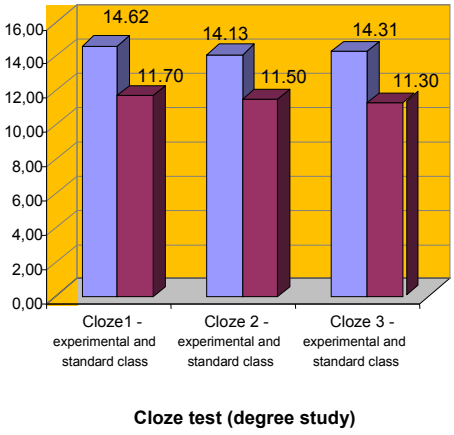
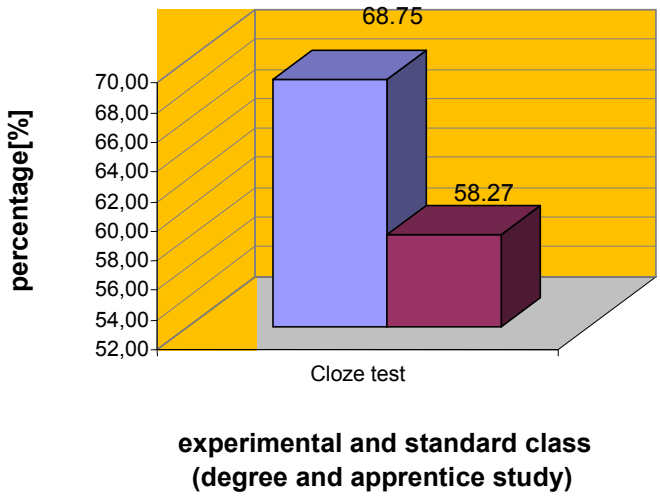


Fig. 9 *Average number of completed words in Cloze test in degree study – experimental and standard class*



In the Fig. 8 and 9, we bring factual results with the numbers of completed words in the experimental and standard class in apprentice and degree study. The students from the experimental class (degree and apprentice form of study) reached more than 13 words at average. The students from the standard class reached in all the three samples less than 13 words.

Fig. 10 *Overall number of words obtained from Cloze test in %*



We present overall numbers of words obtained from Cloze test (degree and apprentice form of study altogether) in the Fig.10.We learn from the Fig. 10 that the average number of words in the experimental class (degree and apprentice form of study) was 68.75%, it means more than 65%. We can allege that our own teaching test is comprehensible and easily readable for a student.

Hypothesis H4: The comprehensibility of our educational text will be positively rated in the experimental class.
We verified the H4 hypothesis by the survey focused on evaluation comprehensibility of the Economics educational test using 4 dimensions of semantic differential (simplicity, structuring, and brevity – sententiousness). The survey was made among students from the experimental class of both forms of study (Turek, 2008, p.321-322).

4 Discussion

Hypothesis H1 was confirmed (degree form as well as apprentice form of study). As we can see from the results in Tab. 2, the arithmetic average of the point score reached in didactic test from the experimental class is higher than from the standard class. There were huge differences among the results of the students from the standard class. The difference between the highest and lowest score from the didactic test was 11 points (44%). The maximum of points in the test

was 25. It was approved that students from the "experimental" class will gain better results in the didactic test of Economics than students from the "standard" class.
Hypothesis H2 was confirmed too (degree and apprentice form of study). Students from the experimental class judged the educational process more positively than students from the standard class. Following the analysis of the results in the Fig. 8 and 9 we express the declaration that we managed to confirm the partial Hypothesis H3. The students from the experimental group reached 68.75% in Cloze test, so the comprehensibility of our text was higher than 65%. Hypothesis H4 was confirmed, too. The comprehensibility of our educational text was positively rated in the experimental class.

5 Conclusions

We verified the efficiency of the Economics educational process at the Technical High School in Hlohovec using chapters of the educational text created by us. 71 students acted as a sample for the research – 35 students from the experimental class (together degree and apprentice form of study) and 36 students from the standard class (together degree and apprentice form of study). The main method of the research was natural pedagogical experiment. Further methods and techniques we used: didactic test (for H1 hypothesis verification), survey method (for H2, H4, H5 hypothesis verification), Cloze test (for H3 hypothesis verification) and statistical methods of elaborating the results (Chráska, 2007, Turek, 2008). The presented results obtained from Cloze test suggest that our teaching text is easily readable, more interesting and comprehensible. Our newly formed text was very well accepted and appreciated by the students.
For the educational process we suggest:

- to continue with asking about students´ attitudes to the quality of textbooks in technical education,
- to observe and evaluate the didactic efficiency of the textbooks,
- to implement newly created textbooks/educational texts and thus to contribute to the increase of the quality and effectivity of the educational process.

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

Creative Drama in Support Therapies for Children with Learning Disorders

Dana Kollárová*

Abstract: The paper familiarizes the reader with the output of the project titled Support Therapies for Children with Learning Disorders which we implemented at an elementary school. It describes the individual therapy types which were used and which can, to certain extent, help the pupils with special educational needs. The paper focuses on our experiences with the use of creative drama elements and drama therapy with 5^{th} – 9^{th} grade pupils. It presents the acquired qualitative data which show the reader the specifics of the educational process and public presentation of pupils with learning and behaviour disorders.
Key words: creative drama, drama therapy, role play, movement and pantomime, improvisation.

1 Introduction

In the school year 2010/2011, we had the opportunity to cooperate with the elementary school Podzámska in Hlohovec in the project *Support Therapy for Children with Learning Disorders* which was supported by the Open Society Foundation (OSF). The Faculty of Education of Constantine the Philosopher University in Nitra participated in workshops in the sphere of drama therapy, the creative process which resulted in stage formation. At all the meetings we worked with pupils of lower secondary level of education, involving schoolchildren with special educational needs. In many cases pupils from socially non-stimulating or "disturbed" family environment, but mainly with weaker communication skills, were involved. In the process we used the methods and techniques of creative drama and drama therapy; the core activities, processes and reflexions of which are presented in the paper. At the meetings within the therapies, the importance of having not more than three classmates in one group was emphasized and meetings regularly took place in an environment different from the classroom.

* Dana Kollárová, Constantine the Philosopher University in Nitra, Nitra, Slovakia; dkollarova@ukf.sk

Creative drama is rather rarely used in the educational process. However, if we want to see its benefits in education, there must be a systematic approach of a teacher. Therefore we used the opportunity to work with these pupils to make them relax, to make them talk about their interests, and to search, find and develop themselves. First of all, they needed to get rid of barriers in communication and not to be afraid to ask if they do not understand.

2 Through the steps of creative drama to confidence in communication

The term creative drama in the school context started to emerge with the aim to penetrate into the educational process by its methods and techniques. In most British schools the procedures of creative drama are completely understood and they are being integrated into all the schools. C. O´Neill sees drama in education (1998) as a way of learning. The author claims that "through the pupils' active identification with an imaginary role and situation in drama, they can learn and explore controversial issues, events and relationships". K. Blahová (1996) points out that "in case of application creative *drama* (or its synonym drama education, educational drama, drama at school, staging, education by drama) at school, it cannot be seen as tragic or nerve-wracking event, but it must be seen as a moment where a person decides to act and chooses the way of action". During education, a teacher works with pupils' psyche, their acting conditioned by the principles of learning. S. Koťáková (2008) takes the view, that by creative drama in children we can develop:

- confidence and creative expression
- emotional stability
- physical coordination
- beneficial life philosophy

The purpose of the methods of creative drama is to simulate drama situations. Real environment or literary stimulus may serve as a source of inspiration for the teacher. The basic method of creative drama is *role play.* Entering a role requires knowledge of the situation to be role played by pupils, they *interpret* it (by words, movements) as they understand it or how they explain it to themselves and decide on how they would act in a particular life situation. The mentioned steps lead to *improvisation* or to a *dramatic game.* The dramatic game is about group experience in which we encourage pupils to express themselves in a group activity (in which they must follow the rules set together) or possibly, to express ways of decision making and acting of somebody else. Thus, dramatic game can be understood as an activity in which pupils role play situations of everyday life by which they learn how to communicate and how to solve problems, how to gain confidence in communication. Pupils learn that rules must be followed in

order to solve problems and to recognize the possible consequences of a wrong decision or acting. At the same time, by using this approach pupils learn to take responsibility for their decisions and actions. In relation to the curriculum, dramatic game plays an important role as pupils express phenomena and concepts related to the curriculum by means of movement, words, sound, and deployment of objects in a room. It gives feedback to a teacher on whether pupils understand new concepts, content, and topic. We can talk about the method of creative drama as the basic method of *communication game.* Thus, the principle of the stated approach is entering into roles (of somebody, of something). The notion of role in terms of creative drama at school has been defined by J. Valenta (1995) as "a teaching task usually requiring internal (behaviour and action) visualisation of a particular phenomenon based on the inner vision and experiencing of the phenomenon". It is necessary to mention that in creative drama the creative process is always in the first place, it is not the final effect (!). In the creative process, all the players participate in the game; there should not be any hands-off observers. The content of creative drama includes satisfying of social needs of a child among which the most important one is the need for communication, the need to talk and to be heard, the need of being accepted, to belong somewhere, a positive response to every positive action, the need to experience success, and to handle with failure.
According to the stated views we can conclude that creative drama (dramatic education) plays an important role in education and developing the personality of a child, it teaches a child how to understand itself, how to cooperate with the surrounding environment, how to behave with empathy, and how to express feelings and develop emotionally.

1.1 Creative drama as a part of drama therapy

It is gratifying that we can see the methods of creative drama in relation to the educational process at school more and more frequently. Miron Zelina (2000) attributes to drama education (creative drama) at school a significant importance in the development of the emotional sphere. According to him, thanks to drama education a child/pupil learns how to correct the feelings in pursuance of recognition, monitoring and experiencing situations with other children. Furthermore a child learns how to control his/her emotional expressions. It may be, for example, when children lose something. Children learn how to deal with feelings when they face new facts, phenomena, stories, to which they have not had any opportunity to express their feelings yet. By all these means children develop their emotional side. In this context the results of an extensive research that D. Goleman (1997) mentions in the book *Emotional intelligence* are interesting because the topicality of the research results is confirmed in current pedagogical practice. The research results show that this generation of children has significantly more emotional problems than previous generations. They suffer from loneliness and depression more often, they are shyer and more

disobedient, more impulsive and more aggressive, are likely to worry more than their parents or grandparents. Therefore, it is necessary to place the emphasis on the selection of didactic methods by the use of which a teacher can improve the educational process so that he/she supports the development of the whole personality of a pupil. However, this requires a well-prepared teacher in both professional and personal aspects with courage to think and create, someone who is able to connect the mind and the heart of a pupil.

Currently, at school there are many pupils requiring special educational procedures. We dare to say that one of the possibilities how we can eliminate this problem is that a teacher will, based on self-reflection, discover and search opportunities of applying activating methods in education. The methods of creative drama can be considered activating methods of education. However, if we talk about the application of the methods of creative drama in relation to pupils with special educational needs, we can talk about drama therapy. We realize that it is mostly used by psychotherapists or special pedagogues but we cannot exclude that games, exercises and improvisation may be used in the pedagogical work of a teacher who is professionally oriented and has long experience with creative drama in the educational process (preferably also with an interest in art activities) and who has the ability to recognize the interests, needs and difficulties of children/pupils. In the school context we would rather talk about drama therapy not as a form of treatment but as a form of art – art of playing, communicating, perceiving, experiencing and creating. According to Jennings (Valenta, 2001) creative artists are, to some extent, included in drama therapy.

Drama therapy is a medical and an educational method. We can use it with individuals or with small groups. M. Barham (1995) considers drama therapy as art, a medical and an educational method applicable in individual and in group work. According to him it is the intentional use of drama and theatrical processes with the aim to reach therapeutic targets such as symptom relief, emotional and physical integration and personal growth. K. Majzlanová (2000) understands its usage rather widely, especially with learning disorders, behaviour, speech or emotional problems as well as in work with abused, neglected and disabled children. Mostly, we meet the procedures of drama therapy in pedagogical and psychological counselling, in diagnostic centres for children, in psychiatric facilities, in drug addiction centres, in some school facilities, in non-profit counselling organization, but also in senior facilities. The principle of drama therapy is very aptly expressed by R. Emunach (Majzlanová, 2004) who claims that "we do not tear down the walls of players, we only try many door handles and we search where and for whom they will open." Here we can see the compliance with the statement above – the core is in the creative process and in searching, discovering, trying, or applying in real life. In drama therapy, as in other types of therapies – bibliotherapy, occupational therapy, and

music therapy – we can talk about the approach to education with a medical and an educational focus.

3 Experience with application of drama therapy elements with pupils with learning and behavioural disorders

We can say that the group of children/pupils that we had the opportunity to realize workshops with regularly within the project *Support Therapies for Pupils with Learning Disorders* persuaded us by its approach that all the meetings had their meaning. Even pupils not considered to be very smart by their teachers and classmates were able to demonstrate:

- aesthetical feeling (also in communication),
- greater confidence in application of their own skills
- they realized that they are a part of a group, in which more people communicate and it is necessary to listen to them and respect diversity of opinions
- they were able to appreciate the results of teammates
- they were gradually learning how to follow the rules, they understood that every game (also a simulated situation) similarly as work, has its rules, it carries expectations, and it has its beginning and end.

Based not only on the realized project but on a several-year school practice and research work we dare to claim that the use of the methods of creative drama may show pupils and teachers the way to learn to perceive the world, to think about it and to make a relationship to it.

The introductory exercises with pupils led to some elementary activities and games which were focused on warming up, relaxation, and concentration. We recommend including these exercises at the beginning of meetings (classes). They are also suitable in situations when pupils' attention is decreasing. Exercises are useful not only for skill acquisition and development, skills are important for everyone of us, but are also used to create the necessary atmosphere. We can develop further work on them. Warm up or "playing" has a significant influence on our psyche. K. S. Stanislavskij (1997) who devoted to work and expression of an actor attributes to total relaxation a high importance. He took the view that muscle tension disturbs psychical work and expression. During physical tension, there cannot be any talk about normal expression of a role. The author claimed that "the most sensitive" constriction at same point, which we do not immediately notice, may have a destructive effect on creative work. Therefore for children it is important to learn how to relax muscle tension and control the state of relaxation constantly. This process of self-observation and relaxation of the excessive tension should gradually become a mechanical habit. For this we must work daily and systematically.

It is necessary to say that the first meeting was not only about introduction but also about reminding and explaining the importance of rules, shouting over, suspicion – when somebody was looking at somebody else they believed that there was a bad intention. Children were not used to talk in a circle, so they were obstructed by the view of their schoolmates. All children were interfered with by the eye contact during exercises. It was visible during the game when they had to gain new information about their teammates. The principle of the game was to walk freely in the room with closed eyes. At the signal they had to open their eyes and get new information from the nearest teammate – ask them about something quickly – *about family, school, housing, friends, and interests* while they had to keep the eye contact and remember the information. The gained information and the questions used by children with the intention to get the information were surprising but several of them proved that the children need a specific approach to education.

Similarly, we started with exercises from self-awareness, awareness of own inner space, gradually moved to the awareness of the external space and then to exploring group work (with respect to the partners), and finally to the perception of group sensitivity. At the beginning, the exercises and games were problematic for children, it was influenced by the above stated factors in relation to the risks related to the first experience with creative drama. During play with an object, later during play with sounds, children **gained greater confidence** because they were realising that classmates who were next to them were not the ones to make fun of them when they express an opinion. It could be seen in short improvisation games. For example, they made up a "sound" story from the sounds they heard when their eyes were closed. Based on different sounds in the interior or in the nature which they were able to identify and assign meaning to them, they were able to create an activity or feature by unarticulated sounds – *breaking of a glass, tearing of a cloth, the sound of the brook, etc.* The first "easy" job with the group was creation of a calm atmosphere during telling own stories which they could "see" thanks to the improvised sounds made by the teacher inside the room by means of contact with different objects.

We know from experience that every beginning with creative drama at school brings mostly complications (disrespect of a group, space, game rules, shame, lack of relaxation, doubts, ridicule, inclination to compare with others) what discourages teachers. It is necessary to remind children several times that everybody is different, unique, original, and during a creative activity no one is better or worse than the others. We explained to pupils that our **activity needs** relaxation, concentration, sense perception, our imagination, fantasy, our movement, speech skills, and memory as well as logical and strategic thinking. Everything should have the same denominator **creativity.** We ensured children that they could express their opinions at meetings, they would be heard, not mocked and we would certainly deal with them.

At the next meeting children asked for some of the games we used as first. In the group it was necessary to **gain and keep trust,** to follow the rules, to concentrate. They showed a huge interest in the game of mirrors in which they had to use not only their **observation skills** but also to concentrate, and what was the most difficult for them, they had to respect the opinions of a teammate. As they showed interest in blind games and they were relaxed, we included more of these activities because then they had the opportunity to work in pairs. We, furthermore, found the interest of pupils in improvisation in the game of guiding puppets where they verified the contact, respect and mutual interplay. They pretended to pull the strings of a puppet (knees, hands, turning its head, feet and shoulders) and moved it to another place. Here, they bore **responsibility for a teammate** and vice-versa, the teammate had to trust somebody. In relation to this exercises with puppets or any play with objects that can be used in puppet (object) theatre, according to B. Kováčová (2001) it is necessary to mention that the whole process of the drama activity with puppets is in preparation and presentation testing with an emphasis on the process of inner experience and identification. During play with an object (also when we make object theatre e.g. from the objects that are close to us) the participants do not need to have any experience with animation with puppets. It is a creative form of interpretation using words and motion.

In nonverbal communication with children we tried mimics and gestures first then we continued with communication in space and with the elements of pantomime. The interest of students was gained by motion etudes, their task was to play e.g. *invitation to the cinema, express the title of a movie by motion.* By means of improvisation and games we wanted children to tell us something about their feelings, desires. We did it through "reincarnation" into objects, by role play (we played something) – *children played colours, animals, furniture, movie characters, food, but also vehicles.*

One meeting was devoted to association games – sound, auditory, motion. After the third meeting we focused improvisation, games and exercises on the topic *Circus* because we planned to perform on the theatre show but children did not know about it. We played a game titled according to the circus which should had come. Children had to give names to the actors. By motion improvisation we made circus figures – acrobatic elements, which they should present in front of a group of teammates. They were preparing in groups of two or three players. It was a pleasure to see their cooperation and respect for opinions. They suggested the following disciplines: *an acrobat with an acrobatic figure, throwing a ball in pairs – a ping pong ball, a tennis ball, a medicine ball, a balloon* and they had to express the weight, tempo and rhythm of the falling ball. They did not forget about a clown in the circus and they prepared a word-motion etude. Later on, they suggested the clown to introduce the circus figures and their activities *a weightlifter, a faquir, a knife thrower, juggling, holding plates on a stick.* Children created beautiful things from a piece of cloth, at the last meeting one

piece of a cloth was enough to make *a barbell for a strongman, a crow, a snail, a pump, a bat* and so on, without mutual ridicule. They took the responsibility and they showed ability to finish exercises and to explain their suggestions. Similarly, as we continued in work with an object (to make something else of it), they were not afraid of word improvisation which we connected to our game in the space.

A chair was an inspiration for them and after standing on it they expressed their ideas – *rhymes.* Naturally, we were interested in the problems they struggle with. We played the game *What burns you.* The main principle of the game was to sit on a hot chair. They could not sit on it for very long, therefore they told what troubles their soul quickly. The most frequent answers were – *bad marks from Maths, exams from Slovak language, bad marks, and school.* But not only the school bothered them, they expressed that their troubles are: *everything, but also obloquy of a teammate – "he is provoking me by his existence"*. We ensured them that life is not only marks, and the fact that we want to learn something that we understand is important. We did not forget to remind, that everybody is different and everybody is interested in different things, we express ourselves differently. Consequently, I used a chair and I expressed what is burning me – *we sometimes do not follow the rules and we do not listen to each other.*

One of the meetings was devoted to motion and pantomime. For example, there were pantomimic expressions of the surrounding objects, diverse simulated situations from the real life environment. The greatest experience was improvisation on the theme *Meeting, or What should I expect of it?* Children made up situations by themselves what is admirable and we can consider it their inner advance in comparison to the beginning of the creative activity.

Naturally, we cannot say that all the exercises, games and improvisation were without any difficult educational situations at the beginning. We must admit, that inadequate and sometimes aggressive behaviour of a group of children occurred. An example of one of the above mentioned situations was the advice: *"Hit her with a waddy!"* This was, unfortunately, the most common form of the children's communication what was reflected their relationship to other people, family and in school environment. For motion improvisation it was typical that they wanted to repeat activities at every meeting and they always came up with new ideas. It was the proof of the fact that children were interested in the applied form of education. We did so as we saw progress. When we wanted to calm the children down, we included narrative pantomime (a player expresses a situation by movement). In such exercises children felt how our body works and they were able to get rid of psycho-physical stress.

It was a problem to express oneself by a correct sentence construction in this group of children. Therefore we made it easier by *dabbing game.* The children did not want to use words because they interpreted them as a barriers and thus we chose *our own language* – it was the cluster of articulated sounds which have no meaning, they are not words. Our own language could be captured by the

dynamics and intonation of "the words" we were using. For the pedagogue it was important that children **were able to listen, watch, and mutually react to each other**, they understood the dynamics of speech, were able to decipher its meaning and results in social communication. The emphasis was in this case laid on motion expression and intonation as well as capturing the ideas of the two actors.

We consider a positive aspect of the work with this group of children that they **were able to work in pairs,** make agreements and respect each other. We can give the following example of the work in pairs: pupils were asked to make up one sentence which would capture the relationship of two objects that had been chosen. In this improvisation children did not want to express verbally in spite of the fact that their task was to say a sentence. However, we must appreciate, that they expressed excellent ideas by means of movement:

- *A book and a shelf – the covering sentence: "Nobody buys me."*
- *A handle and a window: - the covering sentence: "It is not working! I want fresh air! Call 112!"*

At the beginning it was a problem as the children were afraid of working with imagination, they wanted to play objects. They also had a problem to talk about objects (e.g. a book) and the role of a book and a shelf (I am a book, I talk about myself, the children talk about themselves).

We regularly included activities for **stress and relaxation** – *we were walking along the night city* – we included a walk by tempo and rhythm of a tambourine, their task was to identify steps – *a dog, a door, somebody is on the run,* etc. It is important to realize what is happening with us when we are in stress and when we are relaxed for better understanding of ourselves.

In activities which led to the development of the **ability to stress and relax,** there was no problem anymore, players made their own ideas by removing or unusual gripping of a chair – *a cannon, a computer, a typewriter, a car, a wheelbarrow, a stroller, a boat, a dog-kennel, a dancing partner, a wheelchair.*

We can mention an example which talks about a continuous social problem. A schoolgirl had a problem to express "a wheelchair", she whispered: *"But I am ashamed for the idea, I am not going to say it aloud"*. She was ashamed to express something what is natural for somebody else. Many pupils still perceive health disability as an inner communicational barrier. In the current social and school environment conditions for inclusion are still not created. With solving this social problem we should start during the preparation of future teachers. We believe that our solved task at the Department of Education of the Pedagogical Faculty of Constantine the Philosopher University in Nitra will contribute to it.

The Department of Education participated in the project by means of professional consultation and cooperation at workshops. The mentioned solved task was supported by the Ministry of Education, Science, Research and Sport within KEGA (Cultural and Educational Grant Agency). The solved task was

titled "*Creating Inclusive Environment in the Conditions of a University"* KEGA: 052 UKF – 4/2011).

At the penultimate meeting we announced that we would perform in the theatre on a real stage and we would not have any scenarios, we would improvise on the set topic and it would be based on the exercises which we had carried out during our meetings. It was interesting to see what an *undisciplined listening* began in the group of children. All the children started to willingly and carefully cooperate. We set the order of the exercises which might be presented on the stage together and we linked them with the topic – *Circus.*

In conclusion, we would like to mention that in the introduction of our last meeting, the children were **listening** to the instructions of the lecturer **for the first time** and they showed respect. As an example, there was an instruction to put aside the tools we were playing with. It was a pleasure to observe children following the rules we set, and what is more, for no need for disciplining them. Furthermore, they sorted tools not only according to shapes, but also according to colours and they cooperated with each other. We are sure that these positive result were achieved by the systematic approach without disciplining children from the side of the teacher but also by the fact that pupils realized that the teacher is interested in their opinions, interests, and respects them, he/she can creatively include them in a communicational game without the intention showing them that he/she can do it better. Pupils consequently found out that if we do not shout over and no warnings are need we have time to do more activities. It motivated them to following rules and to discipline. It is a positive finding because when we began with the meetings it was not possible to talk about rules or discipline, it was mostly about shouting over, obloquy, sassing, using vulgarisms, refusing games, and it took a long time until we started any creative activity.

Within the final reflections we were interested in the meaning of our meetings for the children: *– It is fun for us. – It is good here. – I do not know. – I do not want to answer. – It is different than at school despite we are at school. – I don't have to worry about anything at school. – I feel like when. – I am at great-grandmother´s, very well. – It is superb. – It is like a poem. – I like writing them.*

Most of these pupils were labelled unsuccessful, it was fascinating to find out when it started. Many of them agreed that it started in the fifth grade. Their statements: *- I had only one three and now I have six fours.*

Children/pupils need to be positively assessed, those successful as well as the less successful ones. Everyone of them makes an effort to be excellent at something, to surprise somebody but it does not work every time. And if so, it often stays unnoticed because it is a banality for adults. Children see their parents like this: *"At home, they instruct us, criticize us, but they do not praise us"*.

Teachers should not forget about the importance of the phenomenon of students 'appraisal. We praised the children very often. As we had promised at the

beginning, their opinions were respected and they were not mocked. To test what children feel when being appraised we used *The street of admiring.* We made a *golden gate* and all the children walked through it. Other players were telling different words of praise. At the end we appraised all the children for taking part in the games and exercises, and improvisation we did together.
There were moments when children forgot about disrupting by their comments and they were listening. We reminded them: *"Now it is perfect, you listen to me. Why?"* Children responded: *"Because we have found out that you are…. that we will not mess anything up….you want to work with us."* Again, it is confirmed that a pedagogue should be interested in children he works with. Lessons are not only about explaining from the side of an adult to a child or about acting unnaturally and pretending self-importance. People are the main actors of the educational process. Therefore, the process should acquire mainly a human dimension. Then there is the assumption that pupils will be willing to cooperate and to respect all the rules which we create during the lessons.

4 Conclusion, or by creative drama to removing communicational barriers

The purpose of the project was to offer the integrated pupils with different types of disorders special care in the form of stimulation and diverse supportive therapies, to make them more resistant to the effects to which they are daily exposed at school or in the family environment.
The uniqueness of meetings with integrated pupils is seen in the opportunity to find out what the real qualities of these pupils are. The pupils had the opportunity to discover something what is interesting for them, something in what they are better than at learning. We see the sense in the fact that after finishing the project they can develop (discover) new interest and it can also be a challenge for the school to include particular interesting activities into the educational activity. Based on the realized workshops and the performance on the theatre stage in front of audience we dare to claim that including similar activities regularly may significantly help the pupils to develop their communication skills and their own personalities. Last but not least, it will help the teachers and we think that it will also help the class and school atmosphere.
We agree with M. Pasch (1998) who noted that for successful education we need more than to know good techniques. The author takes the view that teachers who think about their teaching methods and procedures are better professionals than those who do not. E. Petlák (2000) states that the success of pedagogical interactions is mainly determined by teachers' skills and tendency to think about themselves and their pedagogical work, to analyse it, see its benefits and deficiencies, to sturdily remove deficiencies, to be able to generalize own

experiences and to use the experiences of other skilled teachers creatively. As K. Rýdl (2003) reminds us, teachers must realise that the key to teaching is not the answer, but the question. It will no longer be expected to know only one correct answer. Teachers will be expected to incite the curiosity of every pupil and they will help pupils to discover new things and work systematically. We may say that also teachers' thinking is an important determinant of the quality of education. Teachers' behaviour, presentation, communication and expressing the opinions are based on their thinking. It is also assumed that a teacher should be an emotionally stable, flexible person willing to try new pedagogical and didactic procedures. C.A. Klaassen (2002) from the University in Nijmegene, Netherlands, notes the problematic phenomenon that occurs more often in Western European countries – it is the erosion of pedagogical sensitivity of teachers. They are not prepared to talk about the pedagogical aspects of their work – about their approach to pupils on relational, personal or moral level. They have the problem to talk about pedagogical problems with parents because of the emotional difficulty of this communication caused by the lack of a clear pedagogical vision in their work. Research in which Klaasen participated showed that there is an increasing proportion of teachers who are afraid of moral topics which may appear in the classrooms and who avoid situations in which they should enter the discussion with pupils. Exactly here we see the place for the method of creative drama and its contribution for teachers.

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Acta Technologica Dubnicae
volume 3, 2013, issue 5

REVIEWS

More than Group Work: Socialization - Thoughts about the Methodological Book of K. Nagy Emese

Budapest: Nemzeti Tankönyvkiadó, 2012. 152 p. ISBN 9631972832.

Peter Bogdan*

K. Nagy Emese's methodological book (titled *More than group work*) was published in 2012 in Hungary by the National School Book Publisher. As the title shows, the book written for the teaching community and the educational experts is not simply the presentation of the group work-based - American pedagogical innovation: the Complex Instruction Program (CIP), but it has greater importance. The work helps the interpretation and the systematization of the contemporary Hungarian social processes, and offers possibilities for the teacher to moderate them, as well by presenting the philosophy, the working processes and the practical steps of CIP developed by a team of teachers led by K. Nagy Emese in Northern Hungary (in Hejőkeresztúr).

The Complex Instruction Program – based on twenty years of research - was originally developed at Stanford University by Elizabeth Cohen and Rachel Lotan.

A key feature of the American methodological construction is that the sessions provided by the teachers are organized around a central theme with a lot of open-ended solutions. Therefore, the competition between the children is excluded, because every student group has the opportunity to work on the different aspects of the central theme. Furthermore, in such a way the group work ensures the possibilities for further construction of individual projects, as well.

During the group work the teacher deliberately modifies - on the basis of the results of a previous survey - the children's hierarchical system and their status differences by problem solving tasks and the rotation of the students' roles. During the group work the students get into lower or more prestigious roles as well. By the rotational work the appreciation of those students who are

* Peter Bogdan, ELTE Faculty of Education and Psychology, Budapest, Hungary; bogdanp@freemail.hu

marginalized in the traditional educational practice also grows, while it reduces the personal conflicts between the children. This methodological consideration of the Complex Instruction Program can contribute to the repairing of the interactions between the Roma and the non-Roma children in the Central and Eastern European region.

The importance of the adaptation of the American Complex Instruction Program in Hejőkeresztúr lies in the characteristics of its context. The small village is located in that county (Borsod-Abaúj- Zemplén) of Northern Hungary whose central town (Miskolc) was a socialist industrial center until 1989. Miskolc absorbed the layers of the unskilled and (compared to the national average) largely overrepresented Roma population in the labor market. The situation was not different in the case of Hejőkeresztúr, because it is the part of the catchment area of Miskolc.

According to general Hungarian trends, the regime changes in 1989 brought the collapse of the socialist industrial production being replaced by a competitive and a knowledge-based market economy and labor market. Therefore the first big losers of the new democracy were those unskilled Roma people whose majority still lives in the agglomeration of the citadel of Northern Hungary. The majority of these people are still unemployed and afflicted by a very overt racial discrimination since decades that leads to personal, social, economic and other conflicts in the concerned area.

In this context, the application of the American Complex Instruction Program has extreme importance. The teacher community, led by K. Nagy Emese, is able to demonstrate significant results against the large number of pedagogical failures in the IV. Béla Elementary District School.

In such conditions, the book is particularly exciting for me. Besides the progressive and modern interpretations of the functions of the education and the educational institutions, it offers such methodological alternatives with adequate pedagogical tools that make the Hungarian application of the CIP highly credible.

The great importance of the work (*More than group work*) lies in the following. It is not only based on the results of the advanced pedagogical way of thinking about the methodological issues, but it highlights their 'in practice' considerations while the elements of the Complex Instruction Program are presented. It examines the aspects of the human rights and sociology, as well, being demanded for decades.

K. Nagy Emese's book breaks with the approach that expects the Hungarian educational system to treat and educate children in such a way that is similar to the line production in factories. Her work states clearly that the Hungarian educational system needs fundamental reforms both in structure and in thinking.

One of the most significant suggestions of the book is that it does not separate the educational processes from the social processes. Preferably, it accepts, measures and interprets the current contexts and considers the educational

institutions to be the socialization agent of the social interactions and influence existing within and breathing with the everyday life of the society.
It is not surprising that *More than group work* breaks with the approach that measures the children's achievements exclusively on the basis of the extent and the level of the crammed information and facts of the textbooks. The author explains that the school is a socializing medium preparing for the future and dealing with the questions: how and in what way can bring up such generations whose members are able to be more efficient in the cooperation instead of the stepping on someone's heel by flaunting the personal knowledge. In that way in an educational institution - besides the accumulation of knowledge - children also learn how to cooperate with each other regardless to the origin or the social and other disadvantages.
K. Nagy Emese in the *More than group work* practically scrutinizes all relevant viewpoints that – in my opinion - are needed if a teacher would like to get high quality results besides the contemporary Hungarian social conditions.
The author of the presented book fully explains the concept of the deprivation and its results concerning its negative effects on the social and the personal interactions. The author also describes how the social status or the origin can influence a child's status in the classroom, and reveals the fact that one of the most important elements of the Complex Instruction Program - as it was mentioned in the introduction – is the handling of the status problems: namely by the avoidance of the conflicts generating competitions that regularly reflect the social and the ethnic fault lines, with the help of a method in which everybody has to perform in a versatile way and meets a wide variety of roles but never in the same form because all children have to learn that everyone can have a higher or lower status, everyone is good at something and can be more successful if the personal tasks are solved on the basis of the group work.
There is an extremely important aspect in K. Nagy Emese's book that in the *More than group work* repeatedly turns out. The methodology of the Complex Instruction Program can be a supporting tool for the democratic societies. One of the basic features of the CIP is that it socializes between the walls of the school. The children learn to build and accept the democratic way of the relationships and the democratic way of the personal interactions which - according to the author of this paper – helps the well-functioning democracies to ensure the growth of those democrat citizens who cooperate with each other; or in the case of those countries where there are errors in the functioning of democracy the CIP brings mental clarity through the activities of the growing generations by showing concrete and positive economic or social results.
In the case of the *More than group work* it cannot be ignored that the author offers not only progressive social and pedagogical approaches with the presented educational, theoretical and methodological backgrounds but it provides significant assistance for those educators, teaching communities, managers and researchers who have enough entrepreneurship, commitment and dedication to

the methodological innovation of the teaching profession because the book offers the detailed analysis of the organizational, planning and measurement stages of the Complex Instruction Program which is, in addition, is accompanied (in the spirit of the scientific accuracy) by the measuring instruments, data sheets, lesson plans, and helps planning and monitoring processes by practical aspects. These materials can help any teaching community being devoted to follow and apply the method in practice similarly to the smooth operating practice of the IV. Béla Elementary District School in Hejőkeresztúr.

It cannot be ignored that K. Nagy Emese as a practicing director, the implementer of the CIP, and as an organizer makes it clear that the Complex Instruction Program is not only a pedagogical methodology but also an enterprise to make the educators be able to contribute to the effective shaping of our contemporary society. These intentions require a high level of commitment, competence, accuracy, and efforts along with the help of a professional leader.

The author of the *More than group work* does not hide that the application of the Complex Instruction Program does not allow a "relaxed pace of work" associated with the practice of the frontal teaching. Furthermore, she adds that when the project operates smoothly, and the teaching community is organized around the Complex Instruction Program then the overall effect of the Complex Instruction Program, which is based on the group work, will influence the thinking of the colleagues making the teachers' work easier, if for no other reason, because of the cooperation for the common goals, and for the reduction of the conflicts generating competitive situations, by resulting in high professional results and positive feedback.

It is also the merit of the book that K. Nagy Emese did not keep back the disagreement of her colleagues concerning the philosophy of the CIP, and she has the courage to offer professional arguments supporting the implementation of CIP.

Furthermore, it is also important to emphasize that the *More than group work* has other merits as well. The author is able to remain correct and objective while offering the Complex Instruction Program. K. Nagy Emese does not want to chase and force this pedagogical methodology as the one and only in a bigoted way.

The book reveals that K. Nagy Emese is aware of the fact that the presented type of socialization that can be effectively supported by the CIP cannot be the sole purpose of an educational institution.

Along with its benefits, the author sees the complexity of the teaching methodologies as well. She emphasizes that the Complex Instruction Program is not the sole remedy for the conflict management originating from disadvantages. Depending on the situation and the curriculum, the frontal education, the pair or the individual work can also be applied in the classroom. The author indirectly reveals for the professional communities that the CIP is a teaching methodology

that is suitable for the treatment of a well-defined problem area. Although, it cannot be forgotten that not all phenomena can be handled by the CIP.
She also suggests to the teaching communities that by evaluating their problems they should use varied and mixed educational methods during the whole academic year because the poorly stimulated period in education has expired when one kind of teaching method met the given social needs.
Perhaps this is one of the most important messages of the book. In a complex, globalizing world the teachers should not apply solely reductionist and world simplifying pedagogical tools because the children's progress requires the response of the educational institutions to each impulse that concern them. This can only be achieved if a teaching staff uses – at the same time – a complex methodology in the classroom work.
The *More than group work* – for the author of this essay - is particularly important because he is convinced that the Complex Instruction Program's status managing function appears very strongly and with similar results in the case of the Learning Center-model (Learning Center of Budaörs Public Utility Foundation) and in the case of the Roma Mentor Project (Weöres Sándor Elementary School, Arnót - Open Society Institute).
And last but not least, the book is important for the author of this study because in Bátonyterenye, in the former Erkel Ferenc Elementary School (headed by the director Tibor Kovács) he could experience himself what the conscious management of the status problems means in practice: he was socialized in a Students' Republic, in a community, in which his Roma-Hungarian origin was not an obstacle to become the Minister of Communications. What is more, the direct change of hierarchy (i.e. at this time, the democratic rotation of the roles in the Students' Republic), also described by K. Nagy Emese, was suitable to reduce the long lasting conflicts with the class community. Instead of the marginalization to receive attention, he immersed in the writing and in the literature, became a teacher of Hungarian language and literature, and then became a journalist and a PhD. candidate in pedagogy writing educational criticism.
For my part – as the enjoyer of the benefits of the innovative pedagogical constructions - I think that the Complex Instruction Program is a model which can be very strongly suitable – with the appropriate teaching methods or pedagogical innovations - to strengthen the Central and Eastern European democracies by supporting the growing up of such generations to whom the multi-and intercultural public thinking, the tolerance, the empathy, the flexibility, the co-operation and the lifelong learning are natural, independently of the ethnicity, the creed, the economic position, the sexual orientation or the political party affiliation.

Acta Technologica Dubnicae
volume 3, 2013, issue 5

Quality in the Context of Adult Education and Lifelong Education (Viola Tamášová et al.)

Dubnica nad Váhom: Dubnica Institute of Technology, 2013. 233 p. ISBN 978-80-89400-53-9

Silvia Matúšová*

Viola Tamášová (the author and the editor) managed to put together over 200 pages containing contributions of a group of authors from five central European countries (Slovakia, Slovenia, Czech Republic, Hungary, and Croatia) in order to deal with the notion of quality in the context of adult education and lifelong education. In this way, relevant authors undertook the mission to construct a broad concept of quality in adult and lifelong education as it is perceived and applied in the particular country. This group of authors is perfectly matched with the group of reviewers from two of the above mentioned countries (i.e. Czech Republic and Slovenia).

Why is adult education linked to lifelong education? This is the crucial point of the monograph. In several chapters the authors justify that adult education must be viewed as an integral part of lifelong education, show the generalities as well as particularities which are country-based, historically conditioned, legislatively supported, may differ in terms, but are similar in principles. The authors point out that lifelong education should not be mixed with personal management in companies, nevertheless, firm links exist between them.

The quality of education is the topic broadly elaborated and evaluated by plenty of monographs. This scientific monograph represents an attempt to collect and to assess as much information from the field of education quality from as many aspects as possible and to classify them in a structured way. The monograph consists of eight chapters preceded by an introduction and followed by a conclusion, abundant list of references and bibliography.

The monograph deals with adult education emphasizing the quality assessment model of lifelong education. It points out that the quality of education is interrelated with the quality of school management providing a pool of variables which represent traditional school management and TQM school management models which differ in many aspects including the impact on the quality of education. Should it be the orientation of the school management, the existence

* Silvia Matúšová, The Catholic University in Ružomberok, Ružomberok, Slovakia; silvia.matusova@ku.sk

or the absence of a mission, the quality strategy and quality improvement, curriculum optimisation, the definition of tasks and responsibilities in team work, customer satisfaction, or long-term planning of quality improvement, all components should be seen and assessed as a part of a strategy. This approach would lead to a general picture of the quality areas which comprises internal school management, strategic planning, curriculum complexity, staff development, marketing, cooperation with the partners, school climate, material and financial conditions, success of graduates in the labour market and in practice as well as the external evaluation of school.

In this broad picture with several layers the focal point is identified - the personality of a teacher. A teacher's competencies defined as a complex of capabilities (e.g. the capability to manage students' further development, to implement global educational trends and inputs, to adapt curricular transformation, to utilise proper strategies related to curriculum legitimacy) must be scrutinized and explained as a professional competence applicable in education. Systems of competencies intermittently emphasize cognitive, educational and psychological competence, but unanimously admit that competencies are interconnected and do interfere. Therefore higher and further education programs and in-service trainings should follow the knowledge spiral model (with four stages of socialisation, externalisation, combination and internalisation) and the knowledge transfer model.

European and global challenges affecting the systems and the quality of adult and lifelong education underline that the demarcation line between the world of education and the world of work must be overcome and the traditional separation of theory and practice should be replaced by an approach friendly to the labour market and to the competitive economy market. However, examples and statistical data regarding the participation of population in lifelong education from several central European countries confirm that this concept has neither been adopted as a general political strategy nor as an overall understanding of people at work.

An insufficient appreciation of lifelong education in employers and employees may have its roots in the quality of teaching, especially at universities. Therefore the assessment of teaching quality at universities and in institutions of formal and nonformal education should acquire a firm position and find justification among research, assessment and evaluation projects, carried out by adult and lifelong education providers. The increase of teaching quality at universities is of primary importance. Higher education institutions may provide different forms of education at present (regular, open, distance, flexible, mixed, virtual), however, they have to stick to the mission they deliver and the functions they fulfil (e.g. humanization, socialization, differentiation, cultural development, qualification provision and personalization of trainees). New missions of universities are still not properly reflected in adult and lifelong education of employees who can be enrolled from different sectors and wait for tangible

responses. New technologies, approaches and methods need to be developed and applied in line with new teaching and learning media. This is a new challenge for the preparation of educational media, including learning media and texts, printed study materials, teaching with computers and multimedia systems. The participation of women in quality management in universities and institutions of science would need further enhancement.

In this respect, a special focus should be devoted to the identification and training needs analysis in adult vocational training by employing various strategies confirming that the curriculum responds to the requirements of individuals which refer to the performance of employees in present jobs and the requirements the job transformation might impose in the future. The fundamental questions of *why, who, what, when, how, under what conditions and what effectiveness* must be reflected in adult education curriculum development. The quality in adult education can be detected from several points of view, i.e. by training programme accreditation, educational institution certification, quality systems application, monitoring, staff development, external and internal evaluation (self-assessment). So far, some of the tools have been applied, some still need to become more accurate, adjusted, transparent and relevant to the educational programmes. The "upgrade" of competencies and skills (as mind opening, knowledge and experience sharing, natural abilities development, adaptation to change) in adult education has an impact on the personal and professional levels of workforce.

Specific attention must be paid to groups that have not been involved in lifelong education so far. Namely seniors represent a new challenge for lifelong education providers form the point of view of curriculum, teaching and learning styles, methods, learning motivation and learning activities. This target group represents a heterogeneous pool of participants with different expectations. It also applies to socially marginal groups which can develop their personal expectations and attitudes and improve their personal and living conditions.

The free movement of persons within the European Union brings the need for the recognition of diplomas, certificates and professional qualifications. Two basic procedures are available in this respect – recognition of qualifications and harmonization of regulations on education or on pursuit of certain professions and qualifications (including regulated professions and attestations of competence). Each EU member state has developed an institutional set-up and schemes acknowledged as relevant for the recognition award.

The monograph – wide in the concept, but specific in the topic – confirmed that the quality of adult and lifelong education is an important instrument promoting the personal and professional development of individuals in terms of social development and the promotion of social and individual values. As the editor rightly states in the conclusion, "*Life quality and educational quality determine each other*".

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INFORMATION

Socio-Educational Training as an Innovative Form for the Lifelong Education of Teachers at Secondary Vocational Schools – Project KEGA no. 005DTI-4/2013

Slávka Hlásna*

For the season 2013/2014, KEGA (Cultural and Educational Grant Agency of the Ministry of Education, Science, Research and Sport of the Slovak Republic) have approved the project beginning in 2013 presented by Dubnica Institute of Technology in Dubnica nad Váhom. The KEGA project no. 005DTI-4/2013 entitled "Socio-Educational Training as an Innovative Form for the Lifelong Education of Teachers at Secondary Vocational Schools" is based on the matter of fact that socio-pedagogical training could be considered as one of the innovative forms of education for building-up and development of tutors' socio-pedagogical skills at different levels of education. The proposed concept of socio-educational training is close-knitted with pedagogical disciplines such as social pedagogy, pedagogical psychology, educational communication, experiential education, and social psychology. In the consideration of cross-connection and seriousness of a teacher's personality it is advisable to work in a functional team consisting of professionals in the area of the aforesaid basic, boundary, and applied educational sciences and required disciplines in the area of psychology.

Recently, accredited and charged socio-educational training programmes focused on the development of tutors' communication skills, creativity and educational competencies have appeared. Although socio-educational training has become a part of future teacher preparation, its content is based on the accreditation documents which have a more general focus than the program for the specific target group of secondary vocational school teachers proposed by us. As secondary vocational school teachers selected from cities of three regions are

* Slávka Hlásna, Dubnica Institute of Technology in Dubnica nad Váhom, Dubnica nad Váhom, Slovakia; hlasna@dti.sk

presupposed as our target group, we can assume that even if some of them got through a socio-pedagogical training as a part of future teacher preparation during their university studies, it would not had got the same unique, current and innovative content as our concept offers. We anticipate that students may not be interested in the paid form of socio-pedagogical training, therefore we will offer a cost-free program with minimum travel expenses as tutors will travel where the lectures take place.

Our aims are as follows:

- to arrange a concept and a program of socio-educational training focused on building up and development of selected socio-educational skills of teachers;
- to realize the shaped program of socio-educational training with selected tutors from cities of three regions of the Slovak Republic;
- to update the analysis of the educational needs of this particular target group as for life-long education on the grounds of feedback from the concerned teachers – the analysis will be updated from the point of view of the potential socio-educational competencies as a part of personal development of tutors to which more attention is gradually being paid;
- to issue a publication and to contribute to journals regularly, to present contributions on the given topic in conferences both in Slovakia and abroad - the tutors of the educational activity will be the authors of these topics;
- to issue a publication based upon the reactions of the concerned teachers with an appropriate photo-documentation as the collection of the participants' work during the program
- one of the significant but invisible aims of the project is that the participants will gain knowledge on and experience with experiential education as an innovative approach in the educational action of tutors at schools which will be reflected in the increase of the effectiveness of both the educational process and students' learning efficiency.

The presupposed realization outcomes and consumers of the outcomes of the KEGA Project no. 005DTI-4/2013 are as follows:

- a socio-educational training for each group of tutors according to the regions which will be the primary issue of realization, they will last for 2 days (2x 9 lessons) – the expected number of groups is 10 with at most 15 participants;
- a publication by the collective of tutors focused on the games and exercises in various alternatives;
- published articles in learned and major journals;

- organization of a one-day workshop for the directors and the deputies of secondary vocational schools as the motivation for the attendance of pedagogues from their schools;
- another planned outcome of the project is updating the analysis of secondary vocational school teachers' educational needs in the area of tutors' competencies within the frame of lifelong education which will be summarized in the form of published articles in relevant magazines – the findings will be taken into consideration when providing help to beginning teachers, creating and offering programs as a part of lifelong education of tutors at secondary vocational schools;
- the socio-educational training will contain particular games and activities that can be used in the teaching process at secondary vocational schools and the developed skills in immediate interpersonal contact with students, their parents and colleagues as well;
- we can ensure that the outcomes are provided to commissions of education cooperating with particular schools – the mentioned field will be finalized after the project has been accepted;
- we can ensure that some selected academic libraries receive the published outcomes as well.

The resolving collective: Slávka Hlásna; Viola Tamášová; Jana Svetlíková; Miron Zelina; Zuzana Geršicová; Slávka Čepelová - Institute of Pedagogical and Psychological Sciences DTI.

Publication Ethics and Malpractice Statement

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Authors of reports of original research should present an accurate account of the work performed as well as an objective discussion of its significance. Underlying data should be represented accurately in the paper. A paper should contain sufficient detail and references to permit others to replicate the work. Fraudulent or knowingly inaccurate statements constitute unethical behavior and are unacceptable. Review and professional publication articles should also be accurate and objective, and editorial opinion' works should be clearly identified as such.

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Acknowledgement of sources

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Authorship should be limited to those who have made a significant contribution to the conception, design, execution, or interpretation of the reported study. All those who have made significant contributions should be listed as co-authors. Where there are others who have participated in certain substantive aspects of the research project, they should be acknowledged or listed as contributors. The corresponding author should ensure that all appropriate co-authors and no inappropriate co-authors are included on the paper, and that all co-authors have seen and approved the final version of the paper and have agreed to its submission for publication.

Disclosure and conflicts of interest
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The editor of a peer-reviewed journal *Acta Technologica Dubnicae* is responsible for deciding which of the articles submitted to the journal should be published. The validation of the work in question and its importance to researchers and readers must always drive such decisions. The editor may be guided by the policies of the journal's editorial board and constrained by such legal requirements as shall then be in force regarding libel, copyright infringement and plagiarism. The editor may confer with other editors or reviewers in making this decision.

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Guide for Authors

Acta Technologica Dubnicae is an interdisciplinary journal whose primary objective is to fulfill the need for thorough discussion of research results in disciplines relevant to pedagogical, psychological and technological aspects of education and to contribute towards the wide diffusion of scientifically sound contributions in this domain.

Submission of an article implies that the work described has not been published previously, that is not under consideration for publication elsewhere, that its publication is approved by all the authors, and that, if accepted, it will not be published elsewhere in the same form, in English or in any other language. A letter will be sent to the corresponding author confirming receipt of the manuscript.

Please write your text in good English (American or British usage is accepted, but not a mixture of these). The submission should not exceed 20 pages with figures and tables (format A4, Times New Roman 11, single space). Use decimal points (not commas); use a space for thousands (10 000 and above).

Provide the following data on the title page (in the order given):
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Author names and affiliations. Present the authors' affiliation addresses below the names. Provide the full postal address of each affiliation, including the country name, and, if available, the e-mail address of each author.
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Appendices. If there is more than one appendix, they should be identified as A, B, etc. Tables and figures should be given separate numbering (Table 1, Figure 1), etc.
Acknowledgements. Place acknowledegements before the references.

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ISSN 1338-3965
EV 4309/11