

Values of Counselor Trainees: the Effects of Gender and Grade Level

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Technology of Education

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CONTRIBUTORS

Baloğlu Nuri (PhD.)	Ahi Evran University, College of Education, Kırşehir, Turkey	
Borowska Teresa (Prof. PhD.)	Department of Theory of Education, Faculty of Pedagogy and Psychology, University of Silesia, ul. Grażyńskiego 53, Katowice, Poland	
Bulska Joanna (PhD.)	Department of Pedagogy of Health, University of Silesia, Faculty of Pedagogy and Psychology, ul. Grażyńskiego 53, Katowice, Poland	e-mail: anna.bulska@us.edu.pl
Çelik H.Eray (PhD.)	Eskişehir Osmangazi University, Faculty of Arts and Science, Department of Statistics, 26480, Eskişehir, Turkey	e-mail: ecelik@ogu.edu.tr
Chrzanowska Iwona (Prof. PhD.)	Academy of Pedagogy in Łódź, Poland	
Emmerová Ingrid (doc. PhDr. PhD.)	Pedagogical Faculty, Matej Bel University, Department of Pedagogy, Ružová 13, 974 11 Banská Bystrica, Slovak Republic	e-mail: iemmerova@pdf.umb.sk
Filipi Viera (PhD.)	Pedagogical Faculty, Ostrava University, Mlýnská 5 701 03 Ostrava, Czech Republic	
Gajda Vojtěch (Doc. PhD.)	Pedagogical Faculty, Ostrava University, Mlýnská 5, 701 03 Ostrava, Czech Republic	e-mail: vojtech.gajda@osu.cz
Grudzień Jacek (Mgr)	Faculty of Ethnology and Education, University of Silesia Bielska 62, Cieszyn, Poland	e-mail: jacek_grudzien@interia.pl
Harford Judith (PhD.)	Director of Teaching and Learning School of Education University College Dublin, Roebuck Castle, Belfield. Dublin 4, Republic of Ireland	e-mail: judith.harford@ucd.ie
Huk Tomasz (PhD.)	Department of Media Pedagogy, University of Silesia, Faculty of Pedagogy and Psychology, ul. Grażyńskiego 53, Katowice, Poland	e-mail: tomasz.huk@us.edu.pl
Jablonský Tomáš (Doc. PaedDr. PhD.)	Faculty of Education, The Catholic University in Ružomberok, Nam. Hlinku 51/1, 03401 Ružomberok, Slovak Republic	e-mail: jablonsky@fedu.ku.sk

Karadağ Engin (PhD.)	Yeditepe University, College of Education Istanbul, Turkey	
Karwowski Maciej (Prof. PhD.)	Creative Education LAB, Academy of Special Education, Szczesliwicka 40, St., 02–353 Warsaw, Poland	e-mail: mackar@aps.edu.pl
Kaya Hülya (PhD.)	Istanbul University Florence Nightingale School of Nursing, Address: Istanbul Universitesi Florence Nightingale Hemşirelik Yüksekokulu, 34381, Şişli, İstanbul, Turkey	e-mail: hulyakay@istanbul.edu.tr
Kędzierski Romuald (mgr)	Technical School Complex, Narutowicza 74, 64–100 Leszno, Poland	
Kozielska Maria (Prof. PhD.)	Faculty of Technical Physics, Poznan University of Technology, Nieszawska 13a, 60–965 Poznań, Poland,	e-mail: maria.kozielska@put.poznan.pl
Kutáč Petr (PhD.)	Pedagogical Faculty, Ostrava University, Mlýnská 5, 701 03 Ostrava, Czech Republic	e-mail: petr.kutac@osu.cz
Łobos Anna (PhD.)	Department of Music Education and Arttherapy, Faculty of Pedagogy and Psychology, University of Silesia, Grażyńskiego 53, 40–126 Katowice, Poland	e-mail: anna.lobos@us.edu.pl
Mišíková Jaroslava (PhD.)	Pedagogical Faculty, Ostrava University, Mlýnská 5, 701 03 Ostrava, Czech Republic	e-mail: jaroslava.misikova@osu.cz
Niklová Miriam (PhDr. PhD.)	Pedagogical Faculty, Matej Bel University, Department of Pedagogy, Ružová 13, 974 11 Banská Bystrica, Slovak Republic	e-mail: mniklova@pdf.umb.sk
Nowak Anna (PhD. Prof. PhD.)	Department of Social Pedagogy, Faculty of Pedagogy and Psychology, University of Silesia ul. Grazyńskiego 53, Katowice, Poland	e-mail: anna.nowak@us.edu.pl
Novotný Zdeněk (PhD.)	Department of Social Sciences, Faculty of Education, Palacký University, Olomouc, Czech Republic	
O'Donoghue Tom (Prof. PhD.)	Graduate School of Education, The University of Western Australia, Nedlands, Western Australia 6009	e-mail: Tom.ODonoghue@uwa.edu.au
Oguz-Duran Nagihan (PhD.)	Department of Educational Sciences, Uludag University, Faculty of Education, Bursa, Gorukle, Bursa, Turkey	e-mail: noguzduran@hotmail.com
Oravcová Jitka (Doc. PhD.)	Pedagogická fakulta Univerzity Mateja Bela Ružová 13, 974 11 Banská Bystrica, Slovak Republic	e-mail: joravcova@pdf.umb.sk

Özkul Hacer (Msc. Phd)	Istanbul University Florence Nightingale School of Nursing, İstanbul, Turkey	
Peker Murat (PhD.)	Afyon Kocatepe University, College of Education, Department of Elementary Education, A.N. S Campus, 03200 Afyon Turkey,	e-mail: peker@aku.edu.tr
Přidalová Miroslava (Doc. PhD.)	Department of Functional Anthropology and Physiology, Faculty of Physical Culture, Palacky University, Křížkovského 8, 771 47 Olomouc, Czech Republic	
Psunder Mateja (PhD.),	University of Maribor, Faculty of Arts, Koroška 160, 2000 Maribor Slovenia, tel./fax: +386 (2) 331 16 04	E-mail: mateja.psunder@uni-mb.si
Sekera Ondřej (PhD.)	Pedagogical Faculty, Ostrava University, Mlýnská 5, 701 03 Ostrava, Czech Republic	e-mail: ondrej.sekera@osu.cz
Smogorzewska Joanna (PhD.)	Creative Education LAB, Academy of Special Education, Szczesliwicka 40, St., 02–353 Warsaw, Poland	e-mail: asq1@poczta.onet.pl
Smyrnova-Trybulska Eugenia (PhD.)	Faculty of Ethnology and Education, University of Silesia, Bielska 62, Cieszyn, Poland	e-mail: eugenia@o2.pl, esmyrnova@us.edu.pl
Subramaniam Selva Rane (PhD.)	Department of Mathematics & Science Education, Faculty of Education, University of Malaya, 50603, Kuala Lumpur, Malaysia,	e-mail: drselvaranee@hotmail.com drselvaranee@um.edu.my
Świrko-Pilipczuk Janina (PhD.)	University of Szczecin, ul. Ogińskiego 16/17 University of Szczecin, Institute of Pedagogy, Ogińskiego 16/17, 71–431 Szczecin, Poland	
Yilmaz Veysel (PhD.)	Eskişehir Osmangazi University, Faculty of Arts and Science, Department of Statistics, 26480, Eskişehir, Turkey	e-mail: vyilmaz@ogu.edu.tr
Yüksel Asuman (PhD.)	Department of Educational Sciences, Uludag University, Faculty of Education, Bursa, Turkey.	
Yüksel Goktas (PhD.)	Department of Computer Education & Instructional Technology Ataturk University 25240 Erzurum, Turkey;	e-mail: yukselgoktas@atauni.edu.tr yukselgoktas@hotmail.com

Stanisław Juszczak
Editor in Chief

The New Educational Review

Editor's Preface

The last, double 3–4 number of The New Educational Review in 2009 is the twentieth issue of our journal since the start of its foundation in 2003. This number finishes the sixth year of our functioning in the pedagogical space of Middle Europe. In this issue there are mainly papers from: Poland, the Czech Republic, the Slovak Republic, Australia, Canada, Turkey, Ireland, Slovenia, and Malaysia, because our journal is open for presentation of scientific papers from all over the world.

In the present issue the Editors' Board have proposed the following subject sessions: Technology of Education, Social Pedagogy, Pedeutology, Pedagogy of Health, Pedagogy and Art, and Preschool Education.

The subject session "Technology of Education" starts with an article by Tomáš Jablonský, which presents the theoretical framework of a co-operative learning model and explains cooperative learning as an innovative instrument for a new paradigm in school education. Goktas Yuksel describes preservice teachers' perception and experiences in blog-supported information and communication technologies courses incorporating the seven principles of good practices. In their article Hacer Özkul and Hülya Kaya discuss the results of a diagnostic, descriptive study of nursing students' views about their information literacy skills. Tomasz Huk shows the results of a diagnostic survey whose aim is to provide a description of conditioning in the process of key competence development with the application of information technology. The paper by Jitka Oravcová deals with the issue of learning style preferences in the population of university students. The article by Maria Kozielska and Romuald Kędzierski presents the results of the research into the influence of computer stimulation on training selected intellectual skills of students, during the process of learning physics in secondary school. The purpose of the study by Murat Peker is to investigate the comparison of an instruction using problem solving strategies in a mathematics method course with an instruction using a traditional textbook. Selva Ranee Subramaniam explores the teaching approaches adopted in

life-long learning programmes implemented in the Malaysian community colleges. The subject of the research presented by Veysel Yilmaz and H. Eray Celik is the study of attitudes toward the computer of three different samples created according to educational levels. Eugenia Smyrnova-Trybulska and Jacek Grudzień try to find answers to the questions connected with the methods, technological and computer aspects of teaching computer science. The subject of the study described by Janina Świrko-Pilipczuk is awareness of pedagogical education concepts in conditions of reflective modernity, which has a social dimension.

In the subject session "Social Pedagogy" Teresa Borowska tries to answer the question to what degree secondary school students are addicted to the Internet and whether this addiction is interrelated with the phenomenon of aggression among young people. Ingrid Emmerová presents bullying as a significant socio-pathological phenomenon in school surroundings. She pays special attention to the prevention of bullying at primary and secondary schools. In her paper Miriam Niklová analyses possibilities of drug prevention at primary and secondary schools. In his article Zdeněk Novotný deals with the origins and development of the issue of toleration; he refers to its most prominent moments and practical demonstrations in the history of Europe. Anna Nowak shows mediation as an alternative form of the juridical proceeding toward juvenile delinquents. In his article Ondřej Sekera describes the personality of a carer who works in a rehabilitation institution and focuses on the activities related to this profession.

In the subject session "Pedeutology" Tom O'Donoghue and Judith Harford discuss the crisis in teaching across the English-speaking world, the quality of teachers leaving much to be desired, and the quality of student outcomes dropping. In the article by Mateja Psunder there are described the results of investigation into whether future teachers have knowledge and awareness of their own potential contribution to student misbehaviour. Petr Kutáč, Vojtěch Gajda, and Miroslava Přidalová describe one of the characteristic features of a physical education teacher, which concerns the area of motional competences and includes body composition. Nuri Baloglu and Engin Karadağ explore the relationships between prospective teachers' attitudes towards the teaching profession and their preferred strategies of coping with stress. In their article Nagihan Oguz-Duran and Asuman Yüksel present the results of the research into counselor trainees regarding their values.

In the subject session "Pedagogy of Health" Iwona Chrzanowska postulates the need for an interdisciplinary approach to rehabilitation and Joanna Bulska in her article describes life environment and its influence on the child's state of health and frame of mind. Jaroslava Mišíková, and Viera Filipi characterize the parents' role in the process of rehabilitation of children at risk.

The subject session "Preschool Pedagogy" contains a contribution by Joanna Smogorzewska and Maciej Karwowski, who present the study of 5-year-old preschoolers' verbal activity and its social conditions.

In the subject session "Pedagogy and Art" there is an article by Anna Łobos, in which some notes of selected ecological aspects in pedagogy and art are included.

We hope that this edition, like the previous ones, will encourage new readers not only from the Middle European countries to participate in an open international discussion. On behalf of the Editors' Board I would like to invite representatives of different pedagogical sub-disciplines and related sciences to publish their texts in *The New Educational Review*.

New Educational Review



Technology of Education

Cooperative Learning as an Innovative Trend in Education

Abstract:

The interest in cooperative learning is associated with actual social-economic conditions which emphasize human cooperation as one of the most fundamental elements of effective behaviour of big and small communities including the global community. The educational systems which are based on cooperative approaches respond to the topical conditions and the needs of society. The educational systems create the power that can contribute to the solution of serious individual and global problems, the issues of values and the issues connected with socio-pathological phenomena.

The aim of the article is to present the co-operative teaching as one of the effective teaching forms and to point out that it is a myth to consider self-assertion as the only way leading to individual success. The article presents the theoretical framework of a co-operative learning model and explains cooperative learning as an innovative instrument for a new paradigm in school education.

Key words: *cooperative learning, education, positive interpersonal relations, theoretical and methodological dimensions*

1. The relevance of the topic

The aim of this paper is to present the model of cooperative learning (CL) as a crucial instrument for qualitative upgrading of educational school activities.

It is relevant to begin with the explanation and interpretation of the CL model from the point of innovative trends in education. The broader and the specific context should be taken into consideration as follows:

Broadly speaking,

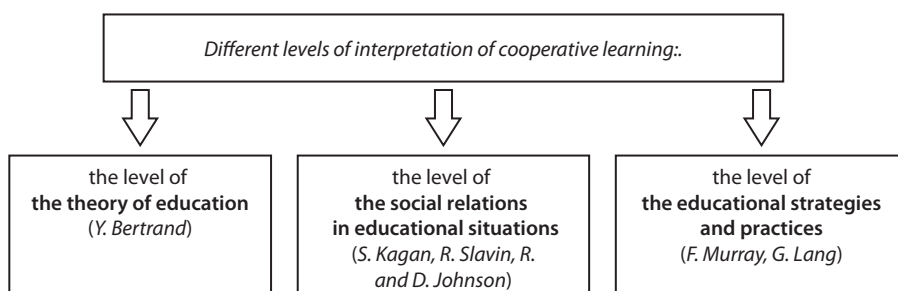
- the interest in cooperative learning is connected with current socio-economic conditions that emphasize human cooperation as one of the most crucial elements of effective functioning of small, big and global communities;
- educational systems which are based on cooperative approaches respond to the conditions and the needs of society and herewith they create a potential that can contribute to the solution of crucial global problems as well as the problems of an individual, the issue of values and issues connected with socio-pathological phenomena;
- educational, didactic, and socio-psychological observations prove that a change in the configuration of human relations based on cooperative principles can multilaterally affect the required parameters in education, as for example the humanistic dimension of education, the individual and social aspects of education, the strengthening of participative character of learning;
- the EU Council expert group specified the key competences which young Europeans should have, where cooperation plays an important role. In the Slovak Republic the authors of the “Millennium” national educational strategy had also pointed at the necessity of key competences development;
- the survey of the most important abilities for the 21st century carried out in 500 world’s most successful organizations confirmed that the ability to work in a team ranked on the first place. It was shown that in students and pupils the key competences (e.g. the team work ability, the communication ability, the ability to solve problems in a creative way, etc.) should be developed;
- regarding the innovations development, coping with fast changes in production and technology and effective performance of jobs, the abilities (the competences) as, inter alia, the ability to work in a team, to communicate and to solve problems in a creative way should be developed in pupils and students in education.

Specifically,

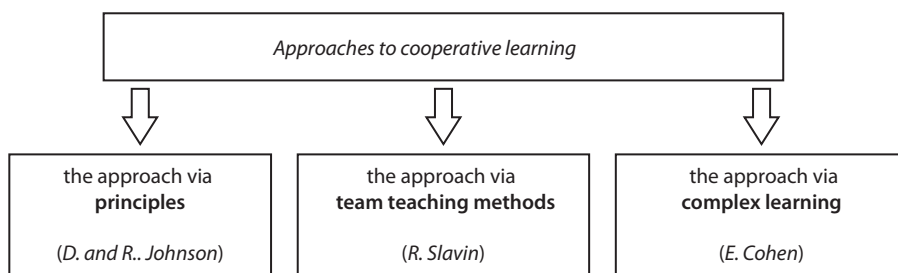
- cooperative learning opens a wider space for the formation of one’s own responsibility;
- it teaches young people to define their own opinions and attitudes;
- it teaches them to express, to defend, to search for arguments and alternatives of answers;

- it promotes listening to others, respecting the opinions of others, getting along with others politely, solving problems in relations and hereby the problems of mutual responsibility;
- it represents the way how to educate people that do not only possess encyclopaedic range of knowledge, but are able to think, to search for information sources, to cooperate with each other, to show empathic and pro-social behaviour.

2. Theoretical and metodological aspects of cooperative learning



The approaches to cooperative learning came into existence in the 70s of the 20th century in which the CL model is referred to.



Cooperative learning is often associated with the identification of new school requirements, with the innovative approach in education, including the innovation of educational practice (e.g. project education, etc.) and as the opposition to traditional education. Cooperative learning used to be denoted in the Slovak teaching practice as unconventional, as it was not frequently applied in Slovak schools practice.

If we compare the traditional and the unconventional approach, the following characteristics should be observed:	
the so-called “old understanding” of teaching practice	the so-called “new understanding” of teaching practice
<i>Knowledge transmission</i> from teacher to students (in terms of mediating of ready-made knowledge)	<i>Constructive recognition</i> (the emphasis on discovering and transformation processes in pupils)
<i>Passivity of pupils</i>	<i>Activity of pupils</i>
<i>The school as a sorting institution</i> that excludes inadaptible pupils	<i>The school as institution promoting individual knowledge potential in pupils</i>
<i>Competitive organisation</i> of social relations	<i>Cooperative organisation</i> of social relations
<i>Impersonal relations</i> resulting from low social proximity	<i>Personal relations</i> resulting from learning community promoting pupils’ and teachers’ mental health.
The scheme represents the organisation of cooperative relations which characterize the progressive approach to education.	

Cooperative learning can be viewed in different ways, the essence of cooperative learning is formulated congruently as learning in small groups, based on the principles of cooperation.

Cooperation in this case is regarded and characterized as a situation in which group members, at the same time, work on a certain task and in their work they are dependent on each other, they collaborate. So they are aware of common goals, common tasks and of mutual conditionality of a common activity.



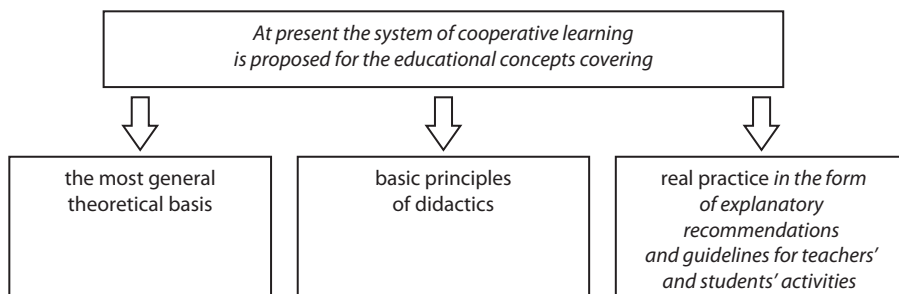
Cooperative learning (the term complementary with the term “to teach somebody”) means learning when pupils cooperate in groups in order to attain common learning goals.). Success of one guarantees success of others. These groups are so small (3, 4 members) that each group member can individually contribute to achieving clearly defined common tasks. It is characterised as learning by mutual cooperation and by sharing experience with each other.



Cooperation itself, however, representing a significant goal of the system, is not a preferred goal, as this is the intellectual and the socio-personal development.

Individual activities of an individual are not only mutually concerted; they represent an integrated unit – a common social activity. The same applies to the understanding of goals of common activities. The completion and the attainment

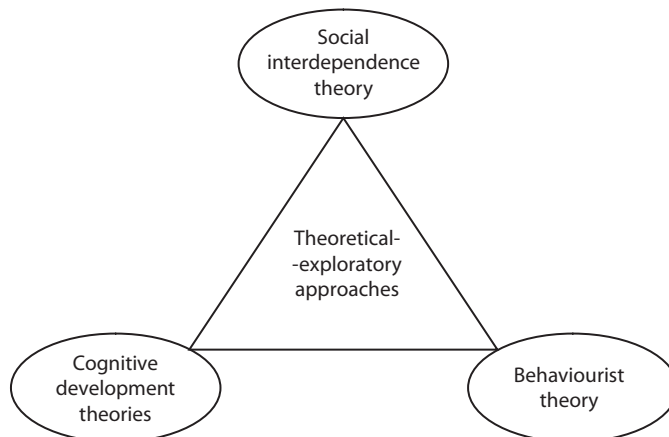
of a common goal represent a space for the attainment of personal, individual goals and accommodation of individual needs.



The model of cooperative learning is based on general theoretical approaches to cooperation in relation to the learning process.

We will start with the theoretical background based on the authors researching into CL for a long time, including primarily the CL model by D. Johnson and R. Johnson.

The following three theoretical-exploratory approaches can be outlined:



The social interdependence theory assumes that the concept of social interdependence is structured by the interpersonal interaction that determines the outcomes. Social interdependence can be structured as individual, competitive and cooperative. The theory of social interdependence has become the central element of the cooperative learning theory, and the basic feature of the practical model of cooperative learning.

The theory of cognitive development, especially some socio-cognitive theories of learning emphasize the irrecoverable social interactions for cognitive development. Regarding the implementation of cooperative learning, several significant sociological and psychological arguments should be taken into consideration. Man is a social being by his historical origin and by conditions of his existence and the character of his development from birth to maturity (Turek, 2004). The educational processes therefore should consider the factors resulting from the social rootedness of man. Psychological arguments considered from the point of view of cooperative learning are based on the assumption that the process of psychic maturing in the child is connected with the progressive and legitimate development of social contacts. Rational reasoning of cooperation in the learning process was firstly presented by Russian psychologist L.S. Vygotsky, according to whom a social interaction plays a crucial role in the child's education. Vygotsky (1976) claims that typically human mental functions and achievements (education, accomplishments) have their origin in social relations. The theory puts strong emphasis on the common group perspective and the problem solving that takes place in reasoning, negotiation, discussion, and compromise. Cooperation in the community of learners is indispensable for cognitive growth and the development of cognitive processes. Regarding this, Vygotsky uses the term "the zone of the proximal development" to explain the difference between what the child can achieve itself and what it could achieve under the leadership of someone more competent (a parent, a teacher, a trainer, etc.). The zone of the proximal development includes the processes which have not been accomplished yet, but are just being shaped. Hereby education (teaching, upbringing, and training) is being developed which masterly integrates learners into actions aiming at the attainment of postulated goals, which induces their activity, initiative, creativity, which facilitates the solution of inherent contradictions , which activates a tendency to self-improvement, self education (Kostjuk, In: Svec, 2002). In addition to Vygotsky, another eminent specialist in this area was J. Piaget. According to Piaget (1997), cooperating, collaboration is a decisive instrument of rational thinking, is decisive for the cognitive development of the child. According to him, the child thinks in the most logical way in a discussion with other children (Piaget, 1999). Piaget's theories of intellectual development emphasize the necessity to confront the child with someone who holds a different approach, an opinion. The child's intellectual development is thus mediated by putting it into such social situations in which the child is made to take into consideration the approach (view) conflicting with its own one. Thus, intellectual development is the road from the child's

egocentrism (from the child's self-centred perspective) towards the acceptance of the perspectives of others.

Bruner (1966) states that all children have inherent motives of learning which are independent of external influences. One of these motives is a motive of mutual interaction, social contact, reciprocity, which can be characterized as a profound need for contact and cooperation with other people while attaining goals. The major part of the learning process takes place in a social context. As Bruner stated, comprehension is a social process. This approach also includes the so-called "controversy theory" by Johnsons, whose basic thesis is : Confrontation with opposite views creates insecurity, a conceptual conflict that leads to re-conceptualization and to the search for information that results in a well-thought conclusion.

The behaviourism theory in relation to cooperation is focused predominantly on the impact of group reinforcement and reward on learning. The psychological assumption that action strengthened by an external reward is repeated, under psychological conditions is formulated as follows: students would work harder when solving tasks which would provide them with a reward, and they would refuse to fulfill the ones that do not produce a reward or that would bring punishment. This assumption applies to an individual as well as group activity.

Based on different theoretical approaches to cooperation and their specific aspects, it is possible to define the basic features of CL.

These general theories, regarded as highly significant in the field of learning and education research, are manifested in formulating questions for empirical research into the system of CL and its implementation under different conditions, including the conditions of school education.

Empirical research into cooperative learning

The large theoretical background and numerous studies (dealing with changes in educational approaches) prove the effectiveness of the CL system and thereof derived individual strategies applied in school education in required parameters.

The system does not resign on the results in the development of cognitive processes. However, in compliance with the cognitive processes and in the context of cooperation, the system aims at the development of values, such as care of others, respect for individuality, development of one's own personality, and social competences connected with this area.

The strength of CL research is, on the one hand, demonstrated by numerous studies and on the other hand, by the multilateral focus.

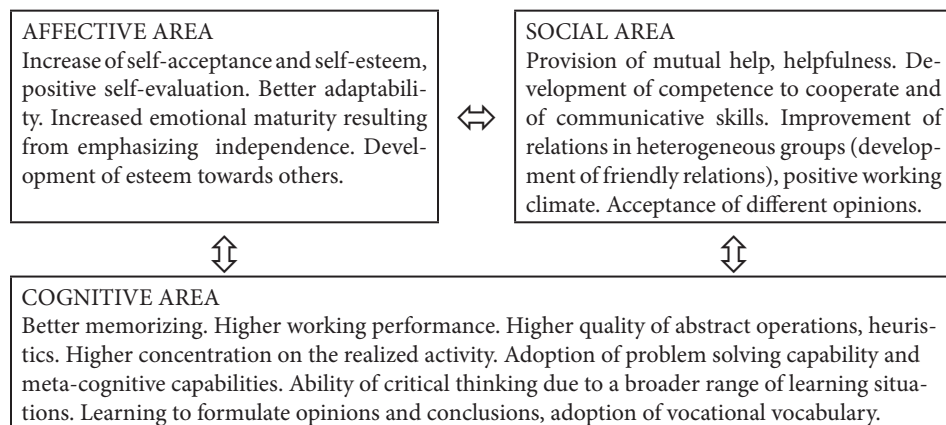
It is necessary to state that CL is covered by a lot of research (Sharan, Johnson brothers, Slavin, DeVries, etc). Cooperation in learning was examined by theoretic-

cal and applied studies. Research has been focused on all school educational levels. It is aimed at a number of variables.

The applied studies, in the Anglo-Saxon literature called “demonstrative” studies (*as they demonstrate how the proposed systems and methods function in practical life*) can be grouped according to 4 aspects:

<i>Summative evaluation</i>	researches into the question if cooperative programs are effective, finds differences between the traditional educational approaches and the co-operative ones (e.g. the use of traditional educational approaches compared with STAD, TGT, and other strategies) Aronson, Savin, DeVries, Gilies
<i>Comparative summative evaluation</i>	compares the functioning of cooperative methods (e.g. JIGSAW with TAI etc.). Slavin
<i>Formative evaluation</i>	explores how to accommodate a working cooperative program (this kind of research is not frequent yet). Kagan, Slavin, Johnson
<i>Survey studies</i>	investigate complex possibilities of cooperative, competitive and individual configuration, their influence on outputs, motivational structure, development of social skills, mental health, and others. They also observe the conditions under which cooperative learning is applied more and less, etc.
The advantage is also the fact that the formats of studies encourage teachers to implement the co-operative approach in the school practice, that they are the teachers who even express the request for further research.	

The advantages of cooperative learning proved by numerous studies can be divided into 3 groups (amended according to Light – Cox (2001), differentiating *affective, attitudinal, social and cognitive areas*).



3. Principles of cooperative learning

In the following part we will analyze basic principles from the point of view of the CL system.

The principles of CL were determined by theoretical-experimental approaches and cooperative learning practice, while the interaction of both is considered as a source enriching the CL system which currently also includes the CL system effectiveness.

Research into the factors which determine the effectiveness of the CL system (*the cooperative configuration can be more effective than the competitive or the individualistic ones in certain conditions*).

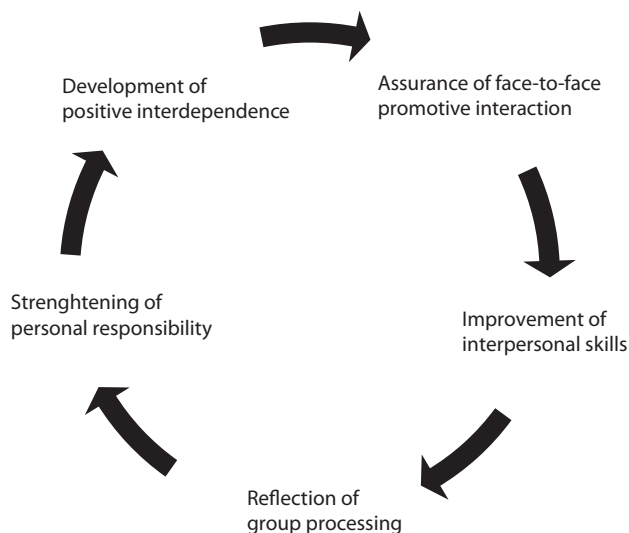
One of the explored issues are the effects that accompany group work and that limit the cooperative effort, for example the so-called “*free rider effect*”, when the less capable members let the more capable member to fulfill the task and only pass the group activity, or the so-called “*sucker effect*” when, on the contrary, the more capable group members make less effort to avoid doing other members’ job. Another effect is called “*rich-get richer effect*”. It describes the processes when highly capable individuals can take over important leading roles in a way that is beneficial for them at the expense of others (e.g. when presenting the group work). The group effort can be also characterized by individuals’ helplessness, dysfunctional work distribution, unsuitable dependence on authority, behaviour models that weaken group results.

The conditions are determined as follows:

1. *clearly perceived positive interdependence which supports personal responsibility for the attainment of group goals,*
2. *big range of promotive interaction (face-to-face interaction),*
3. *frequent use of important interpersonal skills for activity in small groups with the periodical analysis and the evaluation of group processes.*

The stronger the positive interdependence and the sense of personal responsibility is, the bigger the intensive promotive interaction, the better the social skills of members, the more frequently the group reflects its effectiveness, the bigger the effort of group members for the productivity and the achievement, the more positive the relations among group members, the better mental health and the social competences.

Considering the basic conditions for effective CL, the principles of cooperative education system were identified (Johnson-Johnson: 1987, 1989, 1994, 1999), which also serve as the starting points for practical implementation of cooperative learning at school and outside.



These principles are essential when the partnership leading to achievement of education objectives in an effective way (as the mastering the knowledge and the social capabilities) should occur.

Positive interdependence: Social psychology emphasizes that for the definition of cooperation *the common goal* and *the same goal* should be differentiated: the same goal can be held by people that do not create any interaction among themselves, the common goal is intrinsic for people who are linked in interaction. The common goal unifies the individual and the originally competitive groups, because achievement of common goals does common good, it brings profit. Interdependence is always linked to the goal that a group shall achieve, to the task which is jointly solved by the group. The positive mutual interdependence of group members is based on the fact that the group remains and falls apart as an entity.

Assurance of face-to-face promotive interaction: It helps students when they can follow a meaningful goal and can cooperate with others in order to reach it. The majority of cooperative groups show that members of different levels of capabilities and different life experience can cooperate together. The activity is realized in small cooperative groups (2–7 members). If there is visual contact, one can have a recipient, one can have direct feedback.

Strengthening of individual accountability and personal responsibility: Every individual is individually responsible for the activity taking place in the group. It means that every individual's achievement can be assessed and utilized for the whole group. Learning activities are arranged in such a way that the responsibility

for learning could be perceived by all group members and they could be ready to demonstrate individual learning results. The substance of cooperative learning does not lie in the strengthening of the group, but **in the strengthening of an individual**. The studies by Johnson-Johnson and Archer-Kathy confirm that an individual's responsibility results in an increase in the group efficiency, and all members strive for success and at the same time participate in the achievements of other members of the group.

Formation and utilization of interpersonal and small group skills: Cooperative learning cannot do without the utilization of social abilities which enable the effective functioning of the group. Before the opportunities presented in a cooperative learning situation could be materialized, the improvement of necessary abilities must occur (Johnson – Johnson, 1987).

Reflection of group processing: An important attribute of cooperative learning is the reflection of group processing. Herewith we mean the collective effort and the individual contribution within the group, the achieved and the unachieved goals, the effectiveness and the ineffectiveness of the method, the analyses of the achieved success, the evaluation of the approaches of individuals and groups (whose contribution and how contributed to the method), the planning of further improvement of activities, the preparation of new strategies, etc.

These five principles represent the framework of the cooperative learning system. They must be taken into consideration and transformed into actual activities during the planning and the implementation of education based on cooperation.

Many studies demonstrate that the education based on the presented method leads to children's higher achievement and to the fast development of their sociability.

4. Conclusion

We wanted to present cooperative learning on the basis of its significant system-creating features which make it effective.

Comprehension of the key elements enables its users to plan, realize, and evaluate the cooperative educational units or their parts.

It is also an important stimulus for individual fulfillment of general approaches, for the creation of the specific variants according to the conditions of school, subject, education style, teacher, etc.

So cooperative learning has an ambition to be one of the relevant forms of education for actual social conditions and for participants in them, and to be

a model perspective in future conditions. It is also necessary to state that as long as cooperative learning is accepted by teachers and students it will function as an innovation of education not only of partial but principal character.

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Incorporating Blogs and the Seven Principles of Good Practice into Preservice ICT Courses: a Case Study

Abstract

This study describes preservice teachers' perceptions of and experiences in blog-supported information and communication technologies (ICTs) courses incorporating the seven principles of good practices (SPGP). Both quantitative and qualitative research approaches were used in data collection and analysis processes. Findings revealed that preservice teachers believed blogs to be an effective instructional tool which is useful as a lever for SPGP.

Key Words: *blogs, weblogs, blogs in education, educational blogs, blog-supported education*

1. Introduction

The advancement of information and communication technologies (ICTs) and the growth of the Internet in recent years have made it possible to produce instructional materials and deliver them through the Web, which has become known as online learning/instruction (Gilliani, 2003; Mukawa, 2006). Online learning is accepted as a new and innovative learning model that uses the benefits of Internet technology, such as the ability to continually update resources, to broaden and deepen the learning experience. The key issue is that the advantages of 'anytime/anywhere' learning and teaching also mean that place and time are not bounded (Rosenberg, 2001).

A blog (also known as weblog) is principally a frequently updated website; it allows easy posting and modification to websites. Blogs allow authors to publish on

the Internet and post comments, hyperlinks, texts, graphics, pictures, audio-video clips, presentation files, and spreadsheets about any topic in a quick and easy way (Asmus, et al., 2005; Godwin-Jones, 2003; Martindale & Wiley, 2005; Wassel & Crouch, 2008). They are an instrument of the modern media that has risen out of web culture in recent years, the number of blogs increasing rapidly every day (Technorati, 2008). The reasons for this rapid increase in popularity include the limited technical knowledge required, archival features, chronological order, personal editorship, hyperlinked post structure, free, rich content type, multiple contributors, and easy exchange of ideas (Martindale & Wiley, 2005; Murray, Hourigan, & Jeanneau, 2007).

McPherson, Wang, Hsu, and Tsuei (2007) and Luehmann and MacBride (2008) defined blogs as a new instructional tool in ICT literacy. Blogging necessitates the use of important strategies such as writing, cooperating, interacting, problem solving, comprehension, sharing ideas, reflecting, expressing individual voice, feedback, and using web for publication legally and ethically, and has been effectively used as a teaching and learning tool. In fact, prior studies have identified numerous advantages of using blogs in education (cf. Table 1).

Table 1. Summary of literature regarding the most common advantages of blog use in education

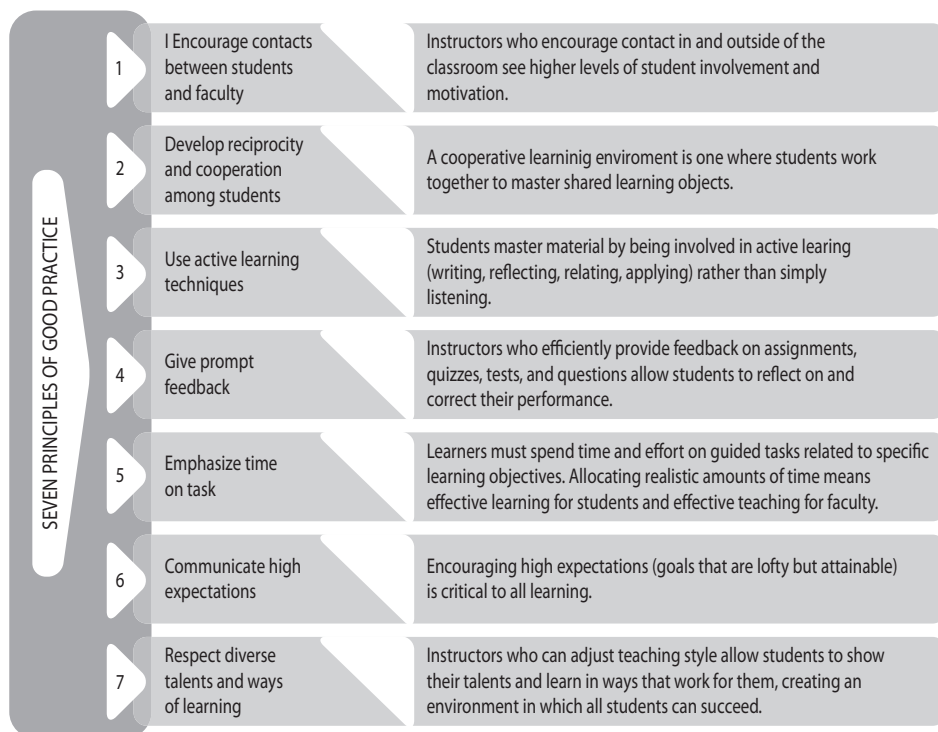
	Beale (2007)	Cameron & Anderson (2006)	Dickey (2004)	Hernández-Ramos (2004)	Huffaker (2005)	Jacovi, Shahar, & Soroka (2004)	McPherson et al. (2007)	Luehmann & MacBride (2008)	Salen (2007)	Williams & Jacobs (2004)
Interaction	✓	✓	✓	✓	✓	✓	✓	✓	-	✓
Cooperation	-	✓	✓	✓	✓	✓	✓	-	✓	✓
Learning Activities	✓	✓	✓	-	✓	-	-	✓	✓	✓
Feedback	✓	-	✓	✓	-	✓	✓	✓	-	✓
Enriched Learning Environment	✓	✓	✓	-	✓	-	-	-	✓	✓

Arbaugh (2000) and Schwartzman (2006) revealed that pedagogical factors are crucially important for student success in the online classroom environment. According to Schwartzman, “online instruction is as good or as poor as the pedagogy it serves...The demons and angels reside in the pedagogy, not in the technology” (p.14). The literature includes common descriptions of these

pedagogical factors, such as Chickering and Ehrmann's (1996) seven principles of good practices (SPGP) which is one of the most widely applied models of effective online learning.

This model was originally developed by Chickering and Gamson (1987). The principles have been employed to set standards for undergraduate instruction and used to enhance the quality of instruction in face-to-face (F2F) classrooms. Since the advent of ICTs and online learning, they have been updated by Chickering and Ehrmann (1996) to include the power of these new technologies, as guidance for designing and implementing the new instructional environment. The literature contains various studies examining the contribution of online learning environments and the integration of SPGP (Arbaugh & Hornik, 2006; Bangert, 2004; Batts, Colaric, & McFadden, 2006; Borland, Lockhart, & Howard, 2000; Guidara, 2004; Hutchins, 2003; Mukawa, 2006). Figure 1 provides a brief overview of these principles:

Figure 1. Seven principles for good practice in undergraduate education (Adapted from Chickering & Ehrmann, 1996)



As seen in Table 1 and Figure 1, blogs promoted most of the SPGP, which are thus also represented in this study. The SPGP provide guidance for designing blogs that are instructional tools and as such were used in the design, teaching and delivery of courses. These principles suggested teaching and learning activities for blended environments and were used to set up the pedagogical process in the blog-supported environment. The SPGP, along with the specific needs of courses, will help determine the purpose and rationale of integrating blogs, and the benefit to the learner.

The author is a research professor at a Turkish university. He has offered ICT courses for seven semesters in traditional F2F format. His experiences and the research (Goktas, Yildirim, & Yildirim, 2008) suggest that students dislike conceptual information in this field, preferring practical applications. To address this, courses should be offered in computer laboratories, and all examples and applications used in the course should be applicable for future use. Similarly, rather than being given as isolated content, conceptual information should be embedded in applications which clarify its use. Because of further efforts to address these findings, there is a growing need to integrate ICTs into instruction. Blogs may assist in the integration of ICTs into the learning environment.

Already there has been an increase in blog-supported instruction, especially in higher education (Williams & Jacobs, 2004); however there has been little research on the practical implementation of the SPGP in blog-supported instruction. Therefore, the purpose of this study is to determine perceptions of the SPGP as a guiding influence in the design of blog-supported preservice ICT courses. The question addressed in this study is: What are preservice teachers' perceptions of blogging as an instructional tool based on SPGP in their education?

2. Methods

2.1. Overview

This is a descriptive case study focusing on two blended environment ICT courses given by a single instructor to a group of first year students enrolled in Ataturk University, Education Faculty of Kazım Karabekir and Department of Primary Social Science Teacher Training.

2.2. Description of ICT courses

Computer I and Computer II are required three-credit courses focused on the application of basic ICT competences in the classroom. The goal of these courses

is to help preservice teachers become knowledgeable in the concepts of ICTs, the role of ICTs in society and education, and gain competence in basic computer applications. The courses consisted of four hours (two classroom hours covering concepts and two hours of practice in the computer laboratory) per week and were offered by the researcher.

2.3. Participants

The participants were 125 first year preservice teachers who had enrolled in four sections and two semesters of undergraduate ICT courses in the Primary Social Science Teacher Training Department. However, 116 students completed data collection measures needed for the study. The demographics are provided in Table 2.

Table 2. Participant demographics, collected in the autumn of 2007

	<i>f</i>	%		<i>f</i>	%
Gender			Frequency of the Internet Usage		
Male	74	63.8	Every day	20	17.2
Female	42	36.2	Often	51	44.0
Home computer			Once a week	17	14.7
Have home computer	36	31.0	Rarely	28	24.1
No home computer	80	69.0	Previous experience with blogs		
Internet access at home			None	95	81.9
Yes	29	25.0	None, but I know what it is	9	7.8
No	7	6.0	I have read a blog at least once	5	4.3
Previous experience with computer use			I read blogs regularly	2	1.7
None	50	43.1	I have left at least one blog comment	1	0.9
2–4 years	47	40.5	I am a blogger	4	3.4
5–7	9	7.8	Personal web page		
8–10	5	4.3	Have a personal webpage	5	4.3
More than 10 years	5	4.3	Do not have a personal webpage	111	95.7

2.4. Procedures

The students had not taken a blog-supported course before, necessitating an introduction to the use of the course blog in the first F2F lecture. The participants were also asked to describe the features of blogging as an instructional tool. The main course blog included the syllabus, course documents, announcements, external links, videos, a discussion environment and other supporting materials. Three blog use tasks were assigned to the participants during weeks 9, 11, and 13 as part

of their normal class activities. At the end of the first semester, the questionnaire and interview guide were pilot tested by the participants.

At the beginning of the second semester 29 four-member groups were formed by self-selection. Topics selected from the primary social sciences curriculum were assigned to each group randomly. During the semester, the groups developed a blog about their topics, completing SPGP inspired blog-supported tasks in weeks 5, 7, 9, 11 and 13 and posting all class assignments.

2.5. Data collection

The questionnaire and interview guide were developed by the researcher and validated by two graduate students following a review of similar instruments in the literature (Graham, Cagiltay, Lim, Craner, and Duffy, 2001; Jacovi et al. 2005; Mukawa, 2006; Wassel & Crouch, 2008). The instruments were then reviewed by a three-member expert panel as well as a Turkish linguist and modified based on their comments. The initial pilot test group consisted of 34 preservice teachers, yielding a reliability score of 0.83 (Cronbach's Alpha coefficient). After final revision, the questionnaire yielded a reliability coefficient of 0.89, higher than the 0.80 figure regarded as internally reliable (Bryman & Cramer, 1997). The interview guide was also pilot tested with two preservice teachers to determine if the interview procedure was acceptable and whether any additional interview questions were needed.

2.6. Data analysis

Quantitative responses were coded and prepared for analysis using the statistical analysis software SPSS 14.0. Means, percentages, frequencies, and standard deviations of questionnaire items were calculated. The qualitative responses were analyzed by means of transcribed text directed data reduction, data display, and conclusion drawing/verification phase based content analysis (Miles & Huberman, 1994). After the content analysis, themes obtained from the interview responses were subject to frequency analysis.

3. Findings

This study deals with the participants' perceptions of blogging as an instructional tool based on SPGP, firstly, through the questionnaire. The participants rated their levels of agreement with statements using a five-point Likert-type scale (1 indicating 'strongly disagree', 2 indicating 'disagree', 3 indicating 'neutral', 4 indicating

Table 3. Preservice teachers' perceptions of blogging as an instructional tool based on SPGP

Principles	Item Number	Statements	%					M	SD
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
Cooperation among Students	5	I believe blogging allows students to work on an online group project at their own time and in their own place (place and time independent of group members).	0.0	1.7	2.6	25.0	70.7	4.65	0.62
	7	I believe blogs help to create an effective cooperative environment for group work.	3.4	0.0	4.3	35.3	56.9	4.42	0.86
	8	I believe blogging helps to prepare enriched content and activities through group work.	2.6	2.6	3.4	39.7	51.7	4.35	0.87
	11	I believe blogs help to create an effective discussion environment amongst students and with instructors.	4.3	6.0	16.4	37.9	35.3	3.94	1.07
	Overall for principle #2							4.34	0.63
Expectations	24	I believe blogs support creation of new ideas relevant to course contents.	0.9	2.6	8.6	37.1	50.9	4.34	0.81
	15	I believe blogs include links to other related websites which may assist students.	1.7	2.6	13.8	30.2	51.7	4.28	0.91
	Overall for principle #6							4.31	0.70
Ways of Learning	25	I believe enriched instructional materials could be used in a blogging environment.	1.7	2.6	2.6	25.0	68.1	4.55	0.81
	27	I believe blogging helps to create learning environments using various learning styles (by reading, watching, discussing, etc.) effectively.	1.7	0.9	10.3	31.0	56.0	4.39	0.84

Principles	Item Number	Statements	%					M	SD
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
Ways of Learning (cont.)	20	I believe blogging enriches the teaching/learning environment by using different learning styles actively.	0.9	0.9	12.9	32.8	52.6	4.35	0.80
	26	<i>I believe blogging does not make any contribution to providing an enriched teaching/learning environment.</i>	56.0	14.7	12.9	9.5	6.9	3.93	1.38
	Overall for principle #7							4.30	0.64
Active Learning	6	Since everyone can access blogs, group projects are well-developed and more carefully crafted by students.	1.7	0.0	8.6	23.3	66.4	4.53	0.79
	12	I believe blogs allow us to present our projects in a virtual environment.	1.7	0.9	7.8	25.9	63.8	4.49	0.81
	16	I believe that comments made for projects in blogs guide the blogger in revising their projects.	0.9	5.2	7.8	27.6	58.6	4.38	0.90
	10	I believe blogging familiarizes students with the process of research.	1.7	3.4	9.5	34.5	50.9	4.29	0.90
	17	I believe blogging can enhance students' learning.	1.7	6.9	11.2	32.8	47.4	4.17	0.99
	13	I believe blogs encourage students to bring real-world experiences to courses.	2.6	4.3	24.1	32.8	36.2	3.96	1.00
	Overall for principle #3							4.30	0.60
Feedback	1	I believe presenting projects through blogs helps to increase feedback from instructors and students.	0.9	2.6	8.6	37.1	50.9	4.34	0.81
	19	I believe blogs allow feedback from people outside the classroom.	1.7	2.6	11.2	37.1	47.4	4.26	0.88

Principles	Item Number	Statements	%					M	SD
			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree		
Feedback (cont.)	18	I believe presenting projects through blogs helps feedback arrive promptly.	0.9	5.2	12.9	38.8	42.2	4.16	0.90
	21	I believe blogging creates an effective discussion environment among students and with instructors.	2.6	5.2	17.2	42.2	32.8	3.97	0.97
	Overall for principle #4							4.19	0.63
Time on Task	22	I believe chronologically presented assignments encourage students to complete them on time.	0.0	6.0	14.7	29.3	50.0	4.23	0.91
	23	I believe project development and presentation through blogs saves time.	1.7	5.2	19.0	30.2	44.0	4.09	0.99
	Overall for principle #5							4.16	0.83
Student-Faculty Contact	9	I believe blogs allow easy sharing of documents, materials, and knowledge.	1.7	0.9	5.2	34.5	57.8	4.46	0.78
	3	I believe blogs benefit online resources related to the course contents.	0.9	0.9	11.2	31.9	55.2	4.40	0.79
	4	I believe blogs help students interact with experts in the field.	0.9	3.4	12.1	36.2	47.4	4.26	0.86
	2	I believe blogs could be used to make announcements about the course.	1.7	7.8	23.3	36.2	31.0	3.87	1.00
	14	I believe blogs could encourage communication between the student and the instructor.	3.4	6.0	24.1	37.1	29.3	3.83	1.03
	Overall for principle #1							4.16	0.57
Overall for all principles								4.26	0.50

‘agree’, and 5 indicating ‘strongly agree’) for 27 questionnaire items. One of the items (26) was a negative case for the triangulation of the data. The majority of the participants believed that the blogs were a beneficial and effective instructional tool in regard to the SPGP. Means, standard deviations, and percentages of all the questionnaire items are provided in Table 3, which also demonstrates that blogging was the most beneficial and effective instructional tool for the principle: “encourages cooperation among students” ($M=4.34$).

The participants were asked about their perceptions of blogging as an instructional tool based on SPGP, secondly, with interview responses. The data obtained from the interview responses were subject to a frequency analysis. The responses emerged from the calculation of the frequencies were all parallel to the themes of the questionnaire results and they revealed that the majority of the participants had positive perceptions of blogging in preservice teacher education, as shown in the following Table.

Table 4. Preservice teachers’ perceived major advantages of blog-supported education based on SPGP

Principles	Perceived Major Advantages	<i>f</i>
Blogs develop reciprocity and cooperation among students by:	– allowing students to learn from each other and also from people outside the classroom	24
	– providing a platform for sharing and discussing projects and assignments from the instructor but also anyone	21
	– providing opportunities to archive materials and projects as a resource for future students	17
	– developing a group project via blog easily	14
	– providing an easy way to share knowledge	11
	– providing unlimited communication opportunities for sharing resources	8
Blogs communicate high expectations by:	– encouraging imaginative thought	17
	– allowing students to be part of and control a large scale learning environment	11
	– including instructors’ expectations	4
Blogs respect diverse talents and ways of learning by:	– including real life examples	24
	– making instruction more enjoyable for students by enriching the learning environment	22
	– supporting and providing a variety of resources	18
	– helping students to learn easily	13

Blogs use active learning techniques by:	– directing students to do research and think critically	22
	– allowing students to practise techniques and enhancing real-world experiences	20
	– encouraging students to learn new things/ideas	19
	– enriching the teaching/learning environment by using pictures, animations and video clips	17
	– allowing students to add video clips, pictures, and animations easily	15
	– drawing students' attention to class	15
	– blogging provides active participation	13
Blogs give prompt feedback by:	– helping students review material constantly, because of the obligation to update the blog regularly	11
	– allowing feedback from people outside the classroom	16
Blogs emphasize time on task by:	– encouraging students and instructors to monitor and take part in discussions	9
	– developing a blog in a short time	27
	– supporting easily accessible resources with fewer technical skills	23
	– using announcements of dates and deadlines of the courses	10
Blogs encourage contact between students and faculty by:	– including assignments with due dates	8
	– helping instructor/student submit and re-submit assignments easily	11
	– supporting F2F interaction and collaboration using online environment	8
	– providing more/high-speed communication opportunities	4

The drawbacks of blog use, according to the participants, included difficulties for inexperienced computer users, students who overestimate the ease of the course because of its web component, and students' concerns about the quality of the education delivered in non-F2F environments.

4. Discussion

The findings provided evidence that preservice teachers have positive perceptions of blogging based on SPGP as an instructional tool. The scores for each tested principle ranged between 4.16 (student faculty contact) and 4.34 (cooperation among students), and the participants were able to give feedback on particular aspects of blogging they felt relevant to this inquiry. The first major principle the participants put forward with strong agreement was the ability of the blog to develop reciprocity and cooperation among students. The blog can be used to organize class discussions and collaborations for developing group projects as

a means of learner centred instruction, as corroborated by Krause (2005) and Richardson (2006). Blogs also allow instructors to share syllabi and rubrics that clearly communicate expectations, as well as links to other websites and blogs increasing the diversity of learning materials and potentially the range of students thinking about the courses.

Most participants remarked that using blogs can enrich the learning environment by supporting comments, hyperlinks, texts, graphics, pictures, audio-video clips, documents, presentation files, and spreadsheets together, incorporating multiple senses, and enhancing real-world experiences. In the blog environment, students can choose project topics, utilize any or all of the above applications that suit their diverse talents and ways of learning.

Commonly, the participants felt blogs encouraged learner-centred activities such as research, critical thinking, problem solving, and skill practice. Blogs help to create an effective constructivist learning environment that could be a wonderful bridge to an ideal environment in which learners develop their thinking, communication and social skills and transfer those skills to the real world. As in characteristic three, receiving feedback is essential to improve performance and promote their critical thinking skills as well as to increase student expectations (Graham, Cagiltay, Craner, Lim and Duffy, 2000). Blogs allow students to receive comments from other students, instructors and the public, provide opportunity for revision, and use an archive format that permits student retrospection, culminating in a nearly perfect feedback environment (Ferdig & Trammell, 2004; Fernheimer & Nelson, 2005; Salen, 2007).

Blogs also emphasize time on task by using frequent announcements for course activities. Additionally, blogs provide several advantages to students in terms of time management. This includes the fact that presenting via blog allows students more time for analyzing, critiquing, and problem solving, instructors can post assignments on the blog giving students easy access, the innate chronological order builds in organization and blog maintenance and development is typically not a lengthy process.

According to Keeton (2004) and Graham et al. (2001) students in online courses expected greater interaction with the instructor outside class than F2F students. This expectation is addressed by blogs as they encourage contact between students as well as with the instructor. Blogs also allow the sharing of documents, materials, assignments and knowledge in and outside the classroom. While the finding that the student-student and student-instructor contact was rated below other points of interest, in contrast to Hernández-Ramos (2004) and Williams and Jacobs (2004),

this may be due to the fact that in this study the students were in a blended learning environment incorporating F2F time.

5. Conclusion and Implications

Based on the findings and discussions presented here, two main points are made, specifically directed to practitioners and researchers. Future research is needed to verify the effectiveness of the following recommendations and to identify other important strategies:

(1) Blogs may be used effectively as supportive instructional tools in the learning environment.

(2) SPGP can be supported by blog use.

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Hacer Özkul, Hülya Kaya
Turkey

The Views of Nursing Students about their own Information Literacy

Abstract

The purpose of this descriptive study was to determine nursing students' views about their information literacy skills. The research group consisted of 432 students who were registered at a public university nursing school in Turkey. In this study Personal Information Form and Information Literacy Scale were used for data collection. Descriptive statistical methods were used to analyze the data. It was determined that they found themselves to be adequate on the subject of information literacy. In conclusion it can be said the students considered their information literacy as adequate. Taking into consideration that the evaluations regarding the students' information literacy might not have shown the actual levels, it would be beneficial that the skills are assessed in further studies.

Key words: *information; literacy; information literacy; nursing; nursing education; nursing students*

Introduction

The 20th century has often been considered as the age of information and technology (Tasocak, 2001; Kurbanoglu, 2004). Recent decades have witnessed industrialized societies being transformed into information-based societies. An information-based society needs individuals who have lifelong learning skills. Information literacy is the cornerstone of lifelong learning. Every member of the information and technology age should be equipped with information literacy skills to be able to succeed at school, at work and in daily life (Spitzer, et al., 1998;

Kurbanoglu, 2004). This fact requires information literacy of nurses (Shorten et al. 2001; Mcneil, 2003; Durando et al. 2005). In order to gain information literacy skills nurses should follow an information literacy program (Snaveley & Natasha, 1997; Seamans, 2001). As a profession creating and maintaining information literacy programs that will support lifelong learning should become a mission for nursing education. There exists a large body of literature related to information literacy (Akkoyunlu, 2008). However, in Turkey the studies on information literacy have been conducted mostly in the field of librarianship, and there is no study in the field of nursing in Turkey. Students of nursing determine the views about their own information literacy.

The concept of information literacy was first defined by Paul Zurkowski in 1974 as individuals being educated to be able to use sources of information associated with their work (Scholaman, 2001; Aldemir, 2004; Polat, 2005). According to the American Librarian Association (ALA) information literacy is the awareness of the need for information, getting access to needed information, evaluating information obtained and using it effectively (ALA, 1989).

Information literacy was studied by librarians, communication experts and educators until 1985. An ALA report (1989) was an important step in the development of information literacy. In this report the ALA emphasized the importance of information literacy in educators and students and described the need for the establishment of official institutions for the development of this skill and that this responsibility needed to be assumed by the Education Ministry and Higher Education Authority (ALA 1989; Aldemir 2004; Polat 2005). Information literacy standards in universities were developed by the Association of College and Research Libraries (ACRL) in 2000. According to these standards information literate students know the structure and dimensions of their need for information, effectively obtain the information they need, critically analyze information and sources of information, integrate chosen information with their own knowledge basis and value system, effectively use information to achieve specific goals as individuals or members of a group, and are aware of the majority of ethical, legal, and socioeconomic problems associated with information and information technology. (ACRL, 2000). These developments experienced in the US have been reflected and debated at the scientific level in China, Germany, Mexico, Scandinavian the countries, Singapore, South Africa, South America, Spain and other countries (Polat, 2005).

Developments in the area of information literacy are also reflected in the field of nursing. In a study by Blyte et al. (1995) in the field of nursing the skill of obtaining information needed for nursing to improve patient care was discussed (Schloman,

2001). Pravikoff, who is interested in this subject, emphasized that nursing students need to be effective users of information and that it is important that time be set aside for information literacy in nursing education programs (Pravikoff et al. 2003). Other noteworthy developments were by Cheek and Doskatsch (1998), considering the concept of information literacy in nursing education, and by Verhey (1999) who emphasized the importance of improving information literacy in higher education (Schloman, 2001; Spratt et al. 2002; Pravikoff et al. 2003). Educational and nursing institutions have emphasized that information literacy is significant in nursing practice and is a quality looked for in nursing. In 2001 the American Nurses Association (ANA) stated that information literacy is a required skill for nursing practice and professional development (ANA 2001). The Interagency Council on Information Resources for Nurses (ICIRN) drew attention to the fact that information literacy was a basic skill for nursing practice (Tanner et al. 2004). In nursing literature the nursing process and information literacy process are collected under the same roof. In this process nursing education programs can be found which aim for students to be able to use written and electronic sources of information, choose effective methods and techniques for looking for information, critically evaluate information, and use it in an ethical, productive and conscious manner (Tanner et al. 2004). Being information literate is very important in all professions and in nursing it is so for the provision of effective and productive service (Fetter, 2009; Lonsdale & Armstrong, 2004).

In the examination of the development of information literacy in Turkey it can be seen that studies have recently begun on this subject and are increasing daily to the same extent that other countries are experiencing. The concept of information literacy was first introduced to Turkish scholars in 1998 by Oya Gürdal in a speech given at the meeting of the Association of Turkish Librarians and subsequently published in 2000 (Gürdal, 2000). Studies by Akkoyunlu, Kurbanoglu, and Yilmaz were important steps in the development of information literacy in Turkey and in integrating information literacy in educational programs (Akkoyunlu & Kurbanoglu, 2002; Yilmaz, 2003). In publications by Yalvac (2001) attention was drawn to the concepts of information and information literacy, and the importance of relationships among information literacy standards in higher education, information literacy, and information technology at universities (Yalvac, 2001). Saatcioğlu, Özmen and Özer (2003) developed a project at Dokuz Eylül University, İzmir, Turkey which began during the 2002–2003 academic year to train information literate graduates and which included the library and librarians in an effective way in the project (Saatcioğlu et al., 2003). A similar study was conducted at Sakarya University. In this study a project was prepared for the purpose of

informing upper level university management and for organizing a conference on education and information literacy in which seminars were conducted, titled "Information Access and Library Skills" (Aldemir, 2003).

In the general evaluation of these developments it can be said that although studies on this subject began only recently in other countries they are advancing rapidly, and the studies on this subject in Turkey are just now gaining momentum but have not been reflected in the nursing field.

Method

This research was planned as a descriptive study for the purpose of determining nursing students' views about their information literacy skills.

Sample

A descriptive method was used in this research. The research group consisted of 432 students who were registered at a public university nursing school for the 2005–2006 academic year. In the sample 105 were 1st year, 114 were 2nd year, 106 were 3rd year and 107 were 4th year students. The entire research group was targeted and 87% were reached.

Data Collection

Two instruments were used for data collection, a Personal Information Form and the Information Literacy Scale.

Personal information form: this form contained questions about the students' age, year in school, type of secondary school which they finished, frequency of library use in primary school, secondary school and baccalaureate education, frequency of use of library resources, importance given to sources of information for research and homework, views about computer use skills, frequency and purposes for using the computer (Akkoyunlu & Kurbanoglu, 2002; Aldemir, 2004; Polat, 2005; IFLA, 2006).

Information literacy scale: This instrument was developed by Aldemir for the purpose of determining the students' views about their information literacy. Its validity and reliability were tested and its reliability alpha coefficient was found to be 0.89 (Aldemir 2004) and in this study the reliability alpha coefficient was found to be 0.95. The 35 items on this survey are answered on a 5-point Likert type scale.

Mean scores from the instrument of 4–5 were “I’m not having any difficulty at all,” 3–3.99 were “I’m not having difficulty,” 2–2.99 were “I’m undecided,” 1–1.99 were “I’m having difficulty,” and 0–0.99 were “I’m having a lot of difficulty.”. As the score from the instrument increases the information literacy level increases.

Permission was received from teaching staff to collect data during April and June of the 2005–2006 academic year. The students were informed about the forms and asked to complete them. No time limit was given for the completion of the forms. It took the students approximately 15 minutes to complete the forms.

The research was conducted at one of the oldest university schools of nursing in Turkey, founded in 1961. When the institution was evaluated for information sources it was seen that there was a library and a computer laboratory in the school. National and international professional journals, professional books, Master theses and doctoral dissertations completed in school, and general cultural publications as well as periodical collections which contain general and professional publications are available in the school library. There are 22 computers available for student use in the school’s computer laboratory and there is an average of 19 students per computer. The school administrators are continually working to enrich the information resources. Outside the school but also available for the students is the University Central Library which was founded in 1933, has a large number of services provided to national and international users and a high quality, modern catalogue system. And also there is a computer course in curriculum (www.kutuphane.istanbul.edu.tr/tarihce.htm).

Data Analysis

Descriptive statistical methods (mean, standard deviation, frequency) were used in the analysis of the research data as well as for comparison of quantitative data between more than two groups One Way ANOVA test and to determine the cause of the difference Tukey HSD test were used, and in the comparison between two groups Student’s *t* test was used. The results were analyzed at a 95% confidence interval at a $p < 0.05$ level of significance (Akgül, 1997; Altunışık et al., 2004).

Results and Discussion

Of the students 26.9% (99 individuals) were in the 1st year, 25.5% (94 individuals) in the 2nd year, 24.2% (89 individuals) in the 3rd year, and 23% (86 individuals)

in the 4th year; 36.7% (135 individuals) had finished a general secondary school and 32.1% (118 individuals) a foreign language emphasis secondary school. The age range of the students was 17 to 28 and their mean age was 20.75 ± 1.64 .

The highest percentage of the students who used the library at primary school was 27.2% (100 individuals). During secondary school the highest percentage was 38% (140 individuals) who used the library once or twice a month. During their baccalaureate degree program the highest percentage was 48.4% (178 individuals) who used the library once or twice a week and this frequency was determined to have changed in a positive direction.. These results show that students use the library more during university compared to primary and secondary school periods.

It was found that the 34% of the students (125 individuals) sometimes used the library for scanning the sources from the catalogue, 36.1% (133 individuals) sometimes for borrowing books, 36.4% of them (134 individuals) frequently for examining the professional sources, 36.4% (134 individuals) sometimes for examining the newly-arrived publications and 34.8% (128 individuals) frequented the library for studying their lessons. These results were in parallel with the outcomes of the study by Polat relating to the library utilization frequency by the students (Polat 2005). In the literature, it is emphasized that the utilization of libraries plays an important role in the development of information literacy skills (ALA 1989; Aldemir 2003; Polat 2005). It can be said that the students should improve their library utilization habits.

When the importance attached by the students to the information sources they utilized in their assignments and research was examined (cf. Table 1), it was found that the student responses focused on “very important” and “important.” In the literature it is emphasized that the utilization of information sources is important for information literacy (ALA 1989; Aldemir 2003; Polat 2005). This result is congruent with the literature.

When the students’ reasons for computer use were examined, it was found that 32.9% of the students (121 individuals) used the computer for scanning the sources from the university library catalogue and 47.8% (176 individuals) used it for scanning databases. These findings show similarity with the findings by Cole and Kelsey (2000) demonstrating that the students of nursing are insufficient in utilization of electronic library catalogues (Cole and Kelsey 2000). It was found that 41.3% of the students (152 individuals) frequently utilized the computer to search for information about any field, 45.9% (169 individuals) to read and send e-mails, 36.1% (133 individuals) to chat with friends, 32.3% (119 individuals) to read the news, newspapers, etc., 31.1% (115 individuals) to use application software

(Word, Excel), 34.8% (128 individuals) to listen to music, 28.5% (105 individuals) to surf various web sites. These findings are similar to those reported in the studies by Karahan (2001), which show that students' primary reasons for using the computer were to play games, chat, listen to music, and keep up with current events (Karahan, 2001). These findings show that students use computers more as a source of entertainment than a source of information.

32.1% of the students (118 individuals) claimed that they found themselves sufficient at computer utilization, and 11.7% of them (43 individuals) very sufficient. The students' arithmetic mean from the answers they gave to items on the Information Literacy Scale was found to be 3.43 ± 0.63 , and according to this result the students' information literacy is at an adequate level (cf. Table 2). These results revealed that the students considered themselves sufficient at information literacy. The literature highlights that the information literate individuals should have the skills to use the computer (ACRL, 2000; Cole & Kelsey, 2004). Therefore, this result supports the literature. In the comparison of the students' information literacy score means with their computer use level of adequacy (cf. Table 3) statistically highly significant differences were found ($p < 0.01$). This difference was in favour of those who stated that their computer use skills were adequate. In the literature it is emphasized that computer use skills are important for the development of information literacy (ACRL, 2000; Cole & Kelsey, 2004). In light of the literature this result shows that the nursing students were at a positive level for information literacy.

Significant differences were found in information literacy score means according to the frequency of computer use for surfing different web sites, chatting with friends, and using writing functions. Statistically highly significant total information literacy score means were found for searching for information on any topic, reading and sending e-mail, reading news, and listening to music and those who used the computer very frequently had a high information literacy score mean. In the literature it is emphasized that computer literacy skills are important for the development of information literacy. The literature emphasizes that computer literacy is a prerequisite for information literacy (IFLA 2006; ACRL 2000). This result is congruent with the literature.

Conclusion and Suggestions

In this research it was determined that students used the library the most while at university and listed the university and school library, websites, textbooks and

course notes, instructors and friends as important sources of information. Most of the students said that they found themselves sufficient at computer utilization. Highly statistically significant differences were found in information literacy scale score means according to the students' reported level of adequacy of their computer use skills, and the source of this difference were those who considered themselves to have adequate computer skills. It was determined that there were highly statistically significant differences in information literacy score means for the frequency of using the computer for searching for any type of information, reading and sending e-mail, reading news, and listening to music and the source of this difference were those who used the computer very frequently for these purposes. It was determined that they found themselves to be adequate at information literacy. In conclusion, it can be said the students considered themselves adequate at information literacy. Taking into consideration that the evaluations of the students in the study regarding their information literacy might not have demonstrated the actual levels, it would be beneficial that the skills are assessed in further studies.

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Table 1. Importance students attach to information sources for research and assignments

Information Sources	Very important n (%)	Important n (%)	Undecided n (%)	Not important n (%)	Not important at all n (%)
University Library n=359	82 (22.3)	143 (38.9)	69 (18.8)	33 (9.0)	32 (8.7)
School of Nursing Library n=367	187 (50.8)	111 (30.2)	45 (12.2)	13 (3.5)	11 (3.0)
Websites n=367	239 (64.9)	110 (29.9)	11 (3.0)	6 (1.6)	1 (0.3)
Textbooks n=362	184 (50.0)	148 (40.2)	22 (6.0)	4 (1.1)	4 (1.1)
Course Notes n=366	195 (53.0)	139 (37.8)	24 (6.5)	3 (0.8)	5 (1.4)
Teachers n=364	151 (41.0)	153 (41.6)	41 (11.1)	13 (3.5)	6 (1.6)
Friends n=353	66 (17.9)	179 (4.9)	78 (21.2)	18 (4.9)	12 (3.3)

Table 2. Information literacy scale items arithmetic means

Items	X	SD
1. Determining a subject for my homework/research	2.93	1.10
2. In determining my need for information associated with my homework/research	3.17	1.02
3. In broadening or narrowing the subject for my homework/research	3.24	0.10
4. In knowing how and where to find information that I need	3.33	1.04
5. In determining the best key words for searching for information	3.38	1.00
6. Deciding which type of information source is more appropriate for which type of information I need	3.30	1.00
7. Using different types of information sources such as encyclopaedias, journals, references, annuals	3.71	1.01
8. Using websites as information sources on the web, such as web pages, electronic journals, encyclopaedias, etc.	3.61	1.02
9. Choosing and using indexes and electronic WebPages to find information	3.26	1.10
10. Using web search engines such as Google, AltaVista, arabul	3.66	1.03
11. Understanding and using reference information such as databases, search engines, etc. in electronic information access systems	3.36	1.10

12. Using limiting functions such as date, language and type in looking for information on the computer	3.44	0.99
13. Determining relationships between concepts when searching for information on the computer by using words such as, “and, or, not”	3.39	1.06
14. If I’m unsuccessful looking for information, in trying different search methods	3.52	0.99
15. Using the library catalogue	3.36	1.01
16. Understanding information given in resources in the catalogue	3.40	1.01
17. Using other libraries	3.38	1.06
18. Assessing the appropriateness of the subject for quality of information I obtained	3.56	0.97
19. Assessing the elements like currency, accuracy, neutrality of the information I obtain	3.38	1.02
20. Assessing the elements like currency, accuracy, neutrality of the information I obtain from web sites	3.23	1.09
21. Reading the information reference I obtain and determining the basic idea	3.62	1.02
22. Determining the similarities and differences in the information sources I read	3.63	0.98
23. Interpreting the information I obtain	3.63	0.98
24. Relating new information I find with my previous information	3.63	0.96
25. Restating information I obtain from references in my own words	3.52	1.06
26. Using a large number of references together while doing my homework/research	3.55	1.05
27. Organizing my homework in sections like cover, contents, introduction, references, appendices	3.58	1.02
28. Determining references in the text to show sources of information in homework, such as quotations, footnotes	3.45	1.07
29. Preparing reference lists from different types of references, such as books, journals, websites that were used preparing homework/research	3.52	1.05
30. Verbally presenting homework research results	3.28	1.05
31. Presenting research results in a written format, such as homework, report, article, etc.	3.48	1.05
32. Making adjustments in presenting information according to limitations such as number of pages and time	3.42	1.03

33. Using appropriate technology for presenting/communicating information, such as power point slides, video word files	3.30	1.15
34. Determining the strengths and weaknesses in criticizing the homework/research I have done	3.43	1.04
35. Extracting lessons for the future for searching, finding, using and transmitting information	3.41	1.09
General Mean	3.43	0.63

Table 3. Comparison of Students' Information Literacy Scale Score According to Their Views About Computer Use Skills Adequacy

Adequacy Status	Mean±Sd	F, p
Very Adequate	3.47±0.68	F=4.463 p=0.002*
Adequate	3.58±0.64	
Average	3.41±0.57	
Inadequate	3.22±0.60	
Very Inadequate	3.05±0.77	
Tukey HSD test p<0.01		

Information Technology in the Process of Key Competence Development – a Description of Conditioning

Abstract

In an age of globalisation, knowledge-based economic development and information and telecommunications revolution, the concept of education focused on lifelong development of key competences is growing in significance in the education systems of European states. This article presents the results of a diagnostic survey with the aim of providing a description of conditioning in the process of key competence development with the application of information technology.

Introduction

None of us is in any doubt that changes are occurring with great rapidity on every plane of human existence. It may well seem that time passed once with less haste than it does in the contemporary world, which has come to be dominated by highly valuable ‘information’. Put colloquially, ‘life is moving on’ and we are, according to Montesquieu, attempting to adjust to it, “for it will not adjust to us” (A. Łaski, 1993, p. 11). The need for change and the expectations of European Union citizens with regard to social processes has led the European Parliament and Council to create ‘frameworks of reference’ for key competences in lifelong learning. In this document the following key competences are mentioned:

- Communication in the mother tongue,
- Mathematical competence and basic competences in science and technology,
- Digital competence,
- Learning to learn,

- Social and civic competences,
- Sense of initiative and entrepreneurship,
- Cultural awareness and expression,
- Communication in foreign languages.

Aim of the educational research

The research commenced at the end of May and beginning of June 2006 in Poland in the city of Katowice. The primary aim of the diagnostic survey was a description of conditioning in the process of key competence development with the application of information technology. The detailed aims of the research were:

- a) description of conditions in computer science teaching at primary schools,
- b) collection of primary school teachers' views on the subject of key competence development and evaluation,
- c) examination of the knowledge of computer software possessed by teachers at selected primary schools and application of the same,
- d) determination of the forms and methods for key competence development applied by teachers in their lessons,
- e) determination of methods in key competence evaluation,
- f) description of the configuration of computers and accompanying software used in key competence development.

In order to obtain information on conditioning in connection with key competence development, a survey was conducted among 77 teachers, of which 39% were primary school head teachers, 29% teachers of computer science and 32% remaining teachers.

The work experience of the teachers surveyed amounted to 11 years on average. The longest-serving teacher had been professionally active for 26 years, and the shortest career length was one year.

Before analysing the teachers' statements, it is worth adding that these were accompanied by similar statements provided by 87 fifth graders, i.e. pupils aged 11–12.

Analysis of diagnostic survey results

In developing the entire range of key competences it is impossible to overlook the computer, an indispensable medium in the development of 'the ability to utilise

information technology effectively'. What then is the computer? What role does it play in the work of a teacher?

For 42% of the respondents the computer is a universal teaching medium, which is to say that the device has a broad application in the teaching process, and is utilised:

- in formation of knowledge by pupils,
- in key competence development in every subject, both in the course of the lesson and during extracurricular activities,
- during the introduction, consolidation or evaluation of knowledge gained and competences being developed,
- by parties for communication (teacher-pupil, pupil-pupil and teacher-teacher),
- in rehabilitation, as well as in equalising the levels of educational achievement by pupils,
- in 'live' (i.e. performed in the course of a lesson) monitoring of educational achievement by pupils,
- in measurement of learning progress,
- in provision of updates to persons with an interest in the course of the teaching process, e.g. pupils' parents and school authorities.

Among the teachers surveyed, 28% consider the computer as 'a basic tool in the work of a teacher'. This is not a large number and it results from the fact that few of them have an opportunity to utilise this device in the course of the classes they take. However, the work of a teacher does not consist solely in the conduct of lessons. The computer is also utilised by teachers as a basic tool outside the classroom. Preparation of lesson plans, creation of both records of material covered and tests of educational achievement, and evaluation of projects saved in an electronic form are but selected examples of the activities performed by a teacher with the use of a computer.

Among the respondents, 26% claim that the computer is 'a useful medium, but not indispensable in the teaching process', 3% regard it as 'a medium to which an excessive number of virtues are ascribed', while 1% of the respondents were of the opinion that the computer should not replace other teaching media. The above responses were given by the teachers who rarely make use of a computer in their work and claim that to do so is unnecessary, and that this is not a device indispensable to the contemporary school. Many teachers apply methods which are 'tried and tested' in the belief that these methods are not in the least responsible for their pupils' low achievement. It would be advisable, therefore, to bring to the attention of those teachers out of touch with reality that the use of information

technology as the most effective medium is the result of the continuing process of development in contemporary teaching, both general and specific.

Analysing the responses of the head teachers and teachers (Table 1), it may be observed that the teachers consider the computer as a basic tool more often than the head teachers. As regards the response that it is a useful medium, but not indispensable, the head teachers, have in most cases also a different, less positive attitude to the computer than the teachers, with the teachers more prone to acknowledge the computer as an indispensable medium in the educational process than their superiors. The head teachers, therefore, despite the fact that they each make use of a computer in their work, are less open to the use of information technology in schools in comparison to their staff. The attitude of the teachers to the computer is, however, undergoing constant change. The new possibilities for the medium continually being discovered are raising awareness among teachers of the competences in terms of information technology that they ought to possess. These are expressed as:

- knowledge of a foreign language (or languages),
- knowledge of the principles for the use of the computer, video and other technological media (e.g. a database or a computer network, this including the Internet, as well as Internet services such as email),
- the ability to use modern technologies to support the processes of teaching and learning,
- the ability to create educational programs and make them available online (E. Perzycka, J. Nowotniak, 2001).

The abilities outlined above are simply goals which teachers aspire to achieve. Today it is insufficient to possess a store of knowledge on a single subject, the response to which is the dual specialisation model in teacher development. A teacher ought to be able to draw upon stores of knowledge from around the world and necessary for this are abilities linked with expertise in information technology and foreign languages.

The key competences at the basis of the primary school curriculum are developed by teachers with varying frequency. In response to the question 'Which key competences do you develop most often during your lessons? The order from 1 to 8, from the most often to the least often', the head teachers and teachers ordered the competences by the weight they attach to their development in the context of the subject taught, with this proving a difficult task.

The results show that the most frequently developed competence is 'the ability to seek, organise and utilise information from various sources', the least often developed 'the ability to use information technology effectively'. The results also

Table 1. The role of the computer in education – responses of head teachers and teachers.

Response	Head teachers	Teachers
A basic tool in the work of a teacher	14%	34%
A versatile teaching medium	45%	41%
A useful medium, but not indispensable for the teaching process	38%	21%
A medium to which an excessive number of virtues are ascribed	–	4%
Others	–	1%

show a clear division in the competences being developed. Those most often developed during lessons are ‘the ability to seek, organise and utilise information from various sources’, ‘the ability to communicate effectively in various situations and to present both oneself and the results of teamwork in a wider arena’, ‘the ability to plan, organise and evaluate individual learning and to learn independently’ and ‘the ability to relate knowledge acquired to practise and to create both necessary experiences and habits for the development of essential abilities’. The competences more rarely developed are ‘the ability to develop personal interests’ and ‘the ability to assimilate methods and techniques for the negotiated resolution of conflicts and social problems’, with the most rarely developed of all being ‘the ability to utilise information technology effectively’.

Analysing the pupils’ responses concerning key competences mastered best and juxtaposing them with the teachers’ responses concerning the most frequently developed ones, it transpires that the most rarely developed competence, ‘the ability to utilise information technology effectively’, is in fact that mastered best by pupils. The divergence in this regard is shown in Table 2.

A conclusion may be drawn that the frequency with which a key competence is developed during lessons does not always go hand in hand with the level of mastery. There is a complete lack of dependence as regards the same ability, that for use of information technology, with the divergence in responses here greatest, at seven points. Although it would seem that a competence rarely developed ought to be poorly mastered, the results of the survey contradict this statement. It appears that this competence is developed additionally outside school, e.g. at home or in after-school clubs. This is unsurprising that pupils surf the Internet for a minimum of 20 hours per week, while the amount of time spent on this activity by children who do so excessively is 32.3 hours per week. This number is comparable to the number of hours which a child spends at school. Furthermore, pupils experience

Table 2. Most frequently developed and best mastered key competences – responses of teachers and pupils

Key competence	Most frequently developed by teachers	Best mastered by pupils
The ability to seek, organise and utilise information from various sources	1st place	2nd place
The ability to communicate effectively in various situations and present both oneself and the results of teamwork in a wider arena	2nd place	6th place
The ability to plan, organise and evaluate individual learning and to learn independently	3rd place	6th place
The ability to relate knowledge acquired to practise and to create both necessary experiences and habits for the development of essential skills	4th place	5th place
The ability to interact and collaborate effectively in a team	5th place	3rd place
The ability to develop personal interests	6th place	3rd place
The ability to assimilate methods and techniques for the negotiated resolution of conflicts and social problems	7th place	8th place
The ability to use information technology effectively	8th place	1st place

no difficulty in communication in the course of a week as communication also takes place online (J.P. Gałkowski, 2003, p.37).

It is worth remembering, however, that ‘the ability to utilise information technology effectively’ does not refer solely to the use of computer games, although the editorial section of the *Secret Serwis* magazine points out that it is for precisely this purpose that 70% of its readers use the computer. Parents concerned about the intellectual development of their child, schooling and peer group function ‘move with the times’ in purchasing a computer and various games, this not infrequently filling the role of a first computer class (B. Kubiak, 2006, p. 53). Are these activities producing the effect anticipated? The fact that a child spends a great deal of time in front of a computer does not of course mean that he or she is able to make use of its basic functions. Indeed, it transpires that children make use of these to a limited extent, ending with the running of a computer game.

The second divergence in terms of size seen in the responses is also worth mentioning, this concerning ‘the ability to communicate effectively in various situations and to present both oneself and the results of teamwork in a wider arena.’ Here, however, it would appear that the teachers are rather ineffective in developing

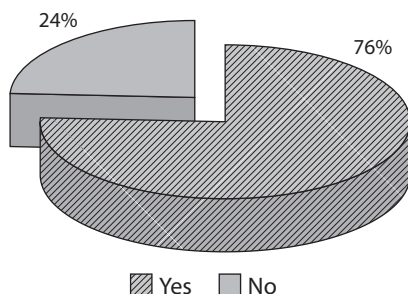
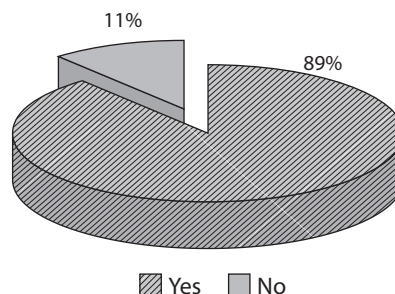
the given competence. The four-point divergence in the responses indicates that although the teachers often develop this competence (it takes second place in the classification), this is to little effect, in that pupils judge their level of mastery to be worthy only of the sixth place. Therefore, intentional educational activity on the part of the teachers does not always have an influence on their pupils' achievements.

It is necessary to pose the question of whether teachers evaluate the key competences. The results of the survey show that 98% of the teachers claim that they do evaluate their pupils' key competences, yet 2% of the teachers 'admit' that they do not. Among those surveyed, the most frequently evaluated competences were 'the ability to seek, organise and utilise information from various sources' (29%) and 'the ability to interact and collaborate effectively in a team' (29%). The competence most rarely subject to evaluation is 'the ability to utilise information technology effectively' (17%), which, as mentioned above, is also that most rarely developed by the teachers. In order to evaluate the key competences, 44% of the teachers evaluate the products of pupil activity, with this including 12% evaluating pupil presentations. A total of 18% of the respondents conduct written tests or assess spoken responses for the purpose of key competence evaluation, while in 27% of cases evaluation is performed on the basis of observation, including 16% where observation concerns group work, with 9% of the teachers evaluating with the use of the project method.

Of the teachers surveyed, 76% consider their pupils to be aware of the key competences being developed, with 24% claiming that their pupils lack this awareness. There is no doubt that awareness in the educational process is linked to collaboration with teachers in which pupils engage in the development of their competences. In the opinion of 89% of the teachers, pupils collaborate with teachers in developing key competences, while in the opinion of 11% this collaboration is absent.

Comparing the data concerning the pupils' awareness and collaboration, a slight difference may be noted between the results for the pupils collaborating with the teachers and the pupils aware of the key competences being developed. It may be concluded from this difference that there is a group of pupils unaware of their collaboration with teachers in the development process. This situation occurs in 13% of cases. It is not known, however, what outcomes arise from this type of competence development.

Key competences developed are utilised by pupils in situations arising both in and out of school, and through improvement pupils achieve their goal. The majority of the teachers surveyed (65%) stated that thanks to key competence development pupils are more active and involved in class work. The least frequent responses concerned pupil awareness of educational activities (19%) and pupil

Figure 1. Pupil awareness of key competence development**Figure 2.** Pupil collaboration with the teacher in key competence development

criticism in relation to information obtained (20%). Next most common were 'more rapid acquisition of information' (61%), followed by 'more rapid and fuller understanding of information' (41%), 'lack of anxiety as to the presentation of information obtained' (39%), 'curiosity in seeking information' (37%), 'utilisation of competences during lessons in other subjects' (33%) and 'increased organisation and efficiency in performance of tasks' (30%).

A high level of activity, involvement in class work and more rapid acquisition of information are behaviours with a significant influence on the educational achievement of pupils. The computer is a device supporting the creation of situations such as these. As A. Barańska claims, "work with the aid of a computer demands from the learner adherence to rules for the collection, processing and presentation of information, which leads to an increase in logical thinking, precise expression of thought and formulation of problems. The acquisition of these competences contributes to an increase in the effectiveness of self-education, essential for correct functioning in rapidly changing reality. The task of school is not only to equip pupils with certain stores of knowledge, but also to form in them the ability to seek information independently, to adapt to the conditions of a changing world" (A. Barańska, 2003, p. 5).

There exists then a relationship between a high level of key competence development and pupil achievement. This is maintained by 89% of the teachers surveyed (Figure 3) as well as by 89% of the pupils. Also by S. Juszczak (S. Juszczak, J. Janczyk, D. Morańska, M. Musioł, 2003, p.40), who believes that thanks to these competences the learning process may become more effective, and that the independence of the learner, along with his or her creativity, increases.

What forms and methods of teaching are preferred by teachers developing key competences? This open question was posed in the questionnaire, with the responses most often concerning independent pursuit of knowledge (51% of all statements), methods for assimilation of knowledge and practical methods (22% of all statements) and valorising methods (4% of all statements) (Figure 4). Teachers favour the development of the competences either individually or in groups.

In their work in applying the teaching methods outlined, 96% of the teachers make use of the computer. The function most often performed by the teachers with the aid of the computer is online search, with this response provided by 52% of those surveyed, followed by the 'use of educational programs' (44%), 'performance of tests of knowledge and ability' (28%), 'creation of multimedia presentations by pupils' (26%) and 'use of a VCR to show films and educational presentations' (22%). The results presented confirm the fact that the Internet is currently one of the most significant factors bringing change in various areas of contemporary life, including education, where the use of this global network is gaining ever greater significance. This gain is possible owing to the development of technology for distance learning as well as the widespread use of computers and Internet technology in education and professional life. It is thanks to these technologies that it has become efficient to acquire, amass and process data and to make information available, and that the exchange of information between various participants in the educational process has attained such speed. Utilisation of the Internet and its resources and services in the teaching process may vary.

Figure 3. The existence of a relationship between a high level of key competence development and educational achievement – responses of teachers

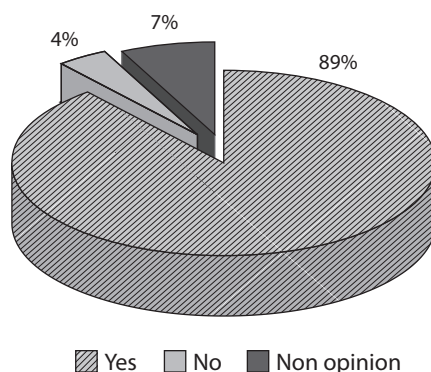
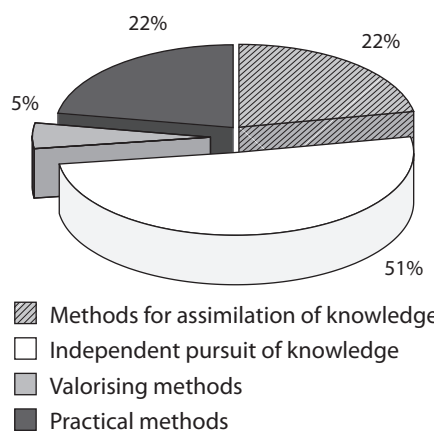


Figure 4. Methods utilised in key competence development



According to the educational need or the level of technological infrastructure available this utilisation may entail:

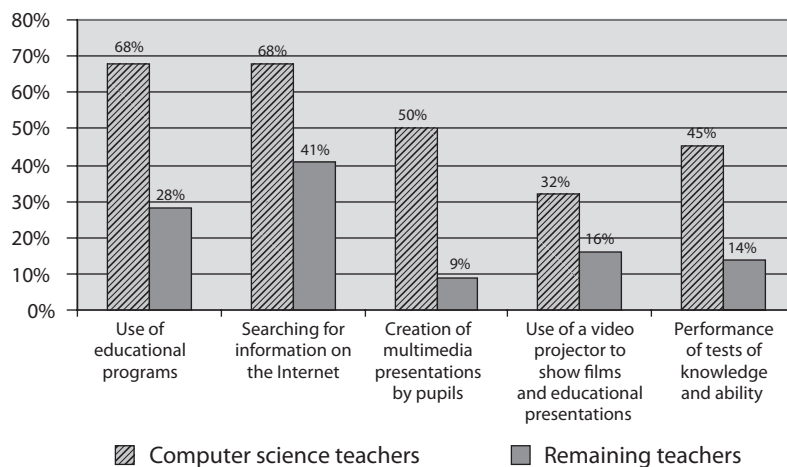
- delivery of basic information on the course and its progress to date,
- facilitation of communication with the individual leading group or other members,
- access to various sources of knowledge,
- publication of teaching materials online,
- location of an entire course on the Internet, together with the necessary exercises and tests (J. Pieronek, 2006, p. 278).

Analysing the statements made by the teachers of computer science and those made by the remaining teachers, a substantial divergence may be noted, presented in Figure 5. A decidedly greater number of the computer science teachers than that of the remaining teachers make use of the possibilities of the computer, which seems self-evident and a result of the specificity of the teaching of computer science, which consists in activities performed at a computer workstation. The largest difference between the statements (41 percentage points) appears for the response 'creation of multimedia presentations by pupils', this taking second place among the computer science teachers and final place among the remaining teachers. A further difference of 40 percentage points may be observed for the response 'use of educational programs'.

This results from the teachers' poor preparedness for the use of information technology or lack of opportunity for computer use in the course of a lesson. It should be recalled here that in only 24% of the primary schools surveyed were there computers in classrooms, with 29% of the teachers using a computer in their work.

The research conducted in the Netherlands and the USA confirms the above conclusions. The statements were made by the primary school pupils concerning activities for which a computer is used. The largest number of the pupils (63%) use a computer at school to browse the Internet, while 57% use it to read and write emails, 56% to gather information and 53% to learn vocabulary, mathematics or topography. The lowest number (11%) 'chat', while 12% use a computer to prepare presentations (Volman, E. van Eck, I. Heemskerk, E. Kuiper, 2005, p.8). Although these observations present the teacher activities at Dutch and American schools, they are in fact consistent with the observations obtained in the experiment described in this paper. We learn from the results of the research quoted that at the investigated Dutch and American schools the teachers emphasise first of all information search, followed by the use of educational programs (for vocabulary, mathematics and topography), use of email and finally use of a computer to present

Figure 5. Activities performed with the aid of a computer during lesson time – division by teachers of computer science and remaining teachers.



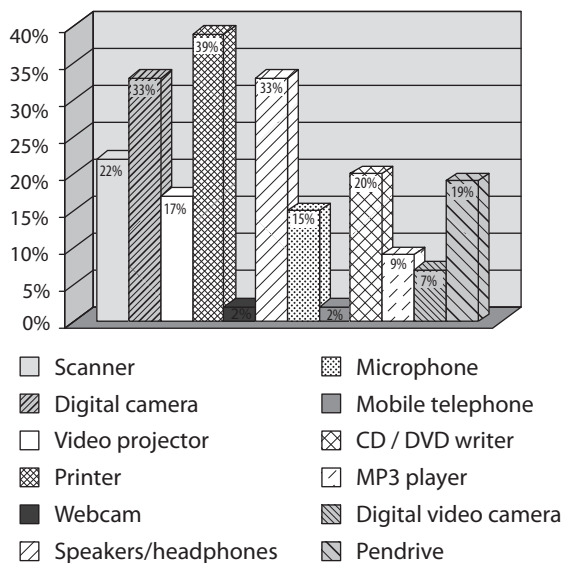
a personal point of view. The results of both surveys are thus comparable, with the reservation that the research quoted was conducted in 2003.

The software mentioned by the teachers surveyed includes functional programs, compilers, programs for teaching and operating systems.

The most frequently mentioned functional programs are *OpenOffice*, *MS Word*, *MS Excel*, *MS PowerPoint*, *CorelDRAW*, *PhotoShop* and *Gimp*. In the teaching program category are *Encounter with a Computer* (*Spotkanie z komputerem*), *Adventure with a Computer* (*Przygoda z komputerem*), *Computer Science 2000* (*Informatyka 2000*), *Computer Tales* (*Komputerowe opowieści*), *Computer Magic* (*Komputerowa magia*), *Mathematics 4–6* (*Matematyka 4–6*), *Dictation* (*Dyktando*) and *World History* (*Historia świata*). The third category is that of operating systems, formed of *MS Windows*, *Linux* and *DOS*. In the final category are programs mentioned only by the teachers of computer science, the compilers *TurboPascal* and *Delphi*.

The programs mentioned by the respondents serve in the achievement of development goals at primary schools. It is advisable, nonetheless, to be aware that these programs are matched to the needs and conditions of schooling. The quality of the multimedia programs for children currently available on the market raises concerns. Pondering the reasons for this state of affairs, K. Chmielewska paid attention to the fact that electronic materials are frequently prepared by specialists in computer science, distant from the reality prevailing at schools and with little knowledge of child cognitive psychology (I. Nowakowska-Buryła, 2007, p. 221).

Figure 6. IT devices utilised in key competence development.



With functional programs utilised widely in everyday life, primary schooling prepares pupils for their effective future use, and in the course of the teaching process, beyond specific subject knowledge, competences essential for proper functioning in society are being developed. The development of pupils' ability to use functional programs necessary for the performance of a given task (A. Ogonowska, 2006, p.147) means that information technology education becomes an education correlating knowledge and abilities in individual subjects.

Software would not fulfil its role were it not used in combination with information technology devices. Word processing software, for instance, used in the editing of a document, works in conjunction with a printer to provide a given document in a physical form. This utilisation of a number of different devices alongside other equipment enhances lessons and assists in key competence development. The extent to which information technology devices are utilised by teachers is presented in Figure 6.

The device most frequently utilised in key competence development is the printer, by 39% of the respondents. This is followed by the digital camera (33%), speakers and headphones (33%), the scanner (22%), CD or DVD writer (20%), pendrive (19%), VCR (17%), microphone (15%), MP3 player (9%), digital video camera (7%) and mobile telephone and webcam (2% each). It is once again worth

recalling that the research results presented here are a consequence of poorly equipped computer rooms and the poor preparedness of teachers as regards the use of these devices.

Conclusions

Summarising the research results presented here, it should be mentioned that the process of pupil development depends to a large extent on the teacher's competence. It is precisely these teacher abilities which, in the development process, exert a direct influence on:

- application of methods and forms of teaching,
- conditions under which a lesson is conducted,
- media and teaching materials used to achieve goals,
- attitudes of pupils and teachers.

The question here arises of whether teachers are fully able to develop the required competences in themselves. In the case of the teaching profession, the premise of full preparedness for the role and possession of complete professional qualifications remains in conflict with the essential work of the teacher. On account of the specificity of teaching, its non-standard and communicative nature, the competences necessary for the work are continuously changing and demand that revision be performed. It is possible to influence things, objects exhibiting standard behaviour, yet when dealing with the individuals who are the subject of development, it is difficult to speak of rules for conduct. Pupils themselves form a unique, unconventional, non-standard and individualised whole. It is difficult to predict the questions, problems and tasks with which pupils will present a teacher for resolution (E. Perzycka, J. Nowotniak, 2001). Nonetheless, it is advisable to make teachers aware that the development of competences in young people depends on the competence level of teachers themselves (K. Szorc, 2005 , p. 363). To conclude this discourse, there are several elements deserving isolation for exerting influence on key competence development and raising the level of pupil achievement. Among these elements may be counted teacher attitude, pupil attitude, forms of group activity, methods for independent pursuit of knowledge, instruments for key skill evaluation and conditions under which key competence development occurs. Central to enabling a high level of achievement in schooling, with parallel growth in key competence development during computer science lessons, is the activity of pupils in the course of the process.

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Learning Styles of University Students in Relation to Educational Methods

Abstract

The paper deals with the issue of learning style preferences in the population of university students. It presents the results of research which was conducted at three different faculties. The examination of individual styles is based on the experiential theory of learning (Honey-Mumford). The research results point to a significant preference for the activist and reflector styles, regardless of the respondents' gender and the specialization of their faculty. The learning style preference, however, does not correspond with the most often used educational methods (lecture, reference in seminars).

Key words: *learning style, activists, reflectors, theorists, pragmatists, educational methods*

Contemporary school is perceived as one focused on the learner, it means school which sees the learner as a unique personality and helps this personality to develop all his/her abilities, at the same time respecting and strengthening each learner's specific and unique self-fulfilment. The concept of creative-humanistic education stresses that learning should proceed easily, meaningfully and effectively, in the atmosphere of psychological security.

A precondition for achieving the full development of a learner's personality as well as a condition for effective learning is the knowledge of an individual's particular features, in which we can include both the cognitive style (Salbot, V., 2007; Salbot, V.-Sabolová, G., 2004) as well as the preferred learning style. The learning style belongs thus to factors which influence the outcomes of the learning process – possibly the best acquisition of knowledge, but also the development of

several dimensions of a learner's personality. To know these factors and use them purposefully is certainly a pedagogue's tool for effective activity. The learning style represents an individually different way, which an individual prefers for receiving and processing information, thus also information in the situation of education. The learning style includes a cognitive aspect as well as an emotional, motivational, target, regulating and social aspect; we perceive it as a broader category – as a cognitive style. According to Mareš's view (1998), we perceive the cognitive style as part of the learning style which plays the role of a mediator in learning; in addition, the learning style includes the concept of the curriculum, the concept of learning, and approaches to learning. When working with learners, it is possible to choose a different approach with regard to learning styles: to influence learning styles by means of an intentional, systematic activity and adapt them to the applied components of education, or vice versa – to adapt techniques, methods and the context of teaching to learners' styles. It seems to us that the second mentioned technique is more advantageous and more natural. However, it requires the knowledge, identification of preferred learning styles and understanding of connections between them and the effective use of certain educational methods (Vašašová, Z., 2007).

The literature presents several classifications of learning styles with different theoretical background; generally, there is a substantial ambiguity in this regard. In 2004, Coffield identified more than 70 models of learning styles. The well-known one is, for example, the typology by Myers and Briggs (in Buss, D.C., 1992) based on the Jungian understanding of temperament; Vester (in Belz, H.-Siegrist, M., 2001) focuses on differences in perception; Biggs (1998) distinguishes a surface, deep and achieving learning style (approach to learning); Entwistle and Ramsden (1983) identified styles focused on achieving, curriculum reproducing, and understanding of the meaning; Schmeck (1988), who prefers the term approach to learning (learning behaviour), differentiates between a surface, deep and strategic approach.

In our paper we applied Mumford and Honey's (1986, 1992) approach in order to examine the issue of learning styles. On the one hand, these authors developed the experiential theory of learning, which sees the process of learning as a cycle consisting of four stages (concrete experience, reflection on the experience, conclusion-generalisation, planning the next steps); on the other hand, on the basis of their own research and questionnaire (LSQ), they divided individuals into four various groups (activists, theorists, reflectors, pragmatists) preferring different learning styles. Each of the mentioned individuals, who differ in style, learns more effectively at one stage of the learning cycle:

1. **Activists (A)** – look for immediate experience, involvement in action; they learn through handling things directly, through active creative problem

solving; all kinds of activating are effective for them – experiential learning (plays, simulations, role plays, interactive methods, visual arts and motor activities and the like).

2. **Reflectors (R)** – stand back to ponder and reflect on the experience, collect data, learn from experience and observing others, from statements about the experience.
3. **Theorists (T)** – learn through deriving knowledge, its classification and integration into conclusions, theories, knowledge systems, through creating theoretical models; they prefer analysis, synthesis and generalisation of knowledge; they think problems through step-by-step, and are noted for systems thinking.
4. **Pragmatists (P)** – prefer the learning which contains obvious links and can be put into practice; they like solving practical situations; they do not like discussing theoretical problems; learn through planning practical steps, practical experimentation, through drawing conclusions for the practical use of gained knowledge.

The presented differences in the style of gaining information clearly indicate that individuals learn effectively when various educational methods are applied. The knowledge of learners' preferred styles is therefore a very good basis for applying adequate teaching methods which will enhance the effectiveness of their learning (Kariková, S. 2003).

Research objectives and methodology

The objective of the research was to find distribution of learning style preferences in the population of university students depending on the gender and various types of university, and to compare the found preferences with the frequency of currently applied educational methods.

On the basis of the research objectives we formulated the following hypotheses:

- H 1: We suppose that individuals differ significantly in their preferences for learning styles.
- H 2: We suppose that the most preferred learning styles include the activist style and the reflector style (measured by means of the Learning Styles Questionnaire – LSQ).
- H 3: We suppose that there is no significant difference in the learning style preference between respondents of different gender.

H 4: We suppose that there are significant differences in the learning style preferences between respondents from different faculties.

The **research sample** consisted of 253 students of the 2nd–4th years from three faculties – the Faculty of Humanities UMB (FH) – students preparing for the teaching profession (32.0%), the Faculty of Economics (FE) UMB (30.4%) and the Faculty of Electrical Engineering (FEE) University of Žilina (78.9%). The research sample contained 132 women (52.2%) and 121 men (47.8%).

The following **methods** were applied in our research:

- Honey and Mumford's Learning Styles Questionnaire – LSQ (1992), which measures the four presented learning styles and is based on statements about respondents' observable behaviour. We have characterized these learning styles above. The authors of the questionnaire produced norms for various categories of persons (trainers, different types of managers, university graduates and others); however, the LSQ has not been standardized on our population yet. That is the reason why in our research we used original norms designed for university educated individuals in order to categorize respondents in view of the preferred learning style.
- By applying our own questionnaire focused on the approach to learning and on the learning style, we examined various factors which are related to respondents' learning (preferred external circumstances, ways of preparing for an exam, motivation to learn and the like), among them also kinds of educational methods at respondents' faculty and their frequency.
- We processed the data by methods of descriptive statistics. Differences in the learning style preferences according to gender and faculty were tested by Wilcoxon signed-rank test. The statistical significance of correlations in the order of learning style preferences in the groups of respondents (according to the gender and faculty) was tested by Spearman's rank correlation coefficient R.

Research results

The frequency of learning style preferences in the research sample shows (Table 1) that the highest number of the respondents prefers the activist style (39.1%); more than a quarter of the respondents prefer the reflector style (26.9%). The third in the order of preferences is the theorist style (12.6%), and the fourth one is the pragmatist style (8.7%). However, measuring the learning styles showed that apart from "pure" style preferences, there are also individuals whose learning style is not unequivocal, but it is a balanced combination of two preferences. "Mixed",

combined learning styles were preferred totally by 12.6% of the respondents from the research sample, they include the activist – pragmatist style (in the Table AP column), which was preferred by 5.5% of the respondents and the reflector – theorist style (in the Table RT column) – 7.1% of the respondents.

H1 and 2 were confirmed by the research.

Table 1: Learning style preferences in the whole research sample

Learning style	Activists	Pragmatists	AP	Reflectors	Theorists	RT	n
N	99	22	14	68	32	18	253
%	39.1	8.7	5.5	26.9	12.6	7.1	100.0

In order to verify H 3 – the assumption about the insignificance of differences in learning style preferences according to gender – we used Wilcoxon signed-rank test and Spearman's rank correlation coefficient (coefficient R). Neither of the tests showed statistically significant differences between the individuals' percentage representation in learning styles in view of their gender. The order of learning style preferences in the group of women and men correlates significantly together, thus there is no statistically significant difference between them ($R=0.89865$, $p<0.01489$). H 3 was confirmed by the research.

In order to verify the validity of H 4, we used Spearman's rank correlation coefficient, by means of which we tested the significance of differences in the preference for styles according to individual faculties. We found that also in this case the correlation between the order of learning style preferences is statistically significant for all the cases; it means that the students from the Faculty of Economics do not differ in the order of their learning style preferences from the students of the Faculty of Humanities ($R=0.8286$, $p<0.04156$) and from the students of the Faculty of Electrical Engineering ($R=0.8857$, $p<0.01885$), just like the students of the Faculty of Humanities do not differ from the students of the Faculty of Electrical Engineering ($R=0.8857$, $p<0.01885$). H 4 was not confirmed by the research.

The learning style preferences of the respondents from the three faculties, expressed in percentage, are illustrated in Table 2.

In our opinion, it is worth noting – although it is not a statistically significant difference – that at the FEE the most preferred style is the reflector style (31.6% of the group), which is more preferred than the activist style (28.4% of the group). At this faculty, a substantial number of students also prefer the theorist style. The order of preferences at the FE and FH is identical with the preference of the whole research sample – the highest number of the students prefers the activist style.

Table 2: The numerical and percentage expression of learning style preferences according to individual faculties and in the whole research sample

Learning styles	Faculty						The whole sample	
	n	%	n	%	n	%	n	%
Activists	33	42.9	39	48.1	27	28.4	99	39.1
Pragmatists	8	10.4	4	4.9	10	10.5	22	8.7
AP	7	9.1	2	2.5	5	5.3	14	5.5
Reflectors	16	20.8	22	27.2	30	31.6	68	26.9
Theorists	10	13.0	8	9.9	14	14.7	32	12.6
RT	3	3.9	6	7.4	9	9.5	18	7.1
N=	77		81		95		253	

We consider this phenomenon to be interesting; it is obviously desirable to verify this result on a bigger research sample. The phenomenon described above could suggest that motivation to choose a specialization in the field of study (university), or content of the study can also be related to the preferred learning style.

The respondents were also given a Questionnaire of our own design, by means of which (inter alia) we were examining what kinds of educational methods were applied at their faculty and what was their frequency.

We asked the students to divide “100%” among five offered forms (methods) of education according to their share in the contemporary instruction at their faculty. The analysis of the questionnaire results clearly shows that classical teaching methods prevail significantly, i.e. lectures (explication), seminars (students’ reference), exams. These methods, according to the statements of the whole research sample, cover up to 70% of the classes. In essence, we expected this state; nonetheless, we are unpleasantly surprised by this picture which does not differ much at individual faculties (Table 3).

At the FH, which prepares future teachers who – in our opinion – should be experientially aware of various educational methods, classical teaching methods make up the lowest proportion of all the three faculties, yet a substantial one – 64%. This form is most widespread at the FEE (79 %). In view of the specialization of the faculty, we can expect a higher proportion of classical lectures, but the percentage recorded seems to be undesirably high. The students from the whole research sample and adequately also the students from individual faculties assigned much lower room to other forms or methods of teaching. Discussion-based teaching

Table 3: The percentage representation of forms (methods) of education according to university students

I assign to educational methods:	%							
	Sample	FE	FH	FEE	Activ-ists	Reflec-tors	Theo-rists	Prag-matists
Classical style (lectures, seminars)	70.3	69.5	64.4	79.4	68.6	63.0	78.1	71.5
Teaching through demonstration	7.1	4.5	9.4	5.7	5.1	9.4	7.5	7.5
Discussion-based teaching	10.2	10.5	13.5	6.7	11.9	10.3	7.1	11.5
Cooperative learning	7.9	9.3	7.4	5.3	9.4	11.8	5.5	4.9
Experiential learning	4.4	6.0	5.0	2.8	5.3	5.4	2.1	4.8

10%, cooperative learning – working together in groups 8%, teaching linked with demonstration 7%, discussion-based teaching and application of the method of experiential learning (plays, modelling and the like) only 4.4%.

Interesting results were yielded in a more detailed analysis of the respondents' view on prevailing educational methods in relation to their learning style preferences. In line with the overall trend, all the groups assigned the biggest room to classical teaching, however, the greatest to the theorists (78.1%). Other educational methods cover a very small area according to all the groups. Teaching linked with demonstration is the most intensely perceived by the reflectors, discussion-based teaching by the pragmatists and activists, cooperative learning by the reflectors and activists, experiential learning is the least mentioned by the theorists. The analysis of these results, which are presented in Table 3, could suggest that there is a certain selective focus of attention, since it seems that the respondents perceive their own way of learning, suitable for their style, more intensely than the others. However, it is only an assumption; the validity of these results should be verified in specially focused research on the subjectivity of perception.

Conclusions

The research results show that the most preferred learning style in the selected group of students from the three faculties is the activist style, it means a style for

which the most effective is learning from experience, through direct experience, by means of active personal involvement in the process of learning, by “doing” things and active experimentation. The second most preferred is the reflector style, i.e. a style for which the most effective is learning through reflection on the experience, by collecting information, exploring problems from various aspects. The third one is the theorist style, i.e. a style for which the most effective is learning through abstract thinking, by classifying information, generalizing, analysing and synthesizing knowledge and its integration into theories, by forming conceptions. This style is more preferred than the pragmatist style, which is the least preferred pure learning style in our research sample; pragmatists learn mainly by verifying and testing in practice.

In accordance with our presupposition, there is no significant difference in the learning style preferences in terms of gender. In contrast to our presupposition, there was no statistically significant difference in the learning style preferences in terms of the specialization of the study.

The findings of the research which we conducted at three faculties of Slovak universities correspond to the research findings by Mumford and Honey (1986), who state that the most preferred style – preferred by 50% of the population – is the activist style, 25% of the population prefer the reflector style and the remaining 25% is divided between theorists and pragmatists. The research on learning styles, in terms of Mumford and Honey’s classification, is described sporadically in our literature. In the survey which we conducted on a sample of 92 students of the 2nd year at the Faculty of Humanities (Oravcová, J., 1998), we obtained similar results (48.9% of the students preferred the activist style, 17.4% the reflector style, 4.3% the theorist style and one student favoured the pure pragmatist style; the remaining 28.3% of the students stated a combined learning style). Similarly, Pavlík (2000) who examined learning style preferences among 133 students at the Faculty of Forestry TU Zvolen, states that 65.4% of the students preferred either the activist or reflector styles, 15.8% the theorist style, and 16.5% the pragmatist style.

These findings show that most students from the research sample (regardless of their gender and faculty) are taught – if we view the methods in relation to the preferred learning styles – by educational methods which are not effective for them. We dare to make this claim, because according to the respondents’ statements more than 70% of the classes are in the form of a classical lecture which suits the theorist learning style – that is 12% of the students. This undesirable state was also confirmed by the respondents, when answering the question which method (form) of education they would prefer as the most effective one for them if they could choose; they stated explication connected with demonstration (52.2%), active (experiential)

learning (37.5%) and learning by discussion (33.6%). On the penultimate place there is a classical lecture (23.3%) and the least effective, to a minimum degree, is learning when listening to the papers presented at seminars (2 students – 0.8%). It follows from the presented results that taking into account individual specifics of learners (in this case preferred learning styles) and using them for effective instruction is not a domain of the examined faculties. This state can be regarded as undesirable. A way to change this state is obviously higher awareness of university pedagogues about the issue of learning styles, but undoubtedly also their bigger willingness to deal with learners' individual, particular features, to respect them and use them in the process of education. That is willingness conditioned by changing a pedagogue's personal attitude as a main factor in the humanization of training and education (Kariková, S., 1999; Vašašová, Z., 2004; Valilhorová, M., 2008).

In conclusion, we will present several remarks on the applied Learning Styles Questionnaire (LSQ). Since the questionnaire has not been standardized on the Slovak population yet, our results could be regarded as disputable. For that reason we calculated approximate norms on the given sample by applying various methods (derivation of norms from the percentile scale; z-score according to the normal distribution; calculation of norms through parameters and normal distribution – by assigning raw scores to individual z-scores which form the limits of a transformation scale through a normal curve; standardizing and normalizing to the scale of grades). The comparison of the norms showed that original and approximate norms do not differ significantly; there was only a moderate shift – a minimum one with the reflector, theorist and pragmatist styles, a slightly bigger one with the activist style. These calculations confirm our original measurement, but in view of the small normative sample it is only an approximate view on the Slovak population.

The LSQ and the theory of experiential learning brought about a relatively sharp discussion in foreign literature, and that mainly in relation to construct validity and reliability of both the theory as well as the questionnaire. The works by different authors yield results both in favour and against this theory and measurement method (Hayes, J.-Allinson, CH., 1993; Reynolds, M., 1997; Jackson, CH.-Lawty-Jones, M., 1996; Swailes, S.-Senior, B., 1999, 2001; Sadler-Smith, E., 1999 and others). A temporary conclusion of the discussion points to an unclear structure of the LSQ and of the experiential theory of learning, particularly in view of the number of factors included in the LSQ. On the other hand, however, the research of predictive validity, for instance, which can be understood as part of construct validity (according to Cronbach), shows adequate predictive validity, similarly adequate criterion-related validity (Hoff, 2000, Fung, 1993). All the authors conclude that it

is necessary to conduct more research and additional analyses of the questionnaire as well as analyses of the theory; despite that the LSQ in its original form is still used abroad (works by Jackson, Furnham, Forde, Cotter, Stubbs, and others).

We consider the research on learning style preferences to be important, also in view of enhancing the educational process. We therefore dare to invite readers – colleagues from other countries to participate in studying this issue within a specific national – cultural environment, and that also by using the LSQ. The revelation of trends in learning styles of students in other countries, but also the knowledge about styles of education here applied would certainly enrich our understanding.

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Maria Kozielska,
Romuald Kędzierski
Poland

Computer Simulation in Learning Physics as a Useful Teaching Method – a Report of Research

Abstract

This paper aims to present results of the research into an influence of the computer stimulation on training selected intellectual skills of students, during the process of learning physics in secondary school. The results show that by applying at the same time, a computer simulation and an actual experience, students may improve their analytical and creative thinking skills, as well as they can make better use of information technology. Furthermore, there is a higher level of understanding physical phenomena by students in this way of teaching, than in teaching by using only actual experiences.

Key words: *computer simulation, learning of physics, solving problems, individual work, natural pedagogical experiment*

1. Introduction

The modern education aims to train students in such a way that they are able to take an active part in analyzing and solving problems. They are taught to search for, organize and make use of information from various sources. Students are supposed to know how to make use of information technology in education and daily life. It is a significant change in comparison to the traditional school, which focuses on giving students as much information as possible. This is the essence of students' aspiration to function in an information and education society, in which a key factor is knowledge. That is why, the teacher's main task is to teach students how to make use of information technology in their life and education. As a consequence,

teachers consider which skills mentioned in the curriculum may be effectively trained by using information technology. It was justified to solve these problems by doing research on the process of learning physics in secondary school.

The question may appear: what is the purpose of applying computer simulations in the process of learning physics, when those simulations are virtual? A couple of reasons can be indicated in didactics. Computer simulations enable students to model and study physical phenomena in a situation when it is impossible to carry out research, for example, because of time, safety requirements or lack of proper instrumentation. In addition, they eliminate the gap between the real and theoretical worlds. Computer simulations help in creating subjective teaching conditions, which are perfect for students' individual work and interactive cooperation between them.

An answer to the question: what sort of skills may be effectively trained by applying computer simulations in a modern school – can be found in results of many pedagogical studies carried out at various education levels in various countries. Akpan (Akpan *et al* 2000; Barnea *et al* 1999) reports a positive influence of using simulations on the scope of knowledge, which is checked in testing. Furthermore, Betz and Gokhale (Betz, 1996; Gokhale, 1996) confirm a positive influence of computer simulations on the improvement of creative skills. It is said that simulations of physical phenomena cause the highest increase in cognitive skills among all types of simulations (Yildiz *et al* 1996). The research on the effectiveness of learning by using computer simulations has been carried out mostly on physics. The research on teaching mechanics in Slovakian schools leads to the following conclusions: the computer-aided education enables to teach about products of science and procedures of conduct, which may be useful for students in other subjects or future work (Hobec *et al* 2004). The results suggest that computer simulations are one of the most effective ways of using the computer in teaching physics, because they encourage students to ask questions, to predict, to make hypotheses, to carry out observations and to interpret results. Pedagogical studies, which were carried out in Polish schools and universities, also show that a rational application of information technology in the process of education has a cognitive, educational and didactic role (e.g.: Kozielska 2000; Tanas 1997). It creates subjective teaching conditions and increases learners' cognitive, research and creative activity of (Kozielska, 1999, 2004). Due to this fact, the effectiveness of computer-aided education is higher than in case of applying only traditional methods.

In most cases, the research mentioned above concerned studying – the highest level of education. That is why, it was important to carry out research on the effectiveness of computer simulations in secondary school. This paper aims to

present research into the influence of applying computer-aided education in the form of computer simulations, on the effectiveness of training analytical, practical and creative thinking skills of students, of understanding physical phenomena and making use of computer technology, during the process of learning physics in secondary school. The cognitive aim of the research was to define, according to the pedagogical experiment, the usefulness of applying selected tools of information technology in teaching physics, and to compare it with traditional methods. The practical aim was to increase the effectiveness of learning physics in secondary school in the scope of assumed education goals.

2. The research

By taking into consideration the amplexness of the term – computer technology, it was acknowledged that the factor which diversifies an experimental group from the control one will be application of a computer simulation, next to traditional methods of teaching. The analysis of areas where we can apply a computer simulation in learning physics, leads to arrangement of five studied hypotheses. It was assumed that the application of computer simulations in learning physics, next to traditional methods, will guarantee a higher level of skills: analytical thinking (H_1), making use of information technology (H_2), understanding of physical phenomena (H_3), practical (H_4) and creative thinking (H_5); in comparison to the level achieved during a non-computer-aided education.

It is worth explaining that the term ‘analytical thinking’ was understood as a skill of performing various mathematical operations by students; especially presenting and analyzing relationships between physical quantities in functional or graphical forms. In turn, the term ‘making use of computer technology’ was understood as proficiency in using data collection programs, in processing this data and in modeling physical phenomena. The program that was used in the research was Excel spreadsheet. To define the term ‘understanding of physical phenomena’, researchers took into consideration the level of understanding selected physical phenomena and relationships between various parameters which influence its course. During the research on the practical thinking skill, they assumed that this skill improvement should result in understanding how the appliances which they encounter every day, work. For the purpose of the presented research, ‘creative thinking’ was understood as an ability to solve problematic tasks, in which a student had to use his/her creative thinking skills.

Table 1: Juxtaposition of results and their statistical interpretation

			H1		H2		H3		H4		H5	
The research on a class	Determined parameters	The research stage	E	K	E	K	E	K	E	K	E	K
First grades	The average group's score	I	7.52	5.78	8.08	6.16	7.63	6.35	7.48	7.15	4.59	3.36
		II	8.52	6.98			7.90	5.78			5.18	3.73
	Wilcoxon rank sum test $z_{0.05} = 1.96$	z	3.19		2.42		2.38		0.53		2.76	
		Interpretation	Relevant		Relevant		Relevant		Irrelevant		Relevant	
		z	2.70				3.30				3.94	
		Interpretation	Relevant				Relevant				Relevant	
	Mann-Whitney U test $z_{0.05} = -1.96$	z	-3.20		-2.43		-2.38		-0.53		-2.76	
		Interpretation	Relevant		Relevant		Relevant		Irrelevant		Relevant	
		z	-2.70				-3.30				-3.94	
		Interpretation	Relevant				Relevant				Relevant	
	t test for independent samples with different vari- ations	t'	3.423		2.712		2.423		0.461		2.820	
		t'0.05	2.045		2.045		2.045		2.045		2.045	
		Interpretation	Relevant		Relevant		Relevant		Irrelevant		Relevant	
		t'	2.658				3.470				4.062	
		t'0.05	2.045				2.045				2.045	
		Interpretation	Relevant				Relevant				Relevant	

				H1		H2		H3		H4		H5	
The research on a class	Determined parameters		The research stage	E	K	E	K	E	K	E	K	E	K
Second grades	The average group's score		I	7.75	6.20	9.04	6.96	8.22	6.32	8.43	7.60	5.05	4.08
			II	6.83	6.87			8.55	6.65			5.07	4.11
	Wilcoxon rank sum test z0.05 = 1.96	z	I	2.79		2.47		3.45		1.17		2.17	
		Interpretation		Relevant		Relevant		Relevant		Irrelevant		Relevant	
		z	II	0.06				3.51				2.15	
		Interpretation		Irrelevant									
	Mann-Whitney U test z0.05 = -1.96	z	I	-2.79		-2.48		-3.45		-1.17		-2.17	
		Interpretation		Relevant		Relevant		Relevant		Irrelevant		Relevant	
		z	II	0.06				-3.51				-2.16	
		Interpretation		Irrelevant				Relevant				Relevant	
	t test for independent samples with different variations	t'	I	2.905		2.562		3.689		1.293		2.206	
		t'0.05		2.045		2.045		2.045		2.045		2.045	
		Interpretation		Relevant		Relevant		Relevant		Irrelevant		Relevant	
		t'	II	-0.066				3.663				2.231	
		t'0.05		2.045				2.045				2.045	
		Interpretation		Irrelevant				Relevant				Relevant	

Source: Data from Table come from our own calculations

I, II – numbers of stages; z , t' , $t'_{0.05}$ – test functions; E, K – the experimental group and the control group respectively. Results in the scope of: H₁ – students' ability of analytical thinking; H₂ – making use of information technology skill; H₃ – understanding of physical phenomena; H₄ – practical thinking skill; H₅ – problematic thinking skill.

The research was carried out by comparing parallel groups (control and experiment) at two stages and by using rotation of groups. The research took place during the physics lessons in technical college and in specialized secondary school from the Technical School Complex in Leszno in 2006 and 2007. In first grades, the research was carried out during the execution of the following sections of physics: The motion, its commonness and relativity (stage 1), The energy and its transformations (stage 2). Whereas, in second grades the content of education concerned: The geometrical optics (stage 1), The quantum optics (stage 2). The achieved results of learning physics were a global oblique variety. Information technology in the form of computer simulations, which was introduced to the process of education, was the experimental factor which diversified the tested student groups. It was assumed that other factors were fixed. During the experimental lessons, the students performed computer simulations of the questioned physical phenomena. The results were written down on work cards prepared by the teacher. Then (at home), students carried out the tasks which were assigned on those cards. It required an analytical and graphical presentation of results. Furthermore, they solved open and closed tests, which studied the understanding of simulated physical phenomena. In addition, every work card included a problematic task which exceeded the curriculum but was connected with it. At the end of every stage, a test of knowledge and skills of students was carried out in every scope of the research. The obtained results (H_1 , H_2 , H_3 , H_4 , H_5) are shown in Table 1.

3. Results and interpretation

For every correct solution of given tasks the maximum number of points which students could score, was 13 for H_1 and H_3 , 16 for H_2 , 14 for H_4 and 10 for H_5 . As presented in Table 1, the average scores of the experimental group are higher than the average scores in the control group. We can observe this in every tested hypothesis and at every stage of the research, both in first and second grades. The only exception is the average scores at the second stage of the research on the analytical thinking skill in second grades. In this case, the score in the control group is 0.04 higher ($W_{E, sr} = 6.83$, $W_{K, sr} = 6.87$). The better scores in the experimental group do not mean that computer simulations have a positive influence on improving students' skills. They would have a direct influence on them if the difference between the scores of the tested groups were in favour of the experimental group. That is why it was crucial to verify the hypotheses by using statistical tests.

In case of all the five hypotheses, a zero hypothesis H_0 was made, which has the following structure: “There is no difference between the average results of the experimental E and control K groups”, which means that they are the same. The term ‘average results’ was understood as an average number of points obtained for solving tasks, which were created to verify a given hypothesis. If the mean of the results were defined as W_{sr} , then the zero hypothesis could be represented as follows:

$$H_0: W_{E,\text{sr}} - W_{K,\text{sr}} = 0 \quad \text{or} \quad H_0: W_{E,\text{sr}} = W_{K,\text{sr}} \quad (1)$$

To check the research hypotheses we used: a non-parametric Wilcoxon rank sum test for two independent samples, Mann-Whitney U test and “t” test for two independent samples with different variations (Fergusson *et al* 2003). The simultaneous application of varied tests resulted from the need for hypotheses verification by using different instruments, for their adoption or rejection to be as reliable as possible. The Wilcoxon rank sum test for two independent tests was used to define test function z in the form of:

$$z = \frac{|R_E - R_K| - 0,5}{\sigma_{R_E}} \quad (2)$$

and function z_p which takes into account numerous bonds in the form of the following formula:

$$z_p = \frac{|R_E - R_K| - 0,5}{\sqrt{\frac{N_E \cdot N_K}{N \cdot (N-1)} \cdot \left(\frac{N^3 - N}{12} - \sum T \right)}} \quad (3)$$

where: N_E , N_K – the number of students in the experimental and control groups respectively, $N = N_E + N_K$ – the number of students in the whole group, R_E – a sum of ranks for the experimental group E, $R_{E,\text{sr}}$ – the average sum of average ranks for the experimental group.

$$R_{E,\text{sr}} = \frac{N_E \cdot (N_E + N_K + 1)}{2} \quad (3a)$$

σ_{R_E} – square root from distribution variation R_E

$$\sigma_{R_E} = \sqrt{\frac{N_E \cdot N_K \cdot (N_E + N_K + 1)}{12}} \quad (3b)$$

t – the number of results bond with a given rank, $\sum T$ – a sum after every group bond.

$$T = \frac{t^3 - t}{12} \quad (3c)$$

The rejection of the zero hypothesis in undirected test occurred if $z_p > 1.96$ (significance level 0.05), $z_p > 2.58$ (significance level 0.01).

In case of the Mann-Whitney U test, test statistics were defined by using the following formula:

$$U_E = N_E \cdot N_K + \frac{N_E \cdot (N_E + 1)}{2} - R_E \quad U_K = N_E \cdot N_K + \frac{N_K \cdot (N_K + 1)}{2} - R_K$$

$$z = \frac{U - \frac{N_E \cdot N_K}{2}}{\sqrt{\frac{N_E \cdot N_K \cdot (N_E + N_K + 1)}{12}}} \quad (4)$$

where: N_E , N_K – the number of students in the experimental and control groups respectively, R_E , R_K – a sum of average ranks for the experimental group E and control group K, U – we take a smaller value U_E or U_K . The rejection of the zero hypothesis in undirected test occurred if $z > 1.96$ or $z < -1.96$ (significance level 0.05), $z > 2.58$ lub $z < -2.58$ (significance level 0.01).

During the application of the “t” test for two independent samples and with different variation, the following test function was defined:

$$t' = \frac{W_{E, \text{sr}} - W_{K, \text{sr}}}{\sqrt{\frac{\sigma_E^2}{N_E} + \frac{\sigma_K^2}{N_K}}} \quad (5)$$

where: N_E , N_K – the number of students in the experimental and control groups accordingly, W_{sr} – the average number of points obtained in tasks, which tested

hypotheses in the whole group (E or K), σ_E^2, σ_K^2 – the variation of the results of the whole control work for the experimental and control groups respectively, which was calculated for the hypothesis. A critical t' value, which was required at the 0.05 significance level, amounts to:

$$t'_{0,05} = \frac{\frac{t_E \cdot \sigma_E^2}{N_E} + \frac{t_K \cdot \sigma_K^2}{N_K}}{\frac{\sigma_E^2}{N_E} + \frac{\sigma_K^2}{N_K}} \quad (6)$$

where: t_E – t value (from tables) for the 0.05 relevance level with levels of latitude $N_E - 1$, t_K – t value (from tables)) for the 0.05 relevance level with levels of latitude, N_E, N_K – the number of students in the experimental and control groups respectively, σ_E^2, σ_K^2 – the variation of results of the whole test in the experimental and control groups accordingly, which was calculated for the made hypothesis. If inequality $t' > t'_{0,05}$ is satisfied, then there is a significant, statistical difference between averages from both tests (Ferguson *et al* 2003)

In consequence of the statistical analysis of the results, which was carried out in accordance with the above requirements, the authenticity of the first second, third and fifth hypotheses was proved. It was claimed that the application of computer simulations has a significant influence on the improvement of students' analytical thinking skill. It was clearly seen in the area of analyzing relationships between various physical quantities in a graphical form. It results from the fact that computer simulations give an opportunity to analyze physical quantities quickly and comfortably. As expected, computer-aided education increased the students' ability of using computer technology in the area of collecting data and its processing. On the one hand, this results from the fact that students meet with this software (the spreadsheet) more often. On the other hand, computer simulations give an opportunity to generate more measurements than during real experiments. In consequence, it enables students to discover many experimental results, which trains their skills.

It was observed that computer simulations of physical phenomena have a positive influence on training abilities of understanding phenomena, for example by understanding how a change of parameters influences the course of a phenomenon. By seeing visualization, students can better understand relationships than by using only a mathematical formula which defines this phenomenon. Furthermore, because of the short time of lessons, computer simulations enable students to analyze those

relationships more quickly and to a greater extent than during real experiments. The fact that students can simulate experiments at home has a significant influence on those skills improvement. In case of real experiments it is usually impossible. The results of the presented research confirm the thesis of natural subjects didactics that students' independent observations and experiments have the biggest influence on the level of understanding physical phenomena. In case of training practical skills, such as understanding how a device with which students meet every day works there is no confirmation of computer simulations influence. From the point of view of didacticism these are very hard issues, because the effective improvement of those skills requires various methods and forms of education.

The results of training creative thinking skills lead to the conclusion that computer-aided education has a positive influence on their improvement but does not guarantee achieving a high level. It is known that to improve this skill students have to be taught how to think. By taking into consideration the complexity of this process, we claim that this skill improves more during carrying out real physical experiments. Computer simulations only support this process by creating a diverse environment which enables students to be creative.

4. Conclusions

The research shows that next to traditional methods, applying computer simulations during physics lessons in secondary school have a positive influence on the education and improvement of understanding physical phenomena and analytical and creative thinking skills and on making use of information technologies. It is worth highlighting that a simulation should enable students to study a mathematical model of a phenomenon but cannot be considered as a study of reality. Furthermore, from the point of view of physics, computer simulations cannot replace real experiments, which are possible to be carried out in a physical lab. It should be a supplement of it.

What sort of conclusions and observations result from this research? Which of them may be useful for teachers during physics lessons in secondary schools?

The application of computer simulations during classes enables teachers to present a course of physical phenomena, which are impossible to present for various reasons. It is crucial that by using a computer simulation, a teacher can easily speed up or slow down the course of a simulated phenomenon, carry it out many times, quickly change various parameters and observe its influence on the course. Furthermore, students have a chance to carry out a simulation on their computers

at home. The attractive visual form of the simulation is also important, because it leads to a greater interest of students in the merits-related content of the subject.

By using simulations it is possible to record given values and to analyze them by using graphs. This presentation of results makes it easier for the students to interpret them in comparison with the sequence of numbers placed in the table. It saves time during presentation of results and enables their easy analysis. Students can lengthen the time of various parameters simulations and observe how it influences a studied physical phenomenon. Furthermore, an interpretation of given data may be also carried out after classes, by using computer tools, such as spreadsheets. It supports recording the physical content of carried out simulations. The presented educational practice shows that computer programs which include a simulation of physical phenomena have more teaching values than illustrations from textbooks, slides and even animated films. By choosing values of parameters, a student may influence the course of the observed phenomenon, repeat or stop it.

Observation of students during the research indicated that application of the computer technology enables to create a friendly atmosphere by making subjective and incentive work conditions. From the point of view of education psychology, it creates an atmosphere in which students may initiate actions, learn how to be more independent, analyze and make conclusions. The application of computer simulations enables teachers to give students more information by involving various senses. As the presented research confirms, students gain more knowledge and improve their skills in four out of five test scopes. The above conclusions are also confirmed in the research into the effectiveness of applying a computer-aided education in other subjects, such as biology, chemistry or mathematics.

To summarize, we may acknowledge that the obtained results give a practical hint to use both, actual experiences and computer simulations of phenomena, during the process of learning physics. By taking into consideration the advantages and disadvantages of both ways of presenting physical phenomena, we think that in many areas they will complement each other. They create conditions for more effective training of students' skills, which are desired from the point of view of teaching physics. It is worth mentioning that the results of the presented pedagogical experiment are concurrent with the results of other research mentioned earlier. The research indicates that a rational application of multimedia technology in the process of education creates subjective work conditions which increase the cognitive and creative activity of students.

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Murat Peker

Turkey

The Effects of an Instruction Using Problem Solving Strategies in Mathematics on the Teaching Anxiety Level of the Pre-Service Primary School Teachers

Abstract

The purpose of this study was to investigate the comparison of an instruction using problem solving strategies in mathematics methods course with an instruction using a traditional textbook. There were a total of 70 pre-service primary school teachers involved in the study. The participants were divided into two groups, experimental and control groups. Thirty six of them were included in the experimental and thirty four of them were included in the control group. The research was conducted in a mathematics methods course. While the participants in the experimental group were exposed to the problem solving strategies during the instruction, the others in the control group followed the traditional instruction. In the collection of the data, the researcher employed the Mathematics Teaching Anxiety Scale (MATAS) including twenty three items. This instrument was administered to the participants before and after seven weeks of instruction. After the collection of the data, the researcher used the independent samples t-test and ANCOVA to analyze the quantitative data. The study showed that there were statistically significant differences regarding the teaching anxiety level between the control and experimental groups favouring the experimental group. In other words, the participants who were exposed to the problem solving strategies had a lower teaching anxiety level in mathematics than the others.

Keywords: *mathematics teaching anxiety; pre-service teachers; mathematics; problem solving strategies.*

Introduction

Research has documented that many secondary school and college students have learning difficulties and show poor performance in mathematics (Maccini and Hughes, 2000; Quinn and Spencer, 2001; Owen and Fuchs, 2002; Halat, 2006/2007). There are many variables, such as learning styles (Sloan, Daane, and Giesen, 2002; Peker, 2005), lack of parental support (Engelhard, 1990; Uusimaki and Nason, 2004), gender (Altermatt and Kim, 2004), lack of self-confidence (Uusimaki and Nason, 2004; Brady and Bowd, 2005), mathematics anxiety (Baloğlu, 1999/2001), teacher-beliefs, environment (Uusimaki and Nason, 2004), teachers' mathematics knowledge (Halat, 2008), instruction (Vinson, 2001; Iossi, 2007), problem solving skills (Owen and Fuchs, 2002; Altun and Memnun, 2008) that appear to affect students' mathematics learning. Problem solving has been a major focus of the mathematics education reform for a long time. The fundamental goal of mathematics teaching and learning is to develop an ability to solve mathematical problems (MEB, 2004). Moreover, Akinsola (2008) and Altun and Memnun (2008) claimed that problem solving is one of the most important subjects in mathematics teaching.

Furthermore, according to Hohn and Frey (2002), if educators are to improve mathematical understanding, they may need to use instructional procedures that include problem solving strategies in mathematics. Godbey (1997) stated that in everyday life our students face many situations that involve mathematical problem solving. Especially in their decisions they face many difficulties. Mathematics anxiety is one of the crucial factors affecting students' problem solving skills, achievement and motivation in mathematics (Akinsola, 2008). Besides, according to Uusumaki and Nason (2004), the teacher's content knowledge plays important role in students' mathematics anxiety. At this point, this argument highlights the importance of the mathematical and pedagogical curricula followed in the teacher preparation programs. Therefore, in this study, the researcher is trying to find out the effects of an instruction using problem solving strategies in a mathematics methods course on the pre-service primary school teachers' teaching anxiety level.

Research into Problem Solving in Mathematics

According to Halmos (1980), problem solving is the heart of mathematics. At this point, what is problem and problem solving? The problem has been defined as "a situation that requires a solution and/or decision, no matter whether the solution is readily available or not to the solvers" (Fan and Zhu, 2007, p.64). A problem

is a planned question for which the answer is not known. For example, $17+26$ is a problem to most children at nursery school, but should not be a problem for a child in the second grade. In fact, $17+25$ is an exercise related to addition. But, “Ali had 17 toys. He got 25 more toys. How many did he have then?” is a mathematical problem related to addition. Problem solving is a planned procedure for which the problem cannot be solved.

Polya (1957) argued that problem solving should be a legitimate topic in teaching and learning of school mathematics. But, the first major call for problem solving in mathematics education appeared in 1977. Many researchers have made great efforts since then in studying issues concerning problem solving (Fan and Zhu, 2007). In 2003, the Program for International Student Assessment (PISA) and Trends in International Mathematics and Science Study (TIMSS) included a special focus on problem solving. Therefore, in school mathematics, problem solving has occupied a central place for a long time and problem solving is an essential part of all mathematics learning. According to Willoughby (1985), problem solving like bicycle riding, requires lots of practice. Students should have regular experience, work with others, and formulate and solve their own mathematical problems. In addition, problem solving has been defined as a process of confronting a new situation, formulating connections between given facts, identifying the goal, and exploring possible strategies for attaining the goal (Szetela and Nicol, 1992).

According to Akinsola (2008), to many mathematically literate people, mathematics is synonymous with solving problems. He claimed that many mathematical concepts can be introduced through problems based on familiar experiences coming from students’ everyday life or mathematical context. When students try different ideas in solving problems, the teacher can help them to converge their ideas concerning the solution of the problem, thus providing a meaningful introduction to a difficult concept. Students need to develop strategies for problem solving, such as drawing diagrams, looking for patterns or guessing and checking, etc. If teachers teach these strategies to their students students may easily use them in solving problems.

According to Polya (1957), following a strategy or heuristic procedure is assumed to provide a more systematic or planned approach to problem solving. Researchers have established various models to describe a general problem-solving process (e.g., Polya, 1957; Hohn and Frey, 2002). Among these models, Polya’s four-stage model is used most commonly in mathematics teaching (Fan and Zhu, 2007). The process of solving word problems is divided into four stages by Polya (1957): understanding the problem, devising a plan, carrying out the plan, and looking back.

Description of the four problem-solving stages

Understanding the problem has been explained as extracting and assimilating information from the given, determining the aim of the problem, reconstructing the problem if necessary, and introducing suitable notations (Fan and Zhu, 2007). At this stage, students understand the problem.

Devising a plan has been clarified as making a general plan and selecting relevant methods, or more appropriately, heuristics, that might be useful for solving the problem based on the understanding of the problem at the first stage (Fan and Zhu, 2007). At this stage, students examine the connection between the data and the unknown. In fact, a plan depends on suitable strategies or heuristics (Altun and Arslan, 2004).

Carrying out the plan has been explained as carrying out the plan devised at the preceding stage, and keeping the track to obtain the answer (Fan and Zhu, 2007). If the solution is not found, the strategy or heuristic is changed (Altun and Arslan, 2004).

Looking back has been clarified as checking the correctness of the solutions, reflecting on key ideas and processes of problem solutions, and generalizing or extending the methods or results (Fan and Zhu, 2007).

According to Fan and Zhu (2007), Polya's four-stage problem-solving model in terms of general strategies, provides general guidance for solving mathematics problems. But, in actual specific problem solving heuristics are often more practical. In this study, 17 specific problem solving heuristics were included and all of them can be found in the literature. These problem solving heuristics were listed below: acting it out, changing your point of view, drawing a diagram, guessing and checking, logical reasoning, looking for a pattern, making a systematic list, making a table, making suppositions, restating the problem, simplifying the problem, solving part of the problem, thinking of a related problem, using a model, using a before-after concept, working backwards, using an equation.

There are many studies discussing the problem solving strategy (or heuristic) instruction and its results. Altun and Memnun (2008) claimed that 80 % of the problem solving success could be explained by the problem solving strategies (or heuristic). According to Verschaffel *et al.* (1999) the learning environment had a significant positive impact on the development of students' problem solving skills, enjoyment of and persistence in solving mathematical problems and on their beliefs and attitudes toward the learning and teaching of mathematical problem solving. Altun and Memnun (2008) reported that problem solving instruction developed the pre-service teachers' self-confidence, presented them with new ideas

on how to study systematically. Moreover, De Corte (2004) claimed that heuristics significantly increase the possibility of finding correct solutions.

According to Wheatley (1984), if teachers use the heuristics or strategies for solving problems, students will be encouraged to develop other strategies for solving problems. When students have learned these heuristics or strategies they can break out of rule-oriented learning and think for themselves. For example, *Problem*: A farmer had chickens and rabbits. One day he saw 15 heads and 50 feet. How many rabbits did he see? Given a problem like the above-mentioned non-routine problem many primary school students use the guessing and checking strategy. Mauch and Shi (2004) discussed a possible method for teaching an example of problem solving to intermediate students. They stated that students may see the links between the 'guess' method and the arithmetic operation 'strings', and this may help enhance their logical thinking ability as well as arithmetic operation skills. Higgins (1997) reported that problem solving instruction had a positive impact on students' problem solving ability, attitudes towards mathematics, and beliefs about mathematics. Akinsola (2008) stated that there was a significant relationship between the mathematics anxiety and problem solving ability of the in-service mathematics teachers. Harper and Daane (1998) investigated the pre-service primary school teachers' mathematics anxiety before and after a mathematics methods course. They found significant reduction in the level of pre-service primary school teachers' mathematics anxiety at the end of the course.

Research into Teaching Anxiety in Mathematics

Over the past 35 years, mathematics anxiety has become a very popular research area for mathematics educators and educational psychologists (Trujillo and Hadfield, 1999). Recently, mathematics anxiety is a vital common phenomenon from primary school pupils to university students. According to Baloglu (1999/2001), mathematics anxiety comes first among the most crucial problems in mathematics teaching and learning. The research has demonstrated that there were many studies done on pre-and in-service teachers' mathematics anxiety (Austin, Wadlington, and Bitner, 1992; Tooke and Lindstrom, 1998; Trujillo and Hadfield, 1999; Vinson, 2001; Uusimaki and Nason, 2004; Brady and Bowd, 2005; Malinsky, Ross, Pannells, and McJunkin, 2006; Gresham, 2007/2008; Akinsola, 2008). For example, according to Tooke and Lindstrom (1998), pre-service primary school teachers have negative attitudes toward mathematics, are not confident in their own mathematics ability, and claim to have a high level of mathematics anxiety. Uusimaki and Nason (2004) reported that pre-service teachers' negative beliefs and anxiety about mathematics have a powerful impact on the practice of teaching. The origin of pre-service

teachers' negative beliefs and anxiety about mathematics could be attributable to prior school experiences, such as their experiences as a mathematics student, the effect of prior teachers and of teacher preparation programs (Uusimaki and Nason, 2004; Malinsky *et al.*, 2006).

According to Trujillo and Hadfield (1999), there were many similarities among the experiences of pre-service primary school teachers, such as negative school experiences, lack of family support, general test anxiety. They stated that all pre-service teachers suffer from mathematics anxiety, and that despite these disadvantages, all of the participants plan to employ the constructivist and developmental methods they learned in their college mathematics methods classes in order to make mathematics meaningful to their own students. Furthermore, Austin *et al.* (1992) mathematics anxious primary school teachers pass this anxiety to some of their students. Akinsola (2008) reported that mathematics anxiety contributed mostly to the problem solving ability in mathematics. Therefore, this situation implies that the more mathematics anxiety of pre – and in-service teachers the weaker their mathematical problem solving ability.

Recently, teaching anxiety about mathematics is also a common phenomenon among pre-and in-service teachers (Levine, 1996; Liu, 2008). There were many studies done on the teaching anxiety about mathematics (Levine, 1993/1996; Peker, 2006/2008/2009a/2009b, Peker and Halat, 2008/2009; Liu, 2008). Gardner and Leak (1994) conceptualized the teaching anxiety as an anxiety experienced in relation to teaching activities that involve the preparation and execution of classroom activities. The teaching anxiety about mathematics can be defined as teachers' anxiety which occurs during the teaching of mathematical concepts, theories and formulas or during problem solving (Levine, 1993; Peker, 2006). According to Levine (1993), the anxiety about teaching mathematics is a frequent fear of pre-service teachers and it is associated with teaching mathematics. Levine (1996) claimed that pre-service primary school teachers usually experience anxiety about teaching mathematics and show feelings of mathematics anxiety. Anxiety concerning mathematics teaching may reflect real or perceived knowledge deficits in mathematics content as well as in mathematics teaching skills, and memories of past occurrences of mathematics failure or mathematics anxiety (Levine, 1993). Abstract discussions regarding mathematical concepts increased the teaching anxiety of the pre-service primary teachers who had a high level of anxiety about teaching mathematics (Levine, 1996), but using manipulative materials, getting familiar with developing creative teaching strategies for mathematics teaching and learning reduced the teaching anxiety level of the pre-service primary school teachers (Levine, 1996; Vinson, 2001). Furthermore, Peker (2008) found that when the need for finding

concrete examples for pre-service teachers' teaching is increasing, the pre service teachers' levels of anxiety about mathematics teaching are also increasing. Peker (2006) stated that there were several factors, such as content knowledge, pedagogical knowledge, attitudes towards mathematics and self-confidence related to both mathematics anxiety and mathematics teaching anxiety. According to Peker and Halat (2008), gender was not a factor among pre-service primary school teachers' mathematics teaching anxiety.

The Purpose of the Study

The study focused on the effects of problem solving strategies in mathematics on the pre-service primary school teachers' teaching anxiety level and the comparison of an instruction using problem solving strategies in mathematics methods course with an instruction using a traditional textbook. In particular, the researcher tries to find out the answer to the following question:

What differences are there in terms of the teaching anxiety level between the pre-service primary school teachers who were exposed to an instruction using problem solving strategies and the pre-service primary school teachers who were exposed to a traditional instruction in a mathematics methods course?

Method

In this study, a quantitative method was used in analyzing the data. Because survey instruments were administered and numerical data was collected. According to Wiersma (2000), when theory-testing research is being done it is likely to be quantitative research (p. 12). This study tested the problem solving instruction in a mathematics method course. The research design used was based on a quasi-experimental pre-test/post-test comparison group design. This is the one commonly preferred in educational studies (McMillan and Schumacher, 2001). According to Wiersma (2000), when conducting educational research, there are many situations in which random assignment of participants is not an option. Participants are seldom assigned at random to programs. Quasi-experimental research involves the use of intact groups of participants in an experiment, rather than assigning subjects at random to experimental treatment (p. 128). In this study, the researcher created two groups, an experimental one and a control one. Whereas the experimental group included pre-service primary school teachers who were instructed with the problem solving strategies, the control group comprised pre-service primary school teachers who were instructed based on a textbook in the

classroom. The study was conducted during the spring semester of 2008, and it took seven weeks.

Participants

In this study, the researcher followed the convenience sampling procedure in which the participants are not randomly selected. According to McMillan and Schumacher (2001), a convenience sample is a group of subjects selected on the basis of being accessible or expedient and it is convenient to use the group as subjects. This could be a university class of a professor who is doing research into college students (p. 175). In this study, the participants just enrolled in a mathematics method course in a primary teacher education program.

There were 70 pre-service primary school teachers, 36 (51%) in the experimental group and 34 (49%) in the control group, involved in this study. The participants were pre-service primary school teachers who enrolled on a mathematics methods course at Afyon Kocatepe University in Turkey. The pre-service teachers volunteered for the study and they willingly participated in the instructional and practical process. The participants, enrolled in two classes, were randomly divided into two groups, experimental and control ones. The experimental group contained 19 (53%) females and 17 (47%) males, and the control group contained 18 (53%) females and 16 (47%) males.

Instrument

In this research, the Mathematics Teaching Anxiety Scale (MATAS), which was developed by Peker (2006), was used. The Mathematics Teaching Anxiety Scale is a five-point Likert-type scale with 23 positive and negative items. The researcher made a factor analysis that revealed four factors, Content Knowledge – 10 items (factor loading ranging from 0.53 to 0.86), Self-Confidence – 6 items (factor loading ranging from 0.57 to 0.76), Attitude towards mathematics teaching – 4 items (factor loading ranging from 0.61 to 0.70), and Teaching knowledge – 3 items (factor loading ranging from 0.68 to 0.78). The reliability estimate of the MATAS obtained by using Cronbach's alpha measure for the total scale was 0.91, and for each of the subscales : 0.90 (Content knowledge), 0.83 (Self-confidence), 0.71 (Attitude towards mathematics teaching), and 0.61 (Teaching knowledge), respectively.

The aim of using this scale was to find out the mathematics teaching anxiety levels of the pre-service primary school teachers. The following are several statements from the MATAS so as to give some information about it; "I get anxious when it comes to the point of teaching some mathematical topics", "It is very easy

for me to teach mathematics”, “I like answering questions about the topic I am teaching”, “Throughout my career as a teacher, I think I can make use of the different views and theories about teaching mathematics”. The participants were asked to rate the statements on a five-point scale: Completely Agree, Agree, Undecided, Disagree, Completely Disagree. The negative statements were weighted from 5 to 1 and positive statements were reversed. Therefore, the total of points determined the mathematics teaching anxiety scores of pre-service primary school teachers. The highest score a person can make is 115 (23×5), and the lowest is 23 (23×1). While calculating the scores of the pre-service teachers’ mathematics teaching anxiety, the total points according to the criteria determined above at the 23-item scale are considered. The aim of using this scale is to determine the pre-service primary school teachers’ anxiety levels and anxiety scores, then to analyze the difference between the scores.

Procedure

The researcher conducted this study in the mathematics methods course for pre-service primary school teachers. It requires solving routine and non-routine problems based on major mathematical concepts, such as operations in numbers, fractions, and measurements, developing teaching methods, hands-on activities, and manipulative materials that are appropriate for primary school pupils from the 1st to 5th grades, and learning how to teach problem solving. These were the main principles of the course offered to the pre-service primary school teachers at the Primary School Teacher Education Programs. The participants were given the Mathematics Teaching Anxiety Scale (MATAS) as pre-and post-tests before and after seven weeks of instruction.

During the treatment, the pre-service primary school teachers in the experimental group solved the routine and non-routine problems by different problem solving strategies (or heuristics). The researcher followed the problem solving procedures that include two layers – general strategies, which adopted Polya’s four-stage problem solving model, and specific strategies, which consisted of 17 different problem solving heuristics that are acting it out, changing your point of view, drawing a diagram, guessing and checking, logical reasoning, looking for a pattern, making a systematic list, making a table, making suppositions, restating the problem, simplifying the problem, solving part of the problem, thinking of a related problem, using a model, using before–after concepts, working backwards, using an equation.

First, the researcher (instructor) introduced the problem solving strategies to the participants in the experimental group. And then he distributed a copy of the

problem solving strategies (or heuristics). He demonstrated how a problem solving strategy (or heuristic) could be applied to a sample problem, and provided several similar problems for individual practice. They used some hands-on activities and manipulative materials for organizing problem solving. For example, when the instructor taught the use of a model in problem solving, they used blocks, abacus, and rods. After the practice, the pre-service teachers also investigated all the problems in the textbook adapted for the course.

Problems were related to numbers, operations, fractions, perimeter measurement, measurement areas, time, and logic. The main role of the researcher in the classroom was just to help the pre-service teachers develop their creative approaches while solving the problems. The participants in the experimental group were divided into small groups. After doing a set of problems in small groups, they met and discussed strategies. This encouraged the pre-service teachers to make decisions themselves, rather than seek only the right answer. In any set of problems, the pre-service teachers might expect to use any operation and any heuristic. The instructor observed the solutions carried out in the groups. He asked particular questions to make the pre-service teachers understand the problems and recommended to make plans with peers to see relations with similar problems they had already known. When the pre-service teachers reached the correct solution, they persuaded to evaluate their solutions. During the problem solving sessions they were free to interact with each other and with the instructor.

In the control group, the instructor followed the traditional teaching method. The pre-service primary school teachers in this group just used the adapted course textbook. In this method, the participants read the problem, decided what to do, and they solved it and checked their answers. The instructor guided the pre-service teachers about problem solving in the textbook. Yet, he did not teach the problem solving strategies. They just solved all the problems in the textbook. They were not required to do any additional coursework.

The pre-service primary school teachers in each group took 4 hours of mathematics instruction a week.

Analysis of Data

The data were responses from the pre-service primary school teachers' MATAS. Before and after the treatment, the MATAS was administered to the pre-service primary school teachers both in the experimental and control groups (NE=36; NC=34). There was no time limitation for the testing session, however, most pre-service teachers finished the MATAS within 15 minutes. The collected data, then, were analyzed using One-way analysis of covariance (ANCOVA) with $\alpha=0.05$,

which is a variation of ANOVA, to adjust for pre-test differences that exist between the control and experimental groups. “For instance, suppose in an experiment that one group has a mean value on the pre-test of 15 and the other group has a pre-test mean of 18. ANCOVA is used to adjust the post-test scores statistically to compensate for the 3-point difference between the two groups. This adjustment results in more accurate post-test comparisons. The pre-test used for the adjustment is called the covariate” (McMillan, 2000, p.244). In other words, because of the initial differences in regard to the pre-service mathematics teachers’ teaching anxiety in mathematics between two groups.

Results

Q: What differences are there in terms of the teaching anxiety level between the pre-service primary school teachers who were exposed to an instruction using problem solving strategies and the pre-service primary school teachers who were exposed to a traditional instruction in mathematics methods course?

The pre-service primary school teachers’ teaching anxiety scores in mathematics, before and after the problem solving strategy instruction, were calculated. ANCOVA adjusted pre-test differences and compared post-test results. Table 1 shows the descriptive statistics for the pre-service primary school teachers’ mathematics teaching anxiety level based on the MATAS scores, and indicates that there is a change in the participants’ teaching anxiety levels between pre – and post-test scores for both groups. There was a decrease between the pre – and post-test scores in the teaching anxiety level of the participants in both groups. In Table 1, the mean

Table 1: Descriptive statistics for the pre-service primary school teachers’ mathematics teaching anxiety.

	N	Pre-test		Post-test		Post-test*	
		M	SD	M	SD	M	SE
Experimental Group	36	53.083	12.861	44.833	9.437	44.845 ^a	1.70
Control Group	34	53.177	11.968	51.353	11.708	51.341 ^a	1.75
Total	70						

Note. a: Covariates appearing in the model are evaluated at the following values: pre-test = 53.129.

*Estimated Marginal Means.

score of the control group on the pre-test ($M=53.177$) was numerically higher than that of the experimental group ($M=53.088$). Similarly, the mean score of the participants in the control group on the post test* ($M=51.341^a$) was numerically higher than that of the experimental group ($M=44.845^a$). However, although there was a decrease in both groups' teaching anxiety level, the decrease in the experimental group's teaching anxiety level was higher than that of the control group's.

Table 2 presents the analysis of covariance (ANCOVA) for both groups as to the participants' teaching anxiety level, and is based on the Mathematics Teaching Anxiety Scale. It demonstrates a significant main impact for the pre-service primary school teachers who were exposed to problem solving strategies, [$F(1, 70) = 7.108$; $p = 0.010 < \alpha = 0.05$]. In other words, the participants in the experimental group had a lower teaching anxiety level in the mathematics methods course than the ones in the control group.

Table 2: Summary of ANCOVA for pre-service primary school teachers' mathematics teaching anxiety

Sources	Sum of Squares	df	Mean square	F-statistic	p-value
Pre-test	696.274	1	696.274	6.612	.012
Group	737.810	1	737.810	7.108	.010*
Error	6954.490	67	103.798		
Total	169664.000	70			

Note: $\alpha=.05$, * $p=.010$, * $p<.05$.

Discussion and conclusion

Research has shown that there are some studies regarding the effectiveness of teaching strategies in mathematics methods courses to identify and reduce mathematics anxiety or anxiety about teaching mathematics of pre-service teachers (Levine, 1996; Harper and Daane, 1998; Vinson, 2001; Bursal and Paznokas, 2006; Gresham, 2007; Liu, 2008). This study is also about teaching anxiety based on a mathematics teaching instruction using problem solving strategies. The study revealed that there were statistically significant differences in terms of the teaching anxiety level between the pre-service primary school teachers who were exposed to the problem solving strategies and the ones who followed the traditional instruction in the mathematics methods course. In other words, the participants who

were exposed to the traditional instruction had a higher teaching anxiety level in mathematics than the ones who were exposed to the instruction using problem solving strategies.

The results of this study confirm several research findings (Harper and Daane, 1998; Vinson, 2001; Hohn and Frey, 2002; Brady and Bowd, 2005; Akinsola, 2008; Liu, 2008; Peker, 2009b; Peker and Halat, 2009). For example, Harper and Daane (1998) found statistically significant reductions in mathematics anxiety of pre-service primary teachers at the end of a mathematics method course. They reported that mathematics anxiety was attributed to the strict and structured instructions. For them, the main factor causing mathematics anxiety was problem solving. Akinsola (2008) stated that in-service teachers with high mathematics anxiety had lower problem solving skills; in-service teachers with low mathematics anxiety had higher problem solving skills. Furthermore, Hohn and Frey (2002) found that problem solving strategies or heuristics could be taught and the use of heuristics improved students' problem solving skills. For them, if educators wanted to improve mathematical understanding, they might need to use instructional procedures that include problem solving strategies or heuristic instructions. The current study implies that a problem solving strategy instruction reduces anxiety about teaching mathematics of pre-service primary school teachers, and it confirms the above-mentioned studies.

It is absolutely important that such anxieties should be reduced before pre-service primary school teachers become teachers (Liu, 2008), because they demonstrate a higher level of mathematics anxiety than others (Hembree, 1990; Trujillo and Hadfield, 1999; Peker, 2008). Moreover, Hembree (1990) claims that mathematics anxiety causes a decrease in mathematics achievement and negatively affects performance. According to Brady and Bowd (2005), mathematics anxiety and its impact on confidence in teaching were related to the pre-service teachers' experiences with mathematics instruction. Similarly, Akinsola (2008) stated that the fear of mathematics was shaped by past experiences. This study also implies that when we encourage pre-service teachers in problem solving, they will develop their self-confidence in mathematics.

Why would teaching of problem solving strategies reduce teaching anxiety in mathematics? One explanation may be that having a good understanding of a problem solving process is the first step in learning how to teach it, and the instruction using problem solving strategies gives pre-service teachers a chance to learn the way how to teach. In the experimental group, the instructor demonstrated how to solve a problem, how a problem solving strategy (or heuristic) could be applied to a sample problem, and provided several similar problems for individual practice.

Moreover, the participants in the experimental group used some hands-on activities and manipulative materials for organizing problem solving, such as blocks, abacus, and rods. Gresham (2007) reported that concrete experiences helped pre-service teachers who had a better understanding of mathematical concepts. Also she stated that the use of manipulatives aided pre-service teachers in learning how to teach mathematics. According to Vinson (2001), pre-service teachers' mathematics anxiety levels were reduced after using manipulative materials. At this point, they tried to act like teachers while solving problems. So, they might have learned how to teach.

The participants in the experimental group were divided into small groups. In small groups, when problems were given to solve, they met and discussed which strategy they could use. The teaching of problem solving strategies had positive effects on the pre-service primary school teachers in the experimental group. These positive impacts were sharing knowledge, discussing with friends and the instructor, supporting each other in a small group, and applying the problem solving strategies in the right place and in the right way. This encouraged the participants to make decisions themselves, rather than seek only the right way. They learned how to teach solving the problems in different ways. Therefore, this may have reduced the pre-service primary school teachers' teaching anxiety in mathematics.

Research has documented that problem solving is very important in mathematics learning and teaching (e.g., Harper and Daane, 1998; Hohn and Frey, 2002; Akinsola, 2008; Altun and Memnun, 2008). For example, According to Akinsola (2008), good problem solvers analyze situations carefully in mathematical terms and they pose problems based on situations they see. Altun and Memnun (2008) reported that the instruction using problem solving strategies provides extra instructional support for teaching of pre-service teachers how to decide what to do. This is in line with the findings of the current study.

The pre-service teachers in the control group were exposed to the traditional teaching method. In other words, they solved the problems individually, avoiding information exchange with friends during the lesson, they did not use the entire problem solving strategies; they were not exposed to the entire problem solving strategies. They only solved the problems in the textbook. They solved the problems by using a few strategies, such as drawing a diagram, guessing and checking, using an equation. Therefore, this might have caused a higher level of teaching anxiety in the participants of the control group.

In short, this study concluded that there was a statistically significant difference in regard to the mathematics teaching anxiety level between the pre-service primary school teachers who were exposed to the problem solving strategies during

the instruction and their counterparts who followed the traditional instruction in the mathematics methods course. This was in favour of the ones who were exposed to the problem solving strategies. In other words, instruction using problem solving strategies in mathematics teaching and learning may cause a decline in the teaching anxiety level of pre-service teachers. Therefore, if the teacher education programs hope to influence the development of effective instructional practices for trainee teachers, they should focus on the problem solving instruction in the mathematics methods course.

Implications and Recommendations for Practitioners

The current study has several possible implications and suggestions for practitioners. The results of this study imply that using different problem solving strategies in mathematics methods courses plays an important role in the pre-service primary school teachers' teaching anxiety. In this study, using different problem solving strategies decreased the teaching anxiety level of the pre-service teachers. This study also underlined the importance of problem solving strategies in mathematics teaching and learning, which enhances problem solving skills and achievement in mathematics, and reduces mathematics anxiety (Hohn and Frey, 2002; Altun and Arslan, 2004; Altun and Memnun, 2008; Akinsola, 2008). Furthermore, this supports the recommendation of Vinson (2001) stating that the pre-service teachers were better able to understand teaching and learning of mathematics when they were exposed to different strategies. Therefore, this study recommends that educators at the Primary Teacher Education Programs should teach how to solve problem and problem solving strategies.

This study also implies that According to Akinsola (2008), teachers play prominent roles in their students' performance in mathematics and problem solving skills. Therefore, if educators create an environment that encourages pre-service teachers to teach problem solving, pre-service teachers may develop their confidence in mathematics teaching.

Limitations and Future Research

The findings of this study should not be generalized to all pre-service teachers because this is not purely experimental research. The researcher followed the quasi-experimental study and convenience sampling procedure in the study. In this research design, the control group was compared with the experimental group, but the participants were not randomly selected. Therefore, this research design limits the findings of the study. Besides, the researcher followed the convenience sampling procedure. Therefore, this sampling also limits the findings of the study.

But, according to McMillan and Schumacher (2001), this does not mean that the findings are not useful. Another apparent limitation of this study was the 7-week span of the intervention, during which time the participants had their course.

There is enough support to encourage further research into the use of problem solving strategy instruction in Teacher Training Programs (Owen and Fuchs, 2002; Altun and Arslan, 2004; Altun and Memnun, 2008). For example, Altun and Memnun (2008) reported that during the problem solving instruction process, pre-service teachers' self-confidence improved.

The findings of this study encourage others, such as mathematicians, educators, and researchers to implement and evaluate its appropriateness in teacher education.

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Investigation into the Teaching Approaches Implemented in Community Lifelong Learning Programmes

Abstract

The “new” demands of our everyday life schedules would tap upon the essentialities of lifespan education. Life span learning would enable us to cope with the rapid global changes. This study explored the teaching approaches adopted in lifelong learning programmes implemented in the Malaysian community colleges. The four-month intensive study involved two selected community colleges in the country. Questionnaires were a source of quantitative data and were analysed using descriptive statistics. Qualitative data obtained through interviews and observations was analysed using manifest coding. The findings showed that a blend of pedagogical and andragogical approaches was adopted for different courses to cater for the varying learning needs of the participants, since lifelong learning programmes featured an “open” and flexible entry system. Observation data revealed that the dissemination of relevant knowledge and skills required for the course was either a well-defined segment or worked in synchrony with the experiential tasks. The courses involved in this research required “hands-on” skills as stipulated learning outcomes, with a characteristic “case-by-case” task analysis and a “step-by-step” task analysis emerging in the teaching process. The lecturer was “switching” authoritative and facilitative roles at various stages of the teaching process.

Key words: *pedagogy, andragogy, authoritative, facilitative, experiential learning.*

Introduction

An industrialized status in 2020 has been Malaysia's long-term visionary goal. To strive towards achieving this target, a reserve of competent and skilful workforce is essential. With the momentum of change increasing in the 21st century, there is an urgent need for continual upgrading of skills and knowledge to support new emerging demands. Formal education systems may not be the only answer for sustainable development, as stringent prerequisites eliminate participation. Community learning is an alternative pathway which could be optimized upon to enable the workforce to face a new set of challenges and uncertainties. Lifelong learning is certainly not a separate entity in addressing this issue of sustainable progress and escalating change. This is a necessity not an option in the new millennium.

The international and local literature documented on teaching approaches in the schooling system is extensive. However, there is a lack of literature on explicit teaching approaches implemented in community learning. The "open entry" policy for the pursuit of lifelong learning programmes is the driving force for this research. This study explored the operating teaching framework of lifelong learning programmes.

Background of the study

Community colleges are higher education institutions established since 2001, under the jurisdiction of the government (Ministry of Higher Education 2006). The establishment of community colleges aims at providing educational opportunities for everyone, with the ultimate aim of attaining educational equity. This would catalyse the development of a resourceful human capital. Lifelong learning programmes in the country are flexible and accessible to any healthy Malaysian citizen. Thus, there is a wide spectrum of audience that needs to be catered for, ranging from young children, youth, adults, and even senior citizens. The factor of chronological age is not the only variable to cope with but a host of other variables, namely mental age, qualification, occupation, prior knowledge in the specific course, programme schedules, etc. The intentions of the participants vary ranging from leisure to career development. The learner might only have a narrow outlook of the "need" in an authentic workplace situation, i.e. how much is needed for a workplace situation. Furthermore, which workplace situation is the course tailored for?

The documented literature shows that adults are taught differently compared to children at pre-school, primary school or secondary school. Adult learning or andragogy refers to the “art and science of helping adults learn” which is process-oriented (Knowles 1980). Adults pursuing lifelong learning courses in community colleges know what they want to learn and how much they want to learn as their pursuit is mainly for specific purposes, either for career change or professional development. In contrast to the andragogical model is the pedagogical model, which is a content-based model, emphasizing the dissemination of information and skills. Pedagogy literally means the “art and science of teaching children” (Knowles 1973). The knowledge and skills that need to be transmitted are pre-determined. Thus, the sequence of content from simple to abstract has to be planned with caution. The choice of appropriate and effective strategies to be implemented in transmitting the specific knowledge content has to be rationalised. According to Polson (1993), one would not be able to differentiate whether an individual is an adult learner or child learner, as an individual exhibits different and mixed learning styles of an adult and a child (Knowles 1973). Since participation in lifelong learning programmes is on a voluntary basis, the highly motivated participate with different intentions. Thus, it can be assumed that adults would be self-directed in their learning process as well as being teacher-directed at other times.

Unlike the separate terms of pedagogy and andragogy, Knudson (1980) proposed a combination of pedagogy and andragogy, which was termed as humanagogy. Humanagogy takes into consideration the similarities and differences that exist between adults and children in the learning process. Humanagogy is referred to as a “holistic” approach to adult education because it does not eliminate what adult educators already know about the way children learn and what they know about the way adults learn.

Participants pursue lifelong learning courses for a variety of purposes and each purpose is linked with specific expectations. Now, there arises a dilemma on how to cope with the teaching process. The option of an “open entry” system permits varying entry behaviour. The target audience would be a heterogeneous group which implies that the teaching approaches need to be “best” customized for the particular group. If the group comprises solely young children, then the teaching approaches for the particular course have to cater for the needs of children. Thus, how can appropriate teaching strategies be planned and customized? What basis is used for planning and customization? Is there involvement from prospective employers and potential employers? Is it realistic to assume that participants have no prior knowledge in the courses they are pursuing? Having made this unre-

alistic assumption, would it be easier to plan courses and subsequent follow-up courses?

Lifelong learning programmes being at the “budding stage” in this country need to take extra caution in adapting appropriate teaching approaches that will fulfil participants’ needs. With an open entry for lifelong learning courses, involving participation from young children, youth, adults and senior citizens, and the continuous debate of pedagogy, andragogy and humanagogy, it is critical at this juncture to investigate the teaching approaches implemented in lifelong learning programmes.

Purpose of the study

The present study will explore the teaching approaches implemented in lifelong learning programmes.

Research questions

Specifically, this study is aimed at answering the following:

To what extent are the pedagogical and andragogical approaches implemented in the various occupational clusters:

The occupational cluster courses offered by community colleges are:

- (i) Computer and Information Technology – MS Word Level
- (ii) Hospitality and Tourism – Cake baking and Decoration; Muffin preparation
- (iii) Apparel and Fashion – Traditional Riau costume; Tailoring curtains
- (iv) Interior Design and Handicraft – Door gift
- (v) Health Sciences – Traditional massage
- (vi) Business Studies – basic Company Management
- (vii) Automotive – Air conditioning system

Design and methods

A multiple-site, multiple case study approach was used to explore the teaching approaches implemented in lifelong learning programmes. The participants involved were randomly selected groups of participants pursuing short-term courses in two community colleges. The community colleges were selected on the basis of the enrolment number and the variety of courses planned during the period of research. A sample of 111 participants was involved in this research. Both qualitative and quantitative techniques were employed. Two lecturers were

interviewed and a total of seven courses were selected for this research. Questionnaires designed for target groups involved in this study served as a source of quantitative data. The qualitative data was gathered through observations and interviews to obtain insight “meaning” of the quantitative data. Interviews were conducted “real-time” in the form of an amiable chat during the teaching and learning process.

Findings and discussion

Prior to discussing the teaching approaches implemented in the community colleges, it is appropriate to present an overview of the participation in the lifelong learning programmes offered in the two community colleges during this period of research. It is important to take note that the lifelong learning programmes in the context of the community colleges refer to short courses conducted mainly during weekends and school holidays.

(i) Background of participants

Background information of the participants revealed that there is representation from a wide range of ages, the youngest participant being 16 years old and the oldest participant being 57 years old, already retired from his profession. Basic hairdressing, basic catering management courses and air-conditioning courses had hardly any significance for these groups of senior citizens as they had relied on other parties to do the job or had no intention of pursuing a career or personal interest. Courses in demand were simple living skills courses for hospitality, namely cake baking, decoration and door gift. This is probably due to the pattern of lifestyle one resorts to upon retirement from work and during this period of life family links become extended. The participants in the age category of 26 – 35 years old were young adults who had just completed university or college programmes. They were seeking a vocation to embark upon or they attended these programmes for personal self-fulfillment. This category also comprises people looking for a career change or personal interest. There is a wide spectrum of qualifications and occupations among participants in lifelong learning programmes. This is due to the fact that the courses offered are for survival and daily living. Quoting muffin preparation and pasta preparation as a new “age” diet among the younger generation, it becomes increasingly important for daily living. Traditional massage course is in demand among the urban senior citizens.

(ii) Teaching Perspective of Community College Management

The top management of the community college was interviewed regarding the implementation plan for the teaching processes. In an interview session with the policy makers of this programme, it was revealed that the approach used during short courses was 100% “hands-on”. Lifelong learning courses focused on the acquisition of skills, especially “new skills” required for living, survival and well-being (Interview M1, S2). Participants pursuing these programmes primarily have their own intention. The “open entry” for lifelong learning programmes has enabled participation from varying background, qualification, working experience and prior knowledge.

This finding has implications in the teaching and learning process. The heterogeneity can pose a dilemma in planning and implementation of appropriate teaching approaches. Although, it is critical to ascertain prior knowledge of participants, it is not practical to ascertain every individual’s starting point in an authentic learning situation. Thus, certain assumptions were made in planning and implementation of courses. In a course targeted for the basics, the planning and implementation would operate on a framework that participants do not have any prior knowledge. Thus, having made this assumption, the teacher or the facilitator would begin by disseminating important information that is necessary for the development of the knowledge and skills required for the course. Although the “hands-on” approach was recommended as most of the courses are skill-based, participants’ manipulative skills would be a variable.

Development and acquisition of “new” hands-on skills is not a single process. Repeated practices over a period of time would refine the competences of the skills involved. In any course, there are multiple skills which may or may not be dependent with equal importance on the coordination of the interrelated skills. An individual might be complex and this requires time and practice. Although lifelong learning courses have stipulated learning outcomes, not all participants would have attained the same “end-point”.

(iii) Interviews and Observations of Authentic Teaching

Observation of the courses implemented depicts a defined sequence in the teaching process. The car air-conditioning maintenance course was observed and this is a five-hour module. The first hour or the first hour and a half is allocated for theory or theoretical study. This is followed by demonstration activities performed by the instructor. The demonstration session enables students to see, “step-by-step,” the development of the activities. The aim of this segment is to disseminate necessary knowledge, skills and techniques. In this manner, all participants are expected

to have reached the same entry behaviour for the course. This theory session is followed by “hands-on” activities which involve small groups. The objective of the course is to enable participants to acquire the knowledge and skills which are useful in their daily life. Small group training enables total participation in performing tasks. A participant “brought in” his own car for air conditioning maintenance. The rationale was to familiarize the participant with the air-conditioning system in his own car and to handle and manage his own car as maintenance needs to be done periodically. The intention of the participant was to learn for daily use and to be knowledgeable (Interview P1, S3).

The following is an excerpt of the experiential process in implementing this course.

“The lecturer teaching the course when interviewed revealed that the “theory class is about one hour and the practical class is about 4 hours. For today, we remove the recoil and then we teach students how to service the air-conditioning unit. We teach the basic theory. When the student has problems with their car, they know how to solve it. Actually, for the full course, it would take 5 days. 5 hours is only for one part of the course”.

The entire course was conducted in stages for five weeks. This flexible and suitable course structure makes it possible for the “working class” to participate during the weekends. The course conducted was structured according to the level of difficulty. The lecturer revealed that if the level of difficulty were very high utilising sophisticated instrumentation, participants would not be able to perform the tasks because the components may not be readily available. Thus, basic components used in teaching car air-conditioning system would enable participants to carry out the tasks without any hassle. In other words, the practical and “do-able” course prepares participants for potential entrepreneurship. The courses designed are gender-friendly, i.e. female participants are able to manage the demands of the course. Female participants have pursued basic car maintenance courses, which includes techniques of changing car tyres (Interview L2, S4). The basic courses cater for living and survival skills. Specialized courses, too, are conducted for mechanics to “up-grade” skills and to diversify their job functions.

In an interview, the air-conditioning course coordinator, identified as C4, mentioned that the participants who needed extra knowledge were advised to pursue “follow-up” courses to “upgrade” skills and knowledge. Thus, short courses were conducted for this group of participants. It is critical to note at this juncture that the community college caters for the personalized need of the participants. An example,

quoted by the course coordinator was the case of a new car model manufactured in a local automobile industry was designed with an entirely new air-conditioning system. As the lecturers in the community college may lack expertise in this new “high-tech” knowledge, experts from the automobile company were invited to train the participants. In this manner, the lecturers, too have an opportunity to be involved in these courses to “up-grade” their skills and to keep abreast with the current developments. The synergy of effort between community colleges and industries would elevate the position of community colleges as centres for enriched lifelong learning. This involves metacognition, “thinking about thinking,” in the teaching process and cultivates “on-going” professional development. Lifelong learning programmes offer part-time diploma courses which involve collaboration with private companies and industries. This symbiotic partnership benefits both parties, i.e. the community college and the companies/industries. Participants are a source of human resource for the company and, at the same time, they obtain “first-hand” and current “up-dates” in the respective area of specialization. Teaching personnel from the local automobile company can utilize the facilities available in the community college to train technicians/mechanics or aspiring technicians/mechanics. By focusing the training in the community college, members of the community become aware of its existence, purpose, facilities and services provided. This indirectly serves as publicity for future participation from the community. This collaboration would benefit the community college as a learning hub with extended links to pursue relevant courses. The excerpt clearly illustrates problem-based learning, which is a teaching methodology that engages students in authentic learning activities that use professional problems of practice.

The coordinator (C2) of the car air-conditioning course in the same community college assisted the lecturers during courses, as it involves workshop safety. According to C2, safety in the workshop is continuously monitored while participants are involved in “hands-on” activities during automotive courses. Course content is “up-dated” regularly to cater for present market needs. He cited an example of “sourcing instructors from a local automobile company to up-date participants on the knowledge and skills required for servicing new models of locally assembled cars available on the market.” Lecturers, too, get an opportunity to attend courses conducted by external agencies for up-skilling, re-skilling and multi-skilling. These findings indicate that lifelong learning programmes employ diversification techniques through authentic practitioner involved teaching. Thus, lifelong learning programmes are dynamic in diversifying the framework of teaching, shifting from an academic expert perspective to an authentic workplace practitioner perspective. This perspective places learning in the context of job realities and “trick-and-trade” of the

profession. Lifelong learning courses are participated by members of the community, irrespective of age, gender, qualification and professional status. This has been made possible by the flexible and open entry for any healthy Malaysian citizen.

The following is an observation of the teaching-learning process during a tailoring course conducted in Community College A. The participants were involved in making a traditional costume. The participants were briefed on basic knowledge and skills required for tailoring this costume. The “hands-on” lesson began with the participants taking their body measurements. The instructor demonstrated the art of taking body measurements. The lecturer emphasized that “taking measurements was an important step and extra caution needed to be taken in performing this task”. The next step proceeded with the participants drawing patterns based on their body measurements on a tracing paper. The third step involved cutting the material and the final finishing involved tailoring the material. During the “hands-on” activities, the instructor paid personalised attention to the participants. The instructor repeated explanations to the participants who had problems following the lesson. The outcome of the two-day course is a finished traditional costume product. These courses implemented 70% of a “hands-on” approach and 30% of theory.

The teaching processes involved a blend of content and process emphasis as in the pedagogical and andragogical approaches. The pedagogical approach involved dissemination of information which was evident of the lectures. Participant P1, who attended the traditional costume-tailoring course, admitted that she did not have any knowledge or skills on “how” to tailor the costume. According to P1, the lecturer explained the entire process in front of the class using a white board. The lecturer then demonstrated practically the art of drawing patterns and the participants recorded the information in their notebooks. The participant was of the opinion that this method was effective. Participant P3, during the interview commented that the teaching staff are qualified and the teaching approaches that the lecturer used was practice-based, which was simple and easily understood. There were opportunities for the participants to ask questions, if they could not understand. The participants were guided “step-by-step” throughout the “hands-on” sessions. This approach was process-oriented as in the andragogical model, as it provided an authentic learning experience that the participants required to accomplish the tasks.

A “stage-by-stage” analysis was performed for basic hairdressing, traditional costume, curtain tailoring (“box pleat”) and door gift. Some of the steps for the tasks are reversible if identified at the appropriate stage. These are risk-based stages which the teacher or facilitator needs to be aware of, as failure of accomplishment of sub-tasks at a particular stage would be detrimental if the process is subsequently

continued to the next phase. This was evident in the observation of the traditional costume course. Tailoring any costume would involve taking body measurements of the person for whom the costume is designed. The next stage involved drawing the pattern using these measurements. But, if the body measurements were inaccurately taken, then the measurements used in the pattern would be inaccurate, and errors would become cumulative. The costume, thus, would not fit the intended person. The “damage” of the final costume cannot be rectified as the initial risk-based stage was not given due attention in the teaching process. Thus, lifelong training programmes implement teaching approaches that emphasize tasks that are problem-based used as a stimulus, “stage-by-stage” analysis as problems emerge and “case-by-case” analysis of the final outcome. Authentic problems are used as an initial stimulus for the study of air-conditioning as implemented in the course which is contrary to the muffin preparation, cake baking and decoration, pasta preparation, whereby problem-based learning becomes an “on-going” experiential process occurring in stages and in cases. This calls upon a blend of authoritarian and facilitator roles incorporating formative and summative assessment in the teaching and learning processes.

The curtain making course instructor, identified as L5, in Community College B during an interview session mentioned that the course was module-based. The approaches implemented varied, ranging from information dissemination through lectures, notes, and demonstrations to practical sessions. Since the participants were diverse, the lecturer adopted demonstration, “hands-on” activities and this sequence was repeated in stages. Demonstration was essential scaffolding in the teaching process as it enabled the participants to remember and to follow accordingly. The course leader and the course coordinator had similar opinions regarding this teaching strategy. There were cases where a minority of the participants inquired for more information than that stipulated in the course specification. In these cases, the instructor had “back-up” information which had been pre-prepared to be given to the participants, if the need arises. The information was distributed in the form of simple notes, which is user-friendly. For cases where there is a lack of expertise in specific disciplines, specialists are sourced from other agencies.

Certain courses are dominated by housewives who may not be in the high academic category. According to the head of the institution, identified as H1 of Community College B, implemented teaching approaches need to be suitable for the target group. Teaching has to be simple and easily understood by any group of participants. Courses comprise elements of theory and practical sessions. H1 quoted an example of Malay traditional costume tailoring, where the lecturer adopted a “step-by-step” model of teaching, assuming that the participants lacked

background knowledge in this field. The participants were informed to bring essential items for the course; e.g. in a tailoring course they are required to bring their own material. For hotel and catering courses most of the requirements are provided for by the community college. Thus, having discussed viewpoints from the policy makers, management personnel, administrators and implementers, a consensus can be reached that the “step-by-step” analysis and “case-by-case” analysis exemplified in the teaching process are essential as participants have a varying entry behaviour, i.e. different levels of knowledge, skills, learning capacities for a particular course.

This teaching and learning pattern emphasizes the acquisition of skills similar for other skill-based courses, e.g. cake baking and decoration, muffin preparation, preparation of pasta, etc. However, there is a differentiating element in the process of skill acquisition. The air-conditioning maintenance course operates on a problem-based stimulus as a teaching approach which is contrary to culinary courses where the teaching approach is a combination of a “stage-by-stage” analysis of problems and a “case-by-case” post-mortem analysis. In the preparation of food, the problem in the final product cannot be rectified as the “damage done is “irreparable”. This is an enriching teaching strategy as each case would involve different issues to be debated upon in addressing knowledge and skills. This initiates extension into trans-disciplines in the “post-mortem” process, whereby the choice of butter used for baking different types of cakes is discussed in terms of its appropriateness for specific types of cakes and nutritional aspects. The trans-disciplinary approach embedded in one unit incorporates the “science and art of cake baking”. The culinary courses emphasized not only procedural knowledge but the semantic knowledge as well. Different outcomes would open different avenues for discussion.

A lecturer, identified as L3 in community college B, during an interview session, admitted facing challenges from the participants. The lecturer (L3) had four-year working experience in the community college and had previously worked in a clothing factory. L3 adopted a mixed approach of lectures with notes provided, demonstration and practical sessions. The interplay of these approaches was essential for the participants to acquire the skills and knowledge. In response to the question regarding challenges in the teaching approaches, L3 expressed the following and the verbatim is as follows:

“Participants want to know more than what is being taught. But, it is not too bad because I can handle the questions. The basic module is available but upon request from participants, extra notes are provided”.

(Interview L1, S3)

A phenomenon that is worth mentioning is the participants' move towards self-determined learning. The participants were aware of the need to acquire specific skills and knowledge during the course and their expectation was beyond what had been planned and implemented. This probably implies that the participants had had more serious intentions for pursuing this course. The lecturer was able to answer the questions indicated that the lecturer was tapping upon the experiential knowledge and theoretical knowledge. Courses might not be purposeful with the varying intention. It is evident from the data that the participants wanted to know more than what was being taught. The participants ascertained "how much they needed to know". At the end of the course, the participants may have different attainment of learning outcomes.

(iv) Participants' Feedback of Authentic Teaching

To triangulate the data, feedback from the participants was obtained using questionnaires. A questionnaire was administered to the course participants to determine the type of teaching-learning strategies employed. The quantitative data was to triangulate the qualitative data obtained through interview sessions and observation data of the teaching process. Table 1 displays the participants' feedback of the array of teaching approaches adopted in the various courses.

The lecture mode of teaching is a strategy adopted for the majority of the courses which involve information dissemination through "sit and listen sessions" or interspersed with "hands-on" activities, demonstrations, etc., as evident in the observation data. However, the door gift course was an exception as content knowledge is not universal for all types of door gifts. Door gifts vary depending on the occasion and the level of sophistication. The data revealed that there was a mixture of opinions on the implementation of lectures as a teaching approach. This is possible as there are varying viewpoints of the word 'lectures'. In the context of authentic situations, lectures are not 'clear cut' segments. Participants perceive lectures as "sit and listen" segments. However, lectures were not implemented for certain courses. For example, traditional costume tailoring and preparation of pasta courses adopted lecture options that were interspersed with "hands-on" activities. Lectures were "on-going" and continuous as the participants were involved in the "hands-on" learning experience. This scenario was observed in the "door gift" course. Since the courses emphasized "hands-on" activities, the lectures were not confined to "sit and listen" segments, but working on the tasks as lectures were "on-going". However, MS Word Level 1 and basic company management courses had well-defined lecture segments.

A computed value of 100% was noted for the use of the ICT approach for MS Word courses and basic management courses. However, some participants reported that ICT was used for the air-conditioning system course. Three participants in this category mentioned that ICT had been used as a teaching approach. These participants had prior knowledge of the air-conditioning system and wanted to acquire more knowledge and skills. Thus, they were given information on how to obtain extra knowledge on air-conditioning systems using ICT. These students were at an advanced stage and had previously attended basic air-conditioning courses. Participant P5, in an interview session, indicated that he had plans to venture into business and participated in these courses for “up-grading purposes”. As there were only three advanced participants on entry, the lecturer adopted a flexible approach of incorporating ICT in the teaching process. The ICT approach served as an enrichment activity in the course. This evidently shows the lecturer’s preparedness for fulfilling the participants’ needs, i.e. customizing the course for relevance and appropriateness.

Table 1 shows that there are mixed opinions on notes, which are considered as a teaching approach. However, “notes” here is a term widely interpreted, which refers to the notes that the lecturers give in a form of “hand-out” or information written on the board by the lecturer or notes jotted down by the participants as the course proceeded. An overall analysis shows that notes were predominantly used as a teaching approach in the majority of the courses with a computed figure of 90 respondents. However, there were exceptions for some courses, namely the air-conditioning system, preparation of pasta and door gift.

An inspection of the data shows that a practical approach is a dominant teaching method used in the majority of the courses. The practical component in the context of this research refers to technological “hands-on”, authentic “hands-on” or both. Further analysis of the courses shows that “hands-on” skills are a critical component of the courses. The practical approach was task-based and this approach made it possible to address remedial and enrichment skills and knowledge through a “step-by-step” analysis and a “case-by-case” analysis as revealed in the observation data. For example, preparing muffins can only be acquired through experience of preparation from the basics to the “finishing” touches. Likewise, this applies to the other courses listed. The MS Word Level 1 course emphasizes practical skills, in particular “technological hands-on” skills. However, the difference is the process and the product can be rectified. The “delete”, “undo” and “redo” functions are available on the computer to make this possible. Thus, in the technological “hands-on”, the stages are not “critical” compared to “hands-on” activities involving authentic materials.

Table 1: Teaching Approaches Implemented in Community Lifelong Learning Courses

Courses	Teaching Approach															
	Lectures		ICT		Notes		Practical		Task		Industry / Site visit		Group Work		Project Presentation	
	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
MS Word Level 1	0	6	0	6	0	6	0	6	0	6	6	0	4	2	4	2
Basic Company Management	0	17	4	13	0	17	4	13	0	17	17	0	15	2	17	0
Cake Baking & Decoration	4	6	10	0	0	10	0	10	0	10	10	0	3	7	10	0
Muffin Preparation	4	12	16	0	1	15	0	16	0	16	16	0	8	8	16	0
Door Gift	5	0	5	0	5	0	0	5	0	5	5	0	2	3	5	0
Basic Hairdressing (Ladies)	0	8	8	0	0	8	0	8	0	8	8	0	7	1	8	0
Traditional Costume	5	3	8	0	0	8	0	8	0	8	8	0	6	2	7	1
Tailoring Curtains (Box Pleat)	1	7	8	0	0	8	0	8	0	8	8	0	6	2	7	1
Air Conditioning System	6	5	8	3	11	0	0	11	0	11	11	0	8	3	11	0
Preparation of Pasta	3	1	4	0	4	0	0	4	0	4	4	0	3	1	4	0
Traditional Massage	5	13	18	0	0	18	1	17	0	18	18	0	8	10	18	0
Total	33	78	89	22	21	90	5	106	0	111	111	0	70	41	107	4

The participants reported that there was hardly any industry/site visit during the course and this obviously is not one of the approaches used during the lifelong learning programmes. This implies that the lifelong learning programmes did not expose participants to authentic workplace situations; thereby eliminating the possibility of catering for workplace “up-skilling”, “re-skilling” and “multi-skilling”.

Table 1 clearly indicates that group work was used in the pedagogical process. This is not a teaching strategy that is used, but a choice of a learning strategy adopted by the participants themselves. The numbers indicate that only a minority of the participants were involved in group work. This is characteristic of participants who had relatives and friends participating in the course and chose to work in groups of their own free will. This flexibility in the learning process permitted the participants to adopt cooperative strategies, thereby lending a supporting hand for each other in the collaborative tasks.

Project presentation is another approach adopted in the implementation of certain courses. Presentation of projects was on a voluntary basis and due to the constraints of time not every participant had the opportunity to present their project. The mixed opinion of the use of project presentations as a teaching approach was based on the individual’s opportunity to present their projects. For curtain and traditional costume tailoring courses, due to the time constraints, randomly selected participants who volunteered could present the finished product. During this session, the lecturer cum facilitator would highlight important points/facts for the other participants to take note based on the finished products. This was similarly done for the MS Word Level 1 course.

There are multiple reasons why participants pursue lifelong learning programmes. There were participants who pursued lifelong learning programmes only for their personal use. There were other participants who pursued them for the purpose of business venture or for up-skilling, re-skilling or multi-skilling.

Conclusion

Teaching approaches implemented in lifelong learning programmes depend on the nature, characteristics and pre-determined learning outcomes of courses. Bearing in mind that there is a diverse range of participants, the teaching approaches implemented cannot be based on assumptions that all the participants have the necessary prerequisite knowledge and skills for the course. The flexible entry requirements for lifelong learning courses provide opportunities for everyone who is a healthy Malaysian citizen to participate in these courses. This shows that

lifelong learning programmes are catering for the needs of everyone irrespectively of their occupational status or qualifications. Pursuit of these courses only shows that these courses are essential and critical for their needs whatever the reason may be. Courses offered are “up-to-date” and essential, which cannot be acquired in participants’ formal training or in work-based learning.

The results indicate that the teaching approaches are structured and sequential. This is evident in the quantitative and qualitative data obtained through questionnaires, interviews and observations. Participation in lifelong programmes does not outline explicit prerequisites, thus the teaching processes adopt a mix of pedagogical and andragogical approaches. Another factor is the type of course, skills and competences expected from the course, which are key determinants of the predominant approach which will be used. For example, during traditional costume tailoring, the lecturer cum facilitator disseminates knowledge and skills required for making this costume. This is, of course, pre-determined and the knowledge is sequenced in a “step-by-step” fashion for everyone to follow. The knowledge is presented in a simplified manner, supported by notes to enable participants to understand and use the teaching material as a guide or reference. This teaching segment is based on a pedagogical model, which is a content-based model where the lecturer decides in advance about the knowledge and skills that need to be disseminated, the sequence of knowledge and skills, and the implementation plan for this purpose. Although it is characteristic of teaching children, it can be adopted for adult learners who are pursuing courses for acquiring new skills/knowledge or up-grading skills/knowledge. This knowledge dissemination was followed by the “hands-on” sessions where the participants were given opportunities to apply knowledge in authentic tasks in a domestic context to experience the learning process for themselves. The participants were involved in “hands-on” activities and were guided until the costume was ready. The facilitator identified flaws and precautionary steps taken through a “stage-by-stage” analysis of tasks to get a better-finished product. The final “wrap-up” of the session would involve a “case-by-case” post-mortem analysis of the product. Throughout the entire session, the lecturer played the role of a facilitator and established a climate that was congenial to all the participants. This “hands-on” segment is “process-driven” as in the andragogical model, which is often associated with adult learners. It was evident that the andragogical model worked in synchrony with pedagogical modes to accommodate within the lifelong learning situations. The emerging trans-disciplinary approach in the “stage-by-stage” analysis of the task post-mortem process is an enriching teaching strategy in the andragogical approach. This was particularly important as the participants experienced “meaningfulness” and enjoyed the learning process. These findings

concur with that stated by Knowles (1980) that the pedagogical and andragogical models are “useful when it is not viewed as dichotomous but rather as two ends of the spectrum with a realistic assumption in a given situation falling in between the two ends” (p. 43).

There are various strategies implemented during the pedagogical process at primary, secondary and even tertiary education. However, only selected pedagogical strategies were adopted in lifelong learning programmes. The mixed content-process approach is suitable due to the heterogeneity of participation, ranging from children to adults and pensioners. Thus, teaching and learning is a mix and match of andragogical and pedagogical approaches, which provides provisions for teacher-centred and learner-centred activities to cater for the learning needs of children and adults. Based on the findings, it is more apt to use the word *humanagogy*, as proposed by Knudson (1980), which is a holistic approach, taking into consideration the differences and similarities between adults and children as learners. There is no clear delineation of the pedagogical and andragogical approaches implemented in lifelong learning programmes. Thus, it can be concluded from the findings that lifelong learning programmes have adopted a holistic approach in the teaching and learning process with a trans-disciplinary component integrated into the course content. The role of the teacher is re-defined in this aspect of teaching in the community to differentiate from the universal concept of formal teaching in schools and other educational institutions. The diversification of knowledge and skills is significant for the teacher and the participants. “Thinking about thinking” in the teaching process makes it possible to chart relevant and appropriate pathways for the acquisition of “up-to-date” knowledge and skills. Learning approaches adopted in the pre-technological era is complemented and supplemented with current emerging strategies. A step further to be considered in lifelong learning programmes is to provide an approach which incorporates self-determined learning and to ascertain how this component could be incorporated in the curriculum planning and implementation.

Smart partnerships need to be established between educators, industry, and policy makers to synergize efforts towards consolidating value-added lifelong learning programmes. Participation of employers and potential employers from industries would be necessary to be included in packages. A characteristic pattern of all the courses is that they were conducted in the community college premise, thus eliminating authentic workplace environment experience. To what extent this has benefited the community that have intended to pursue courses for future wage-earning employment is questionable. We have multiple roles which are interchangeable, i.e. we can be training providers at some stage or at other times we can

be participants in training programmes. Since the occupational clusters demand “hands-on” skills, participants need to be provided with the necessary scaffolding through a “step-by-step” analysis of problems and a “case-by-case” post-mortem analysis, as evident from the data. Customisation of teaching approaches according to individual needs and purpose would be “beneficial for all”. Thus, to formulate the best method of teaching or the best method of learning would not be possible as teaching and learning are dynamic processes. Each learner has a different learning style and exploits different kinds of intelligence in the learning process.

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Veysel Yılmaz, H. Eray Çelik
Turkey

Attitudes Towards Computer Usage According to Different Educational Levels: A Comparative Study in Turkey

Abstract

In this paper, attitudes toward the computer of three different samples created according to educational levels were studied. In the paper, scales belonging to Nickell and Pinto were used as Computer Attitude Scale. Internal consistency, stability and validity of the CAS measurement instrument were also tested and discussed. The findings indicate that the CAS demonstrates acceptable construct validity, reliability and stability over time, as well as an ability to predict computer usage. It was decided to divide the CAS items into three subscales in terms of their content, and attitudes were compared in terms of different samples. University graduates like scholars, teachers, and civil servants who constituted sample I, were found to have the lowest positive attitude towards the computer, as well as the lowest negative attitude. It was found out that the people with the highest positive attitude were secondary and higher school students who constituted sample III.

Keywords: *CAS, educational level, attitude, Turkey*

1. Introduction

In general, attitudes towards computers predict computer usage. The attitude and level of anxiety towards computers show how experienced the people working with computers are. The time people spend with computers during the day determines their attitude towards computers, whether they are willing to work with them or not.

Attitudes can be defined as “tendencies to evaluate an entity with some degree of favour or disfavour, ordinarily expressed in cognitive, affective and behavioural responses” (Eagly and Chaiken, 1993), and Manstead (1996) argues that most social psychologists would accept this definition of attitude. The theory of reasoned action (TRA) (Ajzen and Fishbein, 1980), and its extension, which is the theory of planned behaviour (TPB) (Ajzen, 1985) are models of determinants of human behaviour which has represented an influential methodological explanation for the relationship between attitude and behaviour. The TRA suggests that the intention to display certain behaviours can be predicted on the basis of the attitude towards that behaviour and the personal norm concerning that behaviour.

The computer attitude has been defined as a person’s general evaluation or feeling of favour or antipathy toward computer technologies and specific computer related activities (Smith et al. 2000). Computer attitude evaluation usually encompasses statements that examine user interaction with computer hardware, computer software, other persons relating to computers, and activities that involve computer usage. The computer-related activities examined are either single instances of behaviour (e.g. specific software use) or classes of behaviour (e.g. taking computer-related courses) (Smith, et al., 2000). Various computer attitude scales have been developed but the CAS developed by Loyd and Gressard (1984) is one of the scales most widely applied to undergraduate students (Al-Khaldi and Al-Jabri 1998). The CAS can be divided into several intrinsic variables, such as computer anxiety, computer liking, perceived usefulness, perceived user-friendliness, self-confidence (SC), and perceived consequences for society (Loyd and Gressard 1984; Heinssen, et al. 1987; Robertson, et al. 1995; Levine and Donitsa-Schmidt 1998; Coffin and MacIntyre 1999; Beckers and Schmidt 2001; Hasan 2003). Shaft, Sharfman and Wu (2004) determined the stability of only four instruments over time assessed in their study which employed 31 computer attitude scales. These instruments are Beliefs About Computers (Ellsworth and Bowman, 1982), Computer Attitude Scale (CAS; Nickell and Pinto, 1986), Attitude Toward Computer Usage Scale (ATCUS; Popovich, et al., 1987, Re-evaluation: Belleau and Summers, 1993), and Computer Attitudes Scale for Secondary Students (CASS; Jones and Clarke, 1994).

One factor affecting computer usage is computer anxiety, which has an impact on computer perception and hence on computer usage rate (Brosnan and Davidson, 1996). Some of these studies found out no connection between age and computer anxiety, but they concluded that there was a significant relation between gender and computer anxiety (Brown and Coney, 1994). It is stated that females approach the computer with more anxiety and therefore they have more negative perception and less common use of the computer. The relationship between gender and

computer attitudes is especially important because it has been noticed that failure to acquire computer literacy may become a barrier to women's progress in certain careers (Miura and Hess, 1983; Omar, 1992). Research on gender and computer usage often, although not conclusively, reported that males have more experience of computers and they use them more (Levin and Gordon, 1989; Brosnan and Lee, 1998; Balka and Smith, 2000; Sam, et al, 2005). Several studies showed that men had generally more positive attitudes toward computers (Collis, 1985; Nickell and Pinto, 1986; Omar, 1992) whereas females usually had more negative attitudes (Durndell and Thompson, 1997; Nickell and Pinto, 1986) and greater computer anxiety (McIlroy, et al., 2001) than males. However, controlling for computer experience, men and women had similar interest toward computers. Many studies in the literature stated that younger people have more positive attitudes towards using computer technology compared with older people (Balka and Smith, 2000; Sam, et al, 2005).

The issue of self-sufficiency with computers has attracted much attention recently. People's computer anxiety and education levels determine their sufficiency (Chou, 2001). The extent to which people can use the computer in their daily lives and access to computers in their residence area are indicators of their sufficiency level (Rafaeli, 1986). Training history of computer users is also important in terms of self-sufficiency with computers. Gender differences have little importance in terms of the ability to use computers (Schumacher and Morahan, 2001).

According to the results of the ICT Usage Survey on Households and Individuals carried out in 2007 by the Turkish Statistical Institute, 18.94% of households have access to the Internet at home. According to the survey results, 79.39% of households with Internet access at home are connected to the Internet via a PC. Broadband connection (ADSL etc.) is the most widely used Internet connection type with the rate of 78.03%.

In the period between April and June 2007, the proportion of computer use of people in the 16–74 age group was 29.46% and Internet use was 26.67%. In the same period, 61.11% of all the Internet users stated that they had accessed the net on an almost daily basis in the 3 months preceding the survey, while 25.50% stated that they used the Internet at least once a week.

Taking age groups into consideration, the computer and Internet usage percentage of people is the highest in the 16–24 age group, followed by the 25–34 age group. Based on the level of education, the percentage of computer and Internet usage has the highest values in university graduates with 84.86% and 82.89%, respectively. The percentage of computer and Internet usage for secondary school students are 86.83% and 81.89%, respectively. As for employment status, the percentage of

computer and Internet usage are 54.82% and 51.38% for employees, respectively. These ratios are 44.06 % and 41.15 % for unemployed individuals, respectively.

In the period between April and June 2007, 90.54% of Internet users accessed the net searching for information and on-line services, 80.74% used it for communication activities, 52.27% for educational activities, and 26.18% for interaction with public authorities. Of Internet users, 5.65% ordered goods or services over the Internet in the period between April and June 2007, and 28.20 percent of Internet users bought some electronic items like mobile phones, cameras, radios, TVs, DVD players, and videos over the Internet from June 2006 to June 2007. According to the results of the survey, 76.49 percent of Internet users feel no need for ordering goods or services over the Internet.

The unique purpose of this paper is to compare the attitudes towards computers of samples created according to their education levels. The scale which we chose in this study is the Computer Attitude Scale (CAS; Nickell and Pinto, 1986).

2. Method

2.1. Sample

The sample of this study consisted of 553 people. Three different samples were employed in this study, which were determined taking into account the education status of the participants. These samples were (I) employed people (scholars, teachers, and civil servants), (II) secondary and higher school students, and (III)

Table 1. Demographics of people in sample groups

	Gender			Age	
	n	Male	Female	Mean	Standard deviation
<i>Sample I</i>					
Scholars (Res. Ass.. Prof.. PhD.)	83	51	32	39.23	8.29
Teachers	80	30	54	37.86	9.12
Civil Servants (typists, technicians, officials)	84	38	42	34.25	6.21
<i>Sample II</i>					
Secondary School Students	71	40	31	12.36	2.54
Higher School Students	30	16	14	15.83	0.75
<i>Sample III</i>					
Undergraduate Students	205	123	82	21.82	1.69

university students. All the participants in sample I were university graduates. The undergraduate students in sample III were chosen from the faculty of engineering, faculty of social sciences, faculty of economics and business, and faculty of science and literature. Detailed information on the sample is provided in Table 1.

2.2. Material and procedure

A questionnaire was used to collect data for this study. The questionnaire was divided into three sections. The first section asked for demographic characteristics such as age, gender, faculty/school, and occupation. The second section of the questionnaire asked the respondents to report on how much time in a week they spent with the computer and Internet, and the purposes for which they used them. The third section of the questionnaire was the Computer Attitude Scale (CAS). The CAS is a self-report inventory consisting of 20 items, which was designed and validated by Nickell and Pinto (1986). Nickell and Pinto (1986) constructed the 20-item, self-reporting CAS to measure general positive and negative attitudes towards computers. During this study, all the 20 items of the CAS were translated into Turkish and then back into English to confirm the adequacy of the translation. The comparison of the original and back-translated versions led to some minor revisions of the Turkish version. These items were arranged for scoring on a five-point Likert scale from '1= strongly disagree' to '5= strongly agree'. Eight of the 20 items measured positive attitudes, while the remainder measured negative ones. The originally reported internal consistency using Cronbach's alpha was .81 for the entire scale. Test-retest data indicated a significant, positive correlation ($r = .86$, $p < .001$). Predictive validity was measured by correlating the CAS scores with final course grades. These showed a significant, positive correlation ($r = .32$, $p < .01$). This particular scale is fairly generic in nature and probably this is why it has been widely used (LaLomia and Sidowski, 1991). In addition, the CAS has been used among a variety of populations (Nickell and Seado, 1986; Winkel, et al., 1985; Rainer and Miller, 1996).

2.3. Data analyses and results

The questionnaire was distributed to the subjects in the 2007/2008 academic year. All the subjects were volunteers. Data analyses were carried out with the Statistical Packages for Social Sciences using frequencies, percentages, t-test, One-Way ANOVAs and Cronbach's alpha.

Among the participants, 91% declared that they had a personal computer at home, and 80% of the computer owners had Internet connection. Samples are given in Table 2.

Table 2. Computer ownership and Internet access in sample groups

	Computer ownership		Internet connection (of computer owners)
	Yes	No	Yes
<i>Sample I</i>			
Scholars	83	3	53
Teachers	76	8	63
Civil Servants	55	25	39
<i>Sample II</i>			
Secondary School Students			
Higher School Students	67	4	64
<i>Sample III</i>			
Undergraduate Students	195	10	163

The participants were asked to rate the items related to computer usage with a number between 1 and 7. The results are given in Table 3. Entertainment-related usage of the computer is represented with the highest rate in sample II (5.82 ± 1.55), communication-related usage is given by sample I (6.20 ± 1.54), and programming-related usage is observed in sample III (5.22 ± 1.85).

According to the results of Table 4, the participants' usage of the Internet for e-mail services is found in the three samples as 84%, 79% and 90%, respectively. The participants in sample II use the Internet mostly for educational purposes (search for subjects, courses available/online, online revision, etc.). Only 8% of the secondary and higher school students make purchases over the Internet. It was found out that the females in all the samples use the Internet mostly for information sources and education. All the male participants but those in sample I stated that they used the Internet for communication.

Table 5 gives the mean and standard deviation of all the samples in terms of the items included in the CAS. The reliability coefficient computed for the CAS of 20 items is 0.83. In terms of dimensions, Cronbach's alpha coefficient values for sample I are 0.74, 0.76, and 0.87; for sample II, 0.78, 0.79, and 0.85; and for sample III, 0.73, 0.70, and 0.83. These Cronbach's alpha coefficient values are good indicators of the homogeneity and uni-dimensionality of each of the sub-scales. Based on the Cronbach's value, the measurement tool which was used is seemingly fairly reliable (Francis, et al., 2000).

When the means of positive attitudes towards computers is examined for all the samples ($[(P1 + P2 + P3 + P4 + P5 + P6 + P7)/7]$), it can be seen that the sample

Table 3. Different usages of computers

	Sample I		Sample II		Sample III	
	Mean	SD	Mean	SD	Mean	SD
Communication – e.g. email, advertising, finding information, etc	6.20	1.54	5.57	1.62	5.41	2.02
Neatness and presentation – e.g. word processing, Powerpoint, etc.	4.72	1.51	4.55	1.53	4.03	1.66
Entertainment – e.g. computer games, music, animation, special effects, etc.	3.22	2.15	5.82	1.55	3.82	2.11
Convenience – e.g. online banking, shopping, spreadsheets for calculations, etc.	3.46	1.59	1.01	1.40	3.32	1.77
Calculation – e.g. design software for building/manufacture/engineering, etc.	3.66	1.56	1.15	1.28	3.63	1.69
Reliability – e.g. automated processes, traffic control, safety/reminder devices, etc.	3.13	1.51	1.03	1.44	3.57	1.75
Programmability – the user being able to define the computer's task by adapting, creating or using software for a specific customized purpose, e.g. website design, BASIC programming, SPSS syntax commands, spreadsheet formulae, etc.	3.59	2.07	2.06	1.24	5.22	1.85

group with the highest positive attitude is sample II, which consists of secondary school students (4.11 ± 0.64), followed by undergraduate students (3.77 ± 1.01). Sample I has the lowest positive attitude score. Based on three different samplings, research was conducted to see whether there was a statistical difference between the score means for the three dimensions according to the samples in Table 6. It was found out that there is a significant difference as regards the level of education for all the three dimensions (cf. Table 6).

The participants' ages in the integrated sample are organized into 6 groups. The populations of each age group are as follows: 10–14 group: 70 participants, 15–19 group: 46 participants, 20–24 group: 189 participants, 30–34 group: 49 participants, 35–39 group: 48 participants, 40 + group: 100 participants. One-way ANOVA was used to find out the differences (if any) between the score means of the three dimensions of the CAS; it was determined that there was a statistically significant difference between the three dimensions in the age groups ($p < .001$). In terms of dimensions, the reason for the existence of such a difference is the

Table 4. Distribution of activities conducted over the Internet

	Sample I				Sample II				Sample III			
	Yes		No		Yes		No		Yes		No	
E-mail	208 ^a	0.84 ^b	39 ^a	0.16 ^b	80 ^a	0.79 ^b	21 ^a	0.21 ^b	184 ^a	0.90 ^b	11 ^a	0.05 ^b
Computer games downloaded/played online	50	0.20	197	0.80	68	0.67	33	0.33	73	0.36	132	0.64
Chat rooms or messages	42	0.17	205	0.83	41	0.41	60	0.59	98	0.48	107	0.52
Shopping	103	0.42	144	0.58	4	0.04	97	0.96	101	0.49	104	0.51
Information sources	224	0.91	23	0.09	74	0.73	27	0.27	193	0.94	12	0.06
Education	214	0.87	33	0.13	93	0.92	8	0.08	185	0.90	20	0.10

^aFrequency, ^bPercent

Table 5. Computer attitude scale; mean, SD, and Cronbach's alpha

Negative Attitudes Toward Computers	Sample I		Sample II		Sample III	
	Mean	SD	Mean	SD	Mean	SD
N1. People are becoming slaves to computers.	2.87	1.41	3.35	1.41	2.91	1.09
N2. Soon our lives will be controlled by computers.	2.79	1.37	3.18	1.37	3.07	1.16
N3. Computer overuse may be harmful and detrimental to people.	3.73	1.50	2.60	1.50	2.19	1.04
N4. Computers are making society less human.	3.43	1.38	2.91	1.38	2.40	1.07
N5. Computers turn people into numbers.	2.75	1.25	3.60	1.25	3.53	0.92
N6. Computers are decreasing the importance of lots of occupations now done by people.	3.23	1.24	2.68	1.22	3.43	1.09
N7. Computers will replace the need for employing human beings.	3.07	1.18	2.80	1.18	2.82	1.06
N8. Soon our world will be completely run by computers.	2.63	1.28	3.40	1.28	3.25	1.15
<i>Positive Attitudes Toward Computers</i>						
P1. Computers are responsible for many of the good things we enjoy.	2.75	0.98	4.13	0.98	3.27	1.02
P2. There are unlimited possibilities of computer applications that have not even been thought about yet.	2.47	1.11	4.10	1.11	3.89	0.93
P3. Computers can eliminate a lot of tedious work for people.	2.36	1.01	3.90	1.01	3.80	0.91
P4. Computers are fast and efficient means of gaining information.	1.99	0.89	4.47	0.89	4.18	0.82
P5. The use of computers is enhancing our standard of living.	2.29	0.99	4.11	0.99	3.77	0.85
P6. Computers are bringing us into a bright new era.	2.41	1.11	3.95	1.11	3.67	0.82
P7. Life will be easier and faster with computers.	2.28	1.05	4.15	1.05	3.81	0.84
<i>Feelings of Intimidation Toward Computers</i>						
F1. Computers will never replace human life	2.41	1.35	3.43	1.35	3.92	1.22
F2. Computers make me uncomfortable because I do not understand them.	2.06	0.75	4.57	0.75	4.17	1.07
F3. I feel intimidated by computers.	2.31	0.96	4.42	0.96	3.97	1.14
F4. Computers intimidate me because they seem so complex.	2.24	1.08	4.44	1.08	4.02	1.01
F5. Computers are difficult to understand and frustrating to work with.	2.16	0.98	4.38	0.96	3.85	1.20

All items were answered on 5-point Likert scales ranging from 1 "strongly disagree" to 5 "strongly agree"

Table 6. One – way ANOVA results for differences based on samples

	SS	df	MS	F	p
<i>Negative Attitudes Toward Computers</i>					
Between Groups	6.242		3.121	7.754	<.001
Within Groups	221.393	550	0.403		
Total	227.636	552			
<i>Positive Attitudes Toward Computers</i>					
Between Groups	318.266	2	159.133	266.190	<.001
Within Groups	328.799	550	0.598		
Total	647.065	552			
<i>Feelings of Intimidation Toward Computers</i>					
Between Groups	441.844	2	220.922	330.289	<.001
Within Groups	367.881	550	0.669		
Total	809.725	552			

Table 7. t-test results for differences based on gender

	t	df	p
<i>Negative Attitudes Toward Computers</i>			
Sample I	0.411	245	0.681
Sample II	4.694	99	<0.001**
Sample III	1.842	203	0.067
<i>Positive Attitudes Toward Computers</i>			
Sample I	0.291	245	0.771
Sample II	2.641	99	0.010*
Sample III	0.748	203	0.455
<i>Feelings of Intimidation Toward Computers</i>			
Sample I	0.363	245	0.717
Sample II	2.286	99	0.024*
Sample III	1.838	203	0.068

**p<0.001, *p<0.05

disparity between the scores of the participants in the 10–14 group, 15–19 group, and 30 and over groups.

As regards the participants' genders, there is no statistically significant difference for samples I and III between the means of the three dimensions; however, the difference is statistically significant in sample 2 (cf. Table 7). When one examines the means of the three dimensions of the participants in sample II, it can be seen that the females display a less negative attitude than the males, whereas in other dimensions the male students show more positive attitude. For other samples, the females and males showed a more or less similar attitude.

3. Conclusion and Discussion

In the light of the findings of this study, it has been determined that university graduates in particular (sample I) have a less positive attitude compared to other sample groups. When the education levels and current positions of the participants in sample I are taken into consideration, it can be asserted that they will have a determining role in shaping the attitude of new generations towards computer usage. The participants in this sample group are university faculty, school teachers, and civil servants, who provide support to the other two groups, all of whom play important roles in the education of students. An important finding is that the participants in sample II have a more positive attitude towards computers. Such a positive attitude of this generation must be supported for more correct and effective usage of computers. Positive attitudes towards computer usage displayed by this sample group can ensure that more effective usage of information technologies can emerge in Turkey among the future generations.

General behaviours towards computers require a general measure of computer attitudes. Although the current instruments that measure computer attitudes are useful, they have limitations. Many of these instruments are directed towards a specific type of computer, a specific type of software, or a specific user population. These instruments are excellent when used in conjunction with a specific behaviour toward computers or a specific population (Rainer and Miller, 1996). The CAS provides us with such a general measure of attitudes. When used to measure general attitudes toward computers, the CAS demonstrates acceptable reliability and constructs validity, stability over time, and ability to predict computer usage (Shaft, et al, 2004; Rainer and Miller, 1996).

The findings of this study indicate that learning in the computer environment requires a special challenge of developing a mix of declarative, procedural, concep-

tual, and logical knowledge. In Turkey, where computer usage is increasing rapidly on a daily basis, computer education in its true sense begins at university. During primary education, students take courses in computer education only once a week for eight years. In developing countries like Turkey, computer education must be more widespread so as to develop positive attitudes towards computer usage.

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Eugenia Smyrnova-Trybulska,
Jacek Grudzień
Poland

E – learning in the Computer Science: Some Computer and Methodology Techniques

Abstract

E-learning is becoming a more and more common and popular form of learning in Poland and all over the world. Nowadays there are available different commercial as well as free platforms of distance learning for example: MOODLE, Claroline, Atutor, Dokeos and others. This fact, of course, has got a positive influence upon the availability and the relatively high speed of spreading of this form of learning. Unfortunately, the methodological aspects of distance learning of different subjects are not fully examined or analysed. In the following article one can find an attempt at answering some questions connected with the methods, technological and computer aspects of teaching computer science.

Key words: *computer science, model, e-learning, the matter, the spider scheme, MOODLE, UML (Unified Modeling Language)*

1. Methodological aspects of teaching computer science.

In a group of the basic subjects of the natural-mathematics science interest one can distinguish the computer science and maths. The course of the computer science should be considered as an element of an educative school system, in which the aims, context of teaching and the structure of the course are determined, first of all, by the general constructing and functioning rules of this system.

The most important features which describe the computer science as a subject are: systematic character, module structure, and spiral methods of learning. The practical experience of distance e-learning of the computer science and mathemat-

ics is not a common and existing experience examined enough and quite often it is generalized. So for that reason, there is a necessity of distance e-learning in the country and all over the world, the right analysis and examination of the above – mentioned problem are very important nowadays. The main problem and task are not only to equip schools with computers and software, but first of all, to save it methodologically, to prepare teachers for e-learning. For that reason one should consider all sets of problems, and particularly, in the sphere of the organization of the e-learning process in the computer science and other school subjects and the preparation of the required teaching and methodological safety.

Cognition in the process of learning (in every form) consists of three basic stages:

- a) subjective associative presentation of the model of learning based on emotional and sensory experience
 - b) modeling of the object of cognition
 1. formalization of the associative model (emotional)
 2. consideration of the ‘scientific’ model
 3. correction of the subjective model
 4. checking the precision of the formulated subjective model with the ‘scientific’ model
 - c) using the created model in solving tasks based on the prepared algorithms.
- (Polat, 2004)

These three stages are responsible for such fundamental issues as the following – model – algorithm; such levels of cognition as emotional, rational, and active ones; these cognitive needs such as – understanding – knowing – skills. The decisive moment becomes the description that such a ‘scientific model’ in some circumstances can and even should be presented to pupils as a rising dialectic model with its development.

The scientific view on the object of learning (model of ‘learning’) – always exists as a **model** (or lifetime models) formulated in the result of a long term searching. In it, in a ‘rolled’ form, are reflected only the essential compounds for solving a defined class of tasks, features, relationships. The scientific model is frequently reflected in the system of concepts, referred to the object of learning, and only in regularities (often expressed in patterns), reflecting the connections between the elements of the object.

One can notice that the patterns are often an indispensable and justified form, introducing the scientific model.

As far as the pattern is concerned, one can say that it is a cognitive model of an object, used in solving tasks, – explaining the pattern, based on the pattern itself,

not the way. Graphically expressed, the pattern is a trace in an informative area of cognitive object, left to the analysis process, emitting, and choosing the essential elements, mutual connections between them, – it is ‘viewing’ from a chosen point of view.’ The formula does not have to be understood, it should be used. Together with this system of concepts, connected with the examined object (its thesaurus), it should be understood, it means understanding, how particular and essential indications make the context of every concept and what basic connections exist between the concepts. The system of concepts – a useless model of learning object, more precisely, a set of its models. Simultaneously, in the concepts (a term), just like in a formula, in a ‘rolled’ form, is reflected the historical process of the cognitive learning object.

It does not matter what group of authors has written the workbook, for example: chemistry, geography, astronomy, biology; there are the generally used forms presenting the system of knowledge of a particular area of a subject, such as: a periodical table of D. Mendelejew’s elements, a geographical atlas with the collection of different maps, the heliocentric image of the world, the description and the structure of the Solar system with the planets arrangement, the development of the world, the creation of man in accordance with Darwin’s theory and others. They represent the scientific model of a field object. And despite the teacher’s subjective outlook, he is forced to work, first of all, and mainly, in the range of those models. In the computer science so far there have not been such single models of knowledge.

On the other hand, a teacher of biology, chemistry, astronomy, geography should not create from the beginning to the end in the field of chosen contexts and the presentation of school material

(while a teacher of computer science is forced to do it), his creative energy is directed, first of all, to his pedagogical craft and updating of his subject knowledge. A computer science teacher is forced to be an educator (to describe the course context) and a teacher trainer (to form methods and deductive materials) and as well as a pedagogue (looking for new forms of teaching). Despite the fact that there are more and more computer science workbooks by different authors and the choice is great, it is simultaneously a good tendency (there is a wide choice of school materials from the new subject) and a bad one (there can be chaos, misunderstanding, ignorance of the most essential categories of the computer science and in the end the teacher may choose not the best workbook from the scientific and methodological point of view, which may be very disadvantageous for a student).

Unfortunately, in the contemporary time, which is characterized by the mechanisms of the market economy, often not the best, but the most advertised workbook becomes the most popular. It is worth mentioning that there is a possibility for a teacher to prepare their own individual programme with their own methodological materials. But not all teachers are prepared to do it themselves and of course, they have not enough time. There are objective and subjective reasons for that. (Polat 2004, Smyrnova – Trybulska, 2007)

It is necessary to present teachers of the computer science with the scientific model of knowledge (a set of patterns, an 'atlas' to the workbook), which depends neither on types of techniques nor on the workbook author's point of view or profile of teaching. The right scientific model should be formulated on the standard basis and included into standards.

In the computer science the part of such an 'atlas' can fulfill logical patterns of concepts, because the ability to master the structure of concepts is one of the most important conditions of formalization, modeling, structuralization of data and messages, which lies at the root of everybody's intellectual ability. The application of logical patterns of concepts allows to describe a general attitude towards scientifically justified methods of learning.

The application of logical patterns of concepts in e-learning has very special currency, because in the computer science, at present, a fixed set of concepts and system of generally considered attitudes, which from the scientific and pedagogical community's point of view, have not been formulated yet, should be necessarily reflected in the school course. It often leaves space for the significant but not always successful 'variation' in the learning context, particularly in these cases when a teacher and a student are geographically far away from each other. The application of logical patterns of concepts in large measure allows to avoid similar negative results. [Polat, Beszenkow, 2004, Michalin, 2003]

The description and idea of formulating logical patterns of concepts, and also their teaching advantages are possible to be presented in the following way. The concept of assimilation has its own form, context and structure. It means that free concepts are connected (generalized) with a set of values, features, characters in a described frame of reference. On the other hand, a concept (the key word) is a unit of material assimilation. Such units of data, which at their own level are a subject to the assimilation as total units, are called logically indivisible units of school material.

The most educative and obvious is the graphic presentation of a system of concepts and its structure. Studies show that the simple description, the introduction

of concepts in a table or ‘tree’ ‘graph’ presentation, has a lower teaching value than the ‘spider net’ presentation.’

The “spider net” is such a scheme which exists as a central concept, context, range and sphere of usage which has to be explained. Around it there are placed concepts explaining the sense of the central concept from this or that point of view (the first level of key words). Each concept from the first level is explained by key words of the second level and so on. In Figure 1. a logical scheme is shown, illustrating the example structure of the ‘Algorithm’ concept.

It is rational, in many cases, to give up the commonly used demonstration of a hierarchical ‘tree’ structure of concepts, because it is connected with some sort of dependence relations. Because the concepts used by the description of cognitive object are often equally valued, reflecting different points of view on this object, different models. They may be connected with the ‘central’ concept not directly, but through certain other concepts .Because of this some new levels of concepts can appear (parallel to the central ones). One may say that a ‘spider net’ presentation gives a possibility to assimilate the concepts as synonymous, equally ‘important’ from the descriptive point of view of the examined object, letting us consider it from different sides. Apart from that, a spider net presentation allows (without losing systematic perception) to begin to consider any concept as a key word on the logical scheme from any free chosen place, at any freely chosen level, depending on the right perception of the material, individual style of cognitive acting, the aim of learning, etc.

In the same way as learning can start from a different level of each scheme, every key word is both a whole and a part, depending on the necessity of a cognitive unit. For that reason a teacher can base further teaching both on going out from the general rules to the detailed cases, and moreover, from the detailed cases to the general analysis of the object of learning, because in the process of familiarization and acting the scheme of logical concepts, the sphere of a close learner development is formulated in the direction desired by the teacher. Such schemes are easy and fast to make, using helpful instruments and functions, available in the system supporting the e-learning CLMS MOODLE. While working on such a course one can choose the automatic or the manual option of forming the hipertext cross-references needed for schools resources (lessons, files, notes in vocabulary, etc.), including the key words and concepts already existing in texts.

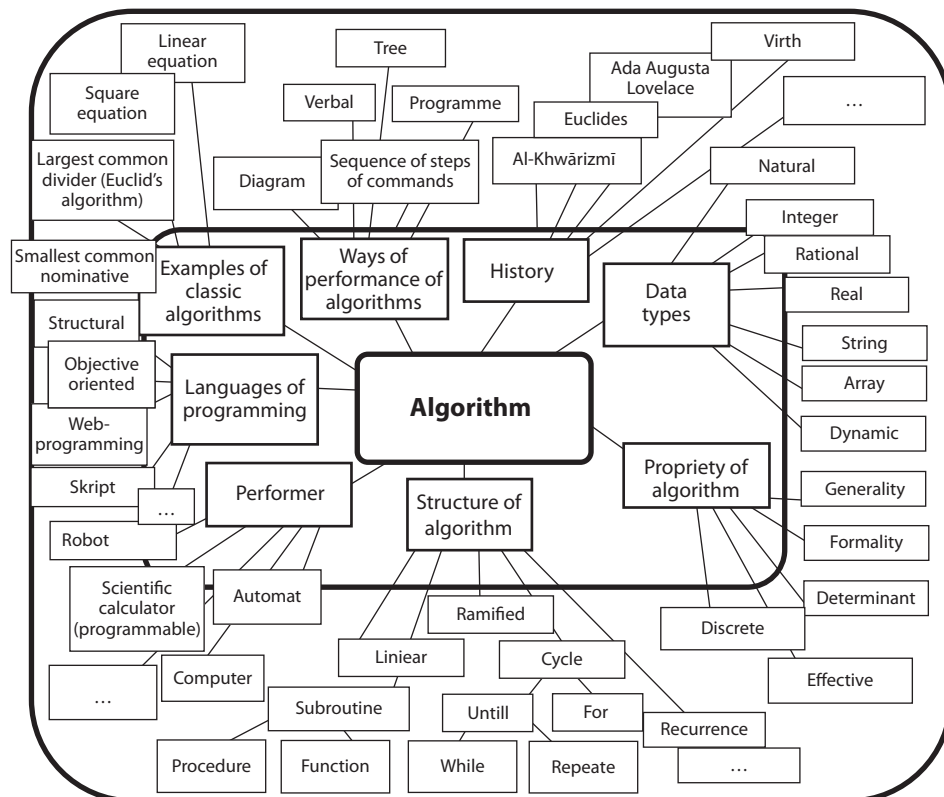
If necessary, at any moment a student can use the right cross-reference and learn more about the context of a specific concept. Besides that there is such a possibility in the course to make (by a teacher or a student) one’s own thematic vocabulary, divided into subcategories to which access is free at any moment of the learning

process, also to the vocabulary formed by a student or a group of students themselves. It can be multimedia hipertext vocabulary or wiki (open environmental hipertext or mini-thematic-encyclopaedia, similar to www.wikipedia.org), which is created by many users. There may be many different variants how to do this task: words may be presented to a student earlier for him/her to find the meaning and description (not fewer than 3 to each word), or give a topic, according to which a learner should choose 10 most important and meaningful words, phrases and later find their description using different resources, also the traditional ones: encyclopaedia, books, scientific works, and others, or electronic ones: database, electronic vocabulary, multimedia encyclopaedia, booklets, etc.

It allows learners to find necessary definitions of words and phrases, repeat their meaning, get acquainted with many approaches of formulated descriptions of different authors and various scientific conceptions. In this way, practically, in a very effective and intentional way one can use a systematic approach in learning the new school material and simultaneously, record the pupil's skills and habits in the range directed to the searching necessary items using ICT and content learning management systems (CLMS), particularly MOODLE.

The reflection in the graphic scheme including concepts in a whole interrelation helps the pupil to imagine additional associations, to remember the concepts in the schemes of thinking, transmit the knowledge of concepts obtained from one subject (sphere) to other spheres of science. One can create more spacious schemes, with more branches, taking into consideration the connections between intersubjects and execute them effectively in e-learning courses, particularly in the MOODLE system. Such an approach can assure elasticity and flexibility of thinking, the possibility of thought movement in different directions. In this way a pupil can get an opportunity effectively and adequately to the object of science to structure school material, aiming at the built-in subjective model of science or in the aim of the correction of the complex model.

From here it follows that the logical schemes of concepts are the spider net representation of system of concepts, based on *logically non-divided (indivisible) units of school material*. The logical schemes of concepts in a clear way reflect the diversity of object models of science, on the basis of which a scientific system of the views of an examined problem is formulated. Close schemes may be used in e-learning of any topics of a computer science course (also other subjects), also 'mathematical' as for example 'Arithmetic basis of computer.' The calculation systems or 'Algorithm'. The structure of algorithms and logical scheme of the concept of 'Internet' may look like these in Scheme 4.21.[Smyrnova-Trybulska, 2007, 2008]

Figure 1. Presentation of the logical spider net scheme of the concept 'Algorithm'.

It is known that this scheme has an example look and can be in a simple way modified, updated, depending on the class level (normal, profile), in which the concept is taught-in middle school at an introductory level, or in secondary school at a higher, more formalized, advanced level (the rule of concentric and spiral shaped learning). The logical scheme of the concept of 'Algorithm' can be directly used in e-learning with the help of the above-mentioned functions of the MOODLE system. In a similar way as in the previous example, concerning the logical scheme of the concept of 'Internet', one can form thematic vocabulary, adding different examples of the use of algorithms of different structures, giving cross-references to others, in the inner resources of the Internet, etc., which can systematically and comprehensively teach a given topic and present pupils with the concept of algorithm and its structure.

One should remember that practically every concept has its own structure. For example, the concept of 'the media'. Thinking about this category one should analyse and consider minimum 4 inner parts of the structure and subcategories: *hardware* (a device, hard medium, paper, a book, a film, a TV set, a DVD device, a computer, etc), *software* (print, sound, a film, a photographe, a computer programme, etc.), *message* (an announcement about the sort of text, sound, a photo, a drawing, a vide image, a multimedia programme, a 3D picture, teleimmersion, etc.), *teachware* (a service instruction, help, methodological recommendation, for example: to the school computer science usage etc.) [Strykowski, 1997]

And only those who know and remember about this complex concept structure can in a more complex and objective way estimate the meaning of the concept of 'the media' and use it more effectively, in the right direction, and with greater awareness.

Practice of using logical schemes during the computer science confirms the following situation: the more mental effort to prepare school material and give it a totally conscious structure, the easier it is to handle it. The organization and introduction of the remembered material in a similar kind of structure make it better to reconstruct it, and significantly make it easier to search further. The scheme presentation of the logical concepts to pupils based on non-divided logical data units is the structural presentation of a new material in a natural language, which makes it possible to let pupils, in cognitive school acting, assimilate the new material (the level of assimilation according to W.P. Bezpalko). It also appears as one of the factors creating the situation of success in the further organization of cognitive school dealing with pupils.

The pedagogical practice, also in the conditions of e-learning, shows that such a presentation of school material makes the more conscious structuralization by pupils of the observed school material and on the basis of it a deeper understanding of the logical regularities and connections between the basic concepts of the subject taught. Purposely, the graphic system presentation of concepts goes with the process of learning of these concepts from the beginning of learning this subject till the final exam term. Having such an attitude, in the period of learning pupils get visible strength of schemes, which formulate in their mind, graphic symbols make sense, become fulfilled with contexts, specified, new associations appear which can strengthen the consciousness of the possessed knowledge.

The work of pupils when they are looking for places for new concepts in the existing structure is quite interesting. In such a process of working pupils should analyse the structure of their own knowledge, which lets them include the new information in the earlier structures of the knowledge and concepts obtained

before. One makes a suggestion that the pupils who revise all the thematic material through the same scheme of studied material structure, different from what was used by learning, may sometimes reach amazing results, and illustrate what a particular pupil recorded and did with the obtained data, which fully agrees with the statement that the grade of agreement of source information structure and the client of school material indicate the grade of understanding.

Building the informative-logical schemes based on not full (empty) spider nets schemes by pupils on their own makes the cognitive interest of pupils higher, lets them achieve better learning results. The ability to systematize information and presentation in different ways has also got an independent value, good for pupils' thinking development, useful for creating in them a system outlook on objects and phenomena in the surrounding world.

The logical schemes of concepts should be formulated by professionals (teachers, teacher supervisors, the authors of workbooks, etc.) on the basis of defined rules of their formulating, analyses of existing models in a concrete sphere of knowledge, the regularities of perception of school material by pupils and others. Schemes should be included in workbooks of each subject, such as geographical atlas to geography workbook, if possible in a multimedia hipertext form, by the way, the supplement of some schemes or the introduction of new items should be possible.

It is especially update in the computer science, because the contemporary informative-educational computer environment is, first of all, hipertext, so it is important to create in pupils the viewing description, the understanding of the rules of its constraction, the understanding how to deal with it, the ability of fast finding necessary items, the need to use cross-references and footnotes to key words.

The idea to use different schemes to the viewing presentation of concept systems in the computer science (more precisely in some of its chapters) is very important for the practical usage in the educational process during computer science lessons. Experiments carried out by scientists allow to come to the conclusion concerning high efficiency of the used logical systems of concepts in class activities and e – learning. So, on their basis, one can formulate the explanation of new teaching material: during the lesson and during the problem dialogue in the logical scheme of concepts, it easily finds its own place. At the same time, almost automatically such important didactic tasks are solved as: formulating the system viewing on the subject, formulating the orientational base of acting and others.

2. Modelling based on object concepts and the correlation between them

Another approach to the presentation of computer system activity is the application of the modelling based on object concepts and the correlations between them. Modelling makes the understanding easier not only of the system structure, but also the rules of its activity, moreover, in an easy way one can go from the general information to the details of the complete system activity.

In the beginning phase of the object modelling development one can propose many ways of the system presentation. : 1) Shlaer Mellor, 1988 [Fig. 2]; 2) Martin Odell, 1992 [Fig. 3]; 3) Booch, 1993 [Fig. 4]; 4) Coad Yourdon, 1991 [Fig. 5].

Figure 2: Class diagram of the simple system (strategic game) based on the Shlaer Mellor methodology.

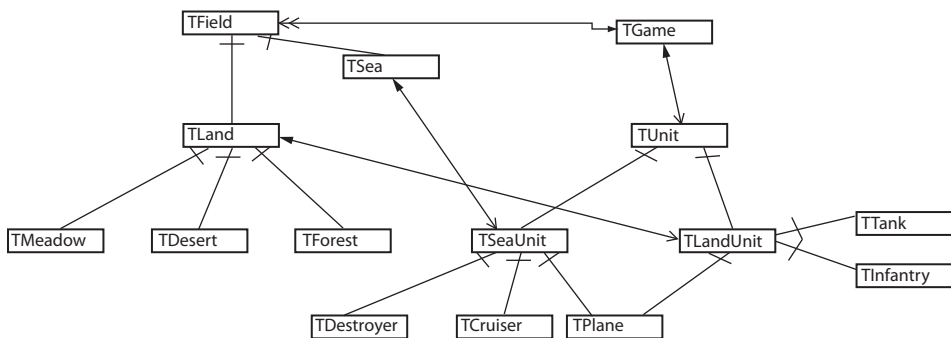


Figure 3: Class diagram of the simple system (strategic game) based on Martin - Odell methodology.

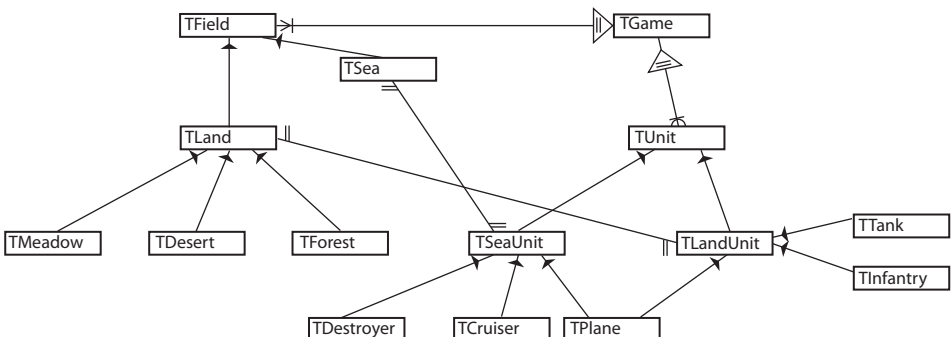


Figure 4: Class diagram of the simple system (strategic game) based on the Coad - Yourdon methodology

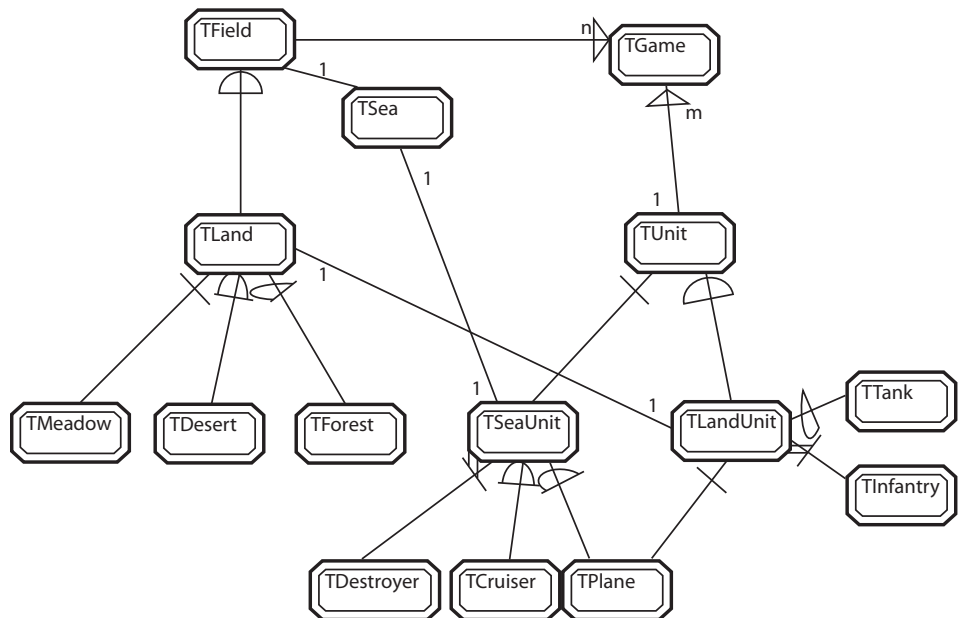
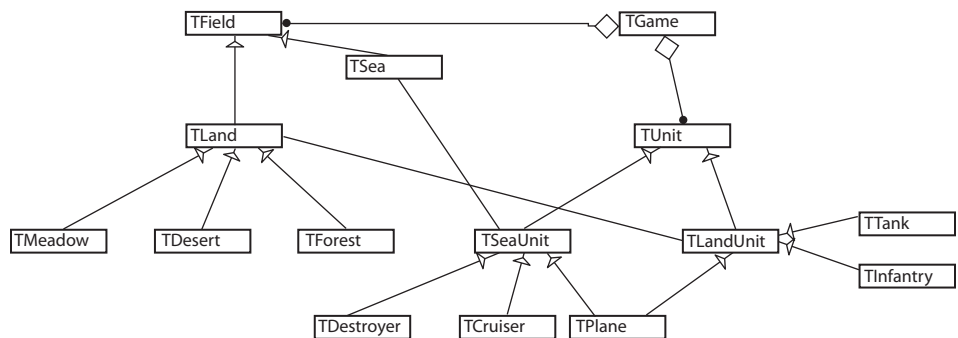


Figure 5: Class diagram of the simple system (strategic game) based on the Rumbaugh methodology



The pupil who is studying the UML model of the concrete computer system not only learns its elements, but also its principle of acting. From the static UML model, particularly from the class diagram, he/she learns what kinds of elements are included in the composition of the system and what features is the system characterized with – the description is included in the set of attributes and methods of the given class. Moreover, he/she finds the information about the correlation between classes: association, agregation, and generalization.

From the dynamic model he/she learns how the system deals with the relations to a concrete stimulus and examines the interaction of objects through watching the entrance events (stimulus) and exit (answers). Watching is not only applied to the dealing with the system as a whole, but also to the reaction of every element (object) (as far as such a need is required)

Such an analysis reflects the logic of the system and shows what can happen inside the system, when the outer stimulus appears. In the functional model a pupil learns with the transformations, equations or algorithms of object activities.

Teaching based on the UML methods was successfully used in the subject of Basics of Engineer Software and System Designing at one of the Polish Higher Vocational School and during the subject of Basics of Engineer Software and System Designing in a technical school. The main aim of the introduction was to find the answer, whether the e-learning courses and blended learning, taking into consideration the use of UML, can effectively teach to formulate the computer systems fulfilling the previously established aims.

Pupils were to formulate a computer science task based on the general basis of system requirements, by the way the role of the teacher was directed towards starting (working on it) and the improvements of this course – in other words the independence of the pupil was emphasised.

After the participants of this course had learnt the general rules of programming and drawing the basic UML diagrams they were studying the rules of dealing with the computer science system based on diagrams and the students also were formulating their own systems and programmes. The results were encouraging – a lot of time was saved, so far wasted on the communication and explanation what tasks the system should fulfil.

The main value of the UML model is its totality – as static schemes in the concepts of brain maps, graphs, tree or nets, concentrate rather on the concept, the UML model apart from information what the computer system consists of, contains the information how it works, in a very simple way to understand. From this model one can easily make the simulation how the system works, which plays a very important role in learning its precise aspects of working, especially in

e-learning, where the teacher is not always available on-line and sometimes cannot give a quick answer.

The next value of using the UML methods is the possibility of using it by pupils themselves.

The pupil who is formulating the computer system scheme (e.g. programme) thanks to diagrams may immediately verify its work and make some necessary corrections. The more detailed diagrams the pupil can make the more knowledge he/she obtains, the knowledge how the system works, and how it models and also the pupil learns the method of the system presentation, the precision, the patience with searching for the information and how to show others his/her own solutions. In this way, he/she becomes not only 'a taker' of the presented knowledge of e-learning, but also 'an active creator', and what is very important, he/she learns on his/her mistakes without the negative consequences, such as a bad test result. The well-done task, despite the difficulties at the beginning, is the source of satisfaction and motivates for further, independent searching.

The last but also very important advantage of using the UML method is the possibility of automatic implementation of checking the correctness of diagrams by the e-learning system, which makes the teacher free from correcting the right acting of the arrangement and long time analysis of the model. The implementation of automatic checking of the system is not an easy task and requires help from the e-learning administrator, but all in all, the advantages of its implementation are so huge that it is beneficial to cover the costs of such an investment.

The small disadvantage of using UML to the description of the system for the pupil is the necessity to learn the UML language used in the concepts descriptions, so for that reason the introduction of this method to the primary school is very controversial. However, the time devoted to the explanation of structure and diagrams is profitable later – an unambiguous and simple description of the system limits the possibilities of wrong interpretations of the structure and system work – language works well during the computer learning vocational subjects in secondary schools (technical schools) and at the higher schools, especially the teaching programming.

UML models may be also successfully used by the teacher to design the application which stimulates the work of concrete computer systems. Such applications are especially used in classes for young learners, where the direct usage of UML is debatable (the children's perceptive abilities should be taken into consideration, replacing the difficult details with more acceptable contexts).

Such applications (formulated on the basis of the UML method) have many values in comparison with the programmes created by the standard methods –

such values as: easier to analyse and any changes, simpler in conservation, well scaled and adaptable to different environmental and operative systems. Also they can be used in the new technologies of such types as Silverlight or Java/Java FX (and also Flash/Flex), including multimedia and integrated with the CLMS systems, for example MOODLE, will indicate and even now indicates a new way of e-learning in teaching the computer science as well as other subjects and spheres, favourable in increasing the quality of education and simultaneously encouraging and motivating learners to new scientific successes.

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Janina Świrko-Pilipczuk
Poland

Awareness of Pedagogical Education Concepts in Conditions of Reflective Modernity

Abstract

In the pedagogy education, very important is the answer to the query: to what extent and degree the actually projected and realized changes in this education are determined by the awareness of defined concepts of this education, and particularly their theoretical, interdisciplinary basis, fundamental characteristics and the conditions of realization, the possible results in the individual as well as social dimension?

In this article, the danger is signalized of the apparent changes which by their essence work for preserving the old solutions, that are differentiated with adaptive and directive characteristics.

The mentioned solutions clearly seccernate with the characteristics of social reality are described as “reflective modernity”.

Key words: *pedagogical education concepts, reflective modernity*

Pedagogical education has become an area undergoing particularly intensive changes. Participating in the process, observing the directions of planned and conducted changes, their contents, scope and current results, we reattempt to define the fundamental nature of conducted transformations and their basic meaning. One of the possible and significant – I believe – ways of achieving this goal is searching for the answer to the following question: to what degree and in what scope is designing and implementing changes in pedagogical education, their theoretical, interdisciplinary basics, core characteristics, implementation conditions and possible results both in individual and social dimension dictated by awareness?

In the question so formulated we emphasize above all the subject and contents of awareness, its scope and degree in people designing and implementing changes in pedagogical education. In that way we account for the significance of awareness in the mechanism of human cognition and actions, as well as its various functions, including: integratory and regulatory functions versus psychological processes and behaviour, "communication" and meta-cognitive functions in the information system of the mind, the function of a selective filter for the information flowing in through the sensory channels and functions of "a mental board", where currently processed contents are located. Awareness understood as *subjective reality currently experienced by a subject* defines the role of the state of awareness in mental processes, it is related to the process of their verbalization and the process of realization, as well as planning and implementing actions. Irrespectively of the position adopted in describing the process of realization (a metaphor of *choice* or a metaphor of *summary* or *interpretation*), awareness contents are vitally important, pivotal to the moral aspects of a subject's behaviour (cf. Kowalczyk 1995; Kwarciak 1995).

When referring the above to the awareness of the people designing and implementing changes in pedagogical education, it seems important to learn of the contents of awareness concerning the idea of such an education.

But what is equally significant, or maybe even the most significant, is to stress the need for formulating these people's awareness in the scope analyzed. Since there is a real danger that the actions undertaken with the intention of implementing changes to pedagogical education will in fact serve to maintain the old solutions.

The probability of such a threat may determine the awareness content of the authors of these changes, which has been formed within the scope of previously dominant and now reviving (although in a changed shape) concepts of pedagogical education. One can list among these concepts the ones which serve chiefly an adaptation function (socialization function in a traditional meaning). Most importantly the scientific and pragmatic concept according to J. Rutkowiak (1986, 1986a) must be quoted here and corresponding strategies: a behaviourist and apprentice strategy according to H. Mizerek (1999), as well as technological orientation characterized by H. Kwiatkowska (1988), or a technological model of educational work with adults according to M. Malewski (1999).

When analyzing all the above-listed concepts of pedagogical education and taking into account their philosophical, psychological and sociological bases, it is possible to demonstrate many differences between them, although all of them exhibit a role of empirical knowledge, they accept instrumental, technical and behaviourist rationality. They differ chiefly in their approach to the role of theory

in professional education and the relations they recognize between theory and practice, though all of them treat these categories separately.

And thus the scientific concept assumes the primacy of theory over practice, it underlines the significance of applying theory in practice, its “use”, “implementation”. In pedagogical education that conforms to the assumptions of this model students are taught the theory of pedagogy with an emphasis put on its scientificity and use of the social authority of science, which formulates a conviction of the authenticity of this knowledge and its objectivity, and – as a result – also the belief in its reliability and effectiveness of activity based on the theory. The concept does not account for the paradigmatic nature of scientific knowledge (cf. Kwieciński 1999, p.6) and students’ reactions to scientific knowledge as positive, “closing” knowledge, aspiring to the role of an answer (ignorance, “active ignorance” which is a refusal to accept imposed answers, which is an obstacle in learning) (Szkudlarek 1993, p. 116). Consequently – as J. Rutkowiak said – “renewed attempts at the creation of scientific – in the true sense of the word – foundations of pedagogy and constructing suitable regulations of practical actions, yield results divergent from the ones assumed, which frustrates both theoreticians and teachers – practitioners (Rutkowiak 1986a, 10).

The said frustration, dissatisfaction and “shattered hopes” (the term used by J. Rutkowiak), arising as a result of the application of this education model, constitute a serious reason making one reach for solutions of pragmatic ideas of teaching. And although they appear in a changed form in comparison to these variants of pedagogical practicism that were implemented in Poland after the II World War in teacher training grammar schools, and later in higher education institutions of teaching (School of Teaching, Higher School of Teaching), yet their nature and adopted assumptions have remained practically unchanged. They assume that practical knowledge, the know-how that is gained gradually, by trial and error is what counts in work of a teacher, while “professional mastery is the wisdom of an experienced professional” (Mizerak 1999, p.37). In professional teaching they concentrate on the teacher-to-be learning practical actions presumed to be typical of the occupation. This is mostly achieved through mastery of professional techniques and “tricks of the trade” through observation, imitation and consolidation of the actions performed by “a master”.

Practical knowledge most prominently displayed in these concepts is comprised of detailed, deliberately non-generalized experiences, and the basis for educating future teachers involves tips, recommendations, ready-made methodological solutions and successful behavioural patterns. And it is these aspects that make it similar to scientific concept, but – what must be stressed – the source of guidelines

in each of these concepts is decidedly different. In the scientific concept norms of action patterns are formed on the basis of generalizations resulting from results of practical research and their explanation in view of scientific pedagogy output, while in pragmatic-methodological (apprentice-based) concept the source of recommendations and methodological patterns is practice itself.

Without characterizing the aforementioned concepts in further detail, it must be observed that none of them creates space or conditions for the development of independence in a pedagogy student, a future teacher and pedagogue. Such a way of professional training does not practically provide for the development of independence, it does not make concepts such as individual freedom and autonomy the core of teaching. It is true that we can frequently find references to innovation, independence, and recently often to subjectivity and creativity in the text of the followers of the concepts, yet these are actually well-sounding slogans and declarations, which indeed can never be realized within the scope of the concepts. Since they are mostly aimed at learning a pre-determined (in study curriculums and syllabuses) and “closed” range of knowledge and skills, they instrumentalize both the pupil – student, and the teacher, depriving them of a need and skill to be independent, free, and at the same time responsible for their decisions and actions. What is more, in many cases the results of their implementation not only do not create the right conditions for the development of future teachers’ and pedagogues’ independence, but they actually block such attempts.

Moreover, in the implementation of “modernized” versions of such concepts, especially in the pragmatic-methodological concept, attractive, effective and engaging (chiefly through their dissimilarity to previously used ones) forms and methods are used as well as modern technical means are applied, which rather easily change their function and instead of a means to an end they become the end itself.

The persistence and continued presence in pedagogical education of the concepts directed mostly at the realization of adaptation function was consolidated in the process of professionalization of the teaching occupation, particularly when teachers’ education was included in university courses and their education gained a formal status, which on the one hand meant rooting it in formal, scientific foundations, while on the other hand – certifying it. At the same time, placing teacher training at universities “was not accompanied by either redefinition of academic education objectives, change in its structure or mentors – teachers who had been after all socialized inside an “ordinary” school tradition (Gołębniak 2002, p.14). As a consequence, such an education was characterized by a high value attached to scientific knowledge, explaining objectively the existing educational reality and applicatory nature of practice. Thereby, it was assumed that academic studies of

future teachers are to provide them with an in-depth knowledge in a given field (fields) through the assimilation of approved paradigms and through the acquisition of skills involving the use of all the detailed activities of a “good” teacher indicated in general didactics and specialized didactics. In this respect studying means learning structured knowledge within the scope of various disciplines. Forms of studying in their realization lead to a situation in which “contacts with academic teachers, mostly formal, reflecting the idea of ‘respect through dictate’, are not conducive to a dialogue geared towards independent search for or negotiation of contents and forms of work. Student autonomy in a deepened, independent study of practical problems is further limited by the grading system – concentrated on measuring end results. The training period at schools typically follows a cycle of scientific study and it serves to train “closed” skills, mostly through modelling the actions of a “good” teacher, usually under the control of a tutor” (ibid, p.15).

In assessing the probability of a possible danger indicated at the beginning, i.e. “maintaining” the pedagogical system of education of an adaptation and directive character through planned and currently implemented changes in the system, an answer to the following question may be of use: to what degree can one refer the characteristics of such an education quoted above to the reality of university pedagogical education of today and to the one envisaged for tomorrow?

The answer to this query gains particular weight if we realize the static and conservative actual nature of this education, blocking any transformation and evidently contrasting with the characteristics of a social reality man lives in at the time, which is described as the period of “a revolution of subjects,” “the age of individuality,” “the age of an individual,” “a risk society,” “late modernity,” or “reflective modernity.”

The most important features of the modernity indicated in its descriptions with the use of the above-mentioned terms include changes characterized by: long-term nature, openness, multidimensional character, feedback, as well as – frequently hidden – their incompleteness and paradoxicality (Krzychała 2007, pp. 20–26). Experiencing changes of this type breeds an awareness of globalized risk. Ever more common awareness of risk causes two – polar – reactions: either one pretends that there is really nothing new going on and that the past was just the same, or “one engages in an open debate, critical auto-analysis, thereby entering into the stage of **reflective modernity**” (ibid, p.28).

For the purpose of this study it seems significant to remind that this second stage of modernity, termed reflective modernity by U. Beck (Beck 2002, p.235), and late modernity by A. Giddens with its radical reflectiveness (Giddens 2002, pp. 40–46), in place of progress, he makes **responsibility** the chief category. Additionally, *the*

idea of reflective modernity of an industrial society (Beck 2002, p.235) was supported by **the concept of individualization**, where individualization is not reduced to the relation between socializing and individuation, between the dependence on social structures and breaking free from them. Individualization is perceived as *a new way of socialization*, as a kind of “change of form” or “a categorical change” in the relations of an individual and society (ibid, p.192). Hence, the forming social conditions, on the one hand, like never before favour man’s individuality and independence, while on the other hand they determine not only an opportunity but actually a necessity of developing these traits. For as U. Beck stated: “A human being in an individualized society must learn, or else will be permanently impaired, how to understand oneself as the centre of the action, a planning office of one’s own biography, one’s own skills, orientation, partner contacts, etc.” (ibid, p.203). External influences and society must be treated as “variables” in this autonomous process of creating one’s own biography. What is more, the interactions of these variables can be weakened, neutralized or rendered completely ineffective thanks to “inventiveness in the area of remedial measures,” which we use in connection with our own actions (ibid).

Generalizing, man living in the conditions existing in the society of the second, late modernity, in a risk society shapes his more or less successful life always adequately to the demonstrated degree and scope of independence, in planning his actions, taking decisions, in everyday activities, and in bearing the responsibility for his deeds, the undertaken and completed deeds as well as those abandoned ones.

The need to independently form a biography, as U. Beck emphasizes, brings new demands in various areas, including the area of education (Beck 2002, p.204). Relating it to pedagogical education as well as the nature and professional activity of teachers and pedagogues, one must bear in mind that these demands are contradicted by adaptation and directive concepts and systems of pedagogical education.

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New Educational Review



**Social
Pedagogy**

The Internet Addiction versus Aggressive Behaviour among the Youth

Abstract

The aim of the article is to address and to answer the question to what degree secondary school students are addicted to the Internet and whether this addiction is interrelated with the phenomenon of aggression among young people. The presented findings were obtained on the basis of Kimberly Young's Addiction Questionnaire and B. Urban's Aggressive Behaviour Chart revealing stunning results as in case of secondary school students (contrary to the younger pupils referred to and described in the literature) there are no direct or definite relations between the degree of the Internet addiction and aggressive behaviour manifested by them.

Keywords: *aggression and its types, the Internet, Internet addiction*

1. The Internet addiction: its essence, types, consequences

The contemporary researchers keep asking the question about reasons for aggressive behaviour among children and young people. They are searching for the answer on both genetic and environmental grounds. There is also a lot of research showing the connection between an increase in aggressive tendencies and contact with violence received through the mass media [R. Vasta, M. Haith & A. Miller, (1995), p. 506 and further].

In Poland, M. Braun-Gałkowska carried out research in a group of boys aged 12–15 which proved that the boys who played computer games at least 10 hours a week were more aggressive and it referred to their physical and verbal aggressive-

ness as well as their indirect aggressiveness, negativism, suspiciousness, sensitivity and irritability. They were characterized by higher emotional tension and lower sensitivity to good and evil. It can be concluded that children spending more time playing “aggressive” computer games are characterized by higher aggressiveness, whereas their moral sensitivity is lower. In the light of other research carried out among children it turns out that those often playing “aggressive” games are more emotionally tense, aggressive, vulgar, indifferent to good. Such games in which one destroys, kills, tortures are very dangerous and lead to antisocial behaviours, and sometimes even psychopathic ones. A lot of young computer players have lost such features as: sensitivity, patience, softness, care of other people, respect for life and death [M. Braun-Gałkowska, (1997), pp. 58–62].

Interestingly, the computer addiction, as well as the Internet one, is not described in the Diagnostic and Statistical Book of Mental Disorders DSM – IV, of The International Statistical Classification of Diseases and Health Problems ICD – 10, and the definition of “addiction” accepted by The World Health Organization refers only to alcohol and psychoactive drugs. However, some researchers claim that the definition may also be used to describe other addictions. If we understand “using the computer” as “taking drugs”, then the definition describes the discussed phenomenon accurately [A. Mardofel, Z. Iwanowski, & B. Chudzik, (2005), p. 35].

Being addicted is like imprisonment in the following scheme of thinking: there is a prevailing desire to do something, if an addicted person resists this desire or something gets in their way, anxiety and interest in this desire grow; satisfying the desire lowers this tension and erases the need; but soon it appears again [P. Robson, (1997), p. 163].

The above-mentioned definitions of the addiction have some common features. Each of them mentions increasing involvement which stands in the way of fulfilling the priorities of every human being's life, such as: family, work, rest [P. Robson, (1997), p. 164].

The Internet addiction does not have one official name. The following terms are quite often used: internetholism, Internet-dependency, cyber-addiction, net-dependency, netholism, Internet addiction, infoholism. However, “Internet addiction” [A. Mardofel, Z. Iwanowski & B. Chudzik, (2005), p. 35]. has the most universal character and that is why it is obligatorily used in this article.

In American articles one may come across the following terms: Internet Addiction Disorder, Internet Addiction Syndrome, Internet Abuse, Compulsive Internet Use, Pathological Internet Use [H. Ginowicz, (2003), p. 4]. In the following paper the addiction is defined as an inability to take control over impulses without using

psychoactive means, and its nature is similar to compulsive gambling [*Nadużywanie Internetu: przyczyny, objawy, konsekwencje*. (2002), p. 45].

C. Griffith defined the notion of technological addiction as an addiction to a behaviour based on interactions taking place not in contact with people. Expanding the definition, he introduces six main elements referring to the Internet addiction: domination, changes of mood, tolerance, symptoms of being rejected, conflicts, collapses [C. Guerreschi (2006), pp. 37–39].

In the recent years there has been a tendency to concentrate on two independent elements of the physical and psychological type of addiction.

We can talk about a physical addiction when, after stopping the dosed substance, typical reactions appear which are called the rejection syndrome. The phenomenon is characteristic of substances which slow down or weaken the functions of the brain. A mental addiction consists of: thinking about nothing but satisfying hunger and straightforward interpretation of signals [P. Robson, (1997), pp. 164–167].

Kimberly Young enumerated the following subtypes of the disorder:

- Addiction to virtual relationships, sometimes referred to as a cyber-relationship addiction. It is an addiction to the Internet social contacts, exaggerated involvement in relationships on the net (virtual). It has its representation in participation in chat lists, IRC, and contacts through e-mails. An addicted person makes contact only through the net, and has unsettled relationships of man-to-man contact while being off the net. Such people can “talk” for hours with other Internet users, but at the same time they have problems with personal contacts. Such people start to lose their non-verbal communication skills; they are unable to read information passed on at that level, or they misread it. People with this kind of disorder can be met mainly in such forms of contact which ensure synchronic communication.
- Cyber-sexual addiction – is mainly connected with watching films and photos containing erotic and pornographic materials or chatting on sex-focused forums. This disorder can be defined as a compulsive use of websites connected with sex and pornography. Quite often they are based on other disorders and sexual deviations, such as: pedophilia, voyeurism, zoophilia, extreme exhibitionism and others.
- Computer addiction – an addicted person does not have to be on the net in that case, it is enough if they spend their time at the computer. It is not really important for them what they are doing, if they are writing a very important composition or playing solitaire. The only thing that matters is the fact that the computer is on and they are right in front of it.

- Net compulsion is very similar to computer compulsion but it is connected with being on the Internet. Such people are logged in all the time and they keep watching what is happening on the Internet. It is their obsession to play on the net, take part in auctions, etc. This addiction combines all forms of IAD.
- Information overload – compulsive surfing the net or browsing data bases. It happens because of a rush of information, e.g. when one stays in too many chat rooms at the same time or takes part in too many discussion lists [H. Ginowicz, (2003), p. 18].

“A frequent use of the Internet begins to be accompanied by an increased feeling of loneliness and depressions. The paradox is that, as a matter of fact, the Internet is a social technology, which, as planned, was to improve and enrich social contact giving us a feeling that we are running a richer social life. (...) in extreme cases this time taker can prove to be a merciless robber. For some Internet users being on the net starts to resemble symptoms of a behaviour disorder, which seems to be similar to obsession. Such people can spend whole days on the net, not being able to go away from it, while their activity in real-life social relationships is deteriorating” [P. Wallace, (2005), pp. 225–226].

2. The results of empirical research

Some questions arise: Is there – if any, and what – a degree of addiction to the Internet among secondary school students? What do the students’ parents think about addictions? And the most important question : is the phenomenon of addiction in the researched material in any connection with the phenomenon of aggression? The author of the paper assumes that the degree of the Internet addiction among secondary school students is quite high, which is not understood by their parents, and what is more, it is closely connected with the aggression shown by them.

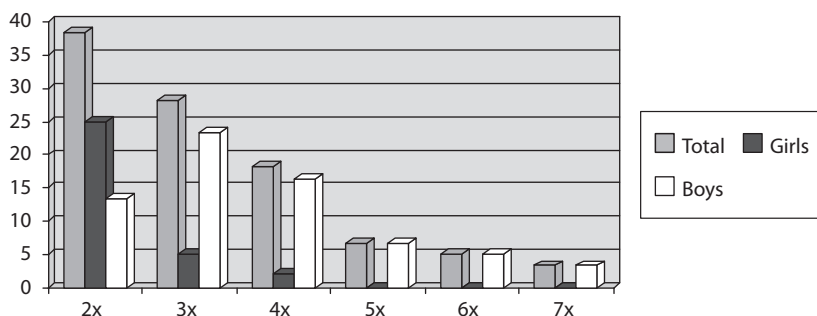
To verify the above hypotheses the author decided to use The Questionnaire of Internet Addiction prepared by Kimberly Young and The Observatory Aggressive Behaviour Paper by B. Urban to investigate 120 senior students of five grades in one of the secondary schools in a big agglomeration. The first tool contains eight questions referring to frequency, contents, amount of time spent on the net and various experiences and consequences which might affect the Internet user. Those who gave a positive answer to five or more questions are assumed to be addicted [H. Ginowicz, (2003), pp. 5–6]. The use of The Observatory Paper by B. Urban was

aimed at deciding which addicted students behave aggressively, and what types of aggressiveness they are and if they can be compared to the aggressiveness of non-addicted students. The Interview Questionnaire was used during the research into the parents of the two groups of the students.

It was intended to achieve knowledge about kinds of websites most often browsed by their children, time spent on it and their awareness of dangers brought by that medium.

The research results obtained in the group of young people after using Kimberly Young's Questionnaire of Internet Addiction is illustrated by Chart 1.

Chart 1. The number of "yes" answers in per cent of the whole 120 people group after using Kimberly Young's Questionnaire of Internet Addiction



The above chart shows clearly that the number of the people greatly addicted to the Internet amounts to only 3.3%. They gave their "yes" answers to 7 out of the 8 available questions. Those who answered "yes" to 6 questions (5% of the researched population) and 5 questions (6.7% of the students) can be considered addicted. The students who gave 4 positive answers (18.3% of the people) may be included in a group of risk. The remaining results are quite optimistic since 1/3 of the researched population (28.3%) chose 3 "yes" answers, and very optimistic as 38.4% of the students marked only two symptoms of the addiction.

The chart also shows that the boys are much more addicted than the girls because the latter slightly appear in 4 "yes" answers, and absolutely dominate among the non-addicted students.

And what do the students' parents think about the Internet addiction? The research shows that there is a clear difference between the parents of the addicted and non-addicted students.

And as for the time spent on the net, the first group were sure that their children did not spend much time at the computer (73.3%), 10% claimed that their children were in the virtual world for 2 hours a day, whereas 16.7% claimed that it took them 3 hours a day. At the same time, the parents of the non-addicted students revealed different data, of which 83.3% claimed that their children spent 3 hours a day on the net, 10% thought it took them up to 4 hours, and only 6.7% mentioned 2 hours a day. Differences between these two groups of parents appeared in the kind of knowledge they had about the information their children acquired from the net. The majority of the non-addicted students' parents said that the Internet was mainly used by their children to do their homework, whereas there were only 6.1% of such opinions among the addicted students' parents. The latter, in most cases, claimed that their children watched films or played computer games on the net. Playing computer games was also mentioned by 1/3 of the non-addicted students' parents, though at the same time they thought of it as the most important threat posed by the Internet. The most important threat for the non-addicted students' parents

Table 1. Extent and types of aggression among 120 students

Types of aggression	Number of students	%
Verbal aggression	44	36.6
Physical aggression	7	5.8
Translocated aggression	11	9.2
Lack of aggressive behaviour	58	48.4

turned out to be pornography – 88.9%, whereas only 10% of the addicted students' parents pointed this out as a threat, being more focused on the net game addiction – 73.7%. Let us have a look at the extent and especially types of aggression in both student groups researched. The results obtained using Urban's Observatory Paper are illustrated in Table 1.

Table 1 shows that almost a half of the researched (58–48.4%) do not show aggressive behaviour. Most of the remaining students (44–36.6%) show verbal aggression.

Not many, 11 (9.2%), are characterized by translocated aggression, but 7 (5.8%) present physical aggression. The obtained results might make one wonder, now when we are facing the highly-publicized, especially in the media and in the literature as well, extent of aggression among young people. It is possible that its small extent results from the relatively small number of students researched (only 120 people) or it might have been caused by the fact that the exam was taken by secondary school students (not middle school students).

Knowing the picture of the addiction, and the changes and types of aggression in the researched group, it was attempted to establish if there was any connection

Table 2. Spearman's correlation of importance in the whole group researched (120 students)

Types of aggression vs. degree of addiction	Spearman' rank correlation factor	P – level of importance
translocated aggression & addiction	0.225258	0.083549
verbal aggression & addiction	0.155714	0.234816
physical aggression & addiction	0.248559	0.055493

between them. Table 2 presents the results of Spearman's correlation factor. It is worth adding that the correlations marked are at the level of $p < 0.5$.

As seen in the two cases (marked blue), the correlation is on the verge of importance, which means that the calculated "p" level is slightly higher than the standardized alpha level = 0.05 assumed in the analyses. It can be said that there is a slight positive correlation between dislocated aggression, addiction and physi-

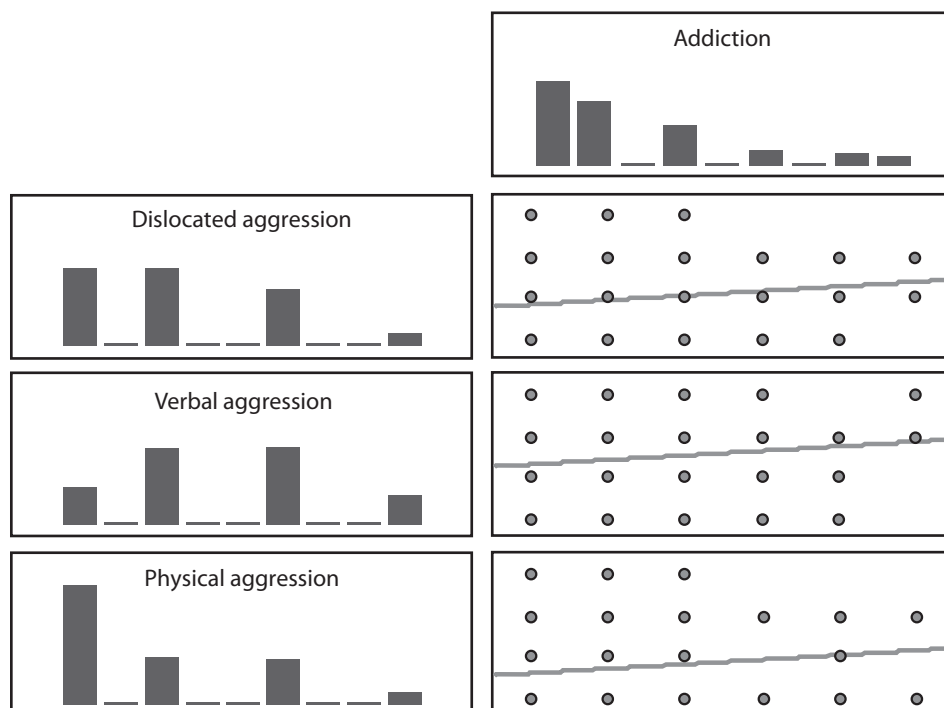
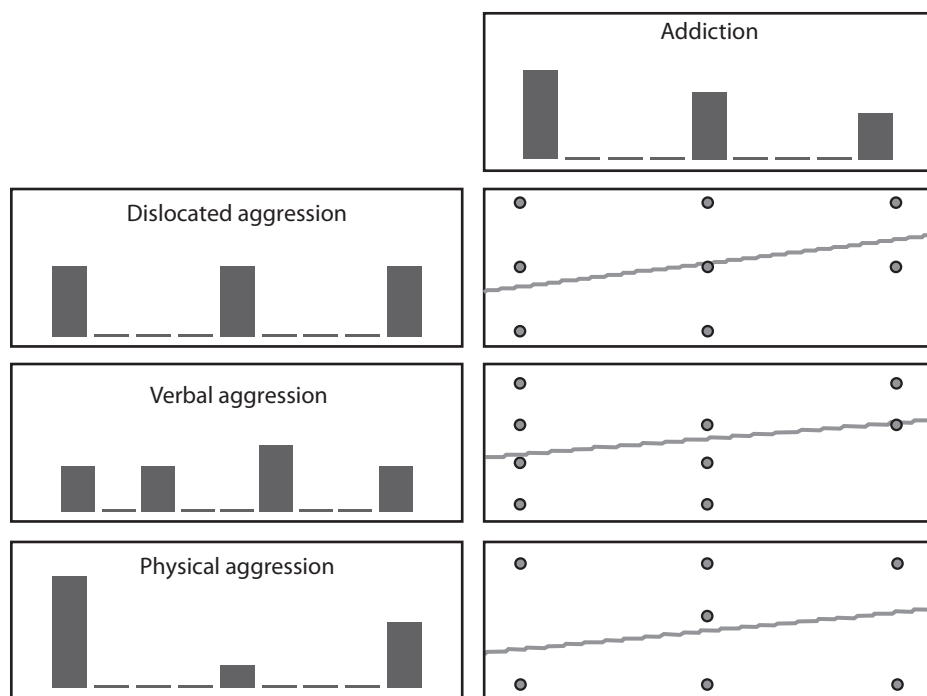
Figure. 2. The correlation between types of aggression and Internet addiction established in the whole (initial) group of students.

Table 3. Spearman's correlation of importance in the group of Internet addicted students

Types of aggression vs. degree of addiction	Spearman' rank correlation factor	P – level of importance
translocated aggression & addiction	0.338062	0.373569
verbal aggression & addiction	0.238693	0.536238
physical aggression and addiction	0.258966	0.501039

Figure 3. The correlation between types of aggression and Internet addiction established in the group of addicted students.

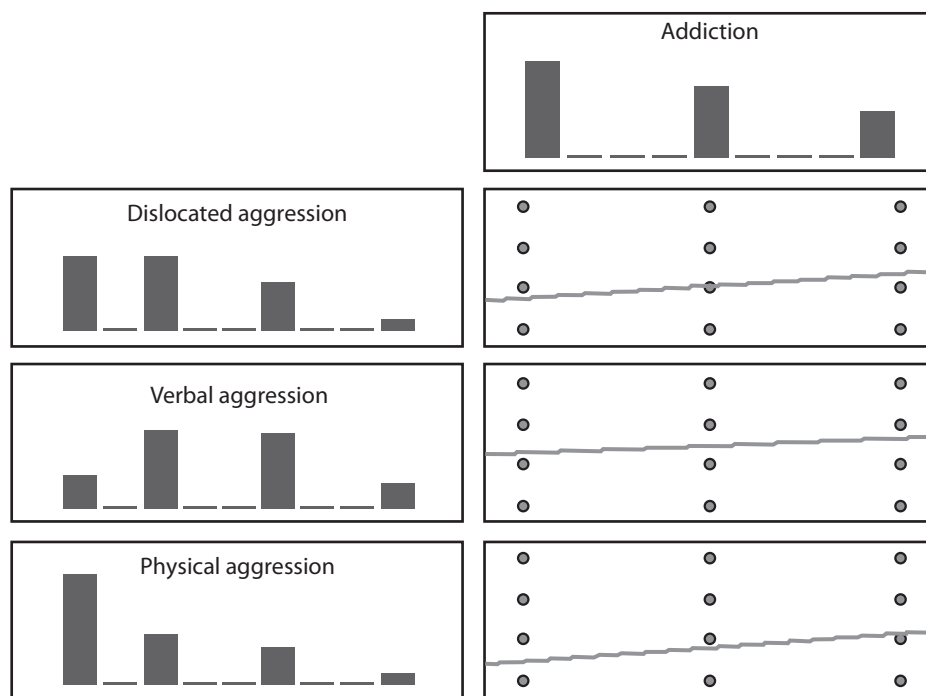


cal aggression, i.e. the higher aggression, the higher addiction. The correlation is shown in Figure 2.

Both Table 2 and Figure 2 refer to the initial group of 120 (students), which contained both the Internet addicted and non-addicted people. As can be seen, there is not a vital dependence between addiction to the medium and aggression shown by the students.

Table 4. Spearman's correlation of importance in the group of Internet non-addicted students

Types of aggression vs. degree of addiction	Spearman' rank correlation factor	P – level of importance
translocated aggression & addiction	0.297354	0.034084
verbal aggression & addiction	0.169549	0.234266
physical aggression & addiction	0.344791	0.013221

Figure 4. The correlation between types of aggression and Internet addiction symptoms established in the group of non-addicted students.

The connection discussed here will be clearer if we follow it separately in each group. And so, in the group of the Internet addicted students (7,6,5 or 4 positive marking), which is illustrated by Table 3 and corresponding Figure 3.

Both Figure 3 and especially Table 3 show a lack of vital relations between addiction and aggression.

The situation is a little bit different as far as the non-addicted students are concerned, which is shown in both Table 4 and the corresponding Figure.

As seen in the above Table, and Figure 4, there are important correlations in the non-addicted group of students between the dislocated aggression and physical aggression and scarce symptoms of addiction present among the students.

It proves that the higher levels of dislocated and physical aggression are, the more positive markings are (in Urban's Observatory Paper), the more symptoms proving addiction, which are enclosed in Kimberly Young' Questionnaire.

Summary

The following article has proved that it is possible to find in the literature some contents referring to the influence of the Internet on children's aggressive behaviour. However, the results obtained in the analyzed research into secondary school students have shown that there is a danger of the Internet addiction in this age group (aged 17–18), but the research results do not prove straightforward dependence between the addiction to this kind of medium and aggressive behaviour. Both the Internet addicts and non-addicted ones show examples of aggressive behaviour. It is worth adding that in the latter group (non-addicted students) there were found important correlations between dislocated and physical aggression and addiction symptoms. It is also interesting to look at varied opinions of the researched students' parents as for the time spent on the net (what is interesting the time was markedly lowered among the addicted students' parents), and kinds of information taken from that medium (the Internet addicted students' parents claimed that their children watched films or played computer games on the net, whereas the non-addicted students' parents claimed that their children treated the Internet mainly as some help to do their homework). Finally, it turned out that the two groups had a different approach to threats brought by the medium. The addicted students' parents claimed that the biggest threat was playing computer games, whereas the non-addicted students' parents claimed it was pornography.

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Bullying of Pupils at Primary and Secondary Schools and its Prevention in the School Environment in the Slovak Republic

Abstract

This paper deals with bullying as a significant socio-pathological phenomenon in school surroundings. It pays special attention to the prevention of bullying at primary and secondary schools. The paper also presents some selected results of research conducted with the teachers of primary and secondary schools in the Central Slovakia Region.

Key words: *bullying, victim, aggressor, prevention, forms of prevention, prevention in the school environment*

Bullying as a form of aggressive behaviour is currently becoming a serious educational and social problem, and due to its danger, an increasingly frequent subject of interest for professionals and the lay public. It is alarming that the age of bullying onset is decreasing. The Methodological Instructions of the Slovak Ministry of Education No. 7/2006-R state on the prevention and the solution of bullying the pupils at schools and school facilities that “at present, bullying is becoming a serious problem; it occurs at schools and school facilities, and constant attention should be paid to it with respect to both preventive and punitive actions.”

Similarly, the authors S. Kariková and M. Šimegová (2009, p. 160) emphasise that “we consider the prevention of bullying, based on the awareness, early revealing and effective solution of it, to be an urgent task in today’s society.”

Bullying even occurs under the conditions of primary schools. The results of the research of M. Bieliková and M. Bošňáková (2006, p. 28) at primary schools in Slovakia indicate that 9.3% of pupils at primary schools have experienced bullying.

According to P. Říčan (1995), 14% of 11–12 year-old pupils are aggressors and 18% of children are victims of bullying.

Bullying is defined by several authors (Říčan, Kolář, Kariková, Ondřejkovič and others). We see some common features in these individual definitions. Their essence is the fact that it is long lasting, repeated and intentional maltreatment with the purpose to achieve dominance, a typical feature of which is a disproportion of power. A victim is helpless for some reason. We state below some of the above-mentioned authors' definitions to clarify the issue in more detail. (A. Hudecová, In: J. Hroncová and others; 2004, p. 152)

A. Kopányiová and Š. Matula (2002, p. 27) state the following definitions of bullying:

1. Bullying is an intentional and unprovoked use of power by one pupil or a group of pupils with the purpose of causing pain or difficulties to some other pupil repeatedly. Bullying includes beating, pulling the victim's hair, gossiping, provoking, threatening, blackmailing or robbery.
2. Bullying is repeated, intentional maltreatment of others (physical or psychological), either by an individual or by a group of pupils, and there is a clear disproportion between the assailant/assailants and the victim; for example, beating, poking, stealing of money and possessions, hiding and destroying possessions, gossiping, abusing and excluding a victim from the company of others. Single actions are mostly not considered to be bullying.
3. Bullying is repeated aggression of an individual or a group of aggressors (mostly a small group) towards an individual or a small group of victims.

Bullying is understood as any behaviour of a pupil or pupils, the purpose of which is to aggrieve, threaten or intimidate other pupil or pupils. It is purposive and repeated violence against such a pupil or pupils who cannot or do not know how to defend themselves. Bullying is expressed in many forms. Bullying at schools mostly occurs during breaks, in cloakrooms, toilets or in spaces where supervising teachers do not go. It also happens that a child is bullied when going to or from school. It must be emphasised that bullying can also occur in the case when an aggressor is not at all aware of what they are doing and of its consequences. Similarly, there may be a reservation with respect to the proportion of power, when a victim of bullying is "strong enough" to resist, but the victim does not know how or does not want for several possible reasons.

Within the framework of bullying, we distinguish **two main groups of actors**: aggressors and victims.

An **aggressor** is someone who bullies. Aggressors are mostly boys, but girls are not excluded. Aggressors are robust individuals, though it may happen that

a shortage of force can be balanced by intelligence. Aggressors are typified by an excessive need for power and a strong desire to dominate, and they are self-confident and non-anxious individuals. M. Kolář (2001, pp. 86–87) states three types of aggressors or initiators of bullying:

1. rude, primitive, impulsive, with strong energetic potential, with frequent problems with obedience and a violated relationship to an authority, sometimes included in gangs, committing criminal acts; the aggressor bullies intensely, roughly and with no mercy, requires absolute obedience and uses bullying purposively to intimidate others;
2. very polite, cultivated, withdrawn and hyper-anxious, sometimes with sexually sadistic tendencies; their violence and torturing is purposive and crafty and more often occurs secretly, without the presence of witnesses;
3. "Entertainer," optimistic, adventurous, with distinctive self-confidence, talkative, very often popular among peers and influential; bullies to entertain themselves and others. They put effort into accentuating "humorous and entertaining" issues.

A **victim** is a child that is the object of bullying by others. Any child can become a victim, but most often he/she is a lonely, insecure and quiet pupil. Such pupils have low self-confidence and have problems getting ahead. They are very often new pupils entering the collective of a class. More often threatened are children with mental or physical handicaps and markedly different children (obese, clumsy and so on). A provoking child who irritates other children can become a victim too.

However, bullying is not only the issue of aggressor and victim. A significant role is played by the **witnesses of bullying**, who can be either positive or negative.

Bullying is a serious socio-pathological phenomenon and it leaves scars on its victims. According to S.K. Egan and D.G. Perry (1998, pp. 299–309), chronic tyrannizing among peers at school is linked with a large range of pupils' problems including depression, anxiety, low self-esteem, solitude, avoidance of the school surroundings a rejection by peers and fewer friends.

In 2008, we conducted a study by questionnaire with teachers of primary and secondary schools in the region of Central Slovakia (districts Banská Bystrica, Lučenec and Zvolen). We studied a total of 186 primary and secondary school teachers: 119 primary school teachers and 67 secondary school teachers. We researched into the occurrence of bullying among pupils at their schools. Our findings are shown in Table 1.

We found out that 90.32% of the teachers encountered bullying while teaching. What is bizarre is that we did not obtain statistically significant results between the teachers of primary schools and the teachers of secondary schools; i.e. bullying is

Table 1: The occurrence of bullying at schools according to the opinions of teachers

Alternatives	N	%
Occurrence of bullying	168	90.32
Bullying does not occur	18	9.68
Total	186	100.00

very common at primary schools. With respect to the forms of bullying, psychological forms dominate according to the respondents' opinions.

The need for effective prevention is increasing; in other words, preventing this undesirable phenomenon is eminently desirable, and school plays an important role.

Primary prevention is focused on children and youth having no problem with aggression. It is focused on the formation of moral values, healthy lifestyles and positive interpersonal relations.

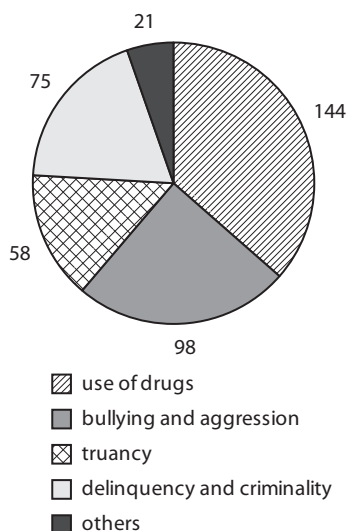
Secondary prevention is goal-directed work with children and youth having a disposition towards violence and aggression or behaviour disorders. The goal of secondary prevention is to prevent expression of the undesirable behaviour and to eliminate the causes that promote unsuitable behaviour.

Tertiary prevention is the comprehensive care of seriously disturbed children who participate in bullying. The task of this prevention is to prevent its repeated outbreak either at school or in other social groups.

We were interested in the socio-pathological phenomena which our respondents paid attention to within the framework of prevention action. The results are shown in Graph 1.

With respect to prevention, we determined that the main stress is on prevention of the use of drugs (legal and illegal), which was mentioned by 144 respondents (77.42%). In the second place, attention is paid to aggressiveness and bullying, which was mentioned by 98 respondents (52.69%) and in the third place are the topics of delinquency and criminality, which were mentioned by 75 respondents (40.32%). Truancy is next, which was mentioned by 58 teachers (31.18%). Others

Graph 1: Socio-pathological phenomena which our respondents paid attention to with respect to prevention



were mentioned by 21 respondents (11.29%) and specifically, the issue of non-substance addiction was mentioned.

The results of our research confirm that with respect to the prevention of socio-pathological phenomena, schools are preferentially oriented towards the prevention of drug addiction. When implementing primary prevention, it should be taken into account that children and youth are also threatened by other socio-pathological phenomena.

Professional literature (P. Říčan, A. Kopányiová and Š. Matula) states the following principles for the prevention of bullying in school surroundings:

1. **solidarity with the weak as a basis for class management**; the teacher (pedagogue) can and should apply a strategy based on the support of outsiders; deliberately pay attention to children who are anxious, shy, handicapped in a certain way, less attractive or isolated.
2. **the support of the teacher's authority, renewing the authority of the profession of the teacher** and school as an educational institution is a necessary condition for the proper fulfilment of the school's mission. Possible activities to promote desirable conditions are, for example, humanisation, the democratisation of the education system, the mutual informing of school and family and establishing self-governing bodies within the framework of our schools.
3. **ideological education** focused on instilling basic moral values; for example, respect for all human beings, solidarity, self-sacrifice, honesty;
4. **the principle of cooperation in education** – applying cooperation among children to the largest possible extent in all school activities is a significant practical protective factor against the emergence of bullying in the school environment;
5. **supervision at schools** – the more pedagogues or any other adults present in corridors of schools, in dining halls, and so on, during breaks, the fewer possibilities aggressors have for bullying;
6. **work with potential aggressors**, with respect to which we propose the following procedures: frequent use of praise, occupying with meaningful activities, training in social skills, the support of empathy, aid for building up of self-esteem.

S. Kariková (2001, p. 144) states the following recommendations for teachers:

1. The basic principle that must be applied from the first day of teaching for everybody, with no exception, is embodied in the statement "We are a school where bullying and blackmailing are not tolerated". All the school's

educational undertakings must be directed against bullying from the day this message is announced.

2. Pupils and parents should be informed about the fact that bullying is a criminal offence.
3. It is necessary to create such conditions at schools that pupils will not hesitate to tell teachers if they are bullied (for example, in the form of a “trust box”, the distribution of anonymous questionnaires surveying the occurrence of bullying, and so on).
4. It is necessary to ensure supervision in such spaces where bullying occurs most frequently (for example toilets).

The Methodological Instructions No. 7/2006-R consider the following to be important for the prevention of bullying:

- a) to create a positive atmosphere at school;
- b) to promote close cooperation among children, school employees and parents, and clearly define the opportunity to report any occurrence of bullying;
- c) to determine rules for behaviour clearly within the framework of the school's internal regulations, including sanctions for their violation, and to keep records of solutions to individual cases of bullying;
- d) in accordance with staff code of conduct, to ensure the strict supervision of pedagogues during breaks, before the start of lessons, after the end of lessons and later during the pupils' after-school activities, specifically in areas where bullying has occurred before or might occur;
- e) to inform the school employees about the school's system for reporting and investigating bullying, to increase the school employees' awareness, to organise seminars with professionals dealing with the issue;
- f) to inform the school employees about the procedure that must be followed in case they are informed of bullying,
- g) to ensure training in the prevention of bullying, specifically for class teachers, prevention coordinators and career advisors;
- h) to cooperate with professional institutions of counselling and preventive services in the region;
- i) to stipulate the obligation to report bullying in the code of conduct for pedagogues and other employees of school;
- j) to engage the “School Boards of Pupils” in the prevention of bullying.

It is necessary to be aware of the fact that bullying includes elements of an offence or a crime. Pupils are not well-informed of this fact.

According to J. Hroncová (2006, pp. 43–44), the most important organisational forms of prevention at schools comprise:

- the teaching process, specifically through subjects such as ethical education, civics and others if the curriculum allows for it;
- extra-curricular activities of children at school are considered to be a very effective form of prevention;
- special prevention projects implemented in cooperation with the police, court or other institutions;
- education of a healthy lifestyle and the launching of other specific projects;
- forming of a positive psychological climate at school, removal of the authoritative style of education, deepening of trust and cooperation between teachers and pupils;
- deepening of the school's educational function through class teachers, career counsellors and other pedagogical employees of the school;
- activity of the coordinator of prevention;
- cooperation of the school with after-school educational and psychological prevention activities;
- visual promotion and the use of informational and communicational technologies;
- cooperation of school and police, specifically the prevention coordinator at the various levels of police;
- self-government activity of pupils, and so on.

The implementation of prevention programs and projects is beneficial. According to E. Gajdošová and G. Herényová (2006, p. 244) "the development of cognitive, emotional and social skills is among the primary goals of prevention programs". The project, *"The Prevention and Elimination of Bullying at Primary Schools"* is targeted to create a methodology of the solution to this problem and the cooperation of family and school, and to ensure a unified professional approach to the solution of bullying and aggressive behaviour at primary schools.

The prevention program against violence at schools *"Srdce na dlani"* (*Wear Your Heart On Your Sleeve*) develops skills necessary for healthy social and emotional development. There are versions of this program for pre-school age children as well as for pupils of the 1st and the 2nd grades of primary school and secondary school students.

"Owens' Bullying Prevention Program" is also included among prevention programs. It can be used at both primary and secondary schools. The program is compiled for decreasing and preventing bullying problems.

"We Know That... – a program against evil, violence, addictions, prejudice, racism and an unproductive way of life" – is designated for the 6th grade and the higher years of primary schools and secondary schools. Its goal is to increase

pupils' awareness of the legal consequences of pathological behaviour, to decrease the occurrence of socio-pathological phenomena at schools and to explain the causes of young people's delinquent behaviour.

Similarly beneficial are programs such as "*Weekend Stays and Experience Activities for Class Groups*". Primary and secondary school pupils are its target group. The purpose of such programs is to decrease the occurrence of negative phenomena in pupils' behaviour, to eliminate aggressive behaviour and to strengthen positive relations.

The prevention-educational program "*The Road to Emotional Maturity*" improves peer relations, supports integration into the class collective, decreases the probability of hostile relations among children and changes the level of children's emotional experience. It is suitable for the prevention of bullying in the school environment. It is designated for the target age of 12–15 years.

One type of prevention program called "*Program against Violence and an Adequate Solution of the Conflicts of Pupils at School*" as part of the *Program of Development of Emotional Maturity* was developed by E. Gajdošová and G. Herényiová (1999, p. 67). Within its framework, the pupils think of various forms and expressions of violence among people, specifically among pupils at schools or between teachers and pupils. They learn to know themselves and people around them, to form healthy self-confidence, to control their emotions, to understand the opinions of others, to develop effective and optimal communication and cooperation with their classmates and to solve conflicts in a non-aggressive manner.

We also researched into the forms of bullying prevention implemented by our respondents. As far as prevention programs and projects are concerned, at least one prevention program or project was implemented at all schools. However, we found that most of them were focused on the prevention of drug addiction, then on the prevention of delinquency and criminality, and so on.

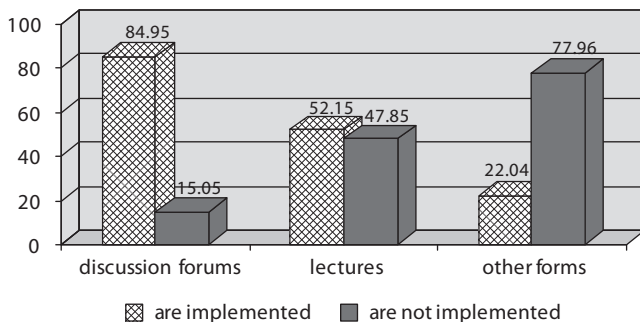
Furthermore, we also researched into the proportion of individual forms of prevention activities (in addition to the above-mentioned prevention programs and projects). The results are shown in Graph 2 (data by percentage).

Graph 2 shows that discussion as a form of prevention is mentioned by 84.95% of the respondents. It can be evaluated positively that the discussions were held with professionals in the relevant field.

Lectures were mentioned by 52.15% of the teachers as a form of implemented prevention. This is quite a high number considering that lectures are thought to be a less-effective prevention form and suitable for neither primary nor secondary schools.

Other forms of prevention are used by 22.04% of the respondents. Among

Graph 2: The implementation of individual forms of prevention



“other forms of prevention”, the respondents include prevention within individual subjects, hobbies, competitions (artistic and literary), quizzes, exhibitions (artistic and literary), discussions, debates, everyday contact with pupils, notice boards, TV programs, school radio, sport events and any other individual events, leaflets and posters, theatre, and so on.

However, it should be emphasised that individual activities cannot replace systematic and targeted work in primary prevention. Lectures or discussions need not necessarily have a positive effect; they can even evoke interest and curiosity in something negative, for example trying a drug as something that is interesting and dangerous. Effective prevention should not scare, ban or order, it should explain truly, to clarify and offer other possibilities.

Based on the results of the research, we suggest the following **recommendations for practice**:

- as bullying occurs at primary schools, the issue of bullying should not be underestimated, but paid adequate attention to;
- teachers should pay more attention to pupils' behaviour; if there is any suspicion, eliminate any early signs on time; pay the same attention to boys and girls, as bullying also occurs among girls, though it is less perceptible;
- create conditions for active participation of all teachers in school activities implemented as part of bullying prevention;
- methodologically and professionally prepare teachers for bullying prevention at schools;
- improve teachers' and pupils' awareness of bullying; ensure distribution of information about bullying in various forms, for example, publishing in school newspapers, regional newspapers, leaflets and informative brochures, by school radio, school notice boards and in school corridors; make Internet

websites on the issue of bullying public (for example, in the form of leaflets, on notice boards, and so on);

- create a healthy climate based on trust; strengthen relations among pupils and improve communication between teachers and pupils; teach pupils mutual tolerance, respect, empathy, mutual cooperation and help, and how to resolve conflict situations adequately;
- implement the supervision of teachers not only in corridors, but also in classrooms; pay more attention to spaces such as cloakrooms, toilets, in schoolyards through more frequent and at the same time random, irregular and unexpected checks of these places;
- increase awareness of the existence of undesirable phenomena at school, with respect to the possibilities that pupils can use in crisis situations without hesitation; inform through entertaining projects, plays, school journals, pupils' school boards, discussion forums through the Internet during information technology lessons and so on, and also through debates with professionals;
- encourage and support pupils to do meaningful activities, not only through the offer of clubs at the beginning of school year, but first of all teachers should motivate and be an example to pupils;
- offer more interesting prevention programs and not to perceive their implementation as extra work, but as a space for those pupils who do not excel so much; pupils can also be included in prevention programs;
- improve communication between school and parents; include parents in the activities of school focused on bullying prevention;
- present and make available information for pupils concerning intolerance and racism, intensify empathy with people who have become victims of violence or with people who are different from others in some way; develop pupils' emotions and character positively.

As in previous years, we observed a rapid increase in pupils' problematic behaviour at primary and secondary schools, whereby the initial problems manifest themselves in lower age categories, it is also necessary to solve the relevant behaviour disorders, not only to implement prevention. Therefore, the need for socio-educational aid to individuals and families in critical situations seems to be relevant. Only sufficient knowledge of the issue can encourage positive changes. This is why adequate attention should be paid to the preparation of teachers in this field.

The role of schools in the primary prevention of behaviour disorders and socio-pathological phenomena is extremely important. In the first place, school implements primary prevention, and in some cases secondary prevention too (specifically in cooperation with other professionals).

It might be very interesting if, based on this paper, joint projects originated, or at least the standpoints of readers from abroad concerning the current situation of this issue in other countries were presented.

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Prevention of Drug Addiction at Primary and Secondary Schools in the Slovak Republic

Abstract:

In this paper we analyse possibilities of drug prevention at primary and secondary schools. At the same time, we present some selected results of the research implemented with the coordinators of drug prevention and the pupils of primary and secondary schools in all the regions of Slovakia.

Key words: *drug prevention, primary and secondary schools, children and youth, prevention coordinator, social pedagogue, pupils' interest activities, projects of prevention work.*

At present, taking drugs and the origination of drug addiction represent one of the most serious socio-pathological phenomena of children and youth. P. Ondrejko (1999), J. Hroncová (2007) and I. Emmerová (2008) emphasise that with respect to the fight against drug addiction, it is necessary to transfer the core of society's activities into prevention. The national program of drug prevention specifies a national strategy of drug prevention, and it states that with respect to the effect of influence, currently and in perspective, the most important sphere is prevention at all its levels. At present, the need for the professionalisation of prevention processes is accentuated, which is pointed out by several Slovak and European reports as, for example, the National Program on Fight against Drugs for the years 2004–2008, the Strategy of Criminality Prevention in the Slovak Republic for the years 2007–2010, the EU Drugs Action Plan 2005–2008 and the EU Drugs Strategy 2005–2012. Within the framework of their priorities, they emphasise family, school environment as well as other organisations and institutions that contribute to the prevention of all socio-pathological phenomena. P. Ondrejko

(2002, pp. 116–117) states that the ability to intervene in the social regulation of young people's behaviour with the help of the whole set of methods and methodologies with one goal – to prevent the occurrence of the largest possible number of the elements of socio-pathological behaviour – should become the essence of the professionalism of prevention processes. Furthermore, P. Ondrejko states that the only possible effective response of educational institutions is to professionalise the prevention processes, specifically that of primary prevention, which should be outlined integrally as an effective and structured whole, based on exhaustive knowledge of practice and theory.

According to R. Czerniachowska (2006, pp.112–113), prevention includes action that is focused on the neutralisation of the impact of agents causing a potential threat to the individual's biological, social and cultural development, and that which lies in revealing all negative situations preventing their healthy development as well as the whole complex of elements of surroundings that may obstruct the favourable development of the individual or surroundings in which the individual will live in the future.

Specifically effective goals of drug prevention comprise the following:

- to prevent drug addiction, including alcohol and tobacco addiction,
- to at least postpone the first contact with drugs to an older age, when teenagers' body and psyche are relatively more mature and more resistant,
- to decrease or stop experimentation with drugs if it has occurred and thus to prevent various health problems including addictions that require therapy. (Nešpor, K. a kol. 1999, p. 6).

In 2008, we conducted an empirical study, part of which was focused on the analysis of drug addiction prevention at primary and secondary schools in all regions of the Slovak Republic and on pupils' personal experiences with drugs. We conducted the research using a questionnaire. We sent questionnaires to 22 primary schools and 52 secondary schools in the Slovak Republic. Our research sample comprised selected teachers – the coordinators of drug addiction prevention at primary and secondary schools (SZŠ = Secondary Health Schools, SOŠ = Secondary Professional schools, SOU – Secondary Vocational Schools) $N = 65$, as well as pupils (the 6th and the 9th forms) of primary schools, the pupils (the 1st and the 4th school years) of secondary schools in certain regions of Slovakia; $N = 3279$ pupils, thereof 1959 secondary school pupils and 1320 primary school pupils. The research was carried out at 22 primary schools and 52 secondary schools. With respect to the type of school, the primary school pupils had the largest representation, 40.26%, and 31.35% of the pupils attended secondary professional schools throughout Slovakia. With respect to individual school years, the plurality of pupils, 22.24%

were in the third school year, and with respect to primary schools, the pupils of the 9th school year prevailed with 17.88% of the total. Of the part of our research sample that comprised prevention coordinators who work at schools, 83.05% were women and 16.95% men.

At present, the issue of drugs and drug addiction is among the most discussed topics by professionals and the public. More and more pupils of primary and secondary schools have personal experience with legal and illegal drugs. The age when drugs are used is 10–16; this mostly relates to the pupils at the second level of primary school and the first years of secondary school. Therefore, we focused part of our research on determining pupils' personal experiences with drugs. We found out that as many as 45.68 percent of the pupils had experienced alcohol and 34.15 percent of the pupils had experienced tobacco cigarettes. Marijuana is the other drug that the pupils had experienced more than others; i.e. 14.28 percent of the pupils. In the category "other drugs", the pupils reported caffeine in the first place, followed by MDMA, hallucinogenic mushrooms and datura. There were three positive responses for each of the following: steroids, morphine, toluene. With respect to sex, the girls had more experience with legal drugs, whereas the boys specifically stated personal experience with illegal drugs (marijuana, cocaine, heroin, LSD and others)

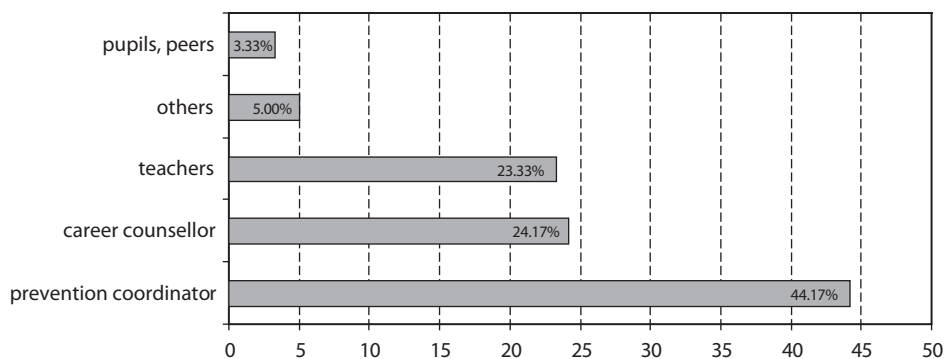
The competences of a coordinator of the prevention of socio-pathological phenomena are regulated by the Pedagogical-Organisational Instructions that are annually published by the Slovak Ministry of Education for schools, school facilities and Slovak state school authorities as a binding regulation. It is one of the duties of a prevention coordinator to work out an annual prevention plan according to which prevention will be organised at school. We were interested in whether the coordinators succeed in fulfilling these preventions plans during the school year and to what extent. The responses of the prevention coordinators indicate that the annual prevention plans, compiled by the prevention coordinators, are only implemented by 28.57% of the prevention coordinators. The prevention coordinator, when compiling a prevention plan or when determining goals for the prevention of drug addiction, should know the real situation at their school (the number of experimenting pupils, threatened pupils, high-risk surroundings, and so on). In this case, it seems to be suitable to implement monitoring of the occurrence of socio-pathological phenomena. We investigated whether the coordinators carried out monitoring. We found out that as many as 80.00% of the coordinators at the investigated schools carried out monitoring. The coordinators most frequently state the following as the reasons for the implementation of monitoring: to find out the

causes of the occurrence of negative phenomena among pupils, to determine the real situation at schools, and so on. The prevention coordinators who do not undertake monitoring at schools state the following reasons: shortage of financial means, shortage of time, and so on. Teachers, career advisors or prevention coordinators who work with pupils should know which information should be rendered to pupils and to which extent, to which extent the pupils are informed about drugs and their effects, and where to focus their attention primarily. In accordance with the Act on education No. č. 245/2008, a social pedagogue may work at schools in the sphere of prevention activities with respect to theoretical, practical and conceptual aspects, as well as the professions from the sphere of therapeutic-counselling workers; i.e. special and therapeutic pedagogues. The employment of the above-mentioned professionals at primary and secondary schools would make the implementation of primary prevention significantly more effective.

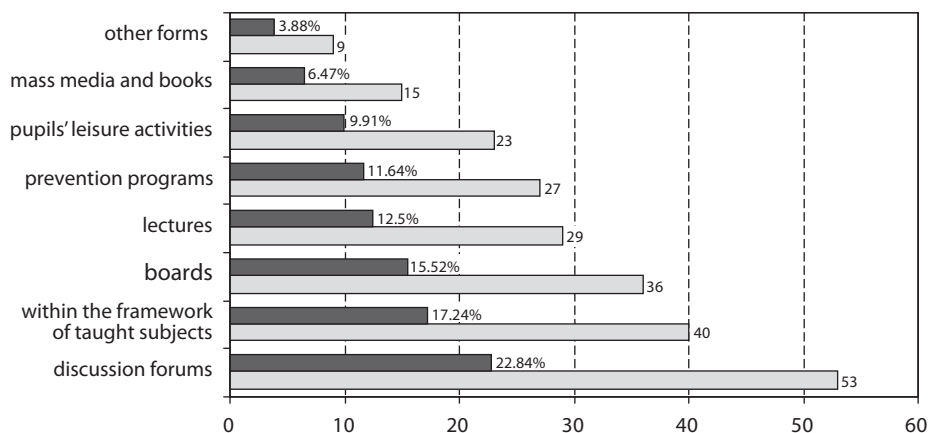
With respect to the implementation of prevention activities at schools, we were interested in what was perceived by the selected coordinators of drug addiction and other socio-pathological phenomena as the most important contribution of their work. The coordinators of prevention most frequently state the following alternatives: to prevent trouble with drugs, to coordinate prevention activities at school, to disseminate public education, concrete help for pupils, revealing socio-pathological phenomena, and so on.

Part of our research was focused on determining the forms of prevention that are implemented at primary and secondary schools and on the opinions of pupils and prevention coordinators with respect to these activities. With this research it was

Graph 1: Implementers of prevention activities from the point of view of prevention coordinators



Graph 2: The most frequent form of drug addiction prevention implemented at school according to the opinion of prevention coordinators



very important to determine who implements the prevention activities at primary and secondary schools. The established results are shown in Graph 1.

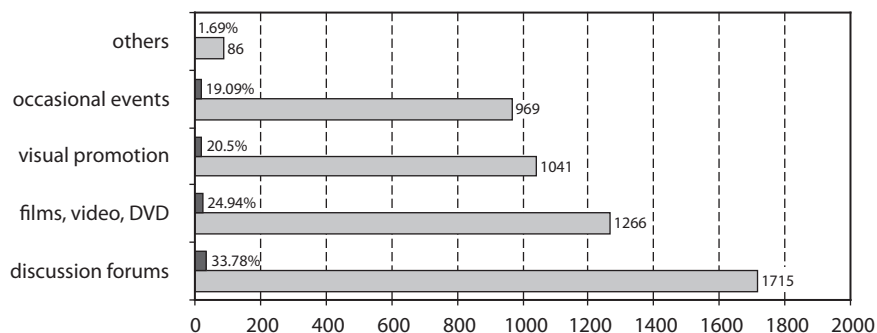
Graph 1 indicates that the prevention coordinators are of the opinion that the prevention activities focused on the issue of drugs at selected primary and secondary schools are most frequently organised by the prevention coordinators ; which is stated by 44.17% of the prevention coordinators. Implementation of prevention activities is shared by 24.17% of the career counsellors and 23.33% of the teachers. We evaluate this indicator positively. In the category, “other implementers” of prevention activities at schools, the coordinators mention the staff of pedagogical-psychological centres and police who are invited to schools by prevention coordinators and teachers.

Similarly, we were interested in which of the prevention forms is implemented the most frequently according to the opinion of the prevention coordinators. The established data are shown in Graph 2.

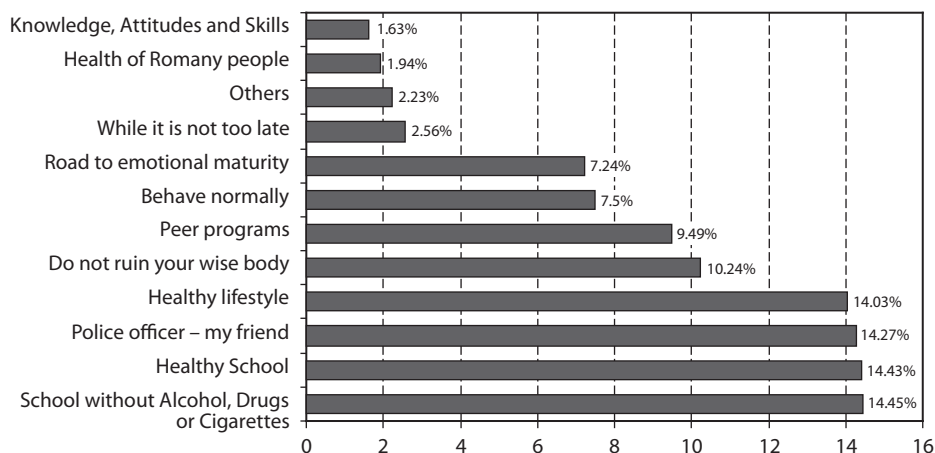
Graph 2 shows that the coordinators of prevention mention discussion forums as the most frequent form of drug prevention organised at the studied schools, which corresponds with 22.84% of the answers. Single activities cannot replace systematic and targeted work within the framework of primary prevention. A lecture or discussion need not necessarily have a positive effect, and it can even arouse interest or curiosity in drugs as something that is new and dangerous (Emmerová, I. 2007, p. 103). The teaching process for prevention purposes is used by 17.24% of the coordinators. The process of teaching creates enough space for the implementation

of drug prevention. The project named “Why I Am Glad to Be in the World“, by author I. Hupková, is very significant and popular among pupils. This project is implemented within the framework of art education, and it is a task of pupils and students to point out the negative factors of drug consumption through their own paintings. In 2008, it was the 14th year of this competition. With respect to the alternative “other forms”, the coordinators mentioned other forms of drug prevention such as occasional events that are organised by schools (theatre, concerts, sport events, and so on). We also investigated which of the forms of drug prevention were implemented at primary and secondary schools. We determined that pupils’ leisure activities, as one of the forms of drug addiction prevention, are significantly ($p=0.006^{**}$) more frequently implemented at primary schools than at secondary schools; i.e. 14.43%. Similarly, visual promotion as one of prevention forms is implemented significantly ($p=0.008$) more frequently at primary schools than at secondary schools; i.e. 14.43%. The other categories are implemented in a similar manner at primary schools as well as secondary schools. We also researched into the pupils’ opinions of the forms of prevention at schools. The established results are shown in Graph 3.

Graph 3: The most frequent forms of drug prevention from the point of view of pupils



The results shown in Graph 3 indicate that discussions with professionals dominate the forms of drug prevention, which is stated by 33.78% of the pupils. Single activities cannot replace systematic and targeted work within the framework of primary prevention. The next form of prevention presentation is through films, video and DVD, which is stated by 24.94% of the pupils. This form of drug prevention is more attractive and more adequate for pupils as it uses the latest forms of presentation through modern technology. In the indicator “others”, the pupils most

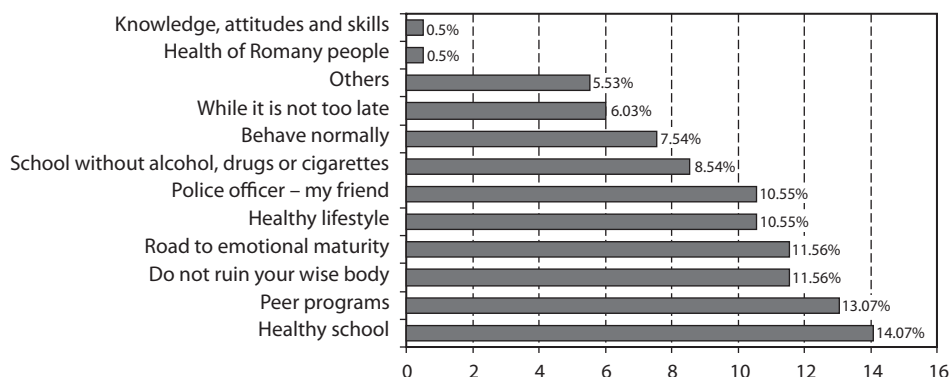
Graph 4: Projects of prevention work based on the pupils' answers

frequently mentioned educational concerts, lectures of professionals and 14 pupils stated that their school does not implement any prevention activities.

P. Ondrejko^{vi}č (2007, pp.14–15) points out the non-preparedness of teachers, unsystematic approach, events only focused on the cognitive aspects of attitudes (leaflets, brochures), which comprise frequent mistakes of implemented prevention in school environments. It is more attractive and more adequate for pupils to implement prevention activities audio-visually. Therefore, we investigated whether the prevention coordinators use the above-mentioned technique. We determined that as many as 87.50% of the coordinators use audiovisual means at researched schools, such as DVD films, videocassettes and data projectors most frequently. We evaluate this fact positively.

The national program for drug prevention emphasises the need to implement special projects of prevention work with children and youth. In the following question, the coordinators were supposed to state which of the primary prevention projects had been implemented at the researched schools. At the same time, we asked pupils the same question. The results are compared with the results of the coordinators and shown in Graphs 4 and 5.

The research results stated in Graph 5 show that the “Healthy School” project holds a dominant position among the prevention projects, as mentioned by 14.07% of the coordinators. Similarly, the “Healthy School” project is mentioned by 14.43% of the pupils as the second most frequently implemented prevention program. Since 1992, this project has been a component of “the National Program of Health

Graph 5: Projects of prevention work based on the answers of prevention coordinators

Support”. Many schools and educational institutions that fulfilled the requirements of the World Health organisation (WHO) received the Certificate and established “The National Network of Schools Supporting Health”. According to the pupils’ responses, the most frequently implemented project is “School without Alcohol, Drugs and Cigarettes”. The coordinators of prevention mention “Peer Programs” as the second most frequently implemented prevention program, which represents 13.07%. The Peer Program is based on the mutual cooperation of pupils rendering specific knowledge with the purpose of contributing to the formation of anti-drug attitudes. The program is implemented by peer activists trained in advance. With respect to the category “other prevention programs”, the pupils mention programs such as “Stop Smoking”, “Prevention and Elimination of Bullying” and “Drug Dog”. The purpose of the “Drug Dog” prevention project is to eliminate the use and distribution of drugs at primary and secondary schools. According to J. Szymańska (2002, p.54), the effectiveness of prevention programs is higher if pupils’ parents actively participate in the implementation of the program. The support of mutual relations between parents and their children is also pointedat by Rogio M. Pinto and Tricha Queely (2003, p.77), who state that it is just this relation between parents and their children that may assist as a tool of support (their mutual cooperation, building up of new skills and awareness of responsibility for themselves and their relatives) in the prevention of drug addiction, and be used for the implementation of prevention programs.

We also researched into the implementation of prevention programs depending on the level of school. We discovered significant differences among the categories of prevention programs as “Policeman – My Friend”, “Do Not Ruin Your Wise Body”,

“Health School”, “Behave Normally” and “Road to Emotional Maturity” that are implemented at primary schools more frequently than at secondary schools. The prevention program “Do Not Ruin Your Wise Body” is the most frequently implemented program of primary schools; represented by 17.31%. “Peer Programs” are the most frequently implemented programs at secondary schools, mentioned by 17.89% of the prevention coordinators.

Prevention will only be effective if implemented over a long period of time, systematically and comprehensively, and this is mostly the case of prevention programs. Therefore, we also investigated, through a questionnaire for coordinators, how selected coordinators evaluate the effectiveness of the implemented prevention projects. The obtained results are shown in Diagram 1.

Based on the coordinators’ answers that are shown in Diagram 1, it is apparent that as many as 58.62% of the coordinators consider the prevention programs to be very effective. As a negative finding, we perceive the fact that 37.93% of the prevention coordinators consider the prevention programs to be not very effective. We are of the opinion that well-prepared prevention programs play a significant role in the primary prevention of socio-pathological phenomena, and therefore, they are and will continue to be among the most effective strategies of prevention. The implementation of a prevention program requires a long-lasting and systematic approach of all the participating parties, including monitoring as well as the evaluation of real results.

With respect to prevention, we were also interested in whether pupils actively participate in the drug prevention activities at the researched schools. We also asked the prevention coordinators and pupils this question. We found that 81.78% of the pupils do not participate in the activities that schools implement in the sphere of drug addiction prevention, which we perceive as a very negative finding. The results of our research point out the fact that the pupils do not express an active interest in the prevention of drug addiction, which we perceive as a significant finding, assisting in forming a picture of implemented prevention at the researched schools. The opinions of the prevention coordinators with respect to

Diagram 1: Effectiveness of implemented prevention programs from the point of view of prevention coordinators

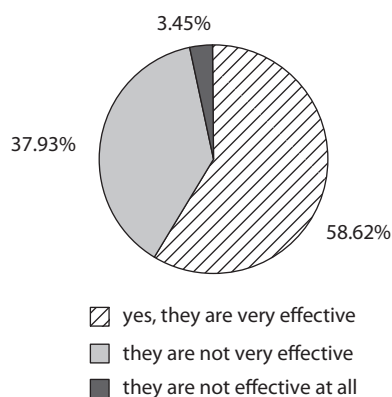
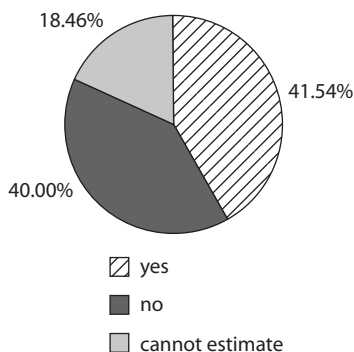


Diagram 2: Pupils' interest in prevention activities from the point of view of prevention coordinators



the pupils' participation in prevention are shown in Diagram 2.

Diagram 2 shows that there is approximately the same number of pupils who express an active interest in the prevention of drug addiction as those that are passive with respect to this issue. However, it is positive that as many as 41.54% of the pupils participate in drug prevention. The prevention coordinators state that only 18.22% of the pupils participate in activities involving the prevention of drugs and other socio-pathological phenomena, which is odd when compared to the responses of the pupils who state that they participate in

prevention (41.51%). The above-mentioned finding may result from the fact that some pupils consider their participation in discussion forums and other occasional activities during lessons to be an active interest.

The primary prevention of drug addiction under the conditions of primary and secondary schools can be implemented in various forms, among which we include: prevention work projects, the teaching process, pupils' leisure time activities, and so on. Under the conditions of primary schools, a teacher can influence pupils within the framework of primary prevention best and the most frequently during the so-called "form lessons" and current lessons. At the second level of primary schools, this can be done during lessons of the Slovak (native) language and literature, foreign language, physical education, art, and so on. The most possibilities are offered during lessons of ethical education, or civics. In the curriculum of ethical education for the 5th-9th school years of primary schools (ZŠ), "eight year middle schools", "middle schools", secondary professional schools (SOŠ) and secondary vocational schools (SOU), there are topics that focus on the issue of preventing socio-pathological phenomena, for example, on the control of aggression, venereal diseases and AIDS, healthy lifestyle, addictions, impacts of the mass media, life, physical and mental health as an ethical value. The publication of C. Raynerová: "Do Not Ruin Your Wise Body" is designated for pupils of the 1st level of primary school. The publication "How Do I Know Myself?" is used as an optional textbook at the 2nd level of primary schools. The publication "How to Be Myself" is used as an optional textbook at secondary schools and "middle schools". During the ethical education lessons, the teacher may use methods including group work, interac-

tive methods, situational-problem tasks, experience and cooperative teaching, the methods of teaching by play, model teaching, and so on. Ethical education offers a space for rendering information, for discussions during which pupils can state their opinions with respect to the relevant issue, as well as allowing feedback of the teacher with respect to the effectiveness of primary prevention. We consider pupils' organised leisure time activities to be the most effective tool for the implementation of primary prevention at schools. The mutual cooperation of school and family is accentuated for increasing the effectiveness of prevention processes, whereby more attention should be specifically paid to the pupils from dysfunctional and threatened families.

According to J. Hroncová (2007, p.12) "a good family is the best prevention." Contemporary society assigns special tasks for the prevention of socio-pathological phenomena. Parents, as primary educational and socialising actors, take responsibility for their children's behaviour at an early age, as in adulthood, most children follow the paradigms of behaviour that were presented by their parents. However, many parents do not have sufficient knowledge of the prevention of socio-pathological phenomena, and therefore school plays an irreplaceable role. According to J. Schilling (1999, p.95), after family and school, social pedagogy represents the third pedagogical and educational institution. J Hroncová (2004, p. 95) states that social pedagogy and social work assist to balance risks or shortcomings with respect to the education of children and youth if dominant socialising factors fail, specifically family and school. Socio-educational assistance to children and youth represents the core of social pedagogy. It is a duty of social pedagogy to protect children from negligence or any violation of their development with the help of purposive, educational and preventive measures.

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Philosophy of Toleration

Abstract

The article deals with the origins and development of the issue of toleration; it refers to its most prominent moments and practical demonstrations in the history of Europe. In relation to the present-day situation of the human race and of the world plagued by terrorism, it demonstrates that toleration and tolerance are just as topical today as they were in the past and that toleration can only function if based on a symmetrical relationship, i.e. a relationship based on mutual respect.

Key words: *toleration, history of philosophy, ancient and Christian philosophy, Enlightenment, postmodernism, Islam, education*

It is common knowledge that toleration as tolerance towards different opinions and expressions, especially in the areas of religion, ideology, or politics, but also, more generally, towards one's view of the world, used to be, and, more often than not, is still perceived as a concession or, at least, a mark of benevolence in relation to the weaker, of the majority towards the minority.

In the course of history, the issue of toleration emerged whenever radically new, important ideas were born in the intellectual world, which gradually started to show practically in social reality and it was necessary to answer the question of whether to suppress them or let them spread freely. A similar situation arose whenever, thanks to objective circumstances and development, it became obvious that the ruling ideas had had their day and were no longer sustainable, but, nevertheless, some individuals or groups of people would not abandon them.

In the European setting the necessity of toleration arrived with Christianity. In the ancient world, there was no such need, as, under the conditions of polytheistic belief in various cults, toleration was an obvious fact, and a mere formal obligatory respect toward gods was expected. Christianity brought about intolerance. Through

its monotheism and the fact that it was adopted by the lowest social class, including slaves, it attacked the very basis of the social order of the period. From the day it became the official state religion it started persecuting the so-called pagans or heretics. The new intolerance was allegedly theologically justified by a questionable interpretation of the “Compelle intrare” (“Make them come”) – Luke 14; 23 quotation from the Bible by Augustine. At the same time, there are many other passages in the Bible with explicit, clearly formulated appeals for toleration (cf., e.g., Matthew 7; 1–5, Luke 6; 37–42, On judging the others, Epistle to the Romans 12; 16, 18, Traits of Christian life, 14; 1–23, 15; 1–13, Mutual tolerance), for love in relation to one’s neighbours (cf., e.g., Matthew 22; 39, Mark 12; 31, The supreme commandment, Epistle to the Romans 12; 10, Traits of Christian life, 13; 9, 10, Humility and self-sacrifice), even for love in relation to enemies (cf., e.g., Matthew 5; 43–48, Luke 6; 27–36, On love towards enemies). Later Christianity – unlike e. g. Islam – admitted that intolerance was wrong and condemned it for the future. This, I think, gives Christianity a good perspective.

A new and insistent request for toleration was brought about by the Reformation, but Protestantism did not assert it consistently, either. It was rather the Renaissance thinkers and later on the philosophers of the Enlightenment who succeeded in forcing it into social practice. Despite Voltaire’s “Tract on Toleration” (1763) being probably the best known, it is necessary to point out that the French Enlightenment had its origins in the more pristine British Enlightenment and that it was John Locke, who almost a hundred years earlier (1667) wrote his “Essay Concerning Toleration”. It served as a springboard for another famous treatise, “Epistola de Tolerantia” (1685), which was later published under the English title “A Letter Concerning Toleration” (1689).

The contemporary post-modernist reaction to the present-day globalisation of mankind serves as an indicator that issues of toleration and tolerance by no means ceased to exist in the age of the Enlightenment. In reality, the issue has not lost its topicality; on the contrary, it seems to be more and more urgent. There is a desire, which is growing clearer and clearer, for our Euro-American civilisation, with its learning and culture, which so far has claimed its right to universality, to acknowledge the equality of other cultures and forms of civilization. Theoretically and verbally, we have accepted it for centuries but the widespread expansion of Euro-American culture and civilisation on the basis of the principle of freedom is an indisputable fact. Especially in the Islamic world, this is perceived as aggression, which is neither an adequate nor peaceful reaction. In reality, it is the Muslim effort to preserve the Middle Ages in the world of modern science, technology, and material culture in a selective way. At the same time, Muslims in Europe can

freely practise their religion, build mosques, and, as long as they do not resort to terrorism, they are fully tolerated. In spite of this, some Muslims commit terrorist attacks not only in Asian countries, but also on the European territory, which was originally totally Christian. Militant Islam does not know the concept of toleration. Its aim is either the Islamisation of the non-Islamic world or its destruction. Savage attacks on innocent people or small children serve as a proof. This threat has become an everyday reality.

How can we face this ominous reality from the point of view of toleration? Let us start with the premise that toleration means a relationship. This relationship is either symmetrical or asymmetrical. In real life it is often both, but as an asymmetrical relationship, of tolerance towards intolerance, it can only exist for a limited period of time, and then it is no longer bearable and it stops working. If tolerance in real life is to be effective and long-lasting, it must be in a symmetrical relationship. If only one of the parties shows tolerant behaviour, while the others are constantly on the attack, it is time for defence or even for an offensive. This means more or less a war without end, unless the aim is the total destruction of one of the warring parties. Even then, one cannot rule out the possibility of a comeback of new followers, starting at the ideological level, proceeding to physical attackers, to avengers.

The social, economic, and political problems of the contemporary world represent an intricate complex and they demand a complex solution. However, this does not seem to be within reach, as there is no real will to achieve it. This brief contribution does not aim at that end, either. One can but give advice, namely the education of the public, their patient and untiring persuasion. As long as it misses its aim, there is only one relatively painless and peaceful way: gradual, consistent, and permanent elimination (expulsion) of intolerant individuals and groups of people and thorough isolation of the intolerant world. Such an ending is far from optimistic, but the contemporary world itself does not offer many reasons for optimism.

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Mediation as an Alternative form of the Juridical Proceeding toward Juvenile Delinquents

Abstract

In the paper the origins and the core meaning of restorative justice are presented. The paper is also focused on the legal basis, meaning, rules and the schema of the mediatory proceeding. Advantages and disadvantages of mediation are analyzed, explored in three perspectives: generally treated social one, specific to the aggrieved party and specific to juvenile delinquents. The Author claims that mediation could be treated as an alternative for the traditional proceeding toward juvenile delinquents.

Key words: *mediation, mediator, mediatory proceeding, restorative justice, juvenile delinquent.*

Mediation as an alternative form of proceedings with juveniles

Considering the reactions to juvenile delinquency different models can be noticed. After the retributive model – oriented to measure out a penalty treated as retaliation for evil and the rehabilitative model – concentrated on the rehabilitation of the juvenile perpetrator of a forbidden deed there is an attempt to create a restorative model, whose major aim is to make amends or compensate for the injustice inflicted by a crime.

In penal justice the most important is the effect and in reform (compensation) justice the process which occurs between the perpetrator and the victim.

When defining reform justice B.D. Meier takes into consideration two elements. One of them is the ascertainment that reform justice is such an approach in the sys-

tem of penal justice in which the perpetrator does not suffer punishment imposed externally upon him/her, i.e. by the court, but alone and voluntarily distances him/herself from the crime (e.g. by financing gratification in favour of the victim or the third party – a charity institution, by work in favour of the local community or by apology). The other element is such an approach in which the victim becomes a rightful partner in the proceedings, the victim ceases to be a person whose significance limits itself merely to the evidential source, but begins to perform an active role in the proceedings (B.D. Meier, 1999, p. 39).

In shaping the model of reform justice the abolitionism ideas played an essential part, including, in particular, N. Christie's opinions, who maintained that penalties should be replaced with different instruments of solving social conflicts, and the opinions of L. Hulsmann. The concept of social marking (stigmatization) and the diversion movement commenced by it played a significant role. The development of victimological research and the promulgated opinions on the need to improve the situation and the status of the victim in the system of the administration of justice also had an essential meaning (D. Wójcik, 1998, p. 13).

The basic elements of the model of reform justice are restitution of the damage done and mediation.

Mediation (Latin: *mediare* – be in the middle) is a voluntary and confidential process of coming to a dispute solution, conducted in the presence of a neutral person – the mediator. The aim of mediation is to reach an agreement, which satisfies both parties.

M. Bieńkowska defines mediation as a voluntarily undertaken attempt to solve the conflict which resulted from a crime and to reach an agreement between the perpetrator and the aggrieved party in the matter of compensation by the agency of an impartial mediator (E. Bieńkowska, 1998, p. 55)

The subject of mediation was reflected in international documents – recommendations of the Committee of the Ministers of the Council of Europe. The most important document in the domain of mediation in the matters of juveniles is recommendation /87/20 in regard to social reactions to juvenile delinquency, which takes up the issues of counteracting juvenile delinquency from the point of view of society which participates in it. In sections II and III of this recommendation the issue of extrajudicial proceedings and mediation was considered.

It is emphasized in this document that society should play an active role in counteracting juvenile delinquency.

Society must get involved in the analysis of the causes of juvenile delinquency at the local level, define suitable strategies of proceedings in this range and help

juvenile delinquents return to society, to interact with society and perform a useful role (W. Rau, 1999).

It is emphasized that such trends of actions are favoured which make use of procedures excluding any inclusion of juvenile delinquents in the system of the administration of justice.

Mediation in the Polish legal system is applied in penal proceedings, in juvenile cases, in judicial-administrative proceedings and in labour conflicts in the range of the labour law.

The application of mediation in juvenile cases is settled by art. 3a §3 of the act about proceedings in juvenile cases of 26th October 1982 (Journal on Laws No. 35, with later amendments) and the decree of the Minister of Justice of 18th May 2001, in regard to mediation proceedings in juvenile cases (Journal on Laws No. 56).

According to art. 3a § 3 act about proceedings in juvenile cases, at each stage of proceedings the family court can, out of or with the consent of the aggrieved and the juvenile, address the case to an institution or a trustworthy person in order to carry out mediation proceedings. According to § 2 of the quoted decree particularly cases whose essential circumstances are not dubious are directed to mediation proceedings. The court may, in order to carry out mediation proceedings, pass the case over to an institution which was entered on the list (kept by the district court) and pursuant to the statute was appointed to carry out tasks in the range of mediation, rehabilitation, educational counseling and psychological aid, psychological diagnosis, crime prophylaxis, protection of freedom and human rights; moreover, mediation can be conducted by a family diagnostic-consultative centre. The court may pass a case over, in order to carry out mediation proceedings, to a trustworthy person, who fulfills the conditions determined in § 4 of the decree (is over 26 years old, makes full use of the civil and public laws, is fluent in the Polish language orally and in writing, has an education in the field of psychology, pedagogy, sociology, rehabilitation or law and is experienced in educating or rehabilitating youth, has skills in solving conflicts and establishing interpersonal contacts, provides a guarantee for the proper performance of duties, received training for mediators and was entered on the list kept by the district court).

In the decision about directing a case to mediation proceedings the family court defines the deadline when it should receive the report on the course and results of mediation proceedings, no longer than 6 weeks. The participants of the mediation proceedings are: the juvenile delinquent, the aggrieved party and the parents or the juvenile's tutor and if a minor is aggrieved also his/her parents or tutor.

Mediation is carried out with the consent of all participants on the basis of five basic principles (J. Waluk, 2002, pp. 21–23, N. Górska, 2008, pp. 448–449):

- 1) the principle of voluntariness – which means that no one can be coerced into joining mediation. Consent should be expressed at the beginning of the lawsuit and can be revoked at each stage of proceedings.
- 2) the principle of confidentiality – which means that the mediator is obliged to maintain the confidential character of mediation proceedings. Talks, held in the course of mediation, are confidential and a report drawn up by the mediator cannot disclose the course of the mediation meeting. Abandonment of the confidentiality of mediation proceedings is possible exclusively with the consent of all its participants.
- 3) the principle of impartiality – which means that the mediator does not support any of the parties. The parties have equal rights and should be treated equally by the mediator. The mediator helps the parties to fully participate in the mediation proceedings and gain benefits from mediation.
- 4) the principle of neutrality – which means that the mediator is not allowed to impose solutions on the parties, even when he/she is convinced that his/her solution is the best for the parties.
- 5) the principle of acceptability – which means the acceptance of rules and principles of mediation, the course and mode of conducting the proceedings, the content of the arrangement, the person of the mediator by the parties of the mediation proceedings.

The scheme of mediation proceedings is determined by §14 of the decree in regard to mediation proceedings in juvenile cases of 2001. After submitting the case to the mediation proceedings, the mediator:

- gets acquainted with the information included in the dossier
- establishes contact with the participants and collects from them the consent for the participation in the mediation proceedings,
- conducts individual meetings with the participants providing information about the essence and principles of mediation proceedings and the role and powers of the participants,
- conducts mediation meetings with all participants,
- helps to formulate the content of the arrangement between the participants and checks the execution of obligations resulting thereof,
- draws up a report for the family court on the course and results of the carried out mediation proceedings.

The mediator presents a report to the family court:

According to § 7, item 2 the report should include:

- the reference symbol of file, the surname, first name and address of the trustworthy person or institution conducting mediation proceedings,

- information about the number, deadlines and places of individual and common meetings and also the indication of persons taking part in them,
- information about the results of the mediation proceedings.

The report can neither disclose the course of the meetings nor contain the assessments of the participants' behaviour and the contents of their declarations. If an arrangement was concluded it is enclosed in the report.

As A. Gaberle notices, mediation creates an opportunity of a more efficient educational impingement upon a juvenile delinquent than measures adjudicated by court. (A. Gaberle, 2002, p.10).

In juvenile cases mediation is accepted by society. Mediation procedures should arouse a sense of responsibility for the committed deed in the perpetrator and negotiate an arrangement between him/her and the victim in regard to compensation, which he/she could not sue in the course of the proceedings before the court. It allows to avoid stigmatization and traditional severe measures of proceedings. Mediation enables a juvenile delinquent to fully understand the consequences of the prohibited act and enables to undertake rational redress and compensate for the value of the damage jointly agreed by the parties. A chance thus appears to obtain a direct impact on the solution of the conflict which occurred between the parties as a result of a crime (A. Nowak, 2006).

In Poland mediation in juvenile cases can be conducted at each stage of proceedings, at the moment of opening the proceedings, in the course of the court proceedings, in the executory proceedings.

At an earlier stage a positive result of mediation can be a proof of the inexpediency of applying educational or reformatory measures (provided for in the act about proceedings in juvenile cases). At the moment of adjudgement, the court may apply an educational measure by committing the juvenile delinquent to a certain conduct and especially to apologize the aggrieved party and to make amends for the inflicted damage either entirely or partially. In the executory proceedings the result of mediation can be interpreted as a premise of changing or reversing the executed educational measure. The act about proceedings in juvenile cases also admits directing the juvenile case for mediation during the probation when the juvenile is conditionally released from the reformatory or placed outside the youth custody centre.

The mediation proceedings are less formalized than the court procedure – the conflict which resulted from committing a prohibited act by a juvenile delinquent is in the hands of the interested parties (the perpetrator and the aggrieved party) and it is entirely up to them what content the possible agreement will have.

As A. Gaberle notices, the court is not a good place to take educational actions,

as it is not possible to avoid the official atmosphere which prevails there, which undoubtedly hinders establishing contact with the juvenile delinquent and inclines towards treating him/her as a subject matter of an executory act.

The court has to investigate whether any and which measures should be applied to the juvenile to achieve educational goals, a charge is not filed against the juvenile. In such a model of proceedings the aggrieved person can merely play a marginal role, he/she cannot even present his/her claims and it leads to an increase in the sense of injustice and an escalation in the conflict between him/her and the juvenile. In the proceedings conducted without the victim's participation, it is extremely difficult to make the juvenile aware of the fact that he/she did wrong to somebody and to convince him/her about the inappropriateness of his/her behaviour (A. Gaberle 2002, p.8).

V. Konarska –Wrzosek writes that introducing the possibility to direct cases of juveniles who commit a prohibited act to mediation proceedings, opens the road to a broad extrajudicial educational impingement on the juveniles by making them realize the harmfulness of their behaviour, the scope of the victims' suffering and the necessity to compensate for the wrong and damage they had done via a direct contact with the victim, which should contribute to establishing a sense of responsibility for one's own behaviour (V. Konarska-Wrzosek, 2000, No. 4, pp.62–69).

Mediation proceedings in the face of the overburdening of the system of the administration of justice and the high costs of its functioning and the social dissatisfaction with treating perpetrators and victims by the traditional system creates a chance for a quicker, less costly (mediation enables to save public means which would have been spent if the juvenile delinquent had been placed in a rehabilitation centre or if there was a decision about a tutor's supervision) and extrajudicial solution of the conflict (the parties, however, retain a possibility to enter the traditional legal course).

The mediation procedure should bring benefits to the person wronged by a crime, who decides to handle the case on his/her own account. As a result of a crime the victim suffers a mental shock, feels utterly uninformed, feels that the authority conducting the court proceedings does not sufficiently inform or does not inform him/her at all about the course of the matter, as though the role of the victim ended at the moment of reporting the fact of committing the crime to the police. People who become victims of crime ponder about why such a misfortune had befallen them – mediation gives the victim the possibility to clarify doubts and obtain answers to the posed questions, among others, about the motives of committing the prohibited act by the perpetrator. The procedure of mediation enables the victim to relieve anger, it is also a way to avoid post-traumatic effects of

fear and stress suffered in the course of the crime. The “face to face” meeting with the perpetrator of the prohibited act allows the victim to rationalize fear, to get rid of anxiety in relation to the perpetrator, regain psychological comfort.

As B.D. Meier remarks such a face to face meeting of the perpetrator and the victim of a crime gives the participants a possibility to get over the emotional stress and enables disclosure of emotions, the so-called “ventilation of emotions” triggered off by the arisen conflict, to view the case from a distance. Referring to the theory of “Braithwait’s reintegrated abashment” it can be demonstrated that the constructive social forms of solving a conflict which are accompanied by indications of voluntary distancing from the crime by the perpetrator are characterized by a significant drop in recidivism. (B.D. Meier, 1999, p.51).

As a result of mediation proceedings a perpetrator reaps numerous profits. Perpetrators, at the beginning, usually make up their minds about participating in mediation in order to avoid penal proceedings and penalty (and juvenile delinquents want to avoid educational or reformatory measures). However, in the course of mediation proceedings the majority of perpetrators change their attitude to their victims. As a result of the confrontation the juvenile has a possibility to see a suffering person in the victim, whom he/she harmed or did damage to, he/she has an opportunity to understand the consequence of his/her conduct. He/she has a chance to take over the responsibility for his/her own deeds and decisions, he/she has a possibility to get acquainted with the feelings of the other person.

As J. Waluk notices mediation contains a big load of positive educational and preventive values (J. Waluk, 1998, p. 115).

By participating in mediation, the perpetrator has a possibility to avoid stigmatization. Moreover, another advantage of mediation is the consideration of arguments and interests of both the perpetrator, as well as the victim, acquaintance and understanding of the arguments and the point of view of the other person by the parties of the conflict.

B. Urban claims that the alternative system of proceedings with juveniles gives a chance to change the personality and behaviour without the sense of an unfair and strict punishment, secures the former social ties in the natural environment (the family is the main issue) and is less stigmatizing (B. Urban, 1997, p. 197).

Bigger satisfaction of the parties of the conflict is also noticed from the engagement in the direct solution of the conflict and from the possibility to decide about compensating the victim, as mediation enables to conclude a court arrangement in accordance with the needs and interests of the parties and also paves the way for obtaining restitution by the victim and condonation by the perpetrator.

Mediation also arouses threats and concern, a charge appears that mediation

threatens the traditional administration of justice, yet Poles are accustomed to the traditional system of the administration of justice.

The victim is afraid to experience the event again by directly facing the perpetrator of the prohibited act, the victim fears being blackmailed by the perpetrator. There is concern over the extortion of the consent of the aggrieved party by the perpetrator to his/her participation in mediation and over the abuse of mediation by the aggrieved party in order to make high demands towards the perpetrators exceeding the value of the damage.

Applying mediation in cases in which the legal order or the social interest was violated is questionable, and mediation is perceived as an indication of the powerlessness of the state in the execution of the observance of the law and applying mediation towards more depraved juveniles also seems dubious.

A sense of impunity may also occur in the perpetrator, if he/she could participate in mediation many times.

It should be added that efficient mechanisms of executing mediation arrangements have not yet been worked out and there is a low awareness of rules of and possibilities to apply mediation in Polish society and mediation is still commonly perceived as administration of justice of a worse category.

S. Falck maintains that there is concern that the centres which are occupied with mediation proceedings in case of juveniles will become quasi-courts for juveniles (quoted in D. Wójcik, pp. 15–16).

An adequate selection of matters for mediation proceedings and properly conducted mediation by a suitably prepared mediator can contribute to the success of mediation. Society must ensure means for juvenile perpetrators to enable them to make amends for the damage and the state should provide suitable services which provide help for crime victims, support organizations defending the interests of victims and set up funds functioning in their favour.

Mediation is one of the reactions towards juvenile delinquents, it can be an alternative to the traditional approach based on applying educational and reformatory measures provided for in the act about proceedings in juvenile cases. Mediation proceedings create a chance due to the criticism of the inefficiency of the traditional system and traditional impingement measures on juveniles, which do not bring the expected results and it might cause negative consequences – an increase in the level of social non-adjustment of juveniles and their stigmatization in the community, which hinders their social reintegration.

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The Role of a Carer in Relation to Socially Disadvantaged Persons

Personality and Professional Activities
of a Carer of Socially Disadvantaged Persons

Abstract

The aim of this paper is to describe the personality of a carer who works in a rehabilitation institution. The main focus is placed on the activities related to this profession. A list of activities carried out most frequently in such institutions is included.

Key words: *carer, carer's personality, professional activities, rehabilitation institution*

The following paper¹ looks at selected determinants influencing the carer's attitude to the activities carried out in his/her work. It is suggested that the whole personality of the carer is vital for work influencing socially disadvantaged children and youth (who are the main clients of so-called rehabilitation institutions²).

¹ This paper draws upon a recently finished research project of the Grant Agency of the Czech Republic called „Community Care in Rehabilitation Institutions for Adolescents“ registered under No. 406/06/0731.

² Sociologický slovník (2001, p. 204) defines resocialization as an effort „...to resocialize an individual who has gone through the process of socialization but has been excluded from society for some reason.“ Similarly, the concept of re-education is understood as re-educating someone who has gone through the process of education previously. Both terms are perceived by educators and psychologists as an effort to develop under-developed personality qualities or an effort to change personality qualities in a desired direction through educational methods. (In Sociální patologie, 2007, p. 303)

Amongst other things, the carer's personality has an impact on the activities which carers do in relation to their clients and institutions. Needless to say, other aspects (such as the level of education, the climate in the workplace, socio-demographic specifications, etc.) are also considered important, but the main focus of this paper is on the role and impact of personality on a performed activity. Firstly, activities declared as desirable in the carer's work are described. Secondly, the results of research carried out in rehabilitation institutions are summarized.

The concept of personality is seen as the unity of each person's structure of psychological characteristic features and dispositions (from *Pedagogický slovník – Dictionary of Pedagogy* (2003, p. 148), M. Čákr (2001, p. 19) says: "*Personality is expressed by a set of permanent traits which make this person different from others.*" M. Čákr further explains (drawing upon G. Allport) that recognizing personality is especially important for a manager who works with people (and an educator or a carer is considered to be a manager). S/he needs to be able to understand their behaviour, to explain it and also to predict behaviour.

In the literature mentioned above, several elements are mentioned which may have an influence on personality (pp. 22–25). These are mainly inheritance (this influences physical features and the nervous system), culture and family (a person is influenced by his/her parents and other members of the family), group identity (this has the highest potential especially in the period of adolescence), life experience and situations to which a person responds throughout his/her life.

Personality can also be understood as a set of attributes/traits/features, attitudes, states of a person, etc. J. Čáp (2001, p. 111) talks about personality as about "... a person from a psychological point of view with his/her biological, social and psychological aspects, with general principles of learning and development, general relations between abilities and interests, temperament/disposition and character, etc."

Stručný psychologický slovník defines the concept of personality as "...corpus/ entity/ sum/complex of mental and spiritual life of a person....the most important trait of personality is its uniqueness, exclusiveness, difference from all others..." (P. Hartl, 2004, p. 169)

The personality of a person is marked by many properties forming a unity (J. Kohout, J. Růžicka and B. Malaniuk, 1971, p. 37). The individuality of a person consists of the following: individual unity of mental processes and properties, relative stability of properties and individual particularity or uniqueness of a personality structure.

E. Kratochvílová (Vychovávateľ, 2003, pp. 3–6) mentions that the carer should know what type of personality prevails in him/her, in general. It is necessary to add

that, in our opinion, the carer should be sufficiently aware of all personality types and, in the care of each and every client s/he should be aware of the positive and negative features of these individual types of personality. "Knowledge" is one thing, but being able to put knowledge into practice and to work with it is another matter. It is our belief that a carer, regardless of what s/he does, should be a role-model in his/her environment.

On the issue of personality, J. Pávková et al., state the following (1999, p. 148): *"Successes and failures of institutional care are determined more than anywhere else by the personal relations between the staff of an institution and children or young people in their care."*

"The personality of a carer in education carried out outside classes is one of the most important agents of its efficiency and quality." (M. Kouteková, 2003, p. 14). M. Kouteková adds further: *"It is well-known that working with youth cannot be carried out by a carer who understands his/her work only as employment, or sees his/her job only as temporary."* One of the reasons why this may be so is the fact noticed by the authors of a publication called "From Chaos to Order" (1972, p.106), *"... working in educational facilities for the provision of institutional care has had no tradition in the sense of a career ladder and no example of an excellent worker who could serve as an aura – or a role-model."*

J. Žejdl (1976, p.67) understands personality as an entity, a synthesis of all that is natural/original in a person and all that s/he has acquired in the process of socialisation. As for the carer, the author considers a positive attitude to children to be a very important aspect of the carer's personality. Further, the skill of establishing contact and creating emotional ties/contacts with others is also vital. The carer's personality should emulate positive characteristic qualities/properties/features.

"The requirements for the carer's personality qualities ...are so demanding that they create an unrealistic model of an ideal person with only positive characteristic qualities/features/properties." (A. Škoviera, 2007, p. 103)

In accordance with this, Kouteková, J. Musil and M. Bušková (1970, p. 17) claim that it is necessary to establish interpersonal relations in such a way that emotional relations are created between carers and children. Such relationships are difficult to develop when there are frequent changes of staff, or when a child is educated by too many members of staff. However, a professional carer cannot become too attached to his/her clients or misuse a close relationship in order to manipulate his clients. It may be difficult to preserve a professional attitude especially when some children, after overcoming their distrust, tend to cling to their carers, and they look for contact with them and try to be near their carers (V. Labáth, 2001, p.115).

Another author, J. Taxová (1967, p. 43) also notices a lack of and, at the same

time, a need for a warm emotional attitude to children in children's homes. She observes that these institutions do not stimulate children, and they do not support children sufficiently in establishing permanent emotional relationships and often limit children's chances to establish normal social contacts.

Therefore, the carer's role discussed in this paper is examined from the point of view of his/her attitude to the clients and relationships with them. Should we outline an ideal worker in caring professions – i.e. a carer, then we can draw upon the specifications in J. Lorenzová (In B. Kraus, V. Poláčková et al., p. 178) who perceives a professional in a caring profession in the following way: S/he has pro-socially oriented personality; is aware of his/her own life orientation/ direction/ route; has positive and realistic self-awareness; has personality free from neurotic or psychopathological features; has an ability to reflect on his/her own decisions, activities and emotions; has personality open to stimuli; is ready to educate him/herself; is ready to accept supervision of his/her work; has personality aware of the ethos of a caring profession as well as an awareness of a number of norms which must be adhered to in this profession.

P. Janský (2004, p. 104) considers the demand factor of working in children's homes and schools. He observes that the requirements placed on educators are high concerning their authority, stress resilience and conflict management. An important and essential component of the carer's personality is an array of social, or more precisely pro-social skills which s/he needs to have – e.g. empathy, the ability to communicate effectively, the ability to cooperate, to be able to recognise and evaluate his/her behaviour objectively, the ability to manage his/her emotions, etc.

A specification of personality presuppositions for performing the carer's profession is also described by Kratochvílová (Vychovávateľ', 2003, pp. 2–6). Kratochvílová sees a positive attitude to children, young people and adults based on pedagogical optimism as a key factor for the carer's profession. The carer should abound in positive characteristic features, s/he should have a wide range of interests and abilities to enhance his/her educational work, s/he should have an ability to educate him/herself and to manage his/her own shortcomings, etc.

D. Selická (Vychovávateľ', 2000, p.17) observes that a sufficient level of preparation, a sufficient level of reticence/confidentiality, positive characteristic features, a high level of empathy and the ability to anticipate disorders in interpersonal relations play key roles in the carer's profession.

The most important personality component, mentioned by Z. Švancar and J. Buriánová (1988, p. 85), is the relationship between an educator and his/her pupils, not only with good pupils but also with those at risk. We suggest that each

relationship, be it between a carer and a client, between a teacher and a pupil, or between partners in any communication should be based on honest/frank respect between individuals and groups. We believe that, especially in educational facilities providing institutional care, this may cause severe difficulties related to the composition of clients, to the content of work and with regard to other specifications of these institutions. However, R. Vovsík (Vychovávateľ, 2000, pp. 6–7) requires that a positive relationship with children should be the main prerequisite for the carer's work in rehabilitation institutions.

As for the issue of personality, A. Stankowski (2004, pp. 63–64) emphasises the following: *"The possibility of compiling a set of qualities which should be characteristic of carers (special educators) is limited because special educators frequently work in different conditions (e.g. in detention homes, in children's homes, in diagnostic institutes, in adoption) so it is not possible to be certain which of the supposed personal qualities will be most effective in each particular role."*

If the differences between male and female carers are considered, it can be said that these are considerable. Women offer a maternal model of care, while men demonstrate a masculine model of behaviour. V. Labáth (2001, p.113) perceives it as optimal to have a male carer for working with aggressive children and youth because individuals with signs of aggressive behaviour usually have a complicated relation with authority, mainly with paternal authority. J. Čáp (2001, p.178) observes a significant difference between the sexes in their responses to stress. Males produce higher levels of adrenaline in response to high levels of stress, but mothers produce higher levels of adrenaline than fathers when children are at risk. We believe that this observation is important in an environment where carers are confronted more frequently than anywhere else with high levels of stress arising from their demanding work with (socially) deprived children and youth.

T. Norman (1974, p. 164) points at the necessity to balance female and male members of staff: *"...identification with female staff in a motherly role is extremely demanding for staff, frequently resulting in extremely intensive emotions of love and refusal."*

Another significant factor which may influence an active approach to tasks, attitudes to clients and the success of an educator is his/her age. It may be presupposed that young carers having finished their studies will be better theoretically prepared for their profession than their older colleagues, but they will lack valuable practical experience. This is something that their older colleagues possess. However, as many research findings have shown, older carers frequently fall into routine practices. This type of behaviour may be connected with the burn-out syndrome, which is repeatedly identified in relation to the caring professions.

When we look at tutors as role models who influence children and youth, we may speculate as to what extent they really influence them. We certainly agree that this factor is unchanging. Arieli (*In Ústavní péče o děti ve světě*, 1994, pp. 1–9) reflects on open and closed institutions, where in closed institutions members of staff play the role of a strong factor of influence, because they have no competition. He also adds that (p. 2) “*institutions where children are under the influence of staff are only an exception today*”.

We know that each individual identifies with the environment, adopts behaviour models, copies the behaviour of strong personalities, etc. However, it is not possible to find out how much behaviour he/she adopts from the institution, staff and educators. Apparently, it depends on many factors: the child’s personality, the tutor’s personality, atmosphere of the institution, influence of the original family, peers, etc

Nevertheless, we are convinced that the tutor should be the key partner and a model for children and also a mediator of contact with other educational environments (mainly families), other than the institution. Arieli (*Ústavní péče o děti ve světě*, 1994, p. 5) points out: “*...in a markedly strong institutional environment the tutor is the most important adult for a child*”. Unfortunately, it was found that this phenomenon is not always used in the child’s favour. We support this with T. Norman’s statement (1974, p. 166), which stresses the relationship authority – inferior, rather than partner – partner: “*...boys (clients) of penitentiaries consider professional staff to be an authority*.”

If staff (tutors who carry out rehabilitation services) want to be imprinted onto “clients’ brains” their influence must be strong enough to “win the battle” against damaging influences (H. Machel, in B. Urban; J.M. Stanik, 2007, p. 228).

In connection with the fact that children and youth are put in their tutors’ hands against their will and tutors are often forced to act against their will, the question of the application of the power of superiority over clients arises. A. Guggenbühl-Craig (2007, p. 12) says that we are trying to adapt the un-adaptable – we are trying to **assert** what we consider to be good for a person, even when they refuse our help. The author continues (even though he admits that this opinion is too strict): *We do not willingly admit the right to illness, neurosis, unhealthy family conditions, social decline, outsiderism.*

When we perceive these and other arguments, one question arises: Should professional staff have the role of authorities or helpers, and be facilitators of upbringing and education?

We could add to the first part of this article one comment by V. Satirová that parents (and it goes double for tutors) cannot “serve” healthily, if all their conflicts

and relationships between themselves and others are not resolved. They should have a healthy self-assessment (V. Satirová, 2006).

Doubtless, the role of tutors in the education process can be clearly seen in activities which they do as part of their job (more precisely, their choice and involvement in them). Let us concentrate on these activities.

A tutor's work-related functions in institutional upbringing *"are flexible: on the one hand tutors literally wipe noses and on the other hand they lead professional therapeutic or spiritual dialogue"* (A. Škoviera, 2007, s. 103)

The main activities of tutors in institutions are the upbringing and education, therapy, reeducation and rehabilitation of children and youth, usually socially disadvantaged, and very often difficult to educate. We can also say that the main activity is helping children and youth in institutions in general. We should not forget daily routine activities, like looking after them, and supervision.

"Rehabilitation staff" are responsible for diagnostics, prognosis and individual rehabilitation plans, and their implementation, observation and evaluation. They are also responsible for organization and contact with other institutions, the community and the children's families.

B. Kraus (in: *Nové možnosti vzdělávání a pedagogický výzkum*, 2001, p. 430) sees the social pedagogue and recreational pedagogue also as an advisor, administrator and organizer of free time activities, searching for dialogue, contacting clients, etc.

It is obvious that there are differences between individual institutions. Taking care of children differs from institution to institution. Institutional practice may range from nursing (penitentiary) care to an intervention process when the tutor has a supportive, even therapeutic function. However, most institutions continue to use tutors mainly as supervisors or a substitute for parents. (From *Chaos to Order*, 1972, p. 101)

In practice, the tutor's responsibilities (apart from the above-mentioned ones) could be (as many authors agree – Vocilka, Kraus, Škoviera, Aláčová): entrance interviews, group education, continuous assessment of children, and family consultations. They also take part in the activities of an institution, take part in meetings, lecture, work on their professional growth, keep documents, organize food, are responsible for cleanliness, react when children escape, take turns in staff duties, organize psychotherapy sessions, take part in regular communicative group sessions as part of group therapy, are responsible for keeping the rules of the institution, etc.

Apart from the professional activities which are explicitly pedagogical, there are also activities which are indirectly pedagogical such as: personal preparation

for pedagogical work; preparation and maintenance of materials; documentation; cooperation between tutors; cooperation between tutors and parents and between parents and the public; office, gym and assembly room administration; preparation for and attendance at meetings; and other activities connected with running an institution. We should not forget studying specialized literature, etc.

We also present methods of working with clients according to I. Úlehla (in: B. Kraus, V. Poláčková et al., pp. 180–181): from the point of view of control: nursing, supervision, persuading and explaining, and from the point of view of help: accompanying, education, counseling and therapy. The author points out that many factors play a role in deciding which style of work to choose, e.g. human and professional orientation, type of problems to be solved, characteristics of clients and the type of institution.

The differences in job responsibilities can also be seen between staff members (head tutors, group tutors and assistant tutors).

It is certain that the sphere of the tutors' influence (more precisely activities performed as part of this job) is unlimited and B. Kraus (Vychovávateľ, 1991, p. 4) supports this statement with his remark that in this job, activities which require the full involvement of a tutor are superseding passive activities. There are also differences and exceptions, which depend on the type of institution, the tutor's position, etc. To sum up, we can add, that in reality, job responsibilities are often combined or supplemented.

An enormous problem covering the specification of this problem is the fact that socially disadvantaged children are not willingly in an institution and they come from a dysfunctional family environment. The authors of the publication "From Chaos to Order" (1972, p. 104) say that apart from the assumed nursing and support of children, the tutor must show children goals and push children to reach them.

"The tutor's job should not be replaced with 'service for children', which can be handled with a bit of nervous effort and appropriate vocal abilities. A good tutor gives of himself." (J. Taxová, 1967, p. 136).

The following part of this article presents an outline of actual activities which tutors in institutions for children (mainly socially deprived) do. The data are the results of a three-year experiment involving the observation of tutors under real working conditions and they include a survey of what is really going on between tutors and children.

It is important to mention that the tutors were observed in the chosen institutions (chosen by a pre-survey) by one observer throughout one shift. Each tutor was observed for a minimum of 3 and a maximum of 5 days. The method used was

Table 1: Sample of tutors, days and time in institutions

Institution	Number of tutors	Number of days in institutions	Time spent in institutions	
Institution A	3	14	107 hrs. and 05 min.	
Institution B	4	19	162 hrs. and 40 min.	
Institution C	3	15	107 hrs. and 10 min.	
Institution D	3	11	90 hrs. and 01 min.	
Institution E	4	12	93 hrs. and 04 min.	
Institution F	3	9	65 hrs. and 12 min.	
Institution G	3	9	64 hrs. and 00 min.	
7 institutions	23	89	689 hrs. and 12 min.	total

the so-called open observation. In children's hospices we observed 7 tutors doing 33 days' work, which was a total of 269 hours and 45 minutes. We obtained data from 3 tutors over 107 hours and 10 minutes from a children's hospice with school. Upbringing institutions are represented by 13 tutors over 41 working days, which was a total of 312 hours 17 minutes. The institutions are in the Czech Republic. We documented and analyzed all the activities we monitored in these institutions immediately. We divided them into categories (Table 2 and legend). The composition of categories is our own invention – they have not been used previously. We are convinced that this sample is so extensive that it can show what happens in such institutions.

Furthermore, we have devised a survey of the categories and time devoted to selected activities, expressed in percentages, by educators in their everyday duties.

Chart 2: Average time devoted by educators to selected activities (average time expressed in percentages)

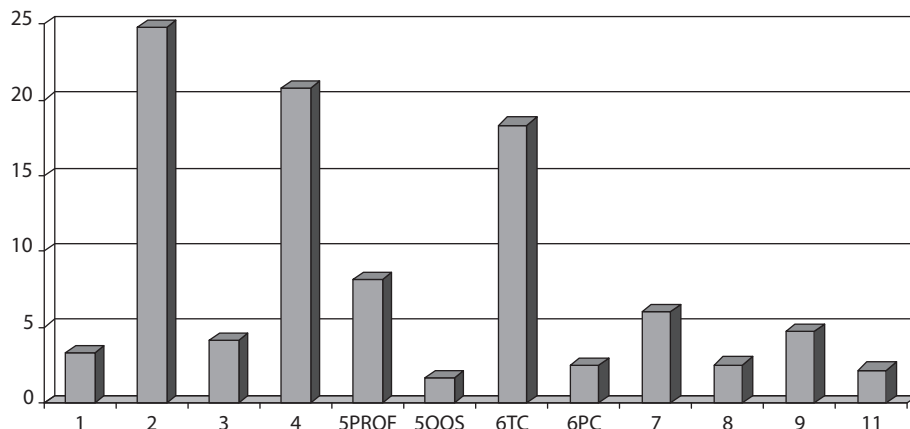
Activity – category	Total		Activities from category 2	
1	3.27	→	2K	6.30
2	24.76		2U	4.36
3	4.15		2Z	3.26
4	20.77		2V	3.16

Activity – category	Total	Activities from category 2	
5PROF	8.16	2PS	1.88
5OOS	1.62	2R	1.53
6TČ	18.34	2T	1.52
6PČ	2.45	2S	1.36
7	6.00	2P	1.02
8	2.52	2M	0.37
9	4.73		
10	–		
11	2.18		
12			

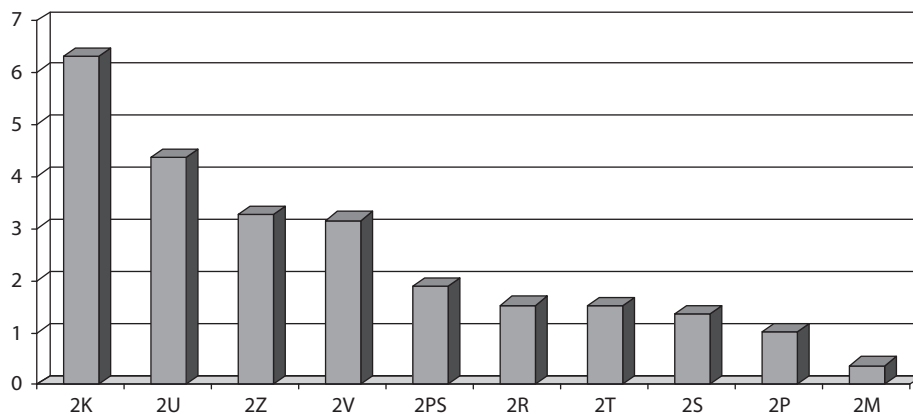
Legend to the charts – categorized activities (a brief compendium)

- 1 Activities of the character of pedagogical diagnostics
- 2 Main activities cultivating the individuality of a client
- 2M motivating, instigation to activity
- 2R developing and reshaping of values and of moral attitudes
- 2V explanation, teaching and tutoring
- 2K provision of feedback, monitoring, assessment
- 2Z development of interests, development of knowledge
- 2T development of creative abilities in working, somatic, intellectual, aesthetic components (or development of creative abilities in components of working, somatic, intellectual, aesthetic, ecological education – environmental education and the like),
- 2P care of one's own health,
- 2PS active participation of educator in sporting activity – support of a client's health by means of active sporting activity,
- 2S boosting of community cohesion and further development of socialization,
- 2U management of activities, giving instructions connected with this management
- 3 Activities in which accompaniment is the main aim
- 4 Activities in which supervision and surveillance is the main aim
- 5PROF combined category of all professional communications (personal, individual, phone and other forms of communication)
- 5OOS combined category of personal (private) communication not related to the professional duties of an educator
- 6TČ technical activities (administration of medicinal drugs and cleaning agents, games, sporting equipment, cooking, food preparation, activities connected with the technical operation of the establishment – e.g. administration of the section, storage and the like)
- 6PČ preparation activities (preparation or provision for trips or walks during working time)
- 7 Administrative activities
- 8 Supporting activities of a therapeutic character
- 9 Activities performed during working time which are not related to professional activities
- 10 Self-educational or self-cultivating activities
- 11 Statements, giving instructions and directions
- 12 Specialized activities

Graph 1: Representation of Chart 1 – Percentage of educators' time devoted to the listed activities



Graph 2: Representation of Chart 1 – Percentage of educators' time devoted to the listed activities in category 2



From Chart 2 and Graphs 1 and 2 it is obvious that the most frequent activities done by educators when engaged in their professional duties are those developing clients' personalities (category 2), activities of supervising and monitoring (category 4) and technical activities (category 6TC). It is positive that educators devote the greatest part of their working time to the development of their clients' personalities, although it represents only a quarter of the whole time which they spend with their wards.

The finding that may be surprising is that more than 18% of the working hours are devoted to technical activities related to security and the pedagogic-educational process itself. Such activities are as follows: the issue and distribution of cleaning and sanitary agents; games, sport and technical equipment; preparation and serving of food; tidying-up; distribution of medicine; locking and unlocking various rooms, etc. These are, undoubtedly, necessary activities for the operation of an institution. However, we assume that such activities (as happens in the case of administering medicine for example) should be in the competence of middle-ranking pedagogic staff (e.g. assistant pedagogic workers).

The educator as a professional would gain more time for the implementation of other, more meaningful activities for clients, by assigning the above-mentioned activities to other staff members. By this we mean those activities which are little or even not represented, e.g. support activities of a therapeutic character (category 8) which take up 2.5% of the time, and specialized activities (category 12) which are not present in our sample (aimed at clients with special educational needs). We also appeal to educators that they should provide their clients with more scope for chosen activities developing their personalities. 3% of the working hours are devoted to explanations, teaching and further teaching of wards (category 2V). 3% of the time is devoted to interests and knowledge development (category 2Z). 1.5% of the time is devoted to the development of creative abilities in terms of working, physical, intellectual and aesthetic issues (category 2T). 1.5% of the time is devoted to developing values and moral attitudes (category 2R) and the same time is devoted to team building and the development of clients' social skills (category 2S) – in rehabilitation institutions!

Although we realize the specificity of the field investigated as well as its necessity, we think that the time required for the provision of feedback, especially the control and evaluation of clients, which represents 6% of the working time, is too high. In comparison with other activities in category 2 (activities developing the client's personality), control, evaluation and feedback provided by an educator (category 2K) prevail dominantly.

Support activities of a therapeutic character (category 8), often regarded as essential in changing the personalities of children and youth, accounted for only 2.5% of the educators' working time (which we consider to be an alarming situation!). It is clear from the data what the results indicate, however they do not offer a clear output of educators' working time efficiency in rehabilitation institutions. In our opinion, publishing activities in terms of their categories and their interpretation without full understanding and appreciating the situation and specific local conditions in each individual institution could mislead us to incomplete information.

However, the interpretation of this issue may lead us to the following observations. If the activities whose contents seem to be non-pedagogical are selected, then we are dealing with categories 3, 5OOS, 7 and 9. Client accompaniment (category 3) and private dialogues (category 5OOS) are regarded by us as non-effective in terms of pedagogy. Administration (category 7) is often connected with the educational-pedagogical process. However, we assume that the efficiency of pedagogical work lies in completely different activities.

Activities related to professional activities (category 9) are an essential part of work. However, we cannot account for their pedagogical content. Time spent doing the aforementioned activities equals to 16.5% of the working time in the investigated institutions. This value does not take into account the time spent with the children (category 4) which may be classified as non-effective in terms of pedagogy.

To sum up, we can state that the educators in the research sample are not fully utilized from the pedagogical point of view (their professional ambitions are not fulfilled). A large amount of their workload involves client accompaniment and supervision, and security functions in the institution, etc. We regard it as positive that activities developing the personalities of children and youth involve a quarter of the direct working time of an educator. However, the quality of this time cannot be alluded to. The biggest contribution of our work is in our findings involving what educators do in their profession in reality. A more detailed analysis of the profession will follow and it will present a detailed description of the profession of an educator working in a rehabilitation institution.

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New Educational Review



Pedeutology

Tom O'Donoghue, Judith Harford
Australia & Ireland

A Contemporary Overview on Secondary School Teacher Education in the Irish Republic

Abstract

There is a great deal of talk about a crisis in teaching across the English-speaking world, about the quality of teachers leaving much to be desired, and about the quality of student outcomes dropping. This, in turn, has resulted in various aspects of teacher preparation coming under severe scrutiny. In general, disquiet has been voiced about the quality of those admitted to teacher preparation programmes, about the quality of the programmes themselves, and about the quality of those responsible for delivering them. Much of the literature in this regard emanates primarily from the US, and England and Wales, and to a lesser extent from Australia and New Zealand (O'Donoghue & Whitehead, 2008). While the criticisms voiced may well be valid for these contexts, one would still not be justified in uncritically generalising from them to the rest of the English-speaking world. This paper adopts such a 'troubling' perspective by focusing on the situation regarding secondary school teacher preparation in the Republic of Ireland (Ireland).

Key words: *teacher education, Republic of Ireland, 'troubling' criticisms, secondary schools.*

Introduction

The current situation regarding secondary school teacher preparation in Ireland can be depicted by using O'Donoghue and Whitehead's (2008, pp. 193–197) organizational framework which is deduced from the views of contemporary senior

teacher education scholars across a wide range of English-speaking countries and is based on the central Weberian notion of an 'ideal type' (Shils & Finch, 1949, p. 90). It proposes that for comparative purposes it is helpful to consider the situation regarding teacher preparation in any country by asking how the following fundamental matters are addressed:

1. The matter of who should be selected for teacher preparation;
2. The matter of where teacher preparation should take place;
3. The matter of what should be the curriculum of the teacher preparation programme;
4. The matter of who the teacher educators should be;
5. The matter of the attitude of the wider societal culture to beginning graduate teachers.

Each of these will now be addressed in relation to the current situation regarding secondary school teacher preparation in Ireland.

The matter of who should be selected for teacher preparation

Teaching in Ireland is an all-graduate profession, with the number of places on courses limited by the State Higher Education Authority, in collaboration with the State Department of Education and Science. As in countries such as Austria, Australia, the Czech Republic, England, Finland, Israel, the Netherlands, Northern Ireland, Scotland, the Slovak Republic, Sweden and Wales, both consecutive and concurrent models in secondary teacher preparation operate (OECD, 2005). The consecutive model comprises a programme of professional training in pedagogy and teaching, usually taken after having first completed a primary degree in a discipline related to the subjects which will subsequently be taught in schools. The majority of those studying to be secondary school teachers in Ireland are enrolled in courses based on this model. However, the concurrent model, one in which academic subjects are studied alongside educational and professional studies, is the basis of the courses in which students in areas such as physical education, home economics, art and construction studies are enrolled; they follow a four-year joint academic-subject and education degree. A recent review of post-primary teacher preparation endorsed the continuation of both models, noting that each has "numerous merits and benefits" (Advisory Group on Post-Primary Teacher Education, 2002, p. 13).

Candidates for secondary school teacher preparation courses are selected predominantly on their academic performance, with over 90 percent of entrants to the

various postgraduate teacher preparation programmes holding honours degrees. High performance levels are also the norm at Leaving Certificate Examination (the final secondary school examination) for those students intending to follow concurrent courses (Coolahan, 2003; Heinz, 2008). Furthermore, in Ireland, as in Finland and Korea, where teaching has high social status, competition for places is high (OECD, 2005). In 2008, for example, there were 2,455 applicants for 800 places on the various postgraduate teacher preparation courses in the four National University of Ireland Education departments, where approximately 70 percent of secondary school teachers pursue their teaching qualification (Figures from the Post-Graduate Application Centre). This ranks Ireland among the most competitive teacher preparation selection systems in Europe. Also, the demand for places remains high despite the unlikely prospect of candidates securing a permanent post once qualified. In 2006, for example, of the 1,249 students who graduated from H.Dip.Ed. and other postgraduate teacher preparation courses nationally, only 4.9% secured permanent teaching posts in Ireland (Higher Education Authority, 2008, p. 62); the vast majority (62.7 %) were employed in temporary whole-time and part-time substitute teaching positions. These students were predominantly graduates of Arts, Humanities and Social Science faculties. The majority were women, reflecting the fact that the teaching profession in Ireland, in line with international trends, is highly feminised (Drudy *et al*, 2005) (at secondary school level, 54 percent of the teaching force in Ireland is female, placing the nation as one of the highest proportion of women teachers at second level among OECD countries).

The student teacher body remains largely homogenous with regard to nationality, with 98 percent of entrants to the various postgraduate teacher preparation courses in the four constituent colleges of the National University of Ireland (University College Dublin, University College Cork, National University of Ireland, Galway and National University of Ireland, Maynooth) between 1999 and 2005 claiming Irish nationality (Heinz, 2008). Increasingly, however, more mature students, often with more diverse working experience, are enrolling in courses to become secondary school teachers (Coolahan, 2003). Also, there is a greater awareness at policy level of the need to diversify the teaching body in order to meet the needs of a more diverse cohort of pupils. This has become more pressing in recent years in light of a significant increase in the proportion of ethnic minorities in schools. Although traditionally a homogenous society characterised by mass emigration at various intervals, Irish society has witnessed significant inward migration over the last fifteen years, the result of a growing demand for labour in an expanding economy.

Recognising the need to attract a more diverse student intake into teacher preparation courses, the recent Review of Post-Primary Education (2002) argued that it is highly desirable to ensure greater participation in teacher education by students from diverse backgrounds. This approach dovetails with OECD policy generally in relation to the need for more flexible entry routes to the teaching profession (OECD, 2005).

The matter of where teacher preparation should take place

The matter of where teacher preparation should take place has been one of the “most vigorously debated” issues throughout the history of formal teacher education (Zeichner, 2008, p. 263). As Robinson (2008, p. 385) notes, “the history of teacher preparation provides ample evidence of tensions between the liberal arts and professional conceptions, between theoretical and clinical preparation, between university-based and school-based approaches.” Over recent decades, however, the universitisation of teacher education has emerged as a dominant trend internationally, with teacher preparation programmes also being increasingly available at Masters and Doctorate degree level. This development is indicative both of the drive for quality and the perceived need to promote the professionalisation of teaching.

At the European level, the latter development has become more pronounced since 1999, with what has become known as the Bologna process seeing the brokering of an agreement to make higher education qualifications across European countries more comparable. This process, which aims to create a European Higher Education Area by 2010, has led to significant restructuring of higher education degree programmes, aimed at ensuring that all teacher preparation be provided in university-level institutions. Among the arguments advanced for quite some time to support university-led teacher preparation, and which are still drawn upon, are that in democratic societies, universities are centres for the “free, open and independent pursuit of knowledge” and that therefore education and teacher preparation should be subject to such free and independent enquiry (Kelly, 1993, p. 125). A related argument which also still has currency is that positioning teacher education within the university fosters “a theoretical mission” within a more field-based terrain (Goodson, 1997, p. 18) which helps to retain teachers’ professional knowledge in the face of movements which would lead to a more practice-based, technicist and ultimately reductive enterprise.

These developments provide no great challenge in Ireland. As noted earlier,

secondary school preparation in the nation has strong roots within the university sector historically, which means that the academic knowledge base of initial teacher education is strong. The available teacher preparation courses are provided by thirteen separate institutions nationally. The main providers of consecutive courses are the four constituent colleges of the National University of Ireland, along with Trinity College Dublin. A mix of both concurrent and consecutive programmes are offered by the remaining institutions. Although each enjoys considerable autonomy, all are subject to regulation by the Teaching Council, which, under the Teaching Council Act (2001) is empowered to review and accredit programmes of teacher education and training for the purpose of registration. With field-based experience a core feature of consecutive teacher education programmes, providers typically work closely with partner schools on the professional formation of student teachers. Also, while not suggesting a reduction in the emphasis on the theoretical components of courses, a recent review of post-primary teacher education has recommended even closer links between universities and schools *via* the establishment of partnership boards, comprising the representatives of placement sites and teacher educators (Advisory Group on Post-Primary Teacher Education, 2002, p. 13).

The matter of what should be the curriculum of the teacher preparation programme

There is considerable commonality in the curriculum of initial teacher preparation programmes in most developed countries (Buchberger, Campos, Kallos & Stephenson, 2000). In the main, the structural framework comprises the following four areas: academic subjects, educational sciences (foundation disciplines), the pedagogy of school subjects, and teaching practice. In the Irish context, courses broadly follow this pattern in accordance with the requirements laid down by the national Teaching Council, although there is a certain amount of institutional autonomy regarding the interpretation of guidelines. The foundation disciplines, professional studies and practice teaching form the backbone of the principal teacher preparation programmes which prepare students to become secondary school teachers.

Regarding the foundation disciplines, it is noteworthy that while there has since the 1990s been a move away in some countries from areas such as the history, psychology, philosophy and sociology of education in favour of a more practice-oriented focus (Simon, 1994), they remain central to pre-service programmes in

Ireland. Also, as with courses in curriculum and assessment, inclusion and ICT, the expectation is that they be enquiry based and provide the foundation for reflective practice.

Professional studies in the pedagogy of the student teacher's specialist subjects also form a core part of courses. These are directed towards the age range 12–18 and there is the expectation that the principles of lifelong learning will be emphasised. Those students pursuing a post-graduate diploma in education study the pedagogical aspects of two school subjects on the curriculum of secondary schools, while the teacher preparation in such specialist areas as physical education, home economics, art and construction studies are constructed so that student teachers follow more specialist tracks in concurrent degree courses. These students are expected to teach their main subject and, if possible, a subsidiary subject to complete their contractual teaching load.

Courses also include practice in teaching under supervision which is typically undertaken in a recognised secondary school. A minimum number of direct teaching hours is required in one or more approved subjects and this must be under the direct supervision of personnel from the university or college concerned. In contrast to the experience in some other countries where the contact between the university supervisor and the student teacher is minimal and the supervisor is often viewed as a “disenfranchised outsider” (Slick, 1998), supervisors on pre-service teacher preparation programmes are typically viewed as central to the development of the student teacher. Supervisors are usually experienced teachers of long standing, with the majority being still practising in the classroom. They are selected on the basis of their pedagogical expertise and guide the student teacher in the development of core pedagogical skills. Education departments in the universities typically work closely with a cluster of partner schools to ensure that teaching internships can be facilitated and experienced practising teachers play a key role in mentoring student teachers.

The matter of who the teacher educators should be

As with teachers in Ireland generally, as the next section of this paper argues, secondary school teacher educators have had high status in Irish society since the first Education departments were established. This can be attributed partly to the fact that, from the outset, they and their departments were located within the university sector, one of the most prestigious institutions in Irish society. Such prestige, in turn, can be ascribed at least to some extent to the strong interest taken

in the universities by the Churches, with Trinity College Dublin for long being associated with the Anglican Church, and the National University of Ireland and its constituent colleges being strongly under Catholic influence until recent decades. Also, there was no ambiguity about the purpose of Education departments from their inception; they were, first and foremost, concerned with teacher preparation. Thus, they were spared many of the tensions which manifested themselves particularly in universities in the US around debates as to whether university Education departments should be concerned primarily with research, or with the preparation of personnel for the profession.

Teacher educators – a group termed second-order practitioners by Murray (2002) – have typically arrived at an academic career in Ireland, as in various other countries, in a less structured or conventional way than other academics. The majority have tended to be former teachers, confirming the widely-held view that field experience is important. This state of affairs also had the advantage of ensuring that classroom teachers and student teachers have been confident that their work was being overseen by personnel whose ‘currency’ within the classroom was strong.

The situation as outlined so far has also benefited from the fact that while a considerable proportion of staff have tended to be part-time, they have typically been educated to at least Master’s level and have worked predominantly in the areas of supervision and subject methodologies. At the same time, it is recently coming to be recognised that in the area of individual school-subject pedagogy in particular, it would be desirable to have permanent staff members who could integrate issues around subject methodology more closely with the broader theoretical components of courses. A recent review of secondary school education commented on this, stating that new posts should be created to allow for the recruitment of “teacher education professionals with specialisms in curricular areas who could be appointed as Course Leaders in the area of teaching methodology” (Advisory Group on Post-primary Teacher Education, 2002, p. 13).

There are other long-ingrained practices which have also served to maintain the high status of teacher educators, especially amongst the teaching profession and student teachers. Regarding teaching placement supervision, for example, while the bulk of the work is typically carried out by part-time staff, university personnel are usually also involved in school visits in order to promote coherence and quality assurance, and to build greater university-school partnerships. Further, in the majority of cases, university Education departments offer professional development support for their part-time staff members.

Over recent years also, there has been a push in all Education departments in Ireland, in line with a major push across the Irish university sector as a whole,

for staff to be more research active. One consequence is that the entry criteria for permanent posts as teacher educators has also been raised. In particular, the general requirement is that applicants for full-time positions will have a PhD degree. The expectation is that as well as conducting and publishing research, teacher educators will also develop curricula, teach into courses and work with schools. It may well be that this 'double bind of teacher education', as Gitlin (2000) refers to it, may lead to tensions in the near future. On the other hand, the remit of the recently established Teaching Council to promote research on teaching and teacher education may result in an approach to research which will bridge the theory-practice divide and thus further enhance, rather than detract from the status of teacher educators

The matter of the attitude of the wider societal culture to beginning graduate teachers

As noted earlier, teaching in Ireland carries a high social status and teachers typically enjoy good levels of public support. To date, there has been no research which has traced the nature and extent of the situation historically, such as that of DePaepe and Simon on Belgium (1997). At the same time, various attitudinal surveys have indicated that teaching is one of the most highly regarded professions by the public (Coolahan, 2003). The significant involvement of religious personnel historically has no doubt helped to foster this situation and, in turn, make teacher education attractive for high-quality graduates.

Acknowledging the central role of the teacher historically in Irish society, the OECD in its *Reviews of National Policies for Education: Ireland* (OECD, 1991, p. 77) noted that "the local teacher was a person of consequence in local society, acting as teacher, but also as counselor and peacemaker when necessary". The high regard in which teachers were held in their communities can also be attributed to a tradition of professional dedication with the general pattern amongst the great majority being that they made teaching their sole career. The control of the majority of the schools by the Catholic Church and the great attachment of the Irish to their religion also meant that teaching was associated with spiritual matters as much as secular ones.

The long-standing regard for teaching and teachers lived on well after Ireland's position as a predominantly rural society had changed. In 1991, in a time of economic recession, it was noted that morale amongst the teaching force was high. This was considered not surprising since, as it was put, everyone "speaks of

the excellent quality of the teaching force and the respected status of teachers in society” (OECD, 1991, p. 78). It was further added:

Most practising teachers have few reservations about their own professional competence and their good standing in society. Moreover, they enjoy certain satisfactory conditions of service. Their salaries are relatively high *vis-à-vis* other professions and compared with the low remuneration of teachers in certain other OECD countries.

The OECD added to this that the autonomy of Irish teachers in the classroom “is legendary” and that “their relations with their employing authorities are generally cordial”. Things have not changed much since then. Although a highly unionized profession, the teaching profession’s status remains high in the public eye and the teacher unions have effectively represented the interests of the profession in a sequence of national partnership agreements brokered since 1987.

Conclusion

Overall, it can be concluded that secondary school teaching and teacher preparation has, and continues to have, very high status in Ireland. Nevertheless, it is important to recognise that a series of major policy documents since the 1990s have argued that in order to maintain the attractiveness of teaching as a profession and the quality of entrants, a number of areas with regard to teacher preparation in Ireland require sustained focus and a more strategic policy approach. This is considered to be all the more pressing in light of the growing diversity of Irish classrooms, the resultant complexity of the teaching role and pressure to cope with the demands of the knowledge economy. The principal focus is on the need to promote and support lifelong learning. Thus, in order to equip teachers as career-long learners, a strong linkage between initial teacher education, induction and continuing professional development has been flagged in policy documents (Coolahan, 2003), reflecting current OECD (2005, 2008) trends.

A National Pilot Project on Teacher Induction was established in 2001 in response to a clearly articulated need to support newly qualified teachers. However, while welcomed by all stakeholders, the programme remains operational only on a pilot basis. Similarly, although advances have been made in the area of continuous professional development, a more structured approach has been called for. The recent establishment of the national Teaching Council with a brief to “promote the continuing professional development of teachers” is expected to lead to developments in this area.

The importance of facilitating a more research-based approach to teaching in line with government policy which has given much higher priority to investment in research more generally, was recommended in two recent reviews of teacher preparation at both primary and secondary level. Equally, the importance of providing greater opportunities for reflective practice and for teacher research have been widely endorsed. However, the nature of the already overloaded teacher preparation courses is such that the operationalisation of such objectives has proved problematic (Harford and MacRuaire, 2008).

In line with international trends, a growing culture of evaluation has become an integral part of educational policy in Ireland, which has resulted in a fundamental shift for the majority of teachers. The introduction of whole-school evaluation and school development planning during the 1990s has proved difficult for many, particularly those at secondary level who historically have not engaged in collaborative planning or evaluation processes. While the need for some model of evaluation and for accountability is widely acknowledged in the education community, this remains a contested area. Although a culture of performativity is not embedded in current practices, it is nonetheless becoming more visible in relation to discussions around school improvement and target setting (MacRuaire and Harford, 2008). Of particular concern is the recent move towards recognising distance teacher education agencies. Reductionist models of distance learning, it is feared, could narrow the knowledge base of teacher preparation and jeopardise the status of teacher preparation programmes.

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Future Teachers' Knowledge and Awareness of their Role in Student Misbehaviour

Abstract

Many surveys have confirmed that teachers have a major influence on student behaviour. The purpose of this study was to investigate whether future teachers have knowledge and awareness of their own potential contribution to student (mis) behaviour. If they have such knowledge and become aware of such an influence, they can help to decrease it. For the analysis, data were collected from 170 students from the Faculty of Education. Although most students in our study ascribe the major responsibility for student misbehaviour to parents, our study also shows that future teachers do realise that responsibility for student misbehaviour cannot be ascribed to one factor alone but to many factors, including circumstances connected with school. School can cause misbehaviour mainly by inconsistency, boring lessons and indulgent discipline. Future teachers would like to acquire more knowledge of and experience in facing student misbehaviour, especially in the field of working with difficult students and their parents, as well as conflict resolution.

Keywords: *causes of misbehaviour; primary school; student misbehaviour; teacher training; teaching profession*

Changes in global society resulting from modern western civilisation and the western lifestyle are strongly reflected in family life. "American families have undergone dramatic changes in the last thirty years.... Divorce, remarriages, working parents, single-parent families (especially many headed by women), grandparents, foster parents, gay parents, and various configurations of the blended family have changed the traditional image of a nuclear family" (Nakamura, 2000, p. 40). Besides that, many children live in poverty..., and the number of reports about child abuse

and neglect in families is increasing (Jones & Jones, 2006). Similar trends in family changes have also been established for other parts of the world (e.g. Filipčič; 2002, Lewis, 1997).

In addition to structural changes, the modern family also faces modifications in family functioning (Jacob, 2002; Lasch, 1991). The relationship between children and parents has changed considerably. Parents often turn various aspects of child development over to other institutions while assuming the role of a friend. Another characteristic of the new type of family socialization is the absence of a father figure in the upbringing of a child; this takes away the role-model figure and thus disables symbolic identification. Because of overburdening, mothers constantly feel guilty for not dedicating enough time and attention to their children. All that results in an indulgent upbringing.

The consequences of these changes are reflected in schools as well. "More students are entering public school without the benefits of ongoing positive parental bonding and attachment. Many of these students already have been damaged emotionally by the debilitating effects of poverty, neglect, abuse, divorce, drugs, and rejection... Consequently, the students have low frustration tolerance, misperceived social interactions, limited attention spans, and low self-esteem. Their social/emotional needs dominate their behaviour and disrupt the learning process" (Long, Morse, & Newman, 1996, p. 239).

Consequently, teachers are often faced with student misbehaviour, and the wide range and high intensity of aggressive behaviour is especially alarming (Elem & Rose, 1995; Kauffman & Burbach, 1997; Portner, 1994). Studies (e.g. Lewis, 1997) have shown that discipline problems are among the fundamental causes of stress in teachers. In stressful situations teachers react towards misbehaviour more rigorously, in whatever way that facilitates control of the class (Fuller & Bown, 1975). That kind of discipline is problematic because it does not support the development of self-discipline and responsibility (Lewis, 2001; Pšunder, 2005). Consequently, new discipline problems keep arising, and in this way the negative interaction circle is completed and becomes difficult to break.

Indulgent discipline can be just as problematic as high authority discipline, while inconsistency in enforcing the arranged rules also has a negative influence on student behaviour. On the other hand, as DiPrete (1981) pointed out, practices such as strict enforcement of rules, consistent disciplinary action, and fairly administered discipline have been related to a lower incidence of misbehaviour. Studies have shown that effective teachers are more consistent and proactive in classroom management as compared to less effective teachers, who are more permissive and inconsistent (Molnar, Smith, Zahorik, Palmer, Halbach, & Ehrle, 1999), and that

an effective teacher maintains clear rules and procedures and establishes credibility through fair and consistent implementation of discipline (Peart & Campbell, 1999).

Knowledge and education play an important role in the lives of each individual and of the whole society, and that is reflected in schools. Teachers and students are faced with difficult educational goals. Such a situation forces teachers to use teaching methods that neglect the interests of students and do not encourage students' active role. Ineffective teaching methods give students more time to be active in less productive activities. On the other hand, it is possible to reduce the majority of discipline problems in the classroom with effective teaching (Jones & Jones, 2006; Nakamura, 2000; Stronge, 2008). Good and Brophy (1997) pointed out that effective teachers are able to increase student engagement in learning and make good use of every instructional moment.

Many studies have confirmed that school can cause student misbehaviour by not providing all students with opportunities for success (Brophy & Evertson, 1976; Mann & Lawrence, 1981), as well. In trying to achieve accordance with difficult educational goals and stressing the importance of learning productivity, schools often place a high value on the cognitive abilities and achievements of individuals and neglect other important aspects of students' development. Such circumstances can diminish students' achievements in other areas of school work and life, an outcome which can be especially frustrating for students with lower learning abilities.

Authors (e.g. Jones & Jones, 2006; Nakamura, 2000; Stronge 2008) agree that a strong teacher-student relationship is the key to reducing discipline problems. In a productivity-oriented school, the individual and his/her needs are often neglected, and during a hectic work schedule there is less time and attention for interpersonal relationships. Studies (e.g. Osler, 2000) have shown that in schools today students feel a lack of the social skills that are needed to establish good interpersonal relationships. Lack of social skills is often the cause of student misbehaviour (Bodine, Crawford, & Schrumph, 2002; McGinnis & Goldstein, 1997). If students lack knowledge and experience, how can they behave towards others in an acceptable way; they often react in a stereotypical way – they are passive, aggressive or they distance themselves from others.

A teacher will be able to set an example of appropriate interpersonal relationships for students and teach them social skills if he/she possesses the necessary repertoire of social competences enabling him/her to establish good interpersonal relationships with all subjects of the educational process. These subjects also include cooperation with parents, a key factor of good school discipline (Jones

& Jones, 2006; Nakamura, 2000; Wolfgang, 2005). Studies (e.g. Henderson, 1997) have shown that when schools work together with families, students show the following positive outcomes: higher grades and test scores, greater enrolment in post-secondary education, higher graduation rates, more effective transition to work and more positive attitudes and behaviour.

The above-mentioned studies have confirmed that teachers have a major influence on student behaviour. As a result of these studies, the question arises whether future teachers have knowledge and awareness of their own potential contribution to student misbehaviour? If they have such knowledge and become aware of such an influence, they can help to decrease it. According to studies (Bennett, Wood, & Rogers, 1997; Kagen, 1992; Pajares, 1992), teachers' knowledge and beliefs directly affect their decision-making processes and teaching practice.

The purpose of this study was to investigate whether future teachers have knowledge and awareness of their own potential contribution to student misbehaviour. Specifically, the study attempted to answer the following questions:

- In the opinion of future teachers, who is the most responsible for student misbehaviour?
- In the opinion of future teachers, which school factors contribute the most to student misbehaviour?
- How do student teachers evaluate their preparedness in terms of knowledge of and practical experience with confronting misbehaviour?
- What additional knowledge would student teachers like to acquire, to help them deal with student misbehaviour?

Method

Participants

In the research sample, we included 170 students from the Department of Primary Education at the Faculty of Education in Maribor, Slovenia. The sample included 89 third-year and 81 fourth-year students. In keeping with the proportion of female to male students attending the Faculty of Education, the sample includes a greater percentage of female students (97.06%) and a smaller percentage of male students (2.94%).

In Slovenia, primary school teachers teach students aged between 6 and 11. In the first place they are teachers, but also class teachers, which means that they are pedagogical, organisational, administrative, discipline and supervising leaders (Pšunder, 2006). In the first school years, class teachers spend a great deal of

time with students; it is, therefore, very important that teachers be aware of their influence on student behaviour. Students – future teachers – were included in our research because we wanted to investigate to what extent future teachers think that the study process prepares them for actual teaching.

Data collection and analysis

The data were collected via an anonymous individual questionnaire, which was developed by the author and her co-worker. The questionnaire was piloted on a small group of students.

The questionnaire consisted of two sections, the first of which asked the respondents to provide some general information – sex and the year of study. In the second part of the questionnaire we were first interested in discovering who, according to future teachers, is the most responsible for student misbehaviour. The second question referred to critical factors in school that might, in their opinion, contribute most to student misbehaviour. The responses to both questions were recorded by marking a 5-point scale (ranging from 0 to 4 with the options: not at all, slightly, moderately, very, and extremely). The next question asked the participants to rate their preparedness in terms of knowledge of and practical experience in dealing with student misbehaviour and provided four options. In the last questions the participants were given space to write down what additional knowledge they would like to acquire to help them deal better with student misbehaviour. The narrative responses were analyzed using analytic induction methods to identify common categories (Glaser & Strauss, 1967).

We wanted to establish whether the 3-week teaching practice (the third-year students included in the sample had not yet attended teaching practice) and more lectures in the field of specialised didactics (given to fourth-year students) influence the differences in views between the students in different years of study, about school factors that may contribute to student misbehaviour. We used Spearman's rank correlation coefficient and the chi-square test to examine the differences between the third-year and fourth-year students. In the case of a theoretical frequency that was too low, we took into account the Likelihood ratio value.

Results

In the opinion of future teachers, who is the most responsible for student misbehaviour?

The third – and fourth-year students gave the same answers about the factors that are most responsible for student misbehaviour (cf. Table 1). Parents are the most responsible for student misbehaviour, as both groups stated. The future teachers

Table 1: Mean of Rating Scores^a, Standard Deviations and Rank Orders^b of students reporting on who is the most responsible for the student misbehaviour

Factors	Third-year students			Fourth-year students		
	Mean	SD	Rank order	Mean	SD	Rank order
Parents	3.08	0.87	1	3.17	0.83	1
Society	2.93	0.84	2	2.78	0.96	2
Students	2.75	0.97	3	2.70	0.89	3
School	2.67	0.93	4	2.69	0.94	4

^a A lower score indicates that the factor is less responsible for student misbehaviour (0 = not at all responsible; 4 = extremely responsible)

^b A lower rank indicates that the factor is most responsible (1 = most responsible; 4 = least responsible).

are positive that the school bears the least responsibility for student misbehaviour. As seen in Table 1, the third – and fourth-year students ascribe a high level of responsibility for student misbehaviour to society. They put students in the third place in terms of responsibility for student misbehaviour.

In going through the list of factors according to their level of responsibility for student misbehaviour we need to stress that the differences between average values of individual factors are small. Based on such results, we believe a conclusion can be drawn that future teachers do realise that responsibility for student misbehaviour cannot be ascribed to one factor only but to many factors, including circumstances connected with school.

In the opinion of future teachers, which school factors contribute the most to student misbehaviour?

To find out whether the third – and fourth-year students' opinions about school factors contributing the most to student misbehaviour are similar, we calculated the Spearman's rank correlation coefficient and got $r_s = .90$. Statistically, the correlation is significant, $t(10) = 6.53$, $p < .025$. Such a result means that the third – and fourth-year students gave similar answers about the school factors that contribute most to student misbehaviour. Both groups filled the first four positions with the same factors, the only difference being the rank order. Also, in other cases the third – and fourth-year students gave similar answers; greater differences between the two groups in the classification of school factors contributing the most to student misbehaviour became apparent in two cases (cf. Table 2).

Table 2: Mean of Rating Scores^a, Standard Deviations and Rank Orders^b of students reporting school factors that contribute the most to student misbehaviour

School factors	Third-year students			Fourth-year students		
	Mean	SD	Rank order	Mean	SD	Rank order
Inconsistency	2.89	1.04	1	2.84	0.90	2
Indulgent discipline	2.84	1.21	2	2.79	1.02	4
Uninteresting classes	2.83	1.12	3	2.86	1.12	1
Teaching methods that prevent activity	2.81	0.95	4	2.81	0.96	3
Insufficient attention paid to interpersonal relationships	2.78	0.88	5	2.78	0.85	5–6
Insufficient attention paid to social skills	2.64	0.88	6	2.60	0.92	7
Emphases on study productivity	2.47	0.94	7	2.38	0.97	10
Poor cooperation with parents	2.45	0.90	8	2.78	0.55	5–6
Prevention of success experience for all students	2.31	1.14	9	2.48	1.12	8
Lack of consideration for individuals	2.30	0.93	10	2.44	0.89	9
Demands to which students have to adjust	1.67	1.10	11	1.60	0.97	11
Authoritarian discipline	1.58	1.11	12	1.56	1.00	12

^a A lower score indicates that the factor contributes less to student misbehaviour (0 = contributes not at all; 4 = contributes extremely)

^b A lower rank indicates that the factor contributes the most to student misbehaviour (1 = contributes most; 12 = contributes least).

Both groups of students are positive that one of the most critical factors through which the school encourages student misbehaviour is inconsistency in set rules and consequences. Considering such answers, we could conclude that future teachers are aware that consistency in enforcing set rules and consequences is the key element of good discipline. It also raises the question whether they, as future teachers, will actually be consistent in enforcement of rules and consequences in teaching practice. School rules (cf. Gaččša, 2002) are set at the national level in Slovenia, which should contribute to equal treatment of all participants in the educational process. Nevertheless, studies have shown that teachers are inconsistent in applying those rules, while simultaneously complaining about the rules' inefficiency.

The students in both groups are also well aware of the disadvantages of indulgent discipline, which they placed high on the list of factors that contribute the most to student misbehaviour. In contrast, the students in both groups believe that authoritarian discipline does not have a big influence on student misbehaviour, since they all placed it in the last position (cf. Table 2). In the introduction to the article, we have already established that for the development of autonomy and responsibility students should be given a certain amount of autonomy according to their developmental stage. Nevertheless, studies carried out in different parts of the world show that school practice is still predominantly traditional (Haroun & O'Hanlon, 1997; Lewis, 2001; Pšunder, 2005). In most cases teachers assume a high level of control over student behaviour, and that does not support the development of self-discipline. According to the responses from the future teachers we can conclude that their views on discipline are rather traditional. Especially alarming is the possibility that such discipline will be enforced in school practice by future teachers.

According to studies, misbehaviour is frequently connected with poor planning of instruction, the use of ineffective teaching methods, preventing students from achieving success (Brophy & Evertson, 1976; Kounin, 1970). The students involved in our research also share the above opinions, because uninteresting class instruction that does not consider students' needs and interests, as well as failure to use teaching methods that enable students' active involvement were placed high on the list of school factors that contribute the most to student misbehaviour.

The fourth-year students placed uninteresting class instruction that does not consider students' needs and interests and the use of teaching methods that place students in a passive role in a higher position among school factors that contribute the most to student misbehaviour than did the third-year students. These results could be connected with the fact that the fourth-year students had more lectures in specialised didactics than the third-year students and that the fourth-year students

had already had teaching practice. We believe that any knowledge and experience they gained confirmed their beliefs about the close connection between uninteresting instruction, passive students and student misbehaviour.

At the beginning of this article we pointed out the relatively wide range of aggressive school behaviour. Some experts (Bodine et al., 2002; McGinnis & Goldstein, 1997) believe that this situation is connected with a lack of adequate social skills. A productivity-oriented school contributes to that situation because it stresses the importance of an individual's cognitive abilities and neglects other important aspects of a person's development. In our study, the students in both groups placed insufficient attention paid to interpersonal relationships and to social skills in the middle of the list of school factors that contribute the most to student misbehaviour.

In a productivity-oriented school, less successful children can be deprived of experiencing success, and in such circumstances the needs of individuals are not sufficiently considered. This factor was placed in a lower position on the list of school factors that contribute the most to student misbehaviour.

Penultimate among the school factors that contribute the most to student misbehaviour, the students placed demands to which students need to adjust. At the same time, we need to stress that adjusting to school demands is necessary to a certain extent; otherwise, schools would be in disorder and the realisation of higher, common goals would be prevented. On the other hand, demanding adjustment from students can encourage student misbehaviour. Problems with student adjustment to school demands often occur if the child's family values differ greatly from the values which are important at school.

The biggest difference between the third – and fourth-year students was in their views about the influence of school productivity on student misbehaviour (cf. Table 2). The fourth-year students ascribed less influence on student misbehaviour to productivity than the third-year students. The students included in our study will be teaching students at the beginning of primary school. In this period class instruction is mostly conducted in the form of play, and students are graded descriptively; consequently, productivity is less obvious than in higher classes, and therefore productivity does not influence student misbehaviour so much. The fourth-year students were confronted with this situation during their teaching practice. We believe that students' personal experience acquired during the teaching practice influenced the results.

The second big difference between the third – and fourth-year students appeared in their views about the influence of poor parent – school cooperation on student misbehaviour. The fourth-year students ascribed a greater influence to poor

parent-school cooperation than the third-year students (cf. Table 2). Again, we believe that the students' personal experience acquired during the teaching practice influenced the results. Practicing teachers often ascribe responsibility for student misbehaviour to parents, and at the same time they complain that it is parents with problematic children who do not cooperate with the school. Many teachers are certain that many problems could be prevented or stopped if the cooperation of parents improved.

How do student teachers evaluate their preparedness in terms of knowledge of and practical experience with confronting misbehaviour?

There are no statistically significant differences between the third – and fourth-year students in their estimation of preparedness in terms of knowledge of and practical experience with confronting misbehaviour; chi-square = 4.190, df = 2, $p = .123$. While the fourth-year students' most common answer (59.3%) was that they had acquired enough knowledge, but not enough experience during their years of study, the third-year students mostly stated (50.6%) that they had not acquired enough knowledge and experience for dealing with misbehaviour.

Table 3: Number and structure of students regarding knowledge and practical experience acquired at university for dealing with student misbehaviour

Students' answers	Third-year students		Fourth-year students		Total	
	f	f%	f	f%	f	f%
Sufficient knowledge and experience	2	2.2	4	4.9	6	3.5
Sufficient knowledge and too little experience	42	47.2	48	59.3	90	52.9
Sufficient experience and too little knowledge	0	0.0	0	0.0	0	0.0
Too little knowledge and experience	45	50.6	29	35.8	74	43.5
Total	89	100.0	81	100.0	170	100.0

Although there was no statistically significant difference between the third – and fourth-year students, we can still observe (cf. Table 3) that the fourth-year students were more optimistic about the acquired knowledge than the third-year students. The fourth-year students certainly acquired some knowledge and practical experience through teaching practice. Moreover, the fourth-year students had had lectures in pedagogy and didactics that the third-year students had not, so the results were expected.

In summary, the results of the study showed that the students in both groups are rather pessimistic about the experience acquired during their student years that might help them to deal with misbehaviour. They are a little bit more optimistic about the acquired knowledge that might help them in controlling student misbehaviour when they start teaching. As Pyżalski (2005) stated, there are many factors that may influence teachers' attitudes and behaviours toward misbehaviour and discipline, for example: teachers' education (knowledge), former experience as a student, personality traits, former experience with misbehaving students, strategies and methods used by other teachers in particular educational settings, etc. The quality of teachers' professional work, especially at the beginning of their career when they have a limited range of personal teaching experience, depends largely upon the knowledge students acquire through study.

What additional knowledge would student teachers like to acquire, to help them deal with student misbehaviour?

The students' answers were sorted into twelve categories according to their topics (cf. Table 4). The third – and fourth-year students assign similar classifications to the additional knowledge they would like to acquire about misbehaviour. The correlation is statistically significant, $r_s = .88$; $t(10) = 5.86$, $p < .025$. Table 4 shows that the students in both groups wish to acquire more knowledge about how to deal with difficult, problematic students and knowledge about cooperation with parents,

Table 4. Number and structure of students reporting additional knowledge they would like to acquire to help them deal with misbehaviour, and Rank Order^a

Knowledge	Third-year students			Fourth-year students		
	f	f%	Rank order	f	f%	Rank order
Working with problematic students	17	19.1	1	14	17.3	2
Solving problems, conflicts	16	18.0	2	10	12.3	4
Cooperation with parents of problematic children	15	16.9	3	16	19.8	1
Discipline – practical suggestions	12	13.5	4	9	11.1	5
How to make classes interesting	10	11.2	5	7	8.6	6
How to encourage students' activity	9	10.1	6	6	7.4	7–8
Taking measures in accordance with school legislation	8	9.0	7	11	13.6	3

Knowledge	Third-year students			Fourth-year students		
	f	f%	Rank order	f	f%	Rank order
Specifics of children with special needs	5	5.6	8–9	5	6.2	9
Encouraging cooperation among students	5	5.6	8–9	6	7.4	7–8
Working on interpersonal relationships	4	4.5	10–11	4	4.9	10
Development characteristics of children	4	4.5	10–11	2	2.5	12
Causes of student misbehaviour	2	2.2	12	3	3.7	11

^a A lower rank indicates that the topic was cited more frequently (1 = most frequent; 12 = least frequent).

especially with parents of problematic children. Other less common answers are shown in Table 4.

The biggest difference between the third – and fourth-year students was in their wish to gain additional knowledge about school legislation and measures that can be taken according to the law. It is possible to conclude that the fourth-year students felt the need for knowledge about school legislation more intensely because of their teaching practice. Since the rules of school life in Slovenia are set by the law, good knowledge of the legislation is a necessity for a working teacher.

Discussion

The purpose of this study was to investigate whether future teachers have knowledge and awareness of their own potential contribution to student misbehaviour. We believe that it is important for future teachers to have the necessary knowledge and to be aware of how they can unwittingly encourage student misbehaviour themselves. Only in this way will they be able to contribute successfully to a reduction in student misbehaviour. Studies (Brophy, 1988; Brophy & Evertson, 1976; Kounin, 1970) showed that discipline problems cannot be improved only when attention is paid to the intervention only when misbehaviour accrued, but also to the prevention, and that the ability to prevent discipline problems is what separates effective from ineffective teachers. Also Emmer, Evertson and Anderson (1980) pointed out that effective teachers limit disruption by anticipating potential problems.

Considering the fact that our sample included students from only one faculty (out of three Faculties of Education in Slovenia), we cannot generalise the results

of the research to the whole population. Nevertheless, the study is interesting and useful and we should devote more attention to similar research in the future.

The results of the study are in the first place useful because they point out critical factors through which the school most encourages student misbehaviour. It encourages future teachers and those who are already teaching to a critical inspection of their own views on school factors that may contribute to student misbehaviour. For practising teachers, the study may also provide an opportunity to think about whether and how they may be contributing individually to the incidence of student misbehaviour, and what they (can) do to reduce or remedy them. This reflection should not be neglected by teachers because studies (Brophy & Evertson, 1976) have shown that the same teacher behaviour that reduces discipline problems in the classroom is also associated with an increased levels of student learning.

Most future teachers in this study ascribe the major responsibility for student misbehaviour to parents and are positive that the school bears least responsibility for student misbehaviour. The answers would certainly be different if the same questions were given to parents, who usually have the opposite opinion, namely, that the teachers and school are the most responsible for student misbehaviour. Still, in cases of student misbehaviour, teachers and parents blaming each other is no solution; it can only make the situation worse. Teachers can take responsibility only if they become aware of how they could involuntarily be encouraging student misbehaviour themselves.

Although most students in our study ascribe the major responsibility for student misbehaviour to parents, our research also shows that future teachers do realise that responsibility for student misbehaviour cannot be ascribed to one factor only but to many factors, including circumstances connected with school. In the opinion of future teachers, inconsistency, boring lessons and indulgent discipline are important causes of student misbehaviour in school. These findings are consistent with the studies described earlier (Brophy & Evertson, 1976; DiPrete, 1981; Kounin, 1970). We can only hope that students – future teachers – will be consistent, will select their teaching methods carefully and in this way prevent students from engaging in other, less productive activities.

Most students in this study stated that they had not gained enough experience to deal with student misbehaviour during their years at the faculty. The students are a little bit more optimistic about the acquired knowledge that might help them in controlling student misbehaviour when they start teaching. As Hsu (2005) stated, for many student teachers the transition from student to teacher is difficult. They struggle with a wide range of problems because they are lacking professional knowledge, are inexperienced in dealing with colleagues and students, and

unfamiliar with school environments. Therefore, it is essential for the survival of student teachers to establish a supportive relationship for professional and personal help. They should have support for difficult aspects such as class management.

Besides acquiring experience during study, the fourth-year students place more faith in acquiring knowledge that might help them in dealing with student misbehaviour than the third-year students. Since the contribution of teaching practice to students' knowledge and experience is priceless, the need arises for longer periods of teaching practice during undergraduate studies. Studies (e.g. Čagran, Cvetek, & Otič, 2007) showed that there is a need to revise and renew the existing model of teaching practice, as well.

The future teachers determined areas of knowledge they wish to improve in the future. From this point of view, the study is useful for teachers of future teachers because it encourages them to think about the topics which deserve more attention during undergraduate studies. The future teachers would like to acquire more knowledge of and experience in facing student misbehaviour, especially in the field of working with difficult students, working with parents and conflict resolution. This information should not be ignored because the quality of teachers' professional work, especially at the beginning of their careers, when they have a limited amount of experience, depends greatly on the knowledge they acquire through studying. More knowledge on this field would certainly contribute to teachers' higher self-confidence at work. Moreover, we need to be aware of the fact that undergraduate study cannot give students all the necessary knowledge and skills they need to practise because the time of study is limited. Besides, knowledge becomes outdated very quickly nowadays. Therefore, it is crucial that we encourage in students a constant need for additional training even after they finish university.

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Petr Kutáč, Vojtěch Gajda,
Miroslava Přidalová
Czech Republic

The Body Composition of a PE Teacher

Abstract

The study deals with one of the characteristic features of a PE teacher. It concerns the area of motional competences, which also includes body composition. Because of the difficulty in collecting data from working PE teachers, we decided to focus on future PE teachers – university students of PE and sports. The data collected indicates typical features of the future PE teacher.

Key words: *personality of a teacher, students, body composition, somatotype, fractionation of body composition*

1. Introduction

The personality of a teacher in the educational process represents one of the most significant components which influence the teacher's success (Frömel, 1987). The teacher's success is determined by his/her professional competences. The general notion of 'competence' was defined by Matoušek and Růžička (1978) who understand it as an ability to behave and act defined by certain standards. These standards are further defined as educational standards and professional legislative and personal standards. Professional competence in the area of pedagogy is defined by Čebišová, Jančurová and Paulík (1998) who divide them into five areas: moral, subject, pedagogic, self-educational and medical competences. Vašutová (2001) divides the competences into the following six areas: subject field; didactic and psychodidactic; general pedagogic; diagnostic and interventional; social, psycho-social and interventional; managing and normative. Spilková (2004) and Průcha (2002) and even the European Council define professional competences.

All these definitions and competence divisions have something in common: They lack the motor competence. This competence, regarding general pedagogy, is frequently mentioned and discussed nowadays, especially in terms of the quality of daily life, health education and the prevention of diseases (Válková 2008). Its increasing importance is also obvious due to the implementation of PE into the Education Programme Framework, into the section called the Human Being and Health. PE is included here along with the subject Health Education. Both of these subjects (not only PE) focus on the field of a healthy lifestyle, the prevention of diseases, motion regime, health-oriented skillfulness and correct body posture.

Regarding the increased significance of a healthy lifestyle a teacher has a certain specific role and status. Rychtecký and Fialová (1998) and Vilímová (2002) focus on the personality of a PE teacher as a specific professional group. These authors, apart from the above-mentioned competences valid for all teachers, also emphasize some requirements focusing on body composition (related to motor competence) which in terms of PE teaching is a necessary condition for the effective accomplishment of the role. Apart from professional qualities teachers should be role-models to their pupils, not only in their behaviour, performance and style, but also in their appearance. They should fulfil the impression and understanding of a healthy individual and therefore strengthen the reception of the significance of a healthy lifestyle among their students. The mentioned ideal can be defined as an individual with correct body posture, not overweight, and with well-developed coccyx and muscles.

2. Aim

The aims of the study are to describe the current somatic status of male and female students studying PE and another subject as their study combinations (students of Moravian universities) and to evaluate their body compositions in relation to possible health problems

3. Methodology

Because of the difficulty in collecting data from working PE teachers, we decided to focus on future PE teachers – university students of PE and sports. The group investigated consisted of the 1st year male and female students of PE and sports

of the Pedagogical Faculty at Ostrava University in Ostrava and the Faculty of Physical Culture at Palacky University in Olomouc.

The basic anthropometric parameters (body height and body weight) and body composition were measured by the bioelectric impedance method and applied to 256 persons (167 males, 89 females) in 2007. The somatotype was based on 72 investigated persons (43 males, 29 females). The students' age in the groups was 19.6–19.8 (females) and 20.2–20.7 (males).

Body composition using the bioelectric impedance method was found by means of the tetrapolar bioimpedance device TANITA BC 418. The body fat in particular body segments (Fat %, Fat kg) and the whole body, body water (TBW) (kg), fat mass (FFM) (kg) of the whole body and partial body segments were measured (% , kg).

The somatotype was determined by the Heath-Carter method (1967, in: Riegrová, Přidalová and Ulbrichová, 2006). The measurements were taken by qualified workers with long-term professional experience.

The statistical analysis was made using the statistics programme SPSS 15.0.

4. Results

1. Evaluation of the basic anthropometric parameters

The statistical characteristics of the basic anthropometric parameters are shown in Table1.

According to the average BMI values the investigated male and female students are individuals with optimal body weight. However, 21% of the students are in the category which we define as slightly overweight. 4.5% of the female students are in this category. Values below 20 signify underweight.

Table 1. Basic anthropometric parameters

	Male students (n=167)		Female students (n=89)	
	M	SD	M	SD
Body height (cm)	180.64	6.38	167.28	6.28
Body weight (kg)	75.63	8.17	60.98	7.77
BMI	23.16	2.04	21.75	2.11

M – mean SD – standard deviation

2. Body constitution

a) Evaluation of body composition

By means of the bioelectric impedance method we obtained an assumption of body composition which is presented by fat content, FFM (fat mass) and TBW

Table 2. Body composition characteristics

	Male students (n=167)		Female students (n=89)	
	M	SD	M	SD
Fat (%)	12.20	3.97	23.71	5.19
Fat (kg)	9.21	3.66	14.46	4.70
FFM (kg)	66.39	6.83	46.22	3.87
TBW (kg)	48.60	5.00	33.83	2.83

Table 3. Analysis of segments – male students

	right extremity		left extremity	
	M	SD	M	SD
Upper ext.				
Fat (%)	14.15	3.21	14.91	3.54
Fat (kg)	0.61	0.15	0.66	0.16
FFM (kg)	3.74	0.55	3.75	0.57
Lower ext.				
Fat (%)	11.89	4.09	12.85	3.96
Fat (kg)	1.59	0.64	1.66	0.62
FFM (kg)	11.58	1.19	11.12	1.14
Trunk				
Fat (%)	11.38	4.60		
Fat (kg)	4.76	2.23		
FFM (kg)	36.16	3.67		

(total body water). The descriptive characteristics of individual fractions are stated in Table 2.

The average values of body fat measured among the male and female students are indicated in the literature as average for the specific age group. With respect to the values which are considered as health hazards, regarding both low and high body fat, authors refer to average body fat according to various scales. Heyward and Wagner (2004) use the scale 8–22 % of fat for males and 20–28 % of fat for females. McArdle, Katch FI and Katch VL (2007) use a scale of 15 % for males and 25 % for females. Lohman (1992) defines the values as 6–24 % for males and 9–31 % for females. Riegerová, Přidalová and Ulbrichová (2006) regard as the optimal percentage of fat 9–15 % for males and 14–21 % for females, both under 30 years of age. As we used the TANITA device, we prefer the normative values concerning the given age group. These values are stated in its system. The values are 10–20 % of fat for males and 16–30 % for females.

The average values of body water, which are 64.28% (male students) and 55.47% (female students), are considered to be standard values. Riegerová, Přidalová and Ulbrichová (2006) consider 63 % (males) and 53% (males) to be the amount of body water which provides the basic physiological functions of our organism and its appropriate performance and capacity.

The TANITA device enables the segmental analysis of body composition. Body composition evaluation in terms of particular segments – upper and lower limb

– left and right and the torso is presented as fat and the fat mass values (Tables 3 and 4).

After evaluating the average values of subcutaneous fat, we can say that they are in proportion. The difference in the fat distribution regarding the limbs is minimal (up to 2%). The difference between the limbs and the torso is not higher than 3%.

Seeing that the torso contains the lowest fat value, there is no evidence of excess abdominal weight.

When comparing the fat fractions of the investigated partial body segments of our female students, we discovered the predominance of the fat segment in their limbs. This distribution is known as centripetal. Fat is extremely predominant in the lower limbs, which is determined by fat deposition in women (lower body). The lowest fat value is in the torso, as in males, which minimizes the danger of an excess of abdominal weight.

b) Somatotype identification

The second method of identification of an individual's body constitution is to choose his/her somatotype. The identified descriptive characteristics of partial somatotype components are presented in Table 5.

The average somatotypes of the students are grouped into the categories of endomorphic mezomorphs. The average somatotype of the female students extends to the endomorphic half of the somatograph. They are included in the category of mezomorphic endomorphs. It is obvious that dominant (female students) for the localization is the highest value of the endomorphic component and the very low value of mezomorphy.

Table 4. Analysis of segments (female students)

	right extremity		left extremity	
	M	SD	M	SD
Upper ext.				
Fat (%)	22.57	5.38	23.75	5.55
Fat (kg)	0.67	0.24	0.71	0.26
FFM (kg)	2.25	0.24	2.21	0.25
Lower ext.				
Fat (%)	28.90	3.73	28.98	3.79
Fat (kg)	3.24	0.69	3.18	0.68
FFM (kg)	7.88	0.68	7.68	0.64
Trunk				
Fat (%)	19.57	6.50		
Fat (kg)	6.68	2.91		
FFM (kg)	26.20	2.15		

Table 5. The characteristics of several components of somatotypes

	Male students (n=43)		Female students (n=29)	
	M	SD	M	SD
Endomorphy	3.54	0.97	4.74	0.81
Mezomorphy	4.42	1.31	3.38	1.17
Ectomorphy	2.28	1.17	2.65	0.91

5. Discussion

In terms of body composition we have mainly focused on the distribution of the fat fraction, because its higher amount is related to overweight, fat mass limitation and restriction of physical efficiency. The average value (males and females) corresponds to the average value of the population of the investigated age category. However, we also found students whose values exceeded the upper standard limit. 1.2% of the students were over the value of 20% and 8% of the female students were over the value of 30% of fat. The fat distribution in particular segments is in proportion regarding our students, which we expect from PE students. The female students have more fat on their limbs (lower), which we do not have to consider as a serious problem. A possible problem can be the opposite, when fat prevails on the trunk.

Not only is too much subcutaneous fat dangerous for the organism, but also too little. A low amount of subcutaneous fat causes physiological disorders and even menstruation disorders in women (Heymsfield et al., 2005).

Heyward and Wagner (2004) regard values lower than 8% for females and lower than 20% for males as a health risk. Lohman (1992) considers values lower than 5% for females and 8% for males to be dangerous. We worked with the standard used in the software of the TANITA device. The risk value is lower than 10% for males and lower than 16% for females. This low value was found in 30% of the students. Their values are close to the given limits, and therefore we have to regard these individuals as threatened in terms of health. The risk value was found in 3.4% of the female students. However, these values were very low and that is why it is essential to deal with the situation regarding possible health problems.

If we wanted to evaluate the percentage of the muscle content of the investigated students, we would assume that the FFM is made up of muscle (60%) (Riegerová, Přidalová and Ulbrichová, 2006). The defined average value is derived from the average FFM value and the total body weight. The male students had an average value of 52.39% and the female students 45.47%. Both of these values are above average. McArdle, Katch FI and Katch VL (2007), in their theoretical module of body composition, refer to the following values: male muscle fraction is 44.47% and female (20–24-year-olds) is 36%. Čihák (2001) considers the value 36% (males) and 32% (females) as the optimal value of muscle in terms of the total body weight.

We have defined the somatotypes of our students to gain a visual idea of their body constitution (appearance). When comparing the values of different somatotypes with the previous research results (Štěpnička et al., 1979; Riegerová et al., 1995; Pavlík, 1999; Brtková, Mačurová, Baloga and Gurský, 1990; Belej and

Gáborová, 1981), we found out obvious differences especially in the endomorphic component area. The values presented by the above-mentioned authors are lower by 1 or more points. Our group of male and female students had more subcutaneous fat. The graphic comparison of the average somatotypes of our students (males and females) with the values measured by Štěpničkou et al. (1979) in 1970–1976 is illustrated in Diagram 1. It is obvious from the somatograph that an important transformation into the endomorph zone has occurred – our students (males and females) have a higher value of the fat component.

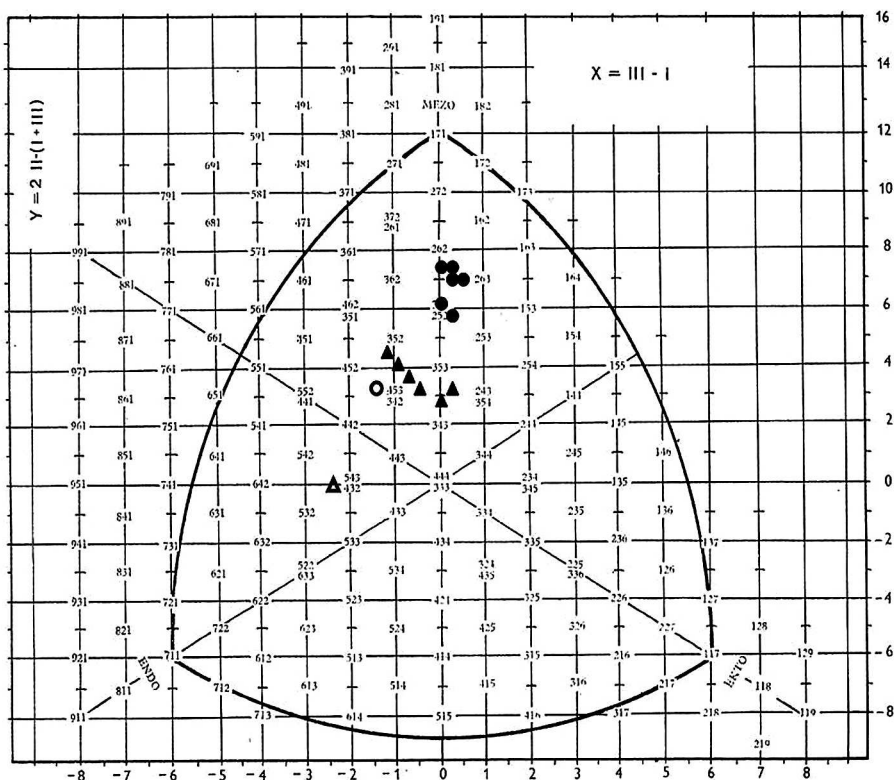
The aforementioned measurements by Štěpnička et al. (1979) defined the optimal somatotype of PE students. Male PE students should not have a higher value of the endomorphic component than 3 points, while the mezomorphic component should not be higher than 5 points. Female PE students should have a value of the endomorphic component not lower than 3.5 points, and the mezomorphic component should be greater or equal to the endomorphic component with a range of 3.5–4. The ectomorphic component should be lower than 4 points. This optimal somatotype was measured in 30% of our male students, but in none of the female students. An endomorphic value higher than 3 points, which is the limit value for male PE students (Štěpnička et al., 1979) was found in 74.4% of the male students. A value higher than 3.5 points, which is the limit value for female PE students, was found in 89.6% of the female students.

Although a higher endomorphic value in women is a natural female feature, such high values related to PE students are surprising. When comparing the mezomorphic component, it is obvious that our students are lower in comparison with the previous measurements by more than 0.5 points. Štěpnička et al., 1979; Riegerová et al., 1995; Pavlík, 1999; Brtková, Mačurová, Baloga and Gurský, 1990; Belej and Gáborová, 1981 state values higher than 5. This means that our students are behind in the area of muscular-skeletal development.

It is very difficult to obtain data from teachers working in schools (as mentioned in the methodology section). Such a study was carried out at the Faculty of Body Culture of Palacky University in Olomouc (Kutáč, 1995). Altogether 27 females and 35 males (average age 39.87) were investigated. These were teachers who had been working in school institutions for 15 years and more. If we would like to form an idea of our tested individuals' appearances when they have been working in schools for 20 years, we could compare them with the data of the study from 1995. Concerning body height, weight and BMI, the endomorphic and ectomorphic components, we do not find any significant differences. However, there is a higher value by 0.8 points of teachers (males and females) regarding the mezomorphic component, which is a significant difference, because the value of components is

measured to an accuracy of 0.5 points (Riegerová, Přidalová & Ulbrichová, 2006). Our assumption that our students have fallen behind in terms of muscular-skeletal development has been proven.

Picture 1. Graphic comparison of the average somatotypes of our male and female students with the values measured by Štěpnička et al. (1979)



6 Conclusion

- According to the average values of body fat measured by the bioimpedance tetrapolar TANITA method, we can consider that the tested students are not subject to health hazards in regard to either a low or high level of fat.
- Regarding the frequency analysis, we found individuals at risk. A higher percentage value corresponding with overweight was found in 1.2 % of the

male and 7.9 % of the female students, which is a low amount that can be referred to as an exceptional case. 3.4% of the female students have a low value of fat, and this group can be regarded as one at risk.

- When evaluating the somatotypes which enable us to describe the body constitution of an individual, a tendency towards endomorphy is obvious. Endomorphy is related to relative obesity, at the expense of mezomorphy representing muscular-skeletal development in relation to body height. This trend is clear from a graphic comparison of the average somatotypes of our students with previous values. We assume that the cause of such changes may be a reduction in the motion activities of our students, which is a trend affecting our society, or it may be an increase in their energy intake (both factors at once are possible).
- The current students studying various study fields in combination with PE can be, according to the data collected, regarded as a group of individuals without health hazards resulting from inappropriate body composition. However, we have to state that these individuals are not among those persons with exceptional body compositions (females mainly).
- We realize that muscle development is a long-term matter. Therefore, it is essential to focus on an increase in the intensity and extent of students' motion activities and offer students more optional subjects to choose from.

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Nuri Baloğlu, Engin Karadağ
Turkey

A Study of the Relationship between the Prospective Teachers' Attitudes toward the Teaching Profession and their Preferred Coping Strategies with Stress

Abstract

The purpose of this study was to explore the relationships between prospective teachers' attitudes towards the teaching profession and their preferred coping strategies with stress. A relational model was used to determine the relations between these concepts. The study group consisted of 262 prospective teachers in a college of education in Turkey. Two scales were used to collect the data. The Scale of Attitude toward the Teaching Profession (SATTP) was developed by Ustuner (2006) and consists of 34 items and the Scale of Coping with Stress (SCS) was developed by Lazarus & Folkman (1984) and adapted into Turkish by Şahin & Durak (1995). T-test, Pearson Product-Moment Correlation Coefficient and MANOVA techniques were used to analyze the data. The findings showed that there was a noticeable statistical meaningful relationship between student teachers' attitudes toward the teaching profession and some of their preferred coping strategies with stress. The findings were discussed based on the literature.

Key Words : *prospective teachers, attitude, stress*

Introduction

Stress is often considered as an occupational hazard of the teaching profession (Pettegrew & Wolf, 1982). Research has consistently shown that those in the helping professions, particularly teachers, have significantly higher levels of stress (Gold & Roth, 1993) than individuals in other occupations. Kyriacou & Sutcliffe (1977)

defined teacher stress as a negative response (such as anger, anxiety, or depression) made by the teacher to the demands of teaching. According to Pettegrew & Wolf (1982), teacher stress includes role-related stress, task-based stress, and environmental stress.

Stress in teaching is pervasive during prospective teachers' first teaching experiences (Morton Morton, Vesco, Williams & Awender, 1997), as the inexperienced practitioner attempts to make the transition to become a teacher (Hopkins, Hoffman & Moss, 1977). This transition often causes stress because prospective teachers lack experience and are not sure of their own status (Sinclair & Nichol, 1981).

The beliefs and attitudes of teachers and prospective teachers are significant determinants of the way they view their role as educators, beliefs which to a greater or lesser extent are often not consciously articulated and hence not rationalized or integrated into a coherent whole (Clark & Petersen, 1986; Feiman-Nemser & Floden, 1986). Some researchers have conceptualized attitudes as relatively stable and enduring concepts, which are retrieved from memory upon encounter with the attitude object. Alternatively, others consider attitudes as being constructed in the respective situation and as being influenced by information that comes to mind in this particular situation (Bohner & Wanke, 2002). Eagly & Chaiken (1993) defined attitudes as *the psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour*. Attitudes consist of a cognitive component, an affective component (feelings about an entity) and a behavioural component (behaviour as a result of knowledge and feeling about an entity). *The cognitive component of an attitude refers to the individual's ideas, thoughts, perceptions, beliefs, or opinions about the attitude referent* (Antonak & Livneh, 1988).

In the literature, there have been many studies about teacher stress (Dewe, 1986; Kyriacou, 1987; Needle, Griffin & Svendsen, 1981; Okebukola & Jegede, 1992; McConaghy, 1992; Hansen & Sullivan, 2003; Arikewuyo, 2004) and attitudes of prospective teachers toward the teaching profession which showed differences according to gender, department, and mother's occupation (Şahin 1992; Çelenk, 1988; Sürücü; 1997; Şenel, 1999; Saracaloğlu, Bozkurt, Serin & Serin, 1992). It could be said that the coping strategies for stress directly associated with experience gained during the training period itself or with the perceived stress that is anticipated by trainees once they enter the profession eventually. However, there is no research which considers the relationships between attitudes toward the teaching profession and coping strategies with stress for prospective teachers. This study aimed to explore and put forward these relations.

Method

Model of the Research

This research was done with the relationship survey model to define the relationship between prospective teachers' attitudes toward the teaching profession and their preferred coping strategies with stress. Survey models aim to define the event, individual or object inside their own environment without making changes or any effects. Relationship models are the models which aim to identify the existence or level of coordinate change between two or more variables (McMillan & Schumacher, 2006).

Working Group

The working group of the research was formed using stratified cluster sampling method from 267 senior class students in a college of teacher education in Turkey who volunteered to participate in the study. Out of the 267 students, 159 (59.6%) were female and 108 (40.4%) male. The participants from departments were as follows: 76 Candidates of Primary School Teacher (28.5%), 74 Candidates of Social Studies Teacher (27.7%), 49 Candidates of Science Teacher (18.4%) and 68 Candidates of Turkish Language Teachers (25.5%).

Data Gathering Instruments

To define relations between prospective teachers' attitudes toward the teaching profession and their preferred coping strategies with stress, two scales were used.

The Scale of Coping with Stress (SCS) was a 4-point Likert-type scale, originally developed by Lazarus & Folkman (1984). The scale was adapted for the Turkish culture and shortened to 30 items by Şahin & Durak (1995). The factor analysis made by researchers revealed 5 factors called : *Self-confident approach*, *Helpless approach*, *Submissive approach*, *Optimistic approach* and *Receiving social support* . With the help of the four-point Likert style scale, the choices of each item were *Totally Correct* (4), *Somehow Correct* (3), *Less Correct* (2) and *Lacking* (1). The Cronbach Alpha reliability coefficients of the groups were found (2008) from 0.47 to .80.

The Scale of Attitude Toward the Teaching Profession (SATTP) which consists of 34 items was developed by Ustuner (2006). Cronbach Alpha was found as .93. The factor analysis made by the researchers revealed 6 factors and they were called : *Occupational preference*, *Professional success*, *Professional esteem*, *Professional value*, *Willingness to be Teacher* and *Professional Concern*. With the help of the five-point Likert style scale, the choices of each item were evaluated by *Totally agreed* (5), *Agreed* (4), *Undecided* (3), *Not agreed* (2) and *Totally not agreed* (1) alternatives. To

define the factor structure of the SCS, the techniques of Kaiser Meyer Olkin=.91 and Bartlett Analysis [$p < .01$] were used. Varimax rotation was used to analyze factors. It was found that the SATTP had six dimensions and factor loadings ranged from .46 and .80. Eigen value of the scale was found 19.84 and exp. variants was found 60.13. The total internal consistency level of the scale was found fairly high. The Cronbach Alpha reliability coefficients of the groups were found (2008) from 0.73 to .94.

Data Gathering

The data in the research were gathered from 267 prospective teachers who were students (senior class) at a college of education in Turkey

Findings

Considering the gender variable, differences between the sub-Scales of Coping with Stress (SCS) and sub-Scales of Attitudes toward the Teaching Profession (SATTP) were found using *independent t-test*. In *Submissive approach* from coping strategies, it was found that the male prospective teachers' total mean point [$X = 8.52$, $SS = 2.26$] was higher than the female prospective teachers' total mean point [$X = 7.82$, $SS = 2.26$]. The differentiation between the points of the two groups was significant ($t(265) = -2.445$, $p < .05$). Additionally, in the sub-scale of *Willingness to be Teacher* of the SATTP, the female prospective students' mean points ($X = 11.53$, $SS = 3.21$) were higher than the male prospective teachers' mean points [$X = 10.37$, $SS = 3.52$]. This differentiation was also significant ($t(265) = 2.791$, $p < .05$). These findings were parallel with Chaplain' (1995) finding which was pointed out in the connection framework in this study.

The relationships between the student teachers' attitudes toward the teaching profession and their preferred coping strategies with stress were defined using the *Pearson Product-Moment Correlation Coefficient*. It was found that there was a significantly positive relation [$r = .168$; $.182$, $p < .05$] among the prospective students' *Helpless Approach* [one of the coping strategies] and *Professional success* and *Willingness to be Teacher* [two attitudes toward the teaching profession]. It was also found that there was a statistically significant relationship [$r = .139$; $.158$, $p < .05$] between the prospective teachers' *Submissive Approach* and attitude of *Professional success* and *Professional value*. Another finding was that there was a positive relation among *Optimist Approach*, *Professional esteem*, *Professional value* [$r = .163$; $.170$, $p < .05$]. There were no relations among other sub-scales [$p > .05$].

The five sub-scales of coping with stress were examined by MANOVA differences in the sub-scales of attitudes toward the teaching profession. MANOVA was used in a linear combination of five sub-scales [*Helpless, Submissive, Optimist, Self Confident, and Receiving Social Support*]. Because of the differences among the cells and numbers of sampling, an adjustment was made using non orthogonal design on the SPSS inc. (1998).

The data proved that there was homogeneity of variance-covariance for the analysis of multiple variance [Box's $M = 2.70$, $F = .89$, $p = .44 > .05$]. Both these tests of general homogeneity and test of general homogeneity for MANOVA results showed that the hypothesis was correct [Accumulative $F = 2.34$, $p > 0.05$]. A significant multiple variance for gender was not found [Wilks' $\lambda = .95$, $F(2.333) = 8.21$, $p > .05$]. The effect of the statistically significant multiple variance for the Self-Confident Approach [Wilks' $\lambda = .36$, $F(0.916) = 1.04$, $p > .05$] and Receiving Social Support [Wilks' $\lambda = .71$, $F(1.038) = 1.59$, $p > .05$] was not found, either.

It was found that the prospective teachers who had been using Helpless Approach for coping with stress [X = 10.49, SS = 1.62] had a significantly higher point of attitude in Professional success and Professional concern than the prospective students [X = 15.52, SS = 2.71] who had not been using it [Wilks' $\lambda = .83$, $F(1.198) = 5.51$, $p < .05$, $\eta^2 = .08$]. The students who had been using Submissive Approach as a way of coping with stress had a higher point [X = 11.36, SS = 1.16] of attitude in the sub-scales of Professional success and Professional value than others [X = 7.15, SS = 1.52] [Wilks' $\lambda = .89$, $F(1.164) = 7.79$, $p < .05$, $\eta^2 = .05$]. It was also found that the mean points of the students who had been using Optimistic Approach as a coping strategy with stress had a significantly higher mean point [X = 9.32, SS = 1.37] in Professional success and Professional concern than others. [X = 5.80, SS = 1.29]. [Wilks' $\lambda = .92$, $F(7.71) = 1.32$, $p < .05$, $\eta^2 = .03$]. According to the value of (η^2) there was a weak effect on connected dependent variables of coping with stress [$\eta^2 = .08$; .05; .03].

Discussion

The research findings show that *Submissive Approach*, as a coping strategy with stress, is used more by the male prospective teachers than the female prospective teachers. This finding parallels with the findings of Zurlo, Pes & Cooper (2007) and Morris, Brooks & May (2003). It is known that a person can learn different patterns and use different resources in order to cope with stress. These resources were collected based on the four headlines by Patterson & McCubbin (1987): (i)

previous personal experiences for similar situations, (ii) observing achievements or failures of members of family, (iii) perceiving and thinking himself (iv) social directing done by mother/father, equals and other important people. Kuposov, Ruchkin, Eisemann & Sidorov (2002) point out that people who chose a *Submissive Approach* to cope with stress were generally immature in terms of psychology and have a low level ability to manage themselves. Two studies conducted by Balkis (2004) and Şenel-Günayar, Demir, Sertelin, Kılıçaslan & Köksal (2004) showed that female prospective teachers' structure of personality was much more stable than male prospective teachers'.

Another finding of this research was that the female prospective teachers showed much more willingness for the teaching profession than the male prospective teachers. It was very often determined that the female prospective teachers had a higher level of attitude for the teaching profession than the male prospective teachers [For exm: Sözer, 1996; Yüksel, 2004; Oral, 2004; İşmen & Yıldız, 2005; Sayın, 2005]. The teaching profession has commonly been perceived as a task for women by society. It can be said that attitudes of the prospective teachers might be affected by this opinion.

Based on this study, a positive relationship was found between *Helpless Coping Approach* and *Professional Success* and *Willingness to be Teacher*, which are the dimensions of the attitude towards the teaching profession. It was also found that there was a positive statistically significant relationship between the prospective teachers' *Submissive Coping Approach* and attitude of *Professional Success* and *Professional value*. According to these relations, the *prospective teachers who had been using Helpless Approach while coping with stress* had a *significantly higher point of attitude in Professional Success and Professional Concern than others. It was also found that the students who had been using Submissive Approach as a way of coping with stress had a higher mean point of attitude in the sub-scales of Professional Success and Professional Value than others.* It is important that a person who chose the teaching profession can be influenced by salary, time of working (Lortie, 1975), power, intellectual struggle, pressure of family and society (Morales, 1994), no other alternatives (Bcs, 1995), economic reasons Griffin, 1997; Saban, 2003). In the literature, there have been some research findings which show that students who chose a college of education for higher education generally came from low-income and crowded families (Demirel, 1995; Abişeva, 1997; Kılıç, 2002). According to the findings of this research, it can be said that prospective students who chose the helpless and submissive approach as coping strategies with stress engage in the teaching profession in order to satisfy themselves, and others to

overcome this lack of motivation and repress mood by commitment to the teaching profession.

It was also found that the students who chose an *Optimistic Approach* as a coping strategy with stress had a significantly higher level of positive attitude in *Profession Success* and *Profession Concern* than the students who had been using other coping strategies. Jones (2002) pointed out that the teaching profession is preferred by people who believe that the teaching profession is very prestigious. According to these people, through the teaching profession, a person is given a guarantee of task. This occupation is also preferred by people who want to spend time with their children. Additionally, studies show that there is a negative relationship between an attitude toward the teaching profession and intolerance (Martin & Kirkcaldy, 1998). Contrary to that, there are positive relationship among harmony (Savickas, Briddick & Watkins, 2002); extroversion and consistency (Lounsbury, Tatum, Chambers, Owens & Gibson, 1999). Although there are no studies which consider the ways of coping with stress and an attitude toward the teaching profession in the literature, there are plenty of studies which explore the features of personality and attitudes. In the scope of this research, it can be said that the prospective teachers who chose the optimistic approach to cope with stress, have a positive and higher attitude toward the teaching profession than others. However, Aydın (1995) has found that some variables as teacher training programmed features of personality, systems of value and psychological needs affect attitudes toward the teaching profession.

All studies and findings show that an attitude toward the teaching profession is affected by many variables. Therefore, the influence of several variables and their magnitude on the attitude has to be determined in the preceding studies on attitudes of prospective teachers. In addition, a comprehensive study should be conducted on the attitudes of prospective teachers towards the teaching profession.

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Nagihan Oguz-Duran,
Asuman Yüksel
Turkey

Values of Counselor Trainees: the Effects of Gender and Grade Level

Abstract

In the present cross-sectional study, counselor trainees (N=189) enrolled in a Turkish state university were surveyed regarding their values. Data was collected by using Profile Values Questionnaire developed by Schwartz. The results of two separate MANOVA revealed significant gender differences for value types among counselor trainees, indicating that females are more likely to espouse benevolence, universalism, and hedonism values, and males are more likely to espouse power values. In addition, there were significant differences between first and last year trainees in terms conformity and hedonism values. First year trainees attributed greater importance to conservation values than did fourth year counselor trainees.

Key Words: *values, counselor trainees*

1. Introduction

School counselors are in a unique position to guide their clients in their decisions, which often has a critical impact on their lives. The career decision making process is one in which counselors are responsible for helping their clients. However, especially in countries in which counseling is a newly developed profession, like Turkey, whether the counselors themselves made their career decisions well is a topic of concern.

Based on the career counseling literature, it is known that different careers fit better with different characteristics. In other words, interests, values, personalities, etc. play an important role in people's career choices and then in their career

development. Among these variables values are of special importance in the counseling profession, not just because values are vital for counselors' career choices, but also they affect the counseling process. During pre-service years, values that counselor trainees hold are expected to influence their interests, goals and motivate their academic behaviour at school. When trainees start to work as professional counselors, although their values are not communicated directly to their clients, they enter into the goals and methods of every theory or approach in the entire counseling process (Strupp, 1980; Patterson, 1989). However, with the exception of discussions of cross-cultural psychotherapy, research on counselor values is relatively scarce.

Assuming that the university experience is expected to shape and produce the counselors of tomorrow, it is important to study the nature of counselor trainees' values and how they are affected by university attendance. Hence, the present study aims to investigate the values of Turkish counselor trainees. For this purpose, this study draws on Schwartz's theory of values.

1.1. The Theory of Values

Values are "conceptions of the desirable that influence the way people select action and evaluate events" (Schwartz & Bilsky, 1987). They comprise a key element in people's worldviews (Roccas, et al. 2002). Although researchers often used the six-values model of Allport, Vernon, and Lindzey (1960) and the model of Rokeach (1979) focusing on value hierarchies, most value research has been based on Schwartz's (1992) theoretical and methodological approach, proposing 10 basic human values, since the early 1990s. In this theory benevolence, universalism, conformity, tradition, security, power, achievement, hedonism, stimulation, and self-direction are values representing universal needs of human nature (Schwartz, 1992, 1994). Data from over 70 countries validated this theory of values (Schwartz, 2006).

Schwartz's (1992, 1994) model explained the values in a quasi-circular structure of relations (cf. Figure 1). In this model, ten values form a two dimensional space together (*Conservation* versus *Openness to Change* and *Self-Transcendence* versus *Self-Enhancement*). He assumes that the value groupings at opposite poles are incompatible with one another and thus form bipolar dimensions. The benevolence and universalism values constitute the *self-transcendence* pole of the values circle. At the opposite pole of this dimension, there is *self-enhancement*, composed of achievement and power values. When we come to the second dimension of the circle, self-direction and stimulation constitute the *openness to change* pole, whereas conformity, tradition, and security constitute *conservation*. Among all the value

types, hedonism is in a special position since it is related to both the *openness to change* and *self-enhancement* dimensions. The earlier applications of Schwartz's model to Turkish samples (Kuşdil & Kağıtçıbaşı, 2000) provide evidence to include *hedonism* in the *self-enhancement* dimension.

Research into values has most often focused on gender, grade level, and faculty differences. In regard to gender, numerous studies have found that women are more likely to rate social values, such as helping others and working with people, higher than men do (Abu-Saad & Isralowitz, 1997; Elizur, 1994; Perrone, Sedlacek, & Alexander, 2001; Singh, 1994). Research into differences in values among gender groups, using the value measures developed based on Schwartz's value theory, reported consistent, statistically significant, and small gender differences for all the values, except conformity and tradition, indicating that females emphasize expressive-communal values (e.g. benevolence and universalism), whereas males emphasize agent-instrumental values (e.g. power and achievement) (Schwartz & Rubel, 2005). The existing literature also revealed a relationship between education and the universalism values, because university education causes broadening of horizons, and people who value universalism tend to seek higher education (Schwartz, 2006). University years were not just found as correlated with the universalism values. Socialization effects occurring during university experience make students move toward values perceived as more appropriate or consistent with their academic disciplines (Guimond, Begin, & Palmer, 1989; Savage & Page, 2000). Hence, despite the value differences existing before university entrance exams, students at the same faculties or departments develop similar values over time by way of the process of socialization.

1.2. Counselor Values

According to John Holland (1985, 1997) people can be classified into six personality types : *realistic*, *investigative*, *artistic*, *social*, *enterprising*, and *conventional*, and different careers that could be pursued by individuals could be predicted looking at their most dominant personality types. Based on this theory, it is the *social* type which counselors, along with psychologists, teachers, nurses etc., who pursue social careers, are expected to fall into. *Social* people tend to be skillful in applying social skills, especially communication. They like being among other people, they are interested in how people get along, and like helping other people with their problems, teaching, and counseling people more than engaging in mechanical or technical activities. In other words, these people tend to be helping or service-oriented. Therefore, the value priorities of social type people fall in the value cluster that Schwartz described as self-transcending. Brickman, Miller,

and McInerney (2005) reported that in addition to the self-transcending values, social people valued self-direction and stimulation values which constituted the value cluster of openness to change. Consistently, in a survey to determine the value characteristics of American professional counselors, Kelly (2001) found that professional counselors valued benevolence, self-direction, universalism, and achievement whereas they disvalued stimulation, tradition, and power.

1.3. The Present Study

Counseling is a lately developed profession in Turkey. Hence, counselor education has several current issues to solve. Due to the low number of schools having counseling services and the low number of school counselors (Korkut, 2007), three levels of training (undergraduate, masters and doctorate degrees) have been offered across the country, and undergraduate degrees in counseling predominate.. The undergraduate programs are specifically focused on school counseling and therefore they provide school counseling specific courses (Doğan, 2001; Korkut, 2007; Yıldırım & Ergene, 2001). Enrollment in these programs is another issue. Since a high number of students want to enroll in an undergraduate program despite the inadequate number of available programs, introducing a centralized university entrance exam (OSS) is necessary to select students for undergraduate programs in Turkey (Kelecioğlu, 2002). However, as a result of the inadequate school counseling services mentioned above, the number of students who enrolled in undergraduate programs that match their skills and preferences is relatively low (Azar, 2006). As a consequence, counselor trainees who are the potential counselors of the future in Turkey are also under the threat of the mismatch between their abilities and preferences, and the goals and expectations of undergraduate programs that they are enrolled in. Thus, examining Turkish counselor trainees' values is important to understand their adaptation with the counseling role, and with their educators' expectations, that is the appropriateness of their career decisions. The purpose of the current study was, therefore, to explore whether the values of Turkish counselor trainees match with the counseling profession and how their values differ according to gender and grade level.

2. Method

2.1. Participants

There were 189 participants (121 females, 68 males), 1st, 2nd, 3rd, and 4th year undergraduate counseling students from Uludağ University, Turkey. Uludağ is

a state university located in the Northwest of Turkey, which is the most economically developed region, but it accepts students from all over the country. Among the 26 public universities having undergraduate counselling programs in Turkey, this program is the ninth, according to the success of the students in the centralized university entrance exams. In the counseling program of Uludağ University, 55 students were enrolled in the first grade, 46, 47 and 71 students were enrolled in the second, third, and fourth grades, respectively. Hence, the sample constituted about 86.76% of the total students of this program. The students' age range was 17 to 33, with a mean of 19.84 ($SD = 1.76$). There were more females (64.2%) than males (35.8%).

2.2. Procedure

The students were administered the survey during class hours, in the week following the orientation program organized for the first year students. The students were given relevant information as to the purpose and procedures of the research and asked to participate, and they were asked to be honest when responding to the test items. Anonymity was guaranteed. Each student who agreed was given the data collection instrument of the study. The administration took about 15–20 minutes.

2.3. Measure

The Profile Values Questionnaire (PVQ; Schwartz et al., 2001). The value orientations of the counselor trainees were measured by PVQ, a shortened version of Schwartz's original value measure (The Schwartz Value Survey, SVS; Schwartz, 1992). PVQ included 40 items, each of which was in a form of a statement providing a brief description of a person holding a certain type of values. The respondents were asked to rate on 6-point scales how similar such a person is to themselves. The number of items for each value ranged from three (stimulation, hedonism, and power) to six (universalism). PVQ had clear convergent and discriminate validity. Moreover, the test-retest reliability of the values was moderate to high, ranging from .66 to .88 (Schwartz et al., 2001). Schwartz (2005) reported that across 14 samples from 7 countries, alpha reliabilities of ten values averaged .68, ranging from .47 (tradition) to .80 (achievement). Kuşdil and Şimşek (2008) reported sufficient validity and reliability evidence for PVQ in Turkish university students. In addition to PVQ, demographic items which elicited information on gender, age, and grade level were used in this study.

3. Results

3.1. Descriptive Statistics

Descriptive information for ten human values by gender, grade level, and total sample is presented in Table 1. As seen in Table 1, all the counselor trainee groups (gender, grade level, total sample) scored highest in universalism. In all the groups, except the first year counselor trainees, benevolence and self-direction are the other highest scored values, as expected. For the first year trainees, the conformity and security values followed universalism values, respectively. Power is the lowest scored value in all the groups. Although tradition is the second lowest scored value in all other groups, the first year trainees again differ from the other groups scoring hedonism as the second lowest value and giving the tradition values a higher priority, along with the conformity and security values. Stimulation appeared among the values having less priority for all the trainee groups. In regard to gender, when the means for ten value types are put in order, differences are observed between the females and males in the order of the first three values, as benevolence comes after the self-direction values among the males. Moreover, another difference was in the order of the hedonism values. The males seem to value hedonism less than the females.

Additionally, descriptive information for the four value orientations by gender, grade level, and total sample is presented in Table 2. As shown by the mean scores, in the total sample the counselor trainees valued self-transcendence ($M=5.22$, $SD=.46$) the most and self-enhancement ($M=4.30$, $SD=.70$) the least. Self-transcendence is followed by openness to change and conservation values. This order is identical in all the groups.

3.2. Gender and grade level comparisons

Prior to analyses, assumption testing for MANOVA was conducted, with no serious violations noted. Then, the first MANOVA, treating the gender and grade level as independent variables and the ten types of values as dependent variables was conducted. The results revealed significant main effects for gender [$F(10, 172) = 3.34$, $p = .001$; Wilks' $\Lambda = .84$], and for grade level [$F(30, 505) = 2.06$, $p = .001$; Wilks' $\Lambda = .71$]. The interaction of gender by grade level was insignificant [$F(30, 505) = 1.04$, $p = .409$; Wilks' $\Lambda = .84$]. Univariate F-tests indicated differences for benevolence [$F(1, 181) = 4.75$, $p < .05$], universalism [$F(1, 181) = 4.29$, $p < .05$], hedonism [$F(1, 181) = 12.50$, $p \leq .001$], and power [$F(1, 181) = 4.73$, $p < .05$], with the females reporting higher benevolence, universalism, and hedonism than the males, but the males reporting higher power than the females. Moreover,

Table 1. Means and Standard Deviations for Ten Values

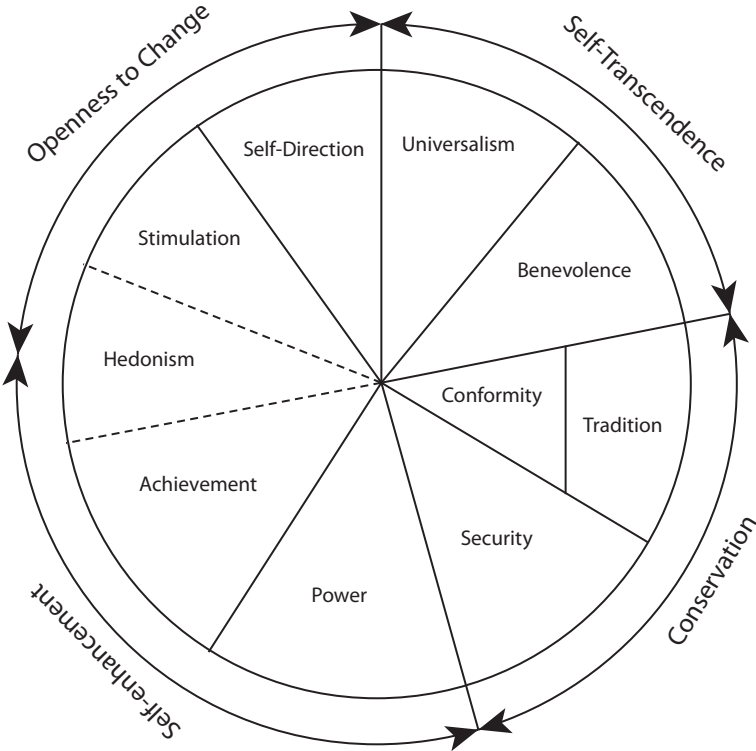
Value	Females (N= 121)		Males (N= 68)		1 st year trainees (N= 49)		2 nd year trainees (N=43)		3 rd year trainees (N=48)		4 th year trainees (N=49)		Total (N= 189)	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Universalism	5.33	.45	5.18	.63	5.26	.59	5.21	.52	5.35	.36	5.28	.60	5.28	.52
Benevolence	5.20	.57	5.00	.65	5.09	.73	5.08	.62	5.26	.52	5.10	.54	5.13	.61
Self-Direction	5.14	.59	5.01	.57	5.10	.49	4.95	.63	5.20	.61	5.11	.58	5.09	.58
Security	5.04	.61	4.94	.63	5.11	.62	4.95	.59	5.07	.58	4.90	.67	5.01	.62
Conformity	4.87	.73	4.73	.78	5.18	.55	4.78	.94	4.74	.66	4.58	.70	4.82	.75
Hedonism	4.85	.94	4.40	.96	4.35	1.18	4.71	.96	4.85	.81	4.84	.82	4.69	.97
Stimulation	4.63	.75	4.60	.86	4.49	.85	4.52	.83	4.63	.79	4.82	.67	4.62	.79
Achievement	4.41	.87	4.56	.98	4.77	.76	4.32	1.00	4.52	.96	4.24	.86	4.47	.91
Tradition	4.36	.69	4.25	.75	4.99	.66	4.32	.70	4.23	.80	4.22	.68	4.32	.71
Power	3.59	.96	3.91	1.02	3.80	.90	3.21	1.04	3.94	.93	3.82	.97	3.70	.99

Table 2. Means and Standard Deviations for Four Value Orientations

	Females (N= 121)		Males (N= 68)		1 st year trainees (N= 49)		2 nd year trainees (N=43)		3 rd year trainees (N=48)		4 th year trainees (N=49)		Total (N= 189)	
values	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
ST	5.28	.40	5.11	.53	5.19	.51	5.16	.49	5.31	.34	5.20	.47	5.22	.46
OC	4.92	.59	4.84	.60	4.84	.55	4.76	.64	4.96	.59	4.99	.58	4.89	.59
C	4.78	.52	4.66	.54	4.94	.42	4.70	.59	4.71	.50	4.59	.55	4.74	.53
SE	4.30	.69	4.32	.72	4.35	.70	4.10	.72	4.45	.71	4.29	.64	4.30	.70

ST= Self-transcendence, SE= Self-enhancement, OC= Openness to change, C= Conservation

Figure 1. Theoretical model of relations among values (Schwartz, 1992)



the first year counselor trainees scored significantly higher on conformity [$F(3, 189) = 5.14, p < .01$], but lower on the hedonism [$F(3, 189) = 3.80, p < .05$] values than the last year counselor trainees. Unexpectedly, the second year counselor trainees scored significantly lower than the first, third and last year counselor trainees on power [$F(3, 189) = 2.95, p < .05$].

The results of the second MANOVA treating gender and grade level as independent variables and the four value orientations as dependent variables revealed significant differences in grade levels [$F(12, 471) = 1.95, p = .027$, Wilks' $\Lambda = .88$], but no significant differences between the females and males [$F(4, 178) = 1.84, p = .123$, Wilks' $\Lambda = .96$]. The interaction of gender by grade level was also insignificant [$F(12, 471) = .93, p = .518$; Wilks' $\Lambda = .94$]. Univariate F-tests indicated grade level differences for the conservation values [$F(3, 185) = 3.91, p \leq .01$], indicating the first year counselor trainees ($M = 4.91, SD = .08$) attributed greater importance to the conservation values than the fourth year counselor trainees ($M = 4.59, SD = .07$).

4. Conclusion

In the present study, a group of Turkish counselor trainees were surveyed to determine the appropriateness of their career choices in relation to their values, and the effect of gender and the counseling training program on the values of the trainees. The results revealed significant gender and grade level differences for value types, and significant grade level differences for value orientations among the counselor trainees.

Comparisons among the counselor trainees according to gender showed that the females highly valued benevolence, universalism, and hedonism, whereas the males highly valued power. These findings, except hedonism, are consistent with the earlier literature emphasizing the tendency among women to rate more likely social and expressive values whereas males agent-instrumental values (e.g., Schwartz & Rubel, 2005). Since both the benevolence and universalism values focus on other people's well-being, the nurturing interactions and roles of women, resulting from the typical socialization process, could be used to explain this finding. Similarly, the high male preference for the power values, which implies control or dominance over people or resources, status and prestige, was an expected result in this study, since in many cultures males are sanctioned more positively than females for gaining and exercising power, and have greater opportunities to do so (Prince-Gibson & Schwartz, 1998).

Nevertheless, the present study finding concerning hedonism was unexpected. Although according to Schwartz (1992, 1994) hedonism is related to both openness to change and self-enhancement dimensions, based on the earlier findings on Turkish people (Kuşdil & Kağıtçıbaşı, 2000), this value was included in the self-enhancement dimension in the present study. According to the value theory, the value groupings at opposite poles are incompatible with one another. Hence, people cannot highly value self-enhancement and self-transcendence at the same time. However, the results revealed that the females valued universalism and benevolence more than the males, as well as they valued hedonism. This would be possible if hedonism, which means pleasure and enjoying life, was related to openness to change rather than self-enhancement. Moreover, the literature revealed a gender difference favouring male preference in hedonism since females are widely discouraged from seeking sensuous pleasure, or expressing this desire, by the socialization processes (Prince-Gibson & Schwartz, 1998). Hence, the value theory seems to require further investigation in Turkish culture in future studies.

Despite the gender differences in value types, this study does not reveal any difference in value orientations of the female and male counselor trainees. This finding was not surprising, since the counseling profession requires the same values for all the trainees, independent of their gender. Therefore, although the females valued the benevolence and universalism values which constituted the self-transcendent value orientation higher than the males, for all the counselor trainees self-transcendence is the highest valued orientation, fitting the counseling profession.

However, according to the results of the present study, the first year trainees significantly differ from the last year trainees in the conservation values. They reported higher conformism but lower hedonism than the last year trainees. Additionally, although multivariate statistics revealed no significant differences, the first year trainees attributed greater importance to the security values than the last year trainees. The differences between the first and last year counselor trainees in value types and value orientations could result from several reasons. Firstly, due to the lack of appropriate guidance services before college entrance, there might be career choice problems among first year trainees. Yet, since in the present study they were not asked about the previous guidance opportunities provided to the counselor trainees, other studies asking about the quality and quantity of pre-college guidance services could reveal the reasons for the inconsistency of the first years trainees' values with their academic discipline. Secondly, the findings on grade level differences could draw attention to the effects of the transition period in the first year of college among the counselor trainees. Hence, counselors working

in college settings could benefit from this finding in terms of paying more attention to the first year trainees to help them adapt to college life.

To sum up, the findings may contribute to the educational research on counselor trainees, since the findings point to the positive effect of the training years on the value development. Moreover, based on this study, counseling services in pre-college years and in the first year of college could be improved in Turkey, to educate counselor trainees who are more familiar with the counseling role and with their educators' expectations. Nevertheless, there are limitations to be taken into consideration in the present study. First, since the cross-sectional nature of the study does not allow for conclusions regarding the causal nature of grade level on values of counselor trainees, longitudinal studies should be carried out in the future to have a better understanding of the effects of the counselor training programs on values. Second, since this study was conducted in just one undergraduate counselor training program in Turkey, further studies should attempt to collect data from students of different undergraduate programs to increase the generality of findings to other counselor trainees. Finally, since this study was restricted to self-report measure, future research might benefit from the use of observational data to examine students' actual values.

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New Educational Review



Pedagogy of Health

Iwona Chrzanowska
Poland

The Need for an Interdisciplinary Approach to Rehabilitation

Abstract

Contemporary changes which can be found in almost all areas of human activity bring us to the reflection aiming at redefining the notion of rehabilitation, re-examination of the meaning fields of the concept and its new extent. The holistic approach towards development processes compels the interdisciplinary paradigm. Fields, areas and specific scientific disciplines cannot be limited only to their specifications. They cannot remain indifferent to the things that concern others interested in distinct areas of functioning. Such an attitude does not favour the things that should be characteristic of professionals taking decisions about contact, initiation and conducting or continuing helping activities – the responsibility for the complex and proper development of a patient, a client, a nursling or a pupil... New areas appear which were not earlier associated with the necessity of rehabilitation (e.g occupational or social rehabilitation). Realising their multiplicity and the fact that there are still new ones to come is the basis for effective actions. It indicates the obligatory open stand as much as the readiness and willingness to discuss and to listen to arguments of interlocutors rather than adversaries.

Key words: *rehabilitation, interdisciplinary approach, disability, development*

The need for an interdisciplinary approach to rehabilitation

One should not discuss the issue of rehabilitation without any references to developmental changes. Depending on the approach and the theory we decide to apply to define developmental changes, the process of rehabilitation should be

perceived as a coordinated system of activities internally conditioned by needs and abilities of a unit and externally by the stock of means (including knowledge and specialists skills) available for society or, on the other hand, as an externally conditioned process of influences on a particular area of functioning with a passive receiver in the role of a subject.

With great simplification, two completely different approaches towards the analysis of the issue of development can be distinguished within psychological studies: mechanistic approach and organismic approach (A. Brzezińska, 2005).

In the mechanistic approach, development is perceived as a direct outcome of changes induced by factors external towards the changing system. According to this assumption, a unit is a system that passively reacts and adjusts itself to external conditions. According to this, a unit changes, modifies its functioning and adjusts to external events only when some significant changes take place, within its direct surroundings, which makes it difficult to satisfy its needs by means and methods it has been using so far. A unit's activity is treated as an effect of various external factors rather than as a factor that initiates changes. It is an approach that puts a human being in a position of an object (Cannon, quoted in: A. Lewicki, 1969, p. 24).

Organismic approach is the second approach towards developmental changes. It states that development refers to internal changes of a form or an organisation of the whole system. M. Tyszkowa (1996) explains that, according to this approach, development is a theoretical notion that refers to the changes of a structure and the changes that correlate with the structure. It is widely believed that changes have a structural character and the changes within a function refer to the whole structure. Since then, psychology searches for an explanation for phenomena not only through references to their causes but also through references to their context, some broader entities that they belong to (e.g. their backgrounds or fields they occur in) (T. Tomaszewski, 1984). The crucial difference between the organismic and mechanistic approaches concerns the vision of a human being. According to the mechanistic approach, a human being is passive and the environment (surroundings) is active. In the organismic approach a human being is active, dynamic and able to put their own development in motion. Thus, the organismic approach is an active model of perceiving a notion of development. The change in the context of development is, above all, of a qualitative character. That is why, the changes criterion is no longer an increase but rather the quality of transformation.

From the organismic approach grew out another one, namely the contextual approach. R.M. Lerner claims that human development is a result of a constant interaction between a unit and various levels of organisation of its physical and social surroundings. What is also significant, the unit affects the context as well as

the context affects the unit. Thus, the unit is active and it has an influence on the changes of its surroundings (R.M. Lemert, 1989).

While trying to answer the question whether changes are of a developmental character, one has to refer to certain criteria. There are two types of criteria: **formal** and **material**. Usually, the first group contains differentiation and integration. Differentiation is an increase in diversity, the appearance of new elements. Integration is a creation of new connections between elements (of a feedback character). In this case regression, as a notion contrary to development, is both, decreasing in the level of diversity of a system and diminishing interactions or a process of diminishing of either diversity or integration (W. Krajewski, 1977). Material indicators usually describe the actual conjuncture and expected results of particular changes. There is usually also a central category which serves as a reference point for all the developmental results. The criterion of a unit's independence from its surroundings in the context of satisfying its needs is very often a key indicator that allows to state whether the process of development occurs or not. It is obvious that the notions of development and change are not identical.

Based on J. Reykowski and G. Kochańska's (1980) views, it can be stated that development is a quantitative increase (something that has never been there suddenly appears), development is a process of meeting standards. What has to be mentioned at this stage is the problem of a norm and deviations, crucial in the context of perceiving disability as a development or a regression. Everything that a unit achieves and what is not in accordance with biological, psychological and social standards, is treated as a development disorder (a deviation) and is classified as a thing that requires some corrective activities. In such a context, development is treated as a process of meeting fixed expectations. Everybody who achieves something different at a different time is perceived as a person who develops incorrectly. From the point of view of a unit, this is a vision which makes functioning in new situations (especially those requiring fast adjustment to new conditions) more difficult.

The standards that we are talking about are set by the choice of the most common and acknowledged as typical (with the largest representation) sets of behaviours and abilities. With a great simplification it can be said that a standard is a type of a mean that grows out from the assumption that ontogenetic changes are somehow unified. Thus, in every case where we witness a greater diversity of changes it is difficult to find a 'clear' diagnosis that the observed change is of a developmental character. The disabled are without any doubt this kind of a group. Identical disease entities, identical causes but the functioning is diverse (different). Basing only on this understanding of development, it should be acknowledged that in case of the

disabled we cannot talk about any development. There is, however, yet another – the third criterion of **development as directed qualitative changes**. By this we understand development as a movement from lower states towards upper ones (towards a better organisation, a greater diversity, effectiveness, etc.).

In case of the already mentioned group of the disabled this criterion can only be found when there is a certain support provided. Nonetheless, very often more adequate is the term ‘the necessity of rehabilitation’.

Poland has a beautiful history of rehabilitating activities. It is enough to mention Wiktor Dega, Marian Weiss or Aleksander Hulk. Through their work and thought, rehabilitation is no longer associated with a narrow notion of medical activities, surgery instruments or pharmacotherapy. W. Dega saw the necessity of supplementing the notion of rehabilitation with social and occupational aspects (this model was recognised as worth imitating and propagating by the WHO in 1970).

In the contemporary times, rehabilitation, in the context of the developmental conceptions shown above (but also the concept of the ecology of human development by Urie Bronfenbrenner, 1979), is treated as *community based rehabilitation* (Z. Kawczyńska-Butrym, 1996). It is an excellent supplement to the comprehensive rehabilitation (which includes all aspects of rehabilitation from the very beginning) by W. Dega (W. Dega, 1983). Environmental rehabilitation should include all contexts of development/functioning of a human being. Thus, it should be placed in various institutions that support development: health service, educational, cultural, services, specialist guidance, etc.

Challenges for the contemporaneity in the context of the future of rehabilitation activities

Contemporaneity, especially the progress of technical civilisation, creates new reality. Some call it the civilisation of knowledge or the civilisation of information. Others believe that we have already left the information-oriented system and we are entering the attention-oriented one, in which what is essential is the ability to select information rather than the information itself (E. Fita-Czuchnowska, quoted in: W. Kot, 2007).

However, the most important is the understanding of the fact that for proper functioning in the future (not only nowadays) it is necessary to anticipate changes and challenges.

Here are some data from the prognosis for the next century – a vision of what we will probably have to face in the area of, inter alia, rehabilitation.

First – the increase of the world population

The data for the year 2000 indicated that the world's population reached the magic figure of 6 billion people. In 2025 the estimated number of people is 8 billion, in 2050 nearly 9.5 billion and by 2100 over 11 billion people (F. Mayor, 2001).

The highest birth-rate is expected to be observed in Africa. Nowadays, the birth-rate indicator for an average woman in Africa is 5.7, while it is 3.3 in other developing countries and 1.5 in Western Europe. In Poland, it is even lower than in the remaining EU countries. It is expected that by 2025 nearly 22% of the world's population will be living in Africa. This will probably lead to even worse health conditions in this area. The number of congenital malformations is also expected to be higher.

We can also expect mass migration from Africa. Assessments suggest that it will affect mostly Europe and the United States of America (F. Mayor, 2001).

Second – poverty

Over 20% of people live in destitution and 2/3 of them are women. Another 40% live in poverty (under 2 dollars assigned on their living). Thus, there is a massive population of people who, due to the impossibility of meeting their essential needs (drinking water, food), suffer from development disorder.

The growing difference between the richest and the poorest is a major problem of social nature. In 1960 the proportion between the poorest and the richest was approximately 1:30, in 1991 1:60, and in 1995 1:82. This indicates that the birth-rate is, first of all, the growing number of people living in poverty. What are the consequences of this enlargement of diversity? One of the possible consequences could be social stratification. The bigger the differences, the more difficult it is to understand each other. The larger the number of the poor, the easier it is to think that the problem is insoluble. Thus, there is a kind of silent permission for this situation.

Economic changes during the last decades has led to a dynamic increase in private fortunes. From 1989 until 1996 the number of billionaires tripled, from 157 to 447. It is estimated that the wealth of the ten richest people is more that one and a half times bigger than the gross domestic product of all the poorest countries together. Three richest people in the world have their fortunes bigger that the gross domestic product of the 48 poorest countries. The joint wealth of 84 richest people is higher that the gross domestic product of China.

What is the consequence? There is a huge group of people in the world who cannot satisfy their needs because of their financial situation. Usually, they decide to resign from the activities that would improve the quality of their living (including rehabilitation). On the other hand, there is an increase in extremely wealthy people, whose medical, rehabilitation or therapeutic needs are different and go beyond the offer available (F. Mayor, 2001).

Third – education

Research confirms, without any doubt, that the increase in the significance of education equals the fall of the birth-rate indicator. However, 29% of girls have no access to primary education. They are illiterates. 65% of all illiterates are women.

The unsatisfying quality of education of those who have access to it, is a major problem as well. Analyses prove that even in industrialized countries (e.g England) there is an effect of the low level of education, which is functioning illiteracy. This phenomenon may affect 10–12% of grown-ups (in England). Z. Kwieciński states that in Poland the number may reach 25%. A person who is a functioning illiterate cannot understand the text they read and they are not interested in acquiring new information. Their capability of reading is only a technical skill. Nonetheless, reading or applying a written instruction is already a problem. They are usually resourceless people with no initiative. They are usually unable to look after themselves. They are not aware of either their rights or their duties towards the society they live in. We might also expect that some of those people can present a demanding attitude towards their state (Z. Kwieciński, 1999).

The problem of functioning illiteracy is strongly connected with the quality and level of education. The number of people without at least a secondary education is still too large. The number of people with an elementary education, yet without graduation is 3.6%, with a full elementary education 29.8%, and with a secondary technological education 23.2%. There is almost 60% (56.6) of the population of grown-ups in Poland who will probably need some assistance from the government in the future. The largest number of recruited unemployed people comes from this group. On the opposing side, there are people with higher education but the number is six times smaller. There is 9.9% of those people.

The large differences between rural and urban areas in terms of education quality are yet another major problem connected with education. Data prove that people from rural areas usually have a primary education or lower – 43.3% (whilst in towns the indicator is 23.7%). In case of secondary education, the number of

people from rural areas is 4.3% and in towns – 13.7%. The situation that took place in Poland several months ago is a perfect example of the negative consequences of this situation – the great majority of women from rural areas refused to come, or simply did not come to the free-of-charge tests for breast cancer. A low education level is not only the cause of a worse financial situation but it also makes people narrow-minded, stick to strange superstitions (“it got in on its own so it should get out on its own”), or cultivate the belief that people of rural origin are stronger and of better health.

Fourth – disability

The number of the disabled increases. In 1999 the indicator equalled 15% with an upward tendency to 18% within the nearest decades. The disabled are a group which should be enabled to use the whole spectrum of rehabilitation services. In this case we discover the full meaning of ‘complex rehabilitation’. Most often, the necessity for medical rehabilitation is the one that is the most important. Nevertheless, the complexity of the situation of the disabled needs almost simultaneous start of activities, from psychological and social rehabilitation to pedagogical and occupational rehabilitation (J. Pańczyk, 1999).

One of the first aims of psychological rehabilitation is the rationalization of the life situation. For the development to occur, a disabled person has to evaluate his or her abilities in everyday life, in the workplace or in various forms of activity. Therapeutic, psychocorrective actions should be aimed at the quickest acceptance of disability and its results. Without the awareness of the necessary limitations it is hard to set goals, not only the long-range ones but also the ones for the nearest future. Only after that, there is a chance to realise the next aim of psychological rehabilitation – to activate and to develop skills, and as a result, to adjust to and take part in the social life of a group. It is very important, yet still underestimated during rehabilitation activities aimed at the disabled, to create the capability of self-evaluation. The psychological literature which deals with the problem of disability attracts attention to the fact that the disabled very often have a very low level of self-esteem. The disabled who had rationalized their situation, often have a very strong sense of danger. They expect numerous difficulties in satisfying their needs, even the corrected ones. The fears concern an infinite number of relations: family, occupation, social, being dependent on others, the influence that disability has on their lifestyle and the quality of their family life. Thus, it is crucial, especially at the initial stage, to pass the knowledge on disability, the illness and its results and

to search for the way that allows the ill person to create an image of a competent, active, creative and dynamic person. Directing the disabled on the right path by a doctor, a specialist who is at that moment an undisputed authority, is very often the only and definitely unique chance to support the will to fight against the disability, the illness and its results.

Family is another crucial partner in the process of rehabilitation. In the psychological and pedagogical literature, there is a lot of space dedicated for the experiences of parents, their reactions and future activities connected with the information about their child's disability that they receive from doctors. I. Obuchowska shows the gradual character of the process of adapting parents to the truth about disability. The way in which parents get to know the disability and the method of conveying the information influence the process greatly. In both cases, a doctor is a participant of the interaction. It is quite often the case that parents have a feeling that there is something wrong with their child and specialists do not give them clear answers but refer the child for further observation. It might take years and the chance for early intervention and preventing the disorder from developing is lost. The biggest problem is lack of a clear specialist diagnosis and excessive optimism or pessimism of doctors informing about the disability. It results in omission of rehabilitation activities. Sometimes they are not even started (I. Obuchowska, 1999).

It is very hard or even impossible to make up for lost time in the process of rehabilitation. A child is a specific subject of rehabilitation. It does not have to be responsible and rational but it might be (and usually is) emotionally and socially immature. It is a result of the developmental process in progress. To support it, it is necessary to activate rehabilitation activities in every area simultaneously. The most optimal situation in the rehabilitation of a child is to conduct medical, psychological and pedagogical rehabilitation at the same time. The last type is especially important. Very often, the fact of participating in education for a child is a proof that there are chances for recovery or convalescence.

The problems we face are completely different when the disabled person is grown-up. It might be said that the indicator of maturity is the occupational activity. Work is equally important for the disabled as it is for healthy people. It gives a sense of independence, self-reliance and the ability to decide about oneself. It is the most natural way of rehabilitation. There is no additional need to motivate patients for effort and commitment. Work itself is of so much worth that to get and keep it many of us are ready to sacrifice many things. For the disabled work is of a special value. Their occupational situation is far more complicated. It is more difficult to find a job, to convince future employers about their qualifications, to conquer

a stereotypical way of thinking – disabled = dangerous, unpredictable, inefficient, troublesome. As a result, there are only 17.3% of the occupationally active disabled in Poland, while the indicator in other EU countries reaches 40–50%. The cost of disability pensions in Poland is 3.98% of the gross domestic product; in Italy – 0.99%, in Germany – 1.05%, in Spain – 1.34%, in the Czech Republic – 1.68%, in Slovenia – 1.97%, in Sweden – 2.1% and in the Netherlands – 2.39% (J. Iwańska, 2007).

The psychological effect of the lack of work in a longer perspective can be the increase in passivity, the demanding stands of the disabled. Rehabilitation, no matter of which type, must be less effective or completely ineffective if there are no aims set (e.g. no vision of getting a job) and no vision of a better future, even if the amount of money dedicated for the rehabilitation processes is similar.

Fifth – senility

Civilizational changes and the progress of medical sciences has lead to the extension of life span. Medicine and pharmacotherapy give us more and more chance to live long. It is expected that in 2040 the average life expectancy will be 83. This brings new challenges for rehabilitation activities. Life expectancy is as important as the quality of life. Naturally, classic medical rehabilitation has to face the great problem of maintaining somatic efficiency as long as possible. However, lengthening of life expectancy is also a challenge for social rehabilitation. Prognoses show that in 2040 the expected retiring age may even be 55. It is connected with the technological progress, the automation of many activities (there are jobs where man is almost completely replaced by machines) and the growing productive age population observed especially in the first decade of the 21st century (J. Halik, 2002). The possible effects of this situation are either an increase in unemployment or lowering the retiring age. We will probably witness a growing number of middle-aged people who are no longer occupationally active. The “problem” of spare time and what to do with it will appear. Switching from such intensive occupational activity, as observed nowadays, to complete “idleness” may have negative psychological and health results for people. What is more, we do not have good traditions as for organising our leisure time activities. We used to associate leisure time with lying on a couch in front of TV. One does not have to be a visionary to see what consequences this brings to health condition and fitness. It is possible that a new group will appear that will need rehabilitation processes as prevention rather than a therapy.

It is impossible to talk about everything connected with the need for an interdisciplinary approach to rehabilitation in such a short form. Based on the research that I have personally conducted and that conducted by my friends – special pedagogues, psychologists, sociologists, I claim that effective rehabilitation is impossible without the cooperation of specialists. I do not think about changes in the system. Not because they are not necessary or I do not believe in them. At this moment I think about cooperation that grows out from a human need, an inner belief that such cooperation is absolutely necessary.

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Life Environment and its Influence on the Child's State of Health and Frame of Mind

Abstract

A particular role in shaping the child's health state and frame of mind is played by the environment and the circle of people, things and relationships surrounding them placed in it. The family, the house and its neighbourhood and school are the closest life environment influencing their personality, having an impact on their way of thinking, acting and making choices of behaviour connected with health.

Key words: *environment, life environment, family, school*

The environment where children spend their life has a direct influence on the state of their health and frame of mind. It constitutes **an inherent element of the environment** and their existence at all the stages of life and is inseparable from it. Children's perception of the environment plays an important role in the **process of socialisation** and "is not unimportant in **choices of behaviour** made by them, connected with their health, lifestyles, and perception of relations between the elements of the environment" (E. Syrek, 2008, p. 42). However, among "many notions connected with the category of **the environment** (social, educational, invisible, objective, subjective ones, little homeland, life space of a human being, etc.) **the life environment**, including all possible configurations of elements of the environment where an individual dwells, seems to be the most important one, recently often used in social pedagogy. The specific feature of this notion is the fact that depending on how the individual places themselves in the given environment it assumes various attributes. It can be objective, subjective, invisible, material, wider or direct. An individual can assume a passive, defensive and creative (active) approach" (E. Marynowicz-Hetka, 2006, p. 54). The environment is created by various **"systems**

of external influences, both intentional and unintentional ones”, thanks to which a human being develops and shapes their personality, perfects their system of cooperation with the surroundings (D. Lalak, T. Pilch, 1999, pp. 297–298.), which they change continuously, going from home, across the street, to school, to a shop or to the theatre (H. Radlińska, 1961, p. 30).

The influence of the environment accompanies us everywhere, and sometimes decides about the choice of surroundings, it often has an impact on behaviour in new surroundings, on an attitude towards temporary surroundings. In other words, “the environment is part of surroundings, which have a certain impact on the individual” (A. Kamiński, 1980, p.40).

When we talk about the **environment without any reference to anyone**, we can have in mind a “purely natural environment”, or “social-natural”, or “technical-social” one. However, whenever we talk about one's environment or refer it to someone we always stress its social character. First of all, we have in mind “an entanglement of relationships, in which an individual remains in a given environment, or in which they can enter with other individuals or social groups creating a given environment – roles, which they play or are able to play, influences to which they yield or are able to yield in it, or which they exert or are able to exert on it” (S. Kowalski, 1979, p. 67).

Family constitutes “a special place among various environments of the child's functioning and a basic developmental context, facilitating developmental processes of its members in a course of direct and long-lasting interactions based on close ties” (L. Bakiera, 2003, p. 47). It is “a spiritual union of a narrow group of people, focused on their own hearth by acts of mutual help and care, based on a belief in a real or alleged biological connection, family and social tradition” (F. Adamski, 2002, p. 29). The family is a basic and natural environment of the younger generation's life and upbringing and as such it influences in a **socializing** way, “creates conditions for the proper development or hinders the development.” Through preferred lifestyles, habits, customs, traditions it introduces the child into the world of culture and stimulates their cultural development. Therefore, it constitutes the main and original educational and cultural environment (W.T. Danilewicz, 2000, p. 87). Due to their position and long duration of contact with the child, parents have the greatest opportunities to shape their children's health and fitness from their birth till their coming of age. Fulfilling this obligation depends largely on the parents' behaviour (B. Kuras, 2003, p. 62). “Parents are for the child the first, and in the initial period of the child's development, the only model of health behaviour (A. Gawel, 2001, p. 120). The child's future depends on the family, thus it shows “extraordinarily large potential and educational capabilities, which are inherent

in the family and simultaneously creates a challenge for substantial educational actions in the family” J. Izdebska, 2003, p. 70). The family plays a basic role in health promotion and health improvement (B. Tobiasz-Adamczyk, 2000, p. 77). In the family there is “a system of rules which makes it possible to interpret contemporary events and create new knowledge. Common knowledge influences the functioning of the family members – their way of life” (M. Chądryńska, E. Dryll, 2004, p. 17). Within the frame of the family health education and shaping attitudes towards health take place together with passing certain elements of the knowledge of health and sickness, creating emotional approach to health as a value, teaching basic hygienic and care habits, pro – and anti-health behaviour, behaviour in sickness, etc. Hence, family plays a “basic role in health promotion and facilitation” (B. Tobiasz-Adamczyk, 2000, pp. 170–171).

Another important environment for health promotion actions is **school**. Health and education are inseparably related, as proper organism functioning and good mental and social frame facilitate “good disposition for studying – processes of concentration, thinking, memorizing, remembering, learning basic skills; motivation for learning and school satisfaction; developing talents, interests and creativity; as well as good relationships with the members of school society” (B. Woynarowska, 2000, pp. 15–16). International organisations, such as WHO, UNESCO and UNICEF, recommend the following rules of comprehensive health education:

- “Take into account the holistic approach to health and health conditioning factors, connected with people, environment and life conditions.
- Use all circumstances for health education: formal and informal curriculum, innovation curricula, teaching situations, role models; resources of all intra-school and extra-school services.
- Strive for harmonising health information that students receive from various sources: family, school, peers, mass-media, new information technologies, advertisements and commercials.
- Encourage students to the healthy lifestyle and create conditions and possibilities for health facilitating behaviour at school” (B. Woynarowska, 1995, p. 33).

In Poland it is unusually difficult to rebuild the changing, though still ineffective, school and the teacher work model, as professor A. Radzewicz – Winnicki asserts, because the “model of modern school in Poland leaves a lot to be desired. Despite changes it is still characterized by a large degree of centralisation and directivity, little scope of socializing decisive processes, rigid management system” (A. Radzewicz-Winnicki, 2001, p. 33). Currently in Poland, pursuant to the

Ordinance of the Minister of National Education and Sport of 26th February 2002 on core curriculum of pre-school education and general teaching in specific types of schools, a head-teacher should ensure including issues of educational paths in a school set of curricula. Educational law states that the head-teacher is responsible for including issues of educational paths in a school set of curricula, while teachers of all subjects are responsible for the execution of educational paths through incorporating contents of given paths into their own curriculum (Ordinance of the Minister of National Education and Sport of 26th February 2002).

Healthy life makes the “basic task of any human being determining practically every sphere of human behaviour” (Z. Chromiński, 2003, no 11, p. 3). One of the conditions of such a life is an awareness that “health is not a permanent state, therefore, in all periods and environments of life popularization and promotion of a healthy lifestyle is important” (E. Juško, B. Niziołek, 2000, p. 42).

Lifestyle is “the most general characteristic of the activeness of a given group or individual, favouring actions and values specific (i.e. actions of a specific group or a person distinguishing them from other groups and individuals we compare them to) to them”, and undergoing repeatedly more or less radical changes. They take place while transgressing from one life epoch to another and are caused by changes in social position, self-educational work, changes in the system of values. (A Płotka, 2003, p. 98). Lifestyle is dependent on “environment, society and its standards, and also cultural standards, man’s economic situation, health-social policy of the state, personal beliefs, knowledge, values and man’s awareness of health usefulness (B. Zawadzka, 2002, p. 205). **Lifestyle and health behaviour** can, or even should change within the human being’s life. However, the most important period of its shaping is childhood and youth. “The shaping takes place under a strong influence of health behaviour of the adults, mostly parents and teachers, creating specific life conditions for the child and being role models, which the child copies and often accepts uncritically” (K. Bożkova, Z.J. Brzeziński, J. Kopczyńska-Sikorska, B. Woynarowska, 1989, pp. 42–43).

Children health promotion actions at school are perfect opportunities to increase the level of knowledge and **life skills** enabling the development of children’s positive adaptive behaviour which allows to effectively deal with tasks and challenges of their everyday life (M. Sokołowska, 2007, p. 444).

A good frame of mind and health is conditioned by proper interpersonal relationships and **social support**. Social support provides the child with necessary emotional resources and practical guidelines. Moreover, bad relationships with the intimates can lead to physical and mental health deterioration (J. Karski, 2007, pp. 53–54) disturbing the life environment described as a set of conditions among

which the child dwells and reshaping the factors shaping their personality” (H. Radlińska, 1961, p. 366).

By passing knowledge about health and proper life skills to children we make keeping and protecting their health and good frame of mind easier. **Health behaviour** is shaped mainly within the period of the child’s growth and development. It takes place in a process of socialization understood as passing the knowledge about the surrounding world and cultural heritage to the offspring and preparing them for adult social roles (S. Kawula, 1998, p. 38) or as all actions undertaken by society, families, school and social environment in particular, aiming at turning an individual into a social being (W. Okoń, 2004, pp. 373–374). Hence, health behaviour is shaped under the influence of various factors, including role models and instructions passed by their teachers, peers, school, religion, local community and mass-media. Wrong behaviours shaped in childhood and youth are difficult to change in the adulthood.

Passing knowledge about health, shaping proper abilities, convictions and attitudes help them improve their state of health and frame of mind in their life environment (B. Woynarowska, 2000, p. 417).

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Jaroslava Mišíková, Viera Filipi
Czech Republic

Parents as Partners in the Rehabilitation of Adolescents

Abstract

This paper aims to contribute to the examination of the parents' role in the process of rehabilitation of children at risk. It is informed by knowledge gained through research into rehabilitation partnerships of parents in the Czech Republic. It reflects on the parental role as part of the so-called condition of consistence of shaping the impact of the child's social background. The paper presents the following issues related to the current situation of parental partnerships: a) expectations of the parental partnership required by law, b) typology of mothers' roles, c) profile of the family background of an adolescent describing the family's social status, the occurrence of social deviation and quality of parental behaviour in the families of the adolescents who are subject to institutional care.

Key words: *legal concept of institutional care, rehabilitation role of parents, behavioural roles, consistence of shaping the impact, family background, socio-economic status of a family, financial status, educational status, socially deviant behaviour, diminished/weakened social relations, parental behaviour*

Introduction

Our research task "The External Environment of Re-education Institutions" is part of the GAČR (Grant Agency of the Czech Republic) research project "The Community System in Rehabilitation Institutions for Adolescents" carried out in the years 2006–2008¹. The aims of our partial research were, firstly, to describe

¹ The research project was registered under No. 406/06/0731, the main researcher Julius

the state and character of the partnerships of selected external partners of an institution in the process of rehabilitation of adolescents due to undergone correctional education; and secondly, to reflect on the findings in comparison with an ideal educational partnership. Specifically, the focus of our investigation was to examine: 1) partnerships in so-called OSPODs (Centres for the Social and Legal Protection of Children) between probation officers and adolescents in the process of rehabilitation, 2) partnerships in diagnostic centres and 3) partnerships between parents and adolescents in the process of re-education or rehabilitation placed in correctional institutional care. While selecting the sample of respondents it was decided (ad hoc) that the respondents mentioned above were in continuous and factual relationships with the children in institutional care, not only in a sporadic and educationally insignificant relationship caused by a situation, for example, such as the police in the case of a child's escape from a re-education institution.

1) Institutions for the rehabilitation of children between 15–18 years of age, or, in exceptional cases, 19 years of age, are so-called re-education and rehabilitation institutions². Adolescents in re-education and rehabilitation institutions are those who due to their severe behavioural disorders are placed there on the basis of a court order after previous preventive correctional education had failed³. Preventive correctional education is carried out by an OSPOD (i.e. *Centre for the Social and Legal Protection of Children*) in the community to which the adolescent belongs. After considering the conclusions and report from a diagnostic centre, the OSPOD submits a court proposal for the correctional institutional care of its client.

Sekera, Ostravská univerzita in Ostrava. Its findings were published in three independent research reports. (Sekera, J., 2008, Kurelová, Sekera, O., Kubičková, 2008, Mišíková, 2008)..

² Re-education institutions as institutions providing institutional care are defined by Law No. 109/2002 Zb (Code of Law) on institutional and preventive care in school institutions and preventive educational care in school institutions and by updating the above-mentioned version by Law No. 383/2005 Zb (Code of Law).

³ According to Article 6 and Articles 11–13 of Law No. 359/1999 Zb.(Code of Law) on social and legal protection of children, the probation officer for youth focuses pre-emptively on children from families whose parents do not fulfill parental rights, violate parental rights, or on children who avoid school attendance, or have committed a crime, etc. The probation officer offers families counselling help, or s/he orders them to use the services of a professional counselling centre. Last but not least, s/he is able to issue educational regulations upon a family (Article 43 of the Law on Family): a reprimand, surveillance or a limitation of rights. During the child's institutional care s/he cooperates with a re-education institution within his/her job description duties according to Articles No. 28–30 of Law No. 359/1999 Zb. on social and legal protection of children.

During the time of a client's institutional care, his/her probation officer's sub-role as an "educational corrector" terminates. His/her other duties continue, i.e.: 1. to ensure that his/her client's rights are observed – therefore he/she has to visit his/her client at least once per quarter of a year⁴, 2. to express his/her opinion on the suitability of a client's home leave, according to the situation in the family, 3. to tentatively monitor his/her behaviour outside the institution and 4. to monitor continuously the conditions in the adolescent's family because it is him/her who should initiate and submit a proposal for the termination of institutional care in the case of a significant positive change in the conditions of the family in comparison with the previous state.

2) Re-education and rehabilitation institutions are autonomous legal entities. Administratively, they are part of *youth diagnostic centres* as their institutions for long-term correctional education. Before being placed into a re-education and rehabilitation institution, an adolescent with behavioural disorders undergoes treatment in a diagnostic centre. During his/her two-month diagnostic and educational stay, he/she is observed by the centre specialists in order to establish the necessity of institutional care. This period is ended with the issue of a professional advice report for the court, which is an important basis for the court order for institutional correctional care. It is also an important source of information for the final report submitted to a re-education and rehabilitation institution as an initial source of information for further educational work with an adolescent. After a court order for institutional correctional care has been issued, the diagnostic centre decides upon the actual placement of an adolescent in an institution depending on the catchment area.⁵

During the time of institutional care the diagnostic centre in cooperation with the re-education and rehabilitation institution has to monitor the further personal development of an adolescent by the commissioned specialist ("coordinator"). As the analysis of partnerships between diagnostic centres and re-education and rehabilitation institutions showed, this is carried out unsystematically

⁴ Information obtained from interviews held with the representatives of re-education institutions showed that the duty to make personal visits is not observed by some probation officers. (Mišíková, 2008, pp. 23–26)

⁵ Regarding the co-operation of diagnostic centres and re-education institutions our findings indicated that it is the diagnostic centres that decide on the place of a child's institutional care, not the probation officers, although according to the law on social and legal protection of children the decision should also be in the hands of probation officers. As a result, probation officers are dissatisfied with the current practice. (Mišíková, 2008, Chap. 3.1)

and formally. Furthermore, the centre helps to solve the problems that the re-education and rehabilitation institution might have with an adolescent, only if the re-education and rehabilitation institution as an autonomous legal entity requires such help.

3) The basic and required state of parental partnership in the process of re-education of their child, i.e. their cooperation with the re-education and rehabilitation institution, is defined by Article 26, Law No. 109/2002 Code of Law, listing the concrete rights and duties of parents. (Please see further in the 4th part of this paper) These rights and duties can be understood as anticipated “minimal parental cooperation” in the process of rehabilitation of their child. The law considers parental cooperation in the process of rehabilitation of their child to be a supportive motivational activity (during the period of institutional correctional care). Due to the key importance/significance of institutional correctional care, parental cooperation is perceived as only an “ideal/required” supplement. A direct parental partnership in the process of re-education and rehabilitation of a child is not even stated as a suitable option by law.

2. Reasons for focusing the topic of research on parental partnerships

The description of the level of cooperation in the three areas mentioned above in the process of re-education of adolescents and reflections upon the findings in comparison with a theoretical educational ideal were carried out in accordance with the aim of the research. Except for the findings regarding the characteristics of adolescents’ mothers, the research findings were published in a summary report from the GAČR research project mentioned earlier (Mišíková, 2008). The report consisted of findings in the area of parental partnerships in the process of rehabilitation of their children. Some of the main findings are also presented in this paper.

The focus on parental partnerships was chosen mainly for the following three reasons:

1) While the diagnostic centre and probation officers can contribute to the overall rehabilitation effect of a juvenile as a “service”, the role of the family in the process of rehabilitation is central. In many other countries, also perhaps under the influence of disillusionment with institutional care, another rehabilitation concept has started to emerge. This concept draws upon the so-called systemic approach, e.g. mentioned in Schaefer and Swanson (1988). This theoretical concept shifts

rehabilitation theory and practice towards the social environment of a person with problems⁶. Barker (1988, p.10) notes that the social context in relation to any antisocial behaviour of a child should be considered in therapeutic work:

"Similarly to psychoanalytical approaches going out of favor, the problems of individual persons are being more and more understood in terms of the social systems to which they belong as individuals. There is a trend to replace, or at least to supplement, psychoanalytical theories with systemic thinking." Further, Whittaker (1979, in Schaefer and Swanson, 1988, p. 8) says: *"No single theory or practical approaches based on this theory may address the needs of a child with behavioral problems."*

It is the family that shifts to the centre of professional assistance in the systemic approach to solving the problems of a child. *"The systemic thinker does not perceive the child and his/her behavior as the main problem. Instead, the way the family system functions becomes the centre of attention...."*; *"Antisocial behavior is understood as a feature of a family community."* (Summary of systemic theories, 1986, pp. 37–44 in Schaefer, Swanson, 1988). Within the framework of the systemic approach, parents are not just marginal, complementary supporters of the educational or therapeutical assistance carried out by professionals. They participate in the process of rehabilitation of their child as active and direct participants by working on their own selves, and also on bettering their family community life. *"In the systemic approach, it is emphasized that working with the natural community of a child is one of the conditions of his/her rehabilitation. Therefore, part of the educational work towards rehabilitation an individual lies in a necessary adjustment of the deviant environment"...* *"It seems that a qualitative change is essential, and besides the principle of institutional educational care towards rehabilitation, the time has come to consider rehabilitation goals on the basis of an adjustment of a deviant social environment."* (Stankowski, 2004, p. 5).

Nevertheless, a generally valid principle of institutional care in the Czech Republic was identified as a disruption of the immediate impact of the adolescent's socially unsuitable natural environment and substituting this environment or supplementing its impact with an educationally suitable impact in the educational community of a re-education and rehabilitation institution⁷. Substituting an unsuitable educa-

⁶ As for psycho-therapeutic care, it is beginning to regard the family or social environment of the patient as an important concurrent factor in the impact of the medical treatment (e.g. Eikermann, 1999).

⁷ Educational environment is one of the categories of social education. It is defined as the environment with conditions adapted to being supportive of required personal development. (Furlan, 1978, in Kraus, Poláčková, et al., 2001, p.108)

tional environment with one which is suitable is in practice understood as isolating an adolescent with problems from his/her original environment. However, the information we obtained from current practice led us to conclude that institutional care is carried out according to the principle that “the longer the adolescent’s personality is being reformed in a re-education and rehabilitation institution, the better the chance for the required rehabilitation effect in his/her future”⁸. Under the current and valid legal norm, the essential parental partnership in the process of rehabilitation of their adolescent children is not considered important. Due to the current privileged position of institutional re-educational care, a child’s parent has only a marginal position, i.e. parents do not play a crucial role in the process of a child’s rehabilitation. It is obvious that there is a conceptual difference between the new rehabilitation trend towards a systemic approach including the direct role of the parent or the family in the process of a child’s rehabilitation and the legal framework for institutional correctional care in the Czech Republic, all of which significantly influenced our research focus in the end.

2) It is apparent that our research focus was also influenced by the current pressure to humanize institutional correctional care, including pressure to observe the rights of parents and their children in institutional care. It is worth noting that the ombudsman has been involved in the debate about institutional care in the Czech Republic⁹. The previous practice of isolating a child with problems from his/her natural family environment is not legally acceptable any more. Therefore, the Code of Law regarding institutional correctional care seems to be at odds with the basic rights of parents and children, and potentially ambivalent. At present, a child in institutional care has the right to privacy in correspondence, telephone calls, and parental visits to the institution. S/he has the right to leave to visit his/her family outside the institution. It follows that an institution cannot use leaves to visit a child’s own family as a means of reward or punishment to manipulate them. An institution cannot prevent a child from visiting his/her own family, except in extreme cases, if parents and children demonstrate interest in these visits. However, the family environment to which the child returns is unchanged as there is a severe lack of professionals to do the social work in the meantime. As the ombudsman

⁸ The period of institutional care was conditionally interrupted only in very small numbers of adolescents in the examined institutions. The conditions for interruption of institutional care were: demonstrated interest of the family in an adolescent himself and in his education, an observed improvement of an adolescent’s behaviour and a provable provision of his education outside a re-education institution.

⁹ Motejl, O., 2007

of the Czech Republic points out, this unjustifiable situation is a systemic error. In comparison with the countries where the system of institutional care of children is more developed, one probation officer is responsible for 10–12 individuals while it is not uncommon in the Czech Republic that one probation officer for juveniles has 500 problem adolescents in his/her files¹⁰.

3) Parental partnership in the process of a child's rehabilitation is not limited by location. Parents do not share institutional correctional care only by their support / non-support of the work of the professionals. During the period of a child's out-of-institutional leaves to visit their family, the functional impact of the family environment as well as the intentional impact of parents temporarily becomes the only immediate, principal socializing influence. During the periods of leave to visit their families, an adolescent with behavioural problems returns to the family environment which had led him/her to the behaviour considered deviant in the first place, and to the parents considered by society as implicit co-offenders, guilty of causing the adolescent's deviant behaviour, and whose parental rights for his/her care and education have been temporarily limited as a result of their neglect. An out-of-institution location is, with respect to the current conditions of rehabilitation practice and assumed share of work between the correctional institution and the Centres for Social and Legal Protection of Children (OSPODs), a location in the competence of probation officers. The research focus, thus, thematically includes, even if indirectly, the issue of the partnership of probation officers in the process of rehabilitation of adolescents.

3. Methodology of research into parental partnerships

Sample of re-education and rehabilitation institutions. The main sample of selected institutions was the result of a relatively complicated selection process: from 34 re-education and rehabilitation institutions in the Czech Republic, 13 institutions caring for males were selected by ballot. These were examined in the parameters described by Sekera (cf. Sekera, J., 2008). From this sample of 13 institutions, 5 were selected by applying a selection criterion of social atmosphere as being significantly highest or lowest. Thus, the adolescents and their families from these 5 institutions became our research sample. This sample cannot be considered representative of all Czech re-education and rehabilitation institutions, regardless

¹⁰ Ibid.

of the fact that parental partnerships may also be in theory influenced by further criteria such as for example the age of the personnel, their professional qualifications, their experience, the site of an institution, school or work-related character of a re-education and rehabilitation institution, etc. As a result, it is not possible to state to what extent our findings may be typical of parental partnerships in the other re-education and rehabilitation institutions in the Czech Republic. It may be estimated that due to the practically congruent general conditions of re-educational correctional work (conceptual, organizational and personal), our findings may be part of a bigger picture of parental partnerships in the process of rehabilitation of adolescents.

Data collection from primary sources. Collecting data from primary sources, i.e. the adolescents' parents and families was the most severe problem of our investigation. According to Act No. 101/2000 Code of Law about protecting personal data, it was not possible for us to access the adolescents' parents' addresses. As the parents were difficult to access, it excluded them from being a primary source of data.¹¹ This problem was solved by using external observers (substituting for parents as a source of data) who as part of their job description have to collect and list the legal data on parental rights and duties in cooperation with the re-education and rehabilitation institution. In detail, these were:

1) *Social workers employed in re-education and rehabilitation institutions.* Part of their job description is to keep in touch with an adolescent's family, which enables them to do these duties the most frequently of all the personnel in an institution. As permanent "skilled/involved observers", they are in the best position to provide the data. Therefore, they were asked to participate in the data collection. It is our belief that these respondents did not distort the collected data in any significant way because they were not asked to provide any speculative data (i.e. to presume what parents might mean). In principle, the respondents conveyed information based on observable, factual parental behaviour. (N.B. It should be added that

¹¹ Getting information from the parents during their visits to their children placed in the examined re-education institutions was not possible because of the following organizational difficulties: firstly, because of the irregular frequency of the parents' visits (which was presumed on the basis of the data obtained from pre-research investigation), secondly, because of the number of re-education institutions in our sample of investigated institutions: five institutions per capacity of our research mini-team whose members (also) carried on with their other professional and educational duties continuously during the period of data collection in the field. Moreover, the sample of respondents gathered would not have been representative from a methodological point of view as the information would have been obtained only from the more active parents rather than from the parents not active in cooperation.

the respondents were all females as no male was working as a social worker in any of the investigated institutions). Still, it might be argued firstly, that judging reality as they saw it could have been clouded by social workers' applying their own, subjective criteria. Secondly, a distortion of data could have been caused by psychologically conditioned stereotypical answers. In our view the latter systemic error results in a similar distortion of the description of reality as would have been the case of the adolescents' parents (had they been ready to co-operate at all) when presenting their ideal self-evaluation reports in their wording. However, it is necessary to note that there was no way of verifying the collected data regarding parental co-operation by the parents themselves.

The social workers from the re-education and rehabilitation institutions provided relevant data on parental behaviour in relation to the institution. On the basis of this data, the role typology regarding 91 adolescents' mothers was worked out (i.e. 40.1% mothers of 227 adolescents). Role typology of fathers could not be worked out because of the insufficient amount of relevant data on the adolescents' fathers.

2) Further data were provided by the *probation officers*¹² of 227 adolescents, i.e. of all the adolescents placed in the investigated institutions during the period of investigation. These probation officers had been in direct contact with the adolescents' parents before the adolescents entered institutional correctional care. The data on 133 families (58.6% of the adolescents) as well as the data on the behavioural role of 81 mothers were gathered. Not all the probation officers completed both parts of the distributed questionnaire nor did they provide all the required information to the questions in the questionnaire. The numbers of the parents who provided the data for our investigation are given in further parts of the paper.

3) Interviews were carried out with 14 *representatives of the investigated institutions*, mainly with the directors, head carers and social workers so as to extend and

¹² As for the probation officers, their names were unknown to us. The questionnaire to a particular probation officer was distributed by the director of the Centre for Social and Legal Protection (OSPOD), whose consent was necessary for data collection from probation officers in his/her area. No sensitive data were required from probation officers. An adolescent was identified by his/her first name, the first letter of his/her surname and the year of birth. This initial identification was kept secret, and the probation officer provided further data on an adolescent and his/her family using the number of a respondent stated by the research team. Submitting completed questionnaires and doing a follow-up analysis of the received data were strictly anonymous.

probe the existing data by questioning their experience (also) regarding cooperation with parents.

4) Finally, 100 *adolescents in institutional care* (44% of the 227 in total) provided, on a voluntary basis, further data by completing the ADOR-questionnaire on parents' behaviour in their families.

Collecting the primary data – research tools and organization. Due to the number and range of placement of our respondents, probation officers from OSPODs (Centres for Social and Legal Protection of Children) in the whole of the Czech Republic, the most suitable tool of investigation was a *questionnaire*, an interview having been excluded for the reasons mentioned before. The questionnaire consisted of three parts. The first two parts, i.e. the 1st part concerning the child's family background, and the 2nd part containing the mother's (or father's) data, were designed to collect the primary data related to the part of our research reported in this paper. As for the distribution of the questionnaire to the probation officers, this was done by post after calling the directors of OSPODs and getting an agreement from them. Parts of the questionnaire containing the mother's (or father's) data completed by items which occur only in case of cooperation between parents and an institution were also distributed to the social workers in person during our first visits to the institutions. The completed questionnaires were collected from social workers during our next or final visit to the institution.

Semi-structured interviews carried out with the representatives of institutions on parental cooperation were found to be another suitable tool for the purpose of our research. By not predetermining all the topics of the interviews we were able to identify new thematic fields of the respondents and obtain further, complementary data on problems and specific conditions of cooperation with parents considered important by the respondents themselves. Therefore, the interviews were not held strictly according to the chronological order of questions. The content structure of the interviews was open, and they developed within the area of several key, thematically important questions. The researchers omitted any interference with the respondents' answers, except for clarifying questions when the information was not clear or it was ambiguous even from the context.

*ADOR questionnaires*¹³ (Matějček, Řezníček, 1983) were completed by the adolescents themselves, on a voluntary basis, and administered in an institution in one

¹³ The author of the original questionnaire CRPBI (Children's Report of Parental Behaviour Inventory), henceforth referred to as ADOR, is E.S. Schaefer, 1965. Since then, CRPBI was also adapted by Schuldermann in 1970.

sitting. The ADOR questionnaire – a standardized tool for diagnosing parental relations to a child in a particular family, was used because it is an accessible, standardized tool which enabled us to access the area, forbidden to us, of internal family life, through adolescents' perceptions.

“The ADOR Questionnaire (i.e. adolescent o rodičoch) examines attitudes, behaviour and educational practices of parents as they are perceived by a child in puberty or adolescence. It is necessary to emphasize that both parts of the previous statement are considered. As a result, it may be suggested that an objective factor, i.e. the true attitudes and educational practices of parents should be demonstrated as well as the subjective factor, i.e. the image created by a young person under the influence of conscious and subconscious motivational factors regarding his/her parents' attitudes and educational practices. Besides, it is apparent that a distortion of the whole picture of one's own parents and the family relationships may be put down to wishful thinking, both conscious and subconscious, and it needs to be taken into consideration.” (Matějček, Říčan, 1983, p. 5)

Analysis of primary data. The data obtained from the *questionnaires* were assessed by using the usual methods of statistical analysis. Program SPSS160 was employed in statistical computations. The main method of analyzing the primary data was frequency analysis; so as to assess identified mothers' roles a cluster analysis was utilized. When the conditions of frequency values allowed us to utilize Chi-square tests, this test was used to verify the significance of relationships among the investigated variables. In all these tests, *the significance* of the Chi-square test is counted, not its value. Thanks to the availability of accessible statistical packages, it is possible to ascertain a statistically significant relationship between variables which is unlikely to be explained by chance factors: a statistical significance lower than 0.01, or 0.05 means a statistically significant relationship, a statistical significance higher than 0.05 means a chance relationship.

The information obtained from the *semi-structured interviews* was assessed using a content analysis of relevant passages recorded when carrying out the interviews.

The *ADOR questionnaire data* were assessed using the same method as recommended in the original manual. It must be added that the scores obtained from individual questionnaires were later transferred to the average scores for different categories of parents. In sum, the purpose of the data collection was not to diagnose an individual relationship between a parent and a child, but to get an overall view of the quality of behaviour in the whole sample of the adolescents' parents as a specific group.

4. Reflection on parental partnerships in the process of rehabilitation

1.1. Reflection on the initial state of parental partnerships as anticipated by law

One of our main findings obtained from the interviews is that none of the investigated institutions directly enhanced parental partnerships in the process of rehabilitation of their children. A similar situation could also be seen among the probation officers from the OSPODs. There seems to be a great shortage of professionals for systematic and intensive, educationally oriented work with adolescents' families while the adolescents are placed in institutions. As a result, the family environment is not effectively changed for the better. Even if the law explicitly anticipates a minimal parental partnership in the process of re-education of their children, it is frequently limited only to keeping in touch with the child in institutional care, either by letters, postcards, telephone calls or personal visits – either to the institution, or during the child's leaves to visit their families. The partnership may also be, in some cases, only the communication between the parents and professionals who are taking care of their child.

The fundamental *rights* of the child's parents are listed in Act No.109/2000 Code of Law: 1: The right to obtain information about the child (on the basis of submitting an application). 2: The right to express an opinion regarding the proposed provisions of the child's care. 3: The right to keep in touch with the child. 4: The right to ask permission for the child's leave to visit parents. The fundamental *duties* of the child's parents are as follows: 5: To contribute financially to the child's care in an institution. 6: To get acquainted with the internal rules of the institution and observe them. 7: To announce all the substantial circumstances during the child's family leave, mainly those concerning his/her health and education.

Parental behaviour regarding cooperation with a re-education institution is documented by the frequency of utilization of the above-mentioned rights and duties by parents. Please cf. Table 1 for the obtained data.

The items regarding parental cooperation consist of:

1. *Interest in the child's state* – as an indicator of the right of a parent to get information about his/her child.
2. *Interest in the child's problems and solving these problems* – as an indicator of the right of a parent to obtain information about his/her child's current problems and also to express an opinion about solving them.

3. *Personal visits* – as an indicator of the right of a parent to keep in touch with a child in institutional care.
4. *Attitude to a child's family leave* – as an indicator of the right of a parent to apply for a child's family leave.
5. *Payment for institutional care* – as an indicator of the duty of a parent to contribute to a child's institutional care.
6. *An interest in the life and conditions of a child's stay in an institution* – as an indicator of the duty of a parent to get acquainted with the rules and regulations in an institution.
7. *Information about a child's family leave* – as an indicator of the duty of a parent to inform an institution about the important circumstances during a child's family leave.

It will be seen that parental behaviour (in relation to the re-education and rehabilitation institutions) cannot be assessed as motivational as was originally intended by the law. From the data in Table 1 it is self-evident that active parental partnerships were not observed even to a minimally enhancing degree. The majority of the parents not only failed to carry out the duties required by law, they also did not utilize their rights as parents. The rights granted by law were perceived as duties by many of the parents. It may be supposed that this kind of behaviour is mainly typical of those parents who understand their roles as parents as those “whose child had been placed into institutional care against their will”, so they perceive the institutional care of their child as something unjust. As a result, they prefer non-active parental behaviour as an appropriate example of their negative attitude towards the institution. However, it may be that the parental rights were not even utilized by the parents who understood correctional educational institutional care as a transfer of their own rights and duties to an institution. Furthermore, negligent parents who do not care whether their child is at home or in institutional care contribute to the results listed in Table 1. Parental attitudes were examined using the sample of 139 mothers, and 66 fathers¹⁴, whose behaviour was assessed by social workers in the second part of the questionnaire mentioned before, i.e. in the mother's (or father's) data sheet as follows:

¹⁴ In our sample, there were 43% of families in which the father was absent, and the mother brought up her children. 15% of the families were those in which the father brought up his children and only 29% of families were complete couples. The rest of the adolescents did not live with their own parents, but they were brought up by relatives, grandparents, etc. So, the social workers assessed more mothers than fathers. Furthermore, fathers usually contact re-education institutions enquiring about their children more rarely than mothers.

- 41.0% of the mothers and 51.2% of the fathers perceived the institutional care of their child as a help,
- 15.8% of the mothers and 12.1 % of the fathers perceived the institutional care of their child as unjust,
- 30.2% of the mothers and 27.3% of the fathers perceived the institutional care of their child as a transfer of their own responsibility to that of an institution,
- 13.0% of the mothers and 9.1% of the fathers were indifferent to the placement of their child into institutional care.

It is worth noting that there is a 10% difference between the mothers and the fathers in the distribution of positive attitudes towards the institutional care of their sons. More than half of the fathers agreed to the institutional care of their sons and perceived this as a help. It may be deduced that the fathers perceived the order to place their sons into correctional re-educational care less emotionally and more pragmatically than mothers. However, it is apparent that other positive factors concerning the fathers' partnership roles in the process of the re-education of their sons were much less frequent than those of the mothers'. As for cooperation with a re-education institution, the fathers prevail over the mothers in the number of non-active, unhelpful parents of adolescents.

As for utilizing their *parental rights* in relation to an institution, there were significantly fewer fathers interested in their sons' state than the mothers (only 28% of the fathers as compared with 52% of the mothers). It may well be that the mothers were using their parental rights towards the institution mainly in favour of their "own" children. The manifested interest may also indicate other motives, such as (relatively) the least tiring and forbearing way of satisfying their parental conscience.

Both mothers and fathers utilized the parental right to initiate a child's home leave (in both cases slightly over 50 %). In all the other items of cooperation neither fathers nor mothers were active in utilizing their parental rights. It is interesting to mention that, for example, the number of the mothers who used their right to be informed about their child's problems and solving these problems was 10% lower than that of the mothers who initiated their child's family leave. The mothers' interest in getting acquainted with re-educational procedures was a further 10% lower than that regarding their child's problems. Parental visits to institutions were infrequent in number. This may be caused by a number of reasons, one of them being a poor economic situation in the majority of the adolescents' families and the lack of means to pay for the travel costs.

Table 1: Parental partnerships with re-education institutions

	MOTHERS		FATHERS	
1. INTEREST IN THE STATE OF THE CHILD (parental right)				
VARIANTS	Counts	Percentage in the sample	Counts	Percentage in the sample
Yes	88	52.1	33	28.4
No	81	47.9	83	71.6
TOTAL	169	100%	116	100%
2. INTEREST IN THE PROBLEMS OF THE CHILD AND SOLVING THE PROBLEMS (parental right)				
Yes	71	41.5	33	28.4
No	100	58.5	83	71.6
TOTAL	171	100%	116	100%
3. INTEREST IN EDUCATIONAL PROCEDURES (parental right)				
Yes	51	30.3	23	19.8
No	118	69.8	93	80.2
TOTAL	169	100%	116	100%
4. PERSONAL VISITS (parental right)				
Yes	49	27.7	32	26.2
No	128	72.3	90	73.8
TOTAL	177	100%	122	100%
5. ATTITUDES TO THE CHILD’S HOME LEAVES (parental right)				
Initiates the child’s leaves	70	53.8	31	51.7
Does not refuse the child’s leaves	34	26.2	14	23.3
Avoids the child’s leaves	12	9.2	8	13.3
Refuses the child’s leave	14	10.8	7	11.7
TOTAL	130	100%	60	100%
6. PAYMENT DISCIPLINE (parental duty)				
No problem	39	24.5	27	27.0
With problems	22	13.8	13	13.0
Nonpayer	22	13.8	21	21.0
Free from payment	76	47.8	39	39.0
TOTAL	159	100%	100	100%

	MOTHERS		FATHERS	
7. INTEREST IN THE RUNNING OF THE INSTITUTION (parental duty)				
Yes	64	37.2	26	22.2
No	108	62.8	91	77.8
TOTAL	172	100%	117	100%
8. INFORMATION ON THE CHILD'S HOME LEAVE (parental duty)				
Misrepresenting	11	9.6	5	10.0
Secretive	7	6.1	1	2.0
Not provided	45	39.1	23	46.0
Open	52	45.2	21	42.0
TOTAL	115	100%	50	100%

Source: Social workers in the investigated re-education institutions

As for their *duties*, most parents carried out their duty to inform the institution about the important circumstances during an adolescent's family leave without misrepresenting the information in favour of the child or being secretive about the important facts. This main duty, of the three fundamental duties, was observed by a relatively high number of parents (45% of mothers and 42 % of fathers). Still, this was not the majority of the parents. Moreover, the number of the fathers who behaved in this way was lower than the number of the fathers who did not provide any information (46%). As for the mothers, the number of those who did not provide any information was only slightly lower than the number of those who did so openly (39%). The duty to contribute to the financial costs of a child in an institution was very poor (it was observed by about a quarter of the parents). However, it is not considered to be a valid indicator of parental cooperation as nearly a half of the total number of the parents, namely 48% of the mothers and 39% of the fathers, were free from the duty to contribute to the costs due to their difficult financial and economic situation. The main difference between the mothers and fathers in fulfilling their duties could be found in the item of getting acquainted with the running of the institution. Although neither mothers nor fathers showed much interest in fulfilling this duty, nevertheless there were very few fathers who did so (22% of the fathers as compared to 37% of the mothers).

In order to gather information on specific problems in the cooperation of parents with institutions, interviews were carried out with the representatives of the re-education institutions in the sample. What is presented below is the most important data relevant to the context of the investigation: 1. There are some parents who communicate with the institution for administrative, organizational

or financial reasons, but they are not interested in keeping in touch with their own child. 2. Quite a few parents indirectly contribute to their children running away or absconding from the institution by their indifferent attitudes towards them. Those parents who hold negative attitudes towards the institutions agree with their child's abscondence, while some of them help to prepare these abscondences or financially support them. 3. The number of the parents who cooperate "well" with an institution can be estimated as one third of the parents concerned. (One director estimated this to be nearly a half of the total number of parents.) 4. A parent who cooperates "well" or "ideally" is one "*who is not against us*", or "*we are in the same boat, we are pulling in the same direction educationally*". What this means in concrete terms may be expressed as follows: "*the child is returned to the institution after his/her family leave on time, or the parent calls and apologizes for the child's absence and gives a reason*", "*the parent takes good care of the child during the child's leave*" and also "*the parent makes a call to the child while s/he is in the institution, or comes to see him/her*". One director defined a parent who cooperates "well" with an institution as any parent who does not refuse contact with the institution because at least "*the parent who comes to the institution in order to reprimand and threaten the institution, but at least comes, is giving us a chance to talk to him/her*". (N.B. It is necessary to add, in view of the last quotation, that 25% of the fathers and 14% of the mothers, according to the assessment carried out by the social workers, have never responded to any appeal to contact the re-education institution.) 5. The idea of a more intensive way of cooperation with parents is considered "*right*" or "*perhaps right*", but the opportunity to carry out this idea in an institution was doubted. One director expressed his doubt categorically using the following words. "*It is useless, we can advise anybody but s/he needs to take notice of the advice*". Others pointed to the difficulty of parents having to travel to the institution which would be costly for many of them. 6. None of the respondents responded in a self-reflective way. None of them asked a question concerning the professional competence of the personnel to provide quality parental guidance. Considering the previous statement, it should be noted that the adolescents were placed into institutional care because their parents had failed to carry out their parental duties, or because some of the parents were ignorant and incompetent in rearing their children. Non-constructive, unrealistic advice from some professionals such as: "*A mother says that her son does not obey her. She tries to talk to him, she warns him. She asks advice about what else to do. I respond that you too must find a way so that your son likes you, loves you and respects you,*" is not likely to help parents in a situation of perceived helplessness.

2.2. Mother's behavioural roles in the process of rehabilitation of adolescents

The highest results related to parental behaviour (cf. Survey 1) show the most frequent roles of parental behaviour in the investigated re-education institutions. If the most significant characteristic features of a mother's or father's cooperation with an institution in the process of rehabilitation of adolescents were composed into a typical group profile of parental behaviour, only isolated cases of particular parents with the same profile would be found. Each parent has his/her specific "strategy" of cooperation given by his/her life experience, his/her relationship with the child, his/her attitudes to cooperation and views of cooperation, his/her personal characteristic features, etc. Therefore, parental rights and duties based on parents' social relationships with an institution, i.e. anticipated *behavioural roles* are accomplished by each parent in their own individual ways (M. Montoussé, G. Renouard, 2005, Brinkerhoff, White, 1988, etc). So as not to overlook individual strategies of particular parents in their behaviour regarding cooperation with a re-education institution, a cluster analysis was used; on the basis of the correlation of the investigated items in the behavioural role, the sensitive differences in individual parent's cooperation with an institution were identified afterwards.

Mothers' behavioural roles as identified by social workers. As the total number of fathers (61) was not sufficient to carry out the cluster analysis, only mothers' roles were identified. In our sample there were 91 mothers, i.e. approximately 40.1% of the mothers of the 227 adolescents placed in re-education institutions were examined. In light of the data obtained during our pre-investigation phase, it was decided to take into account only such features of behavioural roles which could be realistically assessed.

So as to identify parental roles, the following attributes/categories of mothers' attitudinal – behavioural roles were formulated ad hoc. 1. *The mother's attitude to her son's placement in an institution.* 2. *The process of communication with a representative of an institution or with a probation officer.* 3. Attitude to the son's family leave. 4. *Behaviour during the adolescent's stay at home.* 5. Readiness to inform the institution about her son's stay at home. Furthermore, the following attributes regarding the mother's concern were formulated: 6. *The mother's interest in being informed about the material conditions of the institution providing care for her son.* 7. The mother's interest in the rules and regulations of a re-education institution. 8. The mother's interest in the procedures of re-education. 9. The mother's interest in her son's state. 10. The mother's interest in her son's problems

while he was placed in correctional care, and also her interest in helping to solve the problems.¹⁵

Using the cluster analysis of the data obtained from the social workers in the investigated re-education institutions, six types of mother's behavioural roles were identified (cf. Survey 1). In the sample, there were six cases of mothers whose behaviour was not specified at all, as it was not homogeneous in the examined indicators. Therefore, no independent behavioural role was formulated in such cases. The most frequent behavioural role in a mother's relation to an institution was that of "a partner". Furthermore, it was frequently "a mother abstaining from taking responsibility" and also "a protectress". The occurrence of the rest of the role profiles was low in our research (below 10%); therefore these roles are not dealt with in this paper.

"Mother as partner", the most frequent behavioural role among mothers, perceives the placement of her son into institutional care as an opportunity to help him, or, occasionally, she perceives his placement also as a transfer of her parental responsibility to that of an institution. She communicates with an institution "in a normal way", i.e. she does not manifest any exceptional behavioural features, and she is not aggressive, or insecure, or anxious. She actively uses her rights and initiates her child's home leaves. During his home visits she devotes as much attention to him as possible. She is interested in the running of the institution, in the rules and regulations of the institution, and also in re-educational procedures. She openly gives information about the child's home leaves, or occasionally, she idealizes her child's behaviour, and sometimes she does not give information to the institution at all. Except for the occasional lack of information, this type of mother uses her rights as defined by law and fulfills her duties.

"Mother abstaining from taking responsibility" is the second most frequently found behavioural role and perceives the placement of her child into institutional

Survey 1: Mother's behavioural roles I.

Role	Counts	Percentage
Partner	41	45.1
Abstaining from resp.	17	18.7
Protectress	13	14.3
Helper	7	7.7
Enemy	5	5.5
Apathetic	2	2.2
Unspecified	6	6.6
Total	91	100.0%

Source: Social workers in the examined re-education institutions

¹⁵ Italics stand for those features of a mother's behaviour which are not defined by law. It is possible to perceive the qualitative difference in a mother's cooperation defined by law and a mother's cooperation identified by a variety of her behavioural roles.

care as a transfer of her parental responsibility to that of an institution. She communicates “in a normal way”, she is not aggressive, and neither is she insecure. She actively initiates her child’s home leaves, or at least, she does not refuse to accept them because she takes her child’s home visits as her parental duty to perform. Nevertheless, she does not pay much attention to her child while he is on his home leave, or, she does what she can under her circumstances. She is not interested in obtaining information about her son; similarly, she is not interested in obtaining information about the institution. Her behaviour is in correlation with her easygoing / buck-passing attitude to the placement of her son in institutional care.

“*Mother as protectress*” is the third most frequently occurring behavioural role of the adolescents’ mothers. It is typical of her to demonstrate interest in her child’s well-being. She perceives his placement in a re-education institution as unjust, even if in her communication with the institution she behaves “in a normal way”; she is not insecure, or sheepish. She initiates her son’s home leaves; during his home visits she devotes a lot of attention to him. She openly gives information to the institution about her son’s home visits, or, in some cases, she gives information favouring her child: she idealizes him. She is interested only in her son; she is not interested in re-educational procedures, the running of the institution or its rules and regulations. The process of rehabilitation is beyond her. Her child and protecting him are in the centre of her attention.

Mother’s behavioural roles as identified by probation officers. Besides social workers in re-education institutions, adolescents’ parents are also in contact with many other social partners. Firstly, as “parents of a child at risk”, and later as “parents of a child in correctional educational care”, they are in contact with their neighbours, their extended family, co-workers and the police in their everyday lives. In the process of rehabilitation, even before a court order is passed to place the child into institutional care, they cooperate with a probation officer. A probation officer for juveniles is the first professional who opens communication with the family of an adolescent with behavioural problems, and his contact with the parents (or their legitimate representatives) continues during the institutional care of an adolescent.

Based on the information received from the probation officers, 81 mothers of the adolescents (i.e. 35.7% of the mothers of the 227 adolescents in total) were assessed. Similarly to the social workers from the re-education institutions, only 46 fathers (i.e. 22.2%) were assessed by probation officers, which is an insufficient number for using a cluster analysis of the data. In assessing a mother’s behavioural roles, the probation officers identified 6 behavioural roles (cf. Survey 2). The four

most frequently occurring roles will be dealt with further, the other two occurring in fewer than 10% of the cases will be omitted from further discussion in this paper.

It was mentioned earlier that the most frequent behavioural roles of the mothers as assessed by the social workers were two roles: “mother as a partner” (43 mothers, i. e. 53.1% of 81 mothers in the sample in total) and “mother abstaining from taking responsibility” (9 mothers, i.e. 11.1%). The cluster analysis of the results provided by the probation officers did not show the occurrence of “mother as protectress”, the behavioural role identified quite frequently by the social workers earlier. Instead, the probation officers identified two new behavioural roles – “mother as an enemy” (11 cases, i.e. 13.6%) and “apathetic mother” (8 cases, i.e. nearly 10%).

“*Mother as an enemy*” perceives the placement of her child into an institution as unjust and she wants to get the child back into her own care. In accordance with this, she is self-confident, possessive, and even aggressive in her communication with the probation officer. She is active in initiating her child’s home leaves. However, it is not possible to identify a typical mode of behaviour of these mothers during their sons’ home visits. Most frequently, they devote only as much time as their circumstances allow them to do, or only very little attention. They do not usually give the institution truthful information about their child’s stay at home. These mothers usually express interest in their child’s stay in the institution. A smaller number of the mothers of this type also show interest in their son’s problems while he is in institutional care, and they also want to participate in solving these problems. They are not interested in the rules and regulations of re-education institutions; they are not interested in re-educational procedures either.

“*Apathetic mother*” also perceives the placement of her child into institutional care as unjust, or she is indifferent to this. In her communication with the probation officer she communicates in a normal way or aggressively. While her child is on his home leaves she devotes only very little attention to him, or none at all. Such a situation is clearly a burden for her. She does not provide any information to the institution on his stay at home. She does not show any interest in her son. She is not interested in the running of the institution, its rules and regulations or re-educational procedures.

Survey 2: Mother’s behavioural roles II

Role	Counts	Percentage
Partner	43	53.1
Enemy	11	13.6
Abstaining from taking resp.	9	11.1
Apathetic	8	9.9
Self-assured	6	7.4
Insecure	4	4.9
TOTAL	81	100.0%

Source: Probation officers from OSPODs.

Comparing the results of the mother's behavioural roles obtained from the social workers and probation officers, it may be deduced that the correlation of "mothers as partners" occurred most frequently. On the contrary, there was a difference in the first case in identifying mothers as "protectresses", and in the second case in identifying "enemies" and "apathetic mothers". The behaviour of those assessed as enemies and apathetic mothers was perceived as negative by the probation officers – 14% of the mothers were assessed as those with hostile behaviour and 10% with apathetic behaviour whereas none of the assessed mothers' behaviour was perceived as protective. The social workers perceived the mothers' behavioural roles more positively – as protective in 14% of the assessed cases, while slightly below 6% were seen as hostile, and apathetic only in 2 % of the assessed cases.

In order to verify whether the above results were not influenced by assessing two completely different sets of mothers, a further analysis was carried out. The result of this analysis showed that there were 44 cases where the same mother of an adolescent was assessed by both the social worker and the probation officer. Out of the set of all (91) mothers assessed by the social workers, 44 cases represented 48%, and out of the set of all (81) mothers assessed by the probation officers, 44 cases represented 54%. It can be concluded that about half of the mothers assessed by both types of assessors were the same (identical mothers). The question arose whether the differences in assessing the mother's behavioural roles in the two primary sets correlated with the set of identical mothers.

Analysing the data listed in Survey 3, it may be concluded that the trend to perceive the mother's behavioural roles differently appears in the set of identical mothers as well. Although the mothers are assessed as "mothers as partners" by both assessors most frequently, "mothers as protectresses" appear only in the set of data provided by the social workers. "Mothers as enemies" do not appear in the data from the social workers (except for 1 case). In contrast, the probation officers assessed the mothers' behaviour as hostile as the second most frequently observed behavioural mode (after that of "mother as a partner"). In comparison with the data obtained from the primary sets listed in Surveys 1 and 2, there appears to be a shift in the data from the social workers when the set of identical mothers is considered. The social workers seem to perceive the mothers as those abstaining from taking responsibility for their child more frequently than the probation officers. The perception of the apathetic mother, i.e. the inactive, uncaring mother appears to be the same in both assessors' data. Comparing the mother's behavioural roles occurring in the primary sets of mothers (totals of 91 and 81 mothers) with the set of identical mothers shows a great deal of similarity.

Survey 3: the occurrence of the mothers' behavioural roles in the set of identical mothers

	Social workers		Probation officers	
	Scores		Scores	
	Counts	Percentage	Counts	Percentage
Partner	22	59.5	23	62.2
Abstaining from taking responsibility	6	16.2	3	8.1
Enemy	1	2.7	9	24.3
Apathetic	2	5.4	2	5.4
Protectress	6	16.2	0	0
TOTAL	37	100	37	100

N.B. The total of 37 cases of most frequently occurring roles in the set of 44 identical mothers, i.e. excluding 7 cases of roles occurring in this set only minimally

Although the data obtained from the probation officers and social workers show some differences in assessing the mothers' behavioural roles, they do not explain these differences sufficiently. It may well be that the co-occurring behavioural roles of individual mothers, as assessed by the probation officers and by the social workers, could be related to different, non-identical mothers. There does not seem to be enough evidence of similarity, or difference, in the assessment scales the assessors used. Therefore, it was necessary to verify the similarity, or difference, in their perceptions of the mothers' behavioural roles by comparing only their assessments of the same mothers. When assessing the mothers' behavioural roles in the set of 44 identical mothers, the probation officers and social workers agreed in 18 cases (41%) and disagreed in 26 cases (59%). All the cases where both types of assessors agreed fell into the category of frequent behavioural roles of a mother. No agreement was found among less frequent behavioural roles. On the basis of this finding we may conclude that the probation officers and social workers differ in their interpretation of perceptions of the mothers' behavioural roles.

In Survey 4, the disagreement about the mothers' most frequent behavioural roles as assessed by the probation officers and the social workers are presented. The first example of a difference may be seen in the assessment of "mother as a partner" versus "mother as an enemy". Four identical mothers fall into two different categories. When assessed by the social workers, they are seen as partners, when assessed by the probation officers they are identified basically as hostile in their behaviour. Similarly, the mothers who according to the probation officers' assessment fall into the category of "mother as partner" were assessed differently by

Survey 4: correlation of assessment of frequent behavioural roles

Social workers	PROBATION OFFICERS					
	Partner	Mother abstaining from resp.	Enemy	Apathetic	Protectress	TOTAL
Partner	15	1	4	0	0	20
Mother abstaining from resp.	3	1	1	0	0	5
Enemy	0	0	1	0	0	1
Apathetic	1	0	0	1	0	2
Protectress	3	0	2	0	0	5
TOTAL	22	2	8	1	0	33

Note 1: The data of the occurrence of agreement when assessing identical mothers are presented diagonally, in bold.

Note 2: The number 33 in total is related to the occurrence of the mothers' most frequent roles. The rest of the 11 mothers from the set of identical mothers represent less frequent roles.

the social workers, in three cases as “mother abstaining from taking responsibility” and “mother as protectress”, and in one case as an “apathetic mother”.

The differences in perceiving the mothers' behavioural roles between the social workers and the probation officers may be put down to two different interpretations of perceiving a mother's behavioural role. Linton (1936, in Thompson, 2001, p. 103) as an author of the role of context in human behaviour understands behavioural roles as a dynamic aspect of the status, or position of a person in social relationships. According to Linton, a person is assigned to a certain position which s/he fills/occupies in relation to other positions. When s/he asks for his/her rights and fulfills his/her duties, which are given by his/her social status (position), s/he adopts a *role*. It could be expressed as fulfilling a “task” resulting from status and its defined rights and duties. Carrying out these tasks is anticipated in society as a behavioural role. The perception of a behavioural role is dependent on the anticipated real context of a relationship. “Based on the role model, a person's behaviour is judged as intentional or unintentional (relevant or irrelevant) ...Accepting a role presupposes a selective perception of another person's behaviour...” (Turner, 1962, in Thompson, 2004, p. 105).

In our case, an adolescent's mother “played” a role in the process of rehabilitation of her son in two different relationships as far as the purpose, situation and context of the relationship was concerned: with a social worker (or representatives of an institution) and a probation officer. Both of these two types of cooperation play

a certain role in the process of a child's rehabilitation as they have a function, purpose, space and parameters in which they take place. *The purpose* of a mother's cooperation with an institution is predominantly to support the re-educational procedures of an institution. This purpose was theoretically reflected in the social workers' assessment of mothers as "assisting educators". The probation officers enter relationships of cooperation with mothers mainly in order to achieve a positive change in the child's behaviour and in this way, to deter the threat of institutional care; they want to see the mother's own initiative to achieve the required changes in the family environment. In other words, the purpose of cooperation is seen in a context which understands the mother's role as not only re-educational but perceives it in more general parental duties. A mother's behaviour is probably perceived /interpreted as the behaviour of a socially responsible person – the mother who supports her son's personal development by changing the quality of the family environment, by changing the way she looks after him, by caring about his future, by trying to communicate with the probation officer, by the way she accepts the proposal of institutional care, etc. *The situational parameter* of the relationship between a mother and a probation officer suggests that the probation officer might imagine the mother's behaviour in her family environment while the imagination of an institutional social worker is limited only to mutual contact within an institution, or conveyed contact. *The temporal parameter*, i.e. the timing of a relationship between a mother and a social worker, or between a mother and a probation officer regarding their cooperation in the process of rehabilitation is also different. The probation officer starts to cooperate with the son's mother before the court order of institutional re-educational care is issued. The social worker from the re-education institution starts to cooperate with the son's mother when the order of institutional care has been issued. Navrátil (1988) points out that a social worker gathers information on the living conditions of a client during the first contacts with the client. Taking this into account, both the social worker in an institution and the probation officer working outside an institution gather their main data and form their own decisive opinion of an adolescent's parent (mother) during their first contacts with them¹⁶. It follows that if the first information was gathered in situations whose purposes were different, the resulting views were

¹⁶ Navrátil's statement that perceiving clients is "temporarily determined" has been indirectly confirmed by the data obtained during our research for a different purpose. In their response to our requirement to select parents who would probably be more prepared to participate in more intensive rehabilitation work, probation officers chose only those parents who had already cooperated with them well, or satisfactorily, even before their son was placed in a re-education institution. The probation officers did not choose any parent as prepared to cooperate who

different as well. The experience of a probation officer of a mother's aggressive behaviour when she is "fighting" for her son not to have to start re-educational institutional care, and the experience of the same mother's behaviour as perceived by a social worker in an institution when the mother has already resigned herself to the fact that she "does not have" her son, and that he has started his re-educational institutional care, are cases of experiencing different behavioural roles of the same mother.

Therefore, the interpretation of the perceptions of the mothers' behavioural roles by the social workers and probation officers, related to the objective character of these relationships, could not have been identical for "objective reasons". The items concerning a mother's behavioural roles and listed in the mother's data sheet were assessed by the social workers and the probation officers according to their different experience. They associated these items with their own particular experience in the real context of cooperation with an adolescent's mother. Agreement in assessments, or the occurrence of the same perceived behavioural roles, are most probably a sign of consistency in the behavioural roles of these mothers, and do not refer to a consensus regarding the assessment scales. The mothers assessed identically/congruently by the social workers and the probation officers behaved in a consistent way when cooperating with a probation officer and when cooperating with a social worker. (The data we were able to access do not allow us to conclude why, when the mothers were assessed as partners there was the greatest agreement, i.e. in 15 cases, 82%, of the total number of 18 in the set of identical mothers.)

The data obtained from the interviews held in order to examine cooperation between the re-education institutions and the probation officers suggested a higher level of interest among the social workers in the process of rehabilitation of adolescents than among their probation officers. The social workers were not satisfied with the level of communication, or cooperation, with the probation officers concerning the process of rehabilitation¹⁷. They expected more active involvement on the side of the probation officers in the process of a child's rehabilitation, more interest in the child while he was out of institutional care and more information on this phase of his rehabilitation (Mišíková, 2008, p. 29). Our findings concerning the different interpretations of the social workers and the probation officers allow us to conclude that communication between re-education institutions and probation

started to cooperate with them (even if sometimes well) after the court order of re-educational care was issued. (Mišíková, 2008, pp. 73–74)

¹⁷ On the other hand, the majority of the probation officers were satisfied (83%). Only about 3% of the probation officers were explicitly dissatisfied.

officers (working outside the institution) is in fact only formal. It may be difficult to achieve mutual working communication between social workers and probation officers, but succeeding in this would be in the best interest of an effective process of rehabilitation.

5. Family environment of adolescents

The quality of the family environment of adolescents during their stay in institutional care does not change for the better, except in very few cases. Probation officers for adolescents, because of a high numbers of clients, do not invest enough time and energy in bringing about a change in the family life of their clients. According to data obtained from several representatives of re-education institutions, adolescents return to these institution manifesting worse behaviour and a higher potential to reject rules and authority than when they left. The situation of institutional care seems to resemble a vicious circle.¹⁸

The necessity to work simultaneously with the family in the process of rehabilitation of their children is not based on the actual state of the current practice of rehabilitation. The need to value the family environment can be theoretically deduced from humanistic sociological theories, for example, from Lemert's theory of primary and secondary deviation (Lemert, 1967, in e.g. Munková, 2004, Hřčka, 2003) and from the theory of roles in the concept of forming, developing and transforming social identity as presented by Berger (Berger, 1963, published in Czech in 1991, 2003). *"The importance of the theory of roles could be summarized by saying that from the sociological perspective, identity is socially based, socially developed and socially transformed."* (Berger, 2003, p. 104)

Lemert's theory of social deviation is based on differentiating between primary and secondary deviation. He notes that the development of a deviant is also a socially conditioned process of transformation of an originally non-deviant identity into a deviant identity. By his initial deviant behaviour (incidental, socially enforced, unpremeditated, impulsive, etc.) he becomes a deviant for society, but he is not a deviant in his own eyes. He becomes an authentic/real deviant only at the moment when deviant behaviour is expected from him by his social environment. *"All that will happen in the future depends on how others will interpret his behavior."* (Brinkerhoff, White, 1988, p. 193) If the interpretation of his behaviour by the

¹⁸ Certainly not only the parents were to blame, as only traditional methods of work were used in the investigated re-education institutions (Kurelová, Sekera, O., Kubičková, 2008).

social environment does not contribute to his transformation, then he will accept a deviant identity as his own, he will identify himself with this role. According to Thomas's well known theorem "*reality becomes real in its consequences*" (in Merton, 2000, p. 196)

If we reverse the "story of becoming a deviant", we could presuppose that by analogy, a deviant may become a non-deviant, re-socialized individual. His "story" may also have two stages of development or quality: firstly, the positive behavioural changes take place (initiated externally by a re-educational motivational program), and subsequently internal changes in his self-image occur. An adolescent should be encouraged, in the process of newly emerging identity as a non-deviant, that this process is right and is required also during his temporary stays at home. The required rehabilitation effect should manifest itself in the adolescent's orderly, non-deviant behaviour, in which the adolescent is motivated internally, by a non-deviant self-image of himself. However, during the period of institutional care, a potentially re-educated adolescent leaves a re-education institution for family leaves or for his holidays, and after he is 18 or 19 he leaves the re-education institution and re-educational care for good. Returning to a family which has not changed, whose environment is educationally unsuitable, is a reality which may turn occasional partial successes of institutional re-educational care into an unfulfilled potential. Living in a family which has not changed and in which an adolescent initially adopted his deviant role cannot contribute to any confirmation of his new non-deviant identity; the environment supports him in his original identity. If the institutional and family environments are not coordinated in their educational efforts, the chance of an adolescent's rehabilitation and the required change decreases. An essential social condition for an adolescent's rehabilitation (legally bound to his family) is a condition which could be called *consistency of forces/influences shaping an adolescent in the social environment*.

It follows that the knowledge of the quality of an adolescent's family environment is of the utmost importance. Therefore, adolescents' family profiles were examined for their 1. Economic status, 2. Presence of deviant behaviour, 3. Parental behaviour.

5.1. Socio-economic status of families.¹⁹

By belonging to a certain social class parents give their children a starting point for their socio-economic or social status. Socio-economic status defines the social

¹⁹ As in the 3rd part, the parents were not the sources of the primary data. The data related to the status and social deviation of the family were therefore obtained from identifying 123 ado-

space in which both parents and children exist. According to Berger (2003, pp. 83–91), each person/individual lives his/her life in specific “*layers of life*”. Belonging to a class means that individuals have a pre-defined space in society, in which they will exist, including the problems they will probably have to solve, and social opportunities they will have at their disposal to solve these problems. The social deprivation of families which are almost²⁰ in the lowest social strata, which typically experience permanent, sometimes extreme poverty, leads not only to the statistically significant occurrence of socially deviant behaviour of some members of these families, but also to indifferent, or noncompliant attitudes to the conventional social values of higher classes – to glory, wealth and power as the goal/sense of their lives. Some of them satisfy their need for social achievement and acceptance in alternative ways – by gaining position in delinquent social environments. (Cohen, 1955, in Munková, 2004)

Financial situation of families of adolescents: Besides parents’ share in power and their reputation in society, their financial situation is a key sign of their socio-economic or social status. In our investigation, the financial situation of the adolescents’ families was the only accessible data we used to indicate the social status of the families. It is obvious from Table 2 that a good financial situation was not typical of the majority of the families of the adolescents who were in institutional care at the examined re-education institutions. A permanent or occasional lack of financial resources is perceived as a problem by 76.4% of the families in the top two categories listed in Table 2 (if the 6 families whose situation was unknown to the probation officers had been included, the percentage would have been higher, i.e. 83.2%). More than two-fifths (43.2%, or 46.1%) of the adolescents from the examined re-education institutions lived in conditions of extreme poverty at home, i.e. their families had problems in covering their basic living costs. A third of the adolescents in our survey were from families with limited income (32.4%, or 34.2%). These families did not experience financial difficulties, but it is highly likely that the decisions regarding covering livings costs, and priorities of satisfying needs including those of the adolescent were not without problems. Only about one fifth of the adolescents (18.7%, or 19.6%) lived in families who, although they differed

lescents’ families by their probation officers. They usually get acquainted with the adolescents’ families better than other (non-family) members engaged in the process of rehabilitation.

²⁰ The term “almost” is used to describe this particular social class because of the emerging cases of homelessness in contemporary Czech society.

Table 2: Financial situation of families with children in re-education institutions

FINANCIAL SITUATION OF FAMILIES	SCORES	
	Counts	Percentage
Severe financial problems/ extremely poor	54	43.9
A limited amount of financial resources/ poor	40	32.5
Self-sustaining/ well off/ average	16	13.0
Above average/ rich	7	5.7
No information	6	4.9
ANSWERS IN TOTAL	123	100.0%

Source: probation officers of adolescents

in their welfare, had not experienced financial difficulties. Out of the adolescents living in welfare families, 5% lived in above-standard conditions.

Financial situation of adolescents' families according to ethnic group: It is well-known and reflected in the literature that the Romany community represents a significantly different sub-culture in Czech society in relation to specific cultural values, patterns and educational values (e.g.: Šulová, 1999, Marešová et al., 1997, Štechová, 1993, in Matoušek, Kroftová, 1998). A significant number of Romany populations live in worse socio-economic conditions than the majority non-Romany population.

As for the investigated sample of the adolescents' families, Romany families represented 35% of the sample and Czech families 65%. Nearly a half of the families in the sample, regardless of their ethnic group, had a severe financial situation and of these nearly 52% were Romany families and 48% were Czech families. (Table 3). The socio-economic status of nearly a half of the families of the adolescents in institutional care was, regardless of ethnicity, very low and it indicated their belonging to the lowest social classes.

However, the distribution of the financial resources of the Czech and Romany families in our sample was significantly different. It appears that the Romany families here are disadvantaged. While the identified cases of extreme poverty related to 38% of the Czech families, in the case of the Romany families the percentage rose to a 64% share. A higher share of families without financial problems (approximately 26%) was identified in the subset of Czech families, while the share of families without financial problems in the subset of Romany families amounted only to

approximately 9%. In other words, more than a quarter of the boys from the Czech families, but only a tenth of the boys from the Romany families lived in standard or above-standard economic conditions. The statistical significance of the differences of the financial conditions of the families according to their ethnic groups was tested by the Chi-square test; the test confirmed the relationship of the two variables (Chi-square = 0.015).

Educational level of the adolescents' parents: The level of education is not a direct indicator of socio-economic status, but in contemporary society it is probably the most prevalent means of achieving status. Therefore, it is our intention to briefly mention the level of education of the adolescents' parents. On the whole, a very low level of education was recorded in the investigated sample of parents (Table 4).

Table 3: Financial situation of families according to ethnic groups

FINANCIAL SITUATION OF A FAMILY	ETHNIC GROUP		
	Czech	Romany	TOTAL
Severe financial problems	26.0	28.0	54.0
	48.1	51.9	100.0
	37.7	63.6	47.8
Limited financial means, but able to survive	25.0	12.0	37.0
	67.6	32.4	100.0
	36.2	27.3	32.7
Good financial conditions	18.0	4.0	22.0
	81.8	18.2	100.0
	26.1	9.1	19.5
TOTAL	69.0	44.0	113.0

Source: Probation officers of adolescents

Notes: The first item in each box – counts (real numbers). The second item in each box – percentage in rows. The third item in each box – percentage in columns.

Table 4: Educational level of adolescents' parents

EDUCATIONAL LEVEL OF PARENTS	SCORES			
	MOTHER		FATHER	
	Counts	Percentage	Counts	Percentage
Unfinished 8, or 9 grades of compulsory school attendance (No vocational education)	13	13.1%	8	10.1%
Finished 8, or 9 grades of compulsory school attendance (No vocational education)	45	45.6%	35	44.3%
Secondary school educ., not completed with a school-leaving exam (Lower vocational education)	29	29.3%	30	38.0%
Secondary school educ., completed with a school-leaving exam (Higher vocational education)	11	11.1%	3	3.8%
Tertiary education (Higher education institution)	1	1.0%	3	3.8%
TOTAL (of answers)	99	100%	79	100%

Source: probation officers of adolescents

Table 5: Parents' education according to ethnic group

EDUCATION	AFFILIATION TO AN ETHNIC GROUP – FATHER			AFFILIATION TO AN ETHNIC GROUP – MOTHER		
	Romany	Czech	Total	Romany	Czech	Total
No vocational education	22.0	21.0	43.0	35.0	23.0	58.0
	51.2	48.8	100.0	60.3	39.7	100.0
	81.5	40.4	54.4	97.2	37.1	59.2
Lower vocational education	5.0	25.0	30.0		28.0	28.0
	16.7	83.3	100.0	0.0	100.0	100.0
	18.5	48.1	38.0		45.2	28.6
Higher vocational education		6.0	6.0	1.0	11.0	12.0
	0.0	100.0	100.0	8.3	91.7	100.0
		11.5	8.0	3.8	17.7	12.2
TOTAL	27.0	52.0	79.0	36.0	62.0	98.0
	34.1	65.9	100.0	36.7	63.3	100.0

Notes: The first item in each box – counts (real numbers). The second item in each box – percentage in rows. The third item in each box – percentage in columns.

Chi-square = 0.002 – fathers, Chi-square = 0.000 – mothers

N.B. So as to carry out a statistical analysis of the significance of relationships, the numbers used had to be increased in such a way that the conditions required for the Chi-square test were observed. Therefore the categories of education achieved by the mothers and fathers were connected as follows: The item “no vocational education” includes both the respondents who finished and did not finish 8, or 9 grades of compulsory school attendance, the item “lower vocational education” includes the respondents who finished secondary education without a school-leaving exam, and the item “higher vocational education” includes the respondents who finished secondary education with a school-leaving exam and those who completed tertiary education.

It is obvious from the above table that there were very few parents who reached higher education, i.e. secondary school education completed with a school-leaving exam and tertiary education. About a tenth of the total number of mothers achieved secondary school education completed with a school-leaving exam (11.2%), and even fewer fathers (7.6%) finished higher vocational education and tertiary education. On the other hand, more than half of the total number of parents did not have any vocational education at all: nearly three-fifths of the mothers (58.7%) and only slightly fewer fathers (54.4%). Moreover, about a tenth of the total number of the parents (more mothers) did not finish even 8, or 9 grades of compulsory (primary) education. About a third of the adolescents' mothers (29.3%) finished lower vocational education, and so did more than a third of the adolescents' fathers (38%).

Similarly to the distribution of financial resources according to ethnic group,

the level of education is different in the two different ethnic groups. This is further illustrated in Table 5. In the category of fathers who did not have any vocational education, the Czech and Romany fathers are represented approximately equally in numbers: 48.8%, and 51.2%. However, this is the only similarity. In higher vocational education, there are significant differences. The ratio of the Romany fathers who had higher vocational education is low (81.5% : 16.7%), while the ratio of the Czech fathers is greater (40.4% : 48.1%). No Romany father reached either higher secondary education completed with a school-leaving exam, or tertiary education, which contrasts with the 11.5% of the Czech fathers in this category of education. The distribution of education in the sets of mothers and fathers according to ethnic group was not random, the fathers: Chi-square = 0.002 and the mothers: Chi-square = 0.000. The distribution of the parents' education according to ethnicity indicates that education is an important factor in reproducing social inequality of *lower classes* regardless of the ethnic structure of society.

The factor which significantly differentiated the Romany mothers from the Czech mothers in this study was a lack of education. Our findings show that traditional Romany families rank the education of women even lower than that of men. Only one Romany mother finished secondary education with a school-leaving exam. All the other Romany mothers (97.2%) did not complete any vocational education. They represented 60% of the uneducated mothers in our study (against the 40% of the mothers affiliated to the Czech ethnic group), even though in the whole set only 37% were identified as Romany in comparison to 67% as Czech.

Socially deviant behaviour in families of adolescents with behavioural disorders. Our findings showed that in our sample of 123 adolescents, a further problem for approximately two-thirds of adolescents was also deviant behaviour occurring in their families (apart from the adolescents' own behaviour). 72 of the adolescents (i.e. 58.5%) lived in families in which deviant behaviour was a reality, while 51 (41.4%) lived in a family environment free from the most frequent types of socially deviant behaviour identified by our research. The families that were "free from deviant behaviour" had "other problems" according to the probation officers. These were not health problems related to a disabled parent or parents, or affiliation to the minority Romany ethnic community, or unemployment of both parents (the way the questions were worded to identify the presence of deviant behaviour in a family enable us to make these observations). So, when trying to pin down what "other problems" may mean, it may be concluded that primarily these problems arise from the personal dispositions of family members, from preferences of parental self-realization (work-related, emotional, sexual) and from the way a family functions

Survey 5: Variants of socially deviant behaviour of parents

Types of socially deviant behaviour				Occurrence
NO COMBINATION				
1				16x
2				6x
3				8x
4				9x
COMBINATION OF TWO VARIANTS				
1	2			3x
1	3			2x
1	4			4x
2	3			2x
2	4			2x
3	4			10x
COMBINATION OF THREE VARIANTS				
1	2	3		3x
1	3	4		4x
2	3	4		2x
COMBINATION OF FOUR VARIANTS				
1	2	3	4	1x
TOTAL NUMBER OF FAMILIES				39+33

Notes:

1. Alcoholism; 2. Drugs; 3. Delinquency;
4. Unemployment of both parents

as a social unit (with its parental, marriage and sibling sub-units). It may also be that “other problems” arise primarily from a permanent inability of a family to cope with a crisis event (Špatenková et al., 2004).

As can be seen from Survey 5, the number of occurrences of different types of socially deviant behaviour may vary. 60% of the families (39 of the 72 families displaying some form of deviant behaviour) demonstrated just one type of socially deviant behaviour, while 40% of such families (i.e. 33 out of 72) demonstrated more than one type of social deviation. The most frequent problem in the families where one type of deviant behaviour was identified was a drink problem/alcoholism of at least one of the parents (16 families, i.e. 41% of 39 families). The problem of both parents being unemployed was not very frequent in these one-problem families, and where there is a drink problem, the latter does seem less important. However, it is significant from the educational point of view because the usual pattern of parents having a regular job is missing from an adolescent's environment.

In cases of multi-problem families with both parents unemployed, social deviation becomes even more apparent. The data obtained from investigating the socially deviant behaviour of the adolescents' parents themselves leave little doubt that the parents' cooperation in the process of rehabilitation of the adolescents would not be successful unless the process of rehabilitation was aimed at the parents themselves first, i.e. at the parents of about 60% of the adolescents in our sample. The difficulty in the process of rehabilitation of the parents is aggravated by the statistical significance of the relationship between the deviant behaviour of the

parents and the social status of the family (poverty), i.e. the behaviour is part of the social problem of the family.

Relationship between social status and deviant behaviour. Investigations into social structures and cultures / subcultures show a frequent occurrence of delinquent behaviour among people from low social classes, or persons affiliated to a minority ethnicity community (Merton, 1957, Cloward, Ohlin, 1960, Matza, 1964, Downes, Rock, 1989, Miller, 1958, Lewis, 1959 in Munková, 2004). According to Miller (1958 in Matoušek, Kroftová, 1998), the most difficult obstacle faced in accepting the norms of behaviour regarded as appropriate is not the fact of being unemployed²¹, but it is the situation of a sub-cultural difference reproduced in a new generation. The sub-culture of the lowest social classes differs in the system of values from that of the higher social classes. It is the result of development which has been going on for many generations in a particular sub-culture/culture.

On the basis of the theoretical knowledge and the data concerning the economic situation of our sample of adolescents' families, it was possible to anticipate that the occurrence of socially deviant behaviour in their families would be related to their social status. Of the 72 adolescents' families in our sample displaying socially deviant behaviour, information on their financial situation was given to us in only 67 cases. According to the financial situation in families, the occurrence of socially deviant behaviour was distributed as follows:

- 35 of the 54 extremely poor families in the sample (64.8%),
- 23 of the 40 poor families (57.5%),
- 6 of the 16 financially self-sustaining/ well off families (37.5%),
- 3 of the 7 financially above average families (42.8%).

The parents' socially deviant behaviour occurs in all the categories regardless of their financial situation but it is more frequent in the families with a low income – deviation occurs in more than a half of those families. The parents' own behaviour was a problem in nearly two-thirds of the families belonging to the lowest social classes.

The results obtained from a Chi-square test of the significance of the relationship between the financial situation and types of social problems (cf. Table 6) showed statistically significant relationships between unemployment and the financial situation of a family (Chi-square= 0.012), between the occurrence of criminality/ delinquency in a family and its financial situation and between the occurrence of

²¹ The 1950s were "the golden age" in the U.S. economy. No information was found about to what extent Miller's idea applies to the present situation.

Table 6: Financial situation in families and social problems: important relationships

	DELINQUENCY		
	Yes	No	TOTAL
Severe financial problems	22.0 40.8	32.0 59.2	54.0 100%
Limited financial resources, without severe financial problems	8.0 21.6	29.0 78.4	37.0 100%
Good financial situation	2.0 9.1	20.0 90.9	22.0 100%
TOTAL	32.0	81.0	113.0
	UNEMPLOYMENT		
	Yes	No	TOTAL
Severe financial problems	45.0 83.3	9.0 16.7	54.0 100%
Limited financial resources, without severe financial problems	11.0 29.7	26.0 70.3	37.0 100%
Good financial situation	4.0 18.2	18.0 81.8	22.0 100%
TOTAL	60.0	53.0	113.0
	OTHER PROBLEMS IN THE FAMILY		
	Yes	No	TOTAL
Severe financial problems	5.0 9.3	49.0 90.7	54.0 100%
Limited financial resources, without severe financial problems	14.0 35.0	26.0 65.0	40.0 100%
Good financial situation	12.0 52.2	11.0 47.8	23.0 100%
TOTAL	31.0	86.0	117.0

Delinquency: Chi-square = 0.012. Unemployment, or "other problems": Chi-square = 0.000

Notes: The first item in each pair = counts, the second item = percentages

other, non-social problems and the financial situation of a family (identical results of Chi-square test = 0.000). Unemployed and delinquent parents of adolescents usually came from low social classes, with a low socio-economic status, and mainly from families whose financial situation was on the verge of poverty. The probability of the occurrence of unemployment, criminal convictions and criminal behaviour among the parents decreased with the better financial situation of the families. Delinquency and unemployment in our sample of adolescents' families are related to the low status families. A statistically significant fewer number of cases of such behaviour occurred in the families from higher classes.

The other two socially deviant types of problem in a family, alcoholism and drug abuse, were not statistically significantly related to any specific social class, so they did not indicate a status characteristic. Alcoholism and drug abuse occurred at random across the financial categories of various families and from various classes.

The verified significance of the relationship of the families with “other problems” and their economic status (Chi-square= 0.000) suggests a different interpretation of the best fit than in the other cases where the relationship was significant. There is no reason to link the adolescents’ families with only “other problems” with poverty. Typical representatives of these families were those that were financially well off, even above average. Extremely poor families occurred only exceptionally in this category. The percentage of the families with “other problems” was only 16% in the category of families with severe financial problems while in those without financial problems it was 52.2%. (The parents in the category of families with “other problems” were more frequently better educated; they had a higher level of education compared to the majority of the adolescents’ parents from other financial categories. The significance of the relationship between the level of parents’ education and other, not social problems, was in the case of both the mothers and fathers very high: Chi-square= 0.000)

In relation to the findings listed above, it is interesting to note the link between the level of education and the types of deviation in the adolescents’ families. There was no significant relationship between delinquency and the level of a father’s education, while the relationship between the level of a mother’s education and delinquency in a family was highly significant (Chi-square= 0.000). The occurrence of delinquency was more frequent in the families where the mother had no vocational education compared to the families where the mother had reached at least a lower vocational education. It seems that more educated mothers may suppress the miscreant behaviour of their partners in a family as if they were more aware of the basic social norms of behaviour and the necessity to respect them (unlike mothers with no vocational education).

Weakened social relationships as a factor of socially deviant behaviour. It seems obvious that there are positive correlations between the socio-economic status of the adolescents’ families (indicated by their financial situation) and the distribution of social problems. The adolescents’ parents from low social classes, with a low social status, demonstrate signs of socially deviant behaviour more frequently than the parents with a high social status (well-off parents). The parents from higher classes, with a high social status, do not have social or financial problems, but they have “other problems” (rather than social ones) significantly more frequently. Their

pre-disposition to delinquent behaviour is lower in comparison to those with a low social status. However, the data obtained on the significance of the relationship between the financial situation (as an indicator of the social status of a family) and the parents' socially deviant behaviour does not mean that social status is an immediate/primary cause of the parents' deviant behaviour. The category of the statistical correlation of dependency does not mean social dependency, but it probably suggests mutual cohesion of social phenomena without determining their causal relationships. Without knowing the actual origin of a problem, e.g. of alcoholism in families, it is not possible to estimate what "triggered off" the social situation in families: whether it was alcohol which brought the family to a poor financial situation, or a poor financial situation of the family led its members to find an escape in excessive drinking.

It is possible to conclude that the parents' social status is a risk-factor for the development of their children, but it is not fatal! The occurrence of social deviation is not identified only in low social classes. However, it is necessary to find the cause of such behaviour. Matza, one of the authors of the concept of "drift" (1964, in Munková, p. 52) says that it may well be that "*the feeling of helplessness may trigger delinquency*" among low social classes, but it is hardly likely to be a trigger for social deviation among the higher classes. It was also one of the findings of our research that no significant relationship was found between education (as a factor related to the financial situation of the family) and the fathers' delinquency. The fathers from the well-off families also committed criminal acts. These could not have been motivated by a permanent feeling of helplessness. If there had been parents among them who had committed criminal acts triggered off by a feeling of helplessness, they must have been cases of situational helplessness.

As for the causes of social delinquency, we might call them "socially universal" causes in our context. Hirschi (1969, Chap. II, pp.16–34) considers the following elements of a weakened social structure: Attachment, Commitment, Involvement and Belief (ACIB). These elements can be perceived as non-weakened among the persons who respect the rules of social behaviour. In a simplified way, his theory of social structure can be interpreted as follows: integrating each person into the community/society depends on what kind of people s/he is in close relationships with, what kind of people s/he feels comfortable with, what activities s/he carries out in life, what s/he considers to be his/her commitments in life and society and whether s/he is internally convinced about the legitimacy/rightness of norms and values which are respected by the majority of society.

It was not possible for us to access the adolescents' parents as a source of information in order to help us to verify the reality of the elements of the their

parents' social structure. Hypothetically, as the parents belong to the lowest social classes and with respect to their difficult financial situation, using ACIB²² as a basis, we may deduce the reality of the elements of their social structure as follows: *Attachment* – the adolescents' parents do not care for the opinion of the middle classes who seem to be typical of those who respect conventional social norms and values. They do not retain the intensive, positive contact with them which would mean that the opinions of the middle classes would play a more important role in their behaviour. The possible disappointment with a partner in displaying deviant behaviour does not prevent them from also committing deviant acts. *Commitment* – thus far, judging from their social status, they have not invested time, money or effort in gaining socially appreciated features, e.g. education, job position, wealth, fame, social prestige, etc. which would oblige them to observe the conventional norms of behaviour for fear of losing or devaluing what they already have. Weighing profit and loss emanating from the consequences of deviant behaviour is not an important factor in their decision-making process. *Involvement* – it is not typical of parents from the lowest classes to carry out conventional activities common in the middle classes, or the range of conventional activities is not such so as not to leave them enough time for committing socially deviant activities. (N.B. Usually, carrying out socially accepted activities results in people becoming attached to the social environment enabling them to establish positive contacts, i.e. attachment). *Belief* – a feeling that life is hopeless most probably does not convince the majority of them that the social order is just, and that socially valid norms and values are right. Their morals and their conscience differ from those of conventional society.

Wiatrowski, Griswold, Roberts (1981, in Hrčka, 2001) examined the social relationships of young people (concerning their relationships in school and with friends) and the social status of their family. Their findings showed a positive correlation between the social relationships of young people (including their abilities) and the social status of their family. In general, it may be said that “*Young people from low social classes and with lower abilities are less connected to conventional aims and activities because such aims and activities are beyond their own possibilities and abilities.*” (Ibid. p. 216) In other words, parents in each social class can offer their children only what they themselves are capable of²³.

²² Hirschi does not present the concept under the abbreviation of ACIB.

²³ In this context, it is the social capital of parents, not the personal one.

5.2. Parents' behaviour in families of adolescents with problems

The strength of social ties of parents also indicates the potential strength of social ties of their children. The quality of various aspects of a family environment, the value orientation of a family, its moral principles and rules of behaviour, habitual family activities, parents' behaviour towards their children, etc. are manifestations of either weakened or strong social ties of the parents. For example, Snyder and Patterson (1987, in Matoušek, Kroftová, 1998, p.43) identified the family environment of deviants who violated the law as *"cold, with minimal interest in the child on the part of the parents. The parents are characterized by their children as passive or disapproving, and not interested in the child's needs."* By examining samples of 500 delinquent and 500 non-delinquent boys, Glueck and Glueck (1964, in Matoušek, Kroftová, 1998, pp. 256–257) discovered among the observed "social factors of the family" those factors that best differentiate between the family backgrounds of both sub-groups of boys: 1. The discipline required by the father (very active or lax). 2. The mother's control (excessive or appropriate). 3. The father's relationship with the boy (indifferent or hostile). 4. The mother's relationship with the boy (indifferent or hostile). 5. The cohesiveness of the family – low or none. Hirschi (according to Downes, Rock, 1989, in Munková, 2004, p. 61) also examined parents' behaviour as a mechanism for strengthening or weakening the social ties of children. By interviewing 4,000 adolescents from 12 to 17 years of age, with both delinquent and non-delinquent behaviour, he determined how their parents behaved towards them. Much like Glueck and Glueck, he found out that the most important factors influencing the delinquency of adolescents were: 1. The parents' care and supervision of their child. 2. Mutual emotional identification. 3. The intimacy of the communication with parents.

The **ADOR questionnaire** was used in our research as a tool for the identification, at least tentatively, of the parents' behaviour towards their children with behavioural problems who are subject to institutional care. It was completed by the children who judged the behaviour and attitudes of their fathers and mothers towards them. The questionnaire consisted of 50 items, consisting of statements about parents' behaviour in particular situations which covered three areas of parents' behaviour towards the child:

1. Positiveness / hostility (accepting – rejecting),
2. Directiveness / autonomy (psychological control – psychological autonomy),
3. In/consistency (strict control – lax control²⁴)

²⁴ Schaefer's original labellings of dimensions are in brackets.

“Psychological control is conceived here primarily as measuring parents’ favour towards the child and as an educational utilization of his or her feelings of guilt. However, it also contains components of pressure and deliberate guidance of the child. The strength or laxness of control in the third area more or less means consistency in asserting educational principles” (Matějček, Říčan, 1983, p.7).

The structure of the content of the ADOR questionnaire diagnoses parents’ behaviour in aspects similar to some of those of parents’ relationships in Hirschi and Glueck and Glueck. The first two components of parents’ relationships (hostility / positiveness and autonomy / directiveness) contain 20 items in the form of paired stimulus statements: 10 of the statements cover positive value manifestations in parents’ behaviour towards the adolescent and the remaining 10 cover educationally negative manifestations of parents’ behaviour towards him or her. It is, in fact, a two-direction assessment scale. The inconsistency of parents’ control as the third component of their behaviour has only 10 statements, or items, altogether. Unlike the other two components of parents’ behaviour, it is on a one-direction scale used for comprehending the insufficiency of parents’ control of their child.

The answers within individual components of parents’ behaviour were added up according to the key in the “Assessment Checklist”. The answers pertaining to negative aspects in the first two components of parents’ behaviour (i.e. hostility or autonomy) were deducted from the answers pertaining to positive aspects (i.e. positiveness or directiveness). Thus, the final score for the first two components of parents’ behaviour was obtained: POS/HOS or DIR/AUT. In the case of the third component of parents’ relationships, inconsistency (INC) in parents’ behaviour, only “positive points” exist. Numerically positive values of the score express an educationally negative inconsistency in parents’ behaviour. The size of the value of inconsistency in parents’ behaviour (on a scale of + 0 to + 10) expresses its real size as seen with their children’s eyes.

It must be borne in mind that the results obtained can only be interpreted as a rough, tentative indicator because:

a) Some items of the test cannot be unequivocally interpreted by the respondents, who are adolescents who are subject to institutional care, in the situation of the specific relationship between the adolescent and their parents (the relationship exists while the adolescent is at home and it does not disappear while s/he is in institutional care). The ADOR questionnaire was not standardized for the groups of children residing outside their families. Thus, some items, especially two of them, did not recapture an unequivocal contextual situation and they caused a problem

of interpretation for some adolescents: “S/he always controls what I do outside or at school” and “S/he always carefully finds out whether I’ve got acceptable friends”. The adolescents who had these problems veered towards a neutral, indecisive assessment. The ADOR questionnaire is constructed for diagnostic purposes in individual cases of usual counseling practice, in the usual situation of parents and children living together permanently as a family. If it is applied when a child-parent relationship takes place outside the family unit, a lowered reliability of this tool must be taken into account.

b) The resulting assessment of parents’ behaviour is also distorted subjectively, and without an additional identification of the relationship by parents, being in fact a one-sided picture of parents’ relationships through the eyes of the children. As the authors of the ADOR questionnaire state: “...it is necessary to bear in mind that every result of the questionnaire is ambiguous. It may reflect the parents’ real attitudes and behaviour faithfully and reliably, but at the same time it may reflect self-delusion, wishful thinking or deliberate or semi-deliberate camouflage.” (Matějček, Říčan, 1983, p. 27)

The profile of parents’ behaviour in adolescents’ families is constructed on the basis of a group of 89 mothers and 56 fathers²⁵. Even though we had the assessment of the parents’ behaviour from the 100 respondents at our disposal, we were only able to make use of the assessment of those adolescents about whom and whose families we had current information from their probation officers. In the context of the social circumstances of the parents’ cooperating in the process of rehabilitation, the parents’ behaviour is interesting in connection with the social status of the parents or with their socially deviant behaviour. The results regarding the average value of the score for the three observed components of the parents’ behaviour are shown in Table 7. To some extent, they document the parental qualities of fathers and mothers of the adolescents with behavioural problems subject to institutional care.

As for the interpretation of the results, the concrete findings about interesting individual differences in the parents’ behaviour regarding the observed categories, or differences between the mothers and fathers, are not essential. For example, in the context of our reflections, the following findings are not important from the point of view of interpretation: the finding of a relatively significant difference in

²⁵ The ADOR questionnaire was completed by 100 adolescents, but the number of the members of the group we could finally work with resulted from the fact that in families were not provided by the probation officers.

Table 7: Parents' behaviour according to the financial situation of the family and according to the family's social deviation: average values according to the ADOR questionnaire

I. FINANCIAL SITUATION OF FAMILY	AVERAGE SCORES – MOTHERS			AVERAGE SCORES – FATHERS		
	Positiveness versus hostility POS/HOST	Autonomy versus directiveness AUT/DIR	Inconsistency INC	Positiveness versus hostility POS/HOST	Autonomy versus directiveness AUT/DIR	Inconsistency INC
Severe financial problems	2.2	0.7	3.3	1.8	0.7	1.8
Financial problems	2.7	0.6	4.4	3.3	-0.9	3.0
No financial problems	1.7	0.6	2.1	0.6	-1.0	0.9
Above standard	2.6	0.1	2.3	0.9	0.3	1.4
Non-identified	22.0	0.8	4.2	2.2	0.2	3.8
II. SOCIAL PROBLEMS OF THE FAMILY						
Alcoholism	1.7	0.1	4.4	2.1	-0.2	2.3
Drugs	1.9	-1.1	4.2	1.4	0.1	2.3
Imprisonment	1.4	0.4	3.2	2.4	0.1	2.7
Unemployment 2	8.9	2.6	7.5	9.4	0.0	5.6
Other problems	0.4	0.03	2.0	2.0	-0.2	1.3

Source: adolescents in institutional care

Notes: Unemployment 2 – both parents unemployed; in bold – extreme values of average results for an element/component of parental behaviour.

the inconsistency of the mothers (INC) in those families whose financial conditions were above standard, or those well-off families without financial problems, and of the mothers in the families with financial problems, in favour of the lower inconsistency of the former; or the finding of affection (POS/HOS) manifested by the fathers in poorer families rather than by the fathers in the more well-off families. Similarly, the finding of a significant educational indifference and lack of interest (AUT/DIR) in the mothers in the families with drug-addiction which contrasts particularly with an educational interest amongst the mothers in the families where both parents are unemployed, is not essential from the point of view of interpretation. In these families, the adolescents felt mostly affection on the part of both their mothers and fathers (POS/HOST), while the inconsistency in the parents' behaviour greatly exceeded the value of the average score of the parents' inconsistency in other categories of the families (according to the type of occurrence of social deviation).

The findings about the overall "intensity" of the parents' behaviour towards their children, in this case expressly towards their sons, are essential for us. With the exception of the parents' behaviour in the families where both parents are unemployed, the average score of the parents' behaviour in all the observed categories of the families, both according to the financial situation and according to social deviation in the adolescents' families is not *significantly different*. However, we did not have any way of deliberating over our findings. This is because the ADOR questionnaire has so far been applied only in individual counseling diagnoses, and because information about profiling parental relations in normal families with children with or without behavioural problems cannot be found amongst social and educational investigations. However, if we proceed from the theoretical expectations of a state which is educationally desirable, the average scores of positiveness and directiveness should certainly not fall below the value of +5 at the minimum, and the average value of the score of parental inconsistency should approach almost zero. It can be seen that the reality does not correspond with the theoretical expectation. In our group of parents, most do not show enough affection towards their child, give them minimal guidance and are not consistent in their behaviour towards them. According to the average value of this component, the parents can be least criticized for the consistency of their behaviour. If, however, the adolescents were not especially sensitive to assessing the consistency of the parent and, consistent with their age which is within the range of identity crisis (Eriksson, 1999), they did not even perceive isolated manifestations of their parent's consistency as undesirable, permanent "persecution", limiting their autonomy.

We can state, although with some methodological doubts, that our findings about the parents' behaviour towards the adolescents with behavioural disorders support Gluecks' and Hirschi's findings concerning the significant relationship between parents' behaviour and their children's deviation / non-deviation. Parents' behaviour towards adolescents in re-education proves to be unsuitable and educationally insufficient. Thus, the need to make the parent-child relationship valuable is a further argument for supporting direct parental cooperation in the process of the rehabilitation of their children. When doing so, it is important to get to know the individual "genesis" of parents' poor behaviour, the reasons for it. The findings about the social conditions which determine parents' life and behaviour alert us to the fact that parents with a very low social status are basically not able to strengthen their child's social ties by their behaviour, because these are weakened or dysfunctional in themselves – as opposed to parents with a higher social status, in whom the malfunction of parental behaviour has primarily different, individual reasons. For example Wilson (1978 in Munková, 2004, p. 62) found out by doing research into socially deprived families in Birmingham that they had a very lax, loose way of bringing up their children; she also found a very strong significance between this lax, indifferent way of upbringing and the social handicap of the families stemming from their low status. She attributes these parents' attitudes towards education to stress, the cause of which is the disadvantaged, difficult social situation of the family. On the basis of her findings, she came to the conclusion that this situation cannot be changed either by educational or punitive measures. We can add that it is a problem of society²⁶.

Conclusion

The support of effective rehabilitation of adolescent children by means of cooperating with their parents on their own behaviour and on improving the family environment can be justified not only on theoretical grounds but also by the state of reality. The findings obtained by our research reveal that:

1) Parents' participation in their children's rehabilitation is only of a supportive character; their position in this process is marginal. Cooperation in the minimal

²⁶ The simultaneous coexistence of neglecting the care of the children and difficult living conditions (in Romany populations) was also ascertained by Štechová (1993), and Štechová, Večerka (1990), but the significance of their mutual relationship was not verified. (In Matoušek, Kroftová, 1998, p. 143).

form of complying with the duties required by law and of utilizing parents' rights towards the institution in which the child is being re-educated is unsatisfactory. It was only in two activities within the framework of cooperation that the parents' participation exceeded 50% – in requiring family leave and in the case of the mother showing interest in the child. These manifestations of participation can hardly be considered as essential in the process of the rehabilitation of the child.

2) The rehabilitation of adolescents in the Czech Republic was "complicated" by the home visits given by law. They return to families of which about a half are in the lowest social class, and social deviation exists in about 60% of these families. We verified the supposition that social deviation in families and their social status are interconnected.

3) The poor social quality of at least half of these families is amplified by the poor behaviour on the part of the mother and father. The parents' behaviour identified by the ADOR questionnaire is problematic amongst all the parents. As other research programs have revealed (those of Hirschi and Glueck and Glueck), parents' unsuitable behaviour is connected with children's delinquency. Home visits to a family environment which has not changed and contact with parents who have not changed their unsuitable behaviour of their own accord, slow down the adolescent's rehabilitation.

4) The necessary cooperation of the probation officer and the re-education institution in the shape of mutually shared information and a common course of action is lacking. Their current communication concerning the adolescent's rehabilitation is a mere formality. Social workers' dissatisfaction with this state of affairs draws our attention to the existence of a more general problem – to the problem in the sphere of competences and duties of professional participants in the process of rehabilitation while the child is visiting his/her family, which is not institutionally accounted for.²⁷

5) Working with parents towards a positive change in their behaviour is hampered by the reasons which lead them to poor behaviour. It is significant to determine whether the parents do not know how to behave towards their adolescent child so that they can strengthen their social ties (Hirschi) and in this way also their social behaviour; or whether they are simply not interested in being good parents; or whether the parents possessed no way of strengthening their child's social ties as a result of the weakening of their own social ties. The results of Wilson's research have proved that parental educational behaviour is connected

²⁷ Cf. Article 30 of Law No. 359/1999 Zb.(Code of Law) on the social and legal protection of children.

with the social situation of the family. The weakening of social ties is therefore more probable in parents from lower social classes. Theoretically, working with adolescents' parents from the lowest social classes on changing their parental behaviour, even if in an ideal case where the parents were willing to change, would be made more difficult in most families by the occurrence of social deviation and by the problem of a socially poor, demotivating situation that is extremely difficult to solve (being a problem of society as a whole).

6) The necessary rehabilitating participation of parents from families without social problems in order to improve themselves (which is supported and managed by the auxiliary activity of professionals) is, in some regions, made impossible by an acute lack of social workers in the Czech Republic, but we have found out that their practical cooperation concerning the families of children undergoing rehabilitation could also very probably be complicated by the differences in the perception and assessment of the behaviour of adolescents' parents by probation officers and by employees of re-education institutions.

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New Educational Review



Preschool Pedagogy

Joanna Smogorzewska,
Maciej Karwowski
Poland

Some Social Predictors of Preschoolers' Verbal Creativity¹

Abstract

The article presents new attempt at analyzing preschoolers' creativity. New operationalization of verbal creativity is proposed and empirically tested. This approach consists of such elements as fluency, novelty, neologisms, logic and cohesion in the story, emotionality, a sense of humor and a number of characters in the story. Differences in verbal creativity were assessed due to parents' SES which is also not a well-studied topic in the field.

The article presents the study of 5-year-old preschoolers' verbal creativity and its social conditions. There was an attempt to analyze the differences between children's verbal creativity and to indicate predictors of this kind of creativity. It was shown that there are few differences in telling stories between children from private and state preschools and between girls and boys. The most significant differences appeared between children whose parents have a higher and a lower education. Socio-economic status as an important explanatory variable needs more attention in future studies.

Keywords: *verbal creativity, social perspective in creativity studies, fairytales/stories, the Storyline method*

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Introduction – child verbal creativity in the classic perspective

There were many researchers, especially psychologists, who have studied the subject of children's language development and verbal creativity. The best known are Piaget (his seminal theory of the development of thinking and talking and also his clinical method of talking with children) (Piaget, 2005) and Vygotsky (his view at child speech and thinking) (Vygotsky, 1989). The former claimed that speaking is a sign of thinking, the latter, however, thought that child speech is primal in relation to thinking. Both of them showed interesting arguments to support their points of view.

Chomsky (1986) is also worth mentioning and his writings about creative character of child language, which is shown especially in the creation of new words, fairytales and stories, original metaphors and analogies.

Verbal creativity can be analyzed at least in two different areas. The first one is creative learning of a language (not only repeating words, but also creating new ones), the second is creative use of a language in different situations.

Studies on child language in Poland were realized in Szuman's lab. He observed the development of language in everyday situations. The scholar also wrote about the importance of children's questions, especially about those which children ask. He was even talking about the "age of questions" (Szuman, 1985) and thought that asking questions makes one of the most important aspects of thinking development.

In the 1970s (Waterson & Snow, 1978) there appeared an idea of researching child language in a social context, as a practical ability connected with child development. This new approach to child language was described as communicative competence. On the basis of this approach many new empirical studies were developed. The most interesting are those where the child made up a narrative text or a dialogue with an adult. It was observed that the child is an active creator of a language and can adjust his/her speech to those he/she talks to (Bokus, 1988).

In her studies, Bokus (1991) proposed a new way of analyzing children's fairytales. She proposed to analyze children's stories – episodes as complete (which consist of an outside condition, an aim, an action – steps and a result) and complete – elaborated or incomplete. She also wrote about a field of narration and about a narration line. It seems that in children's stories (which are created on the basis of drawings) the suggested structure is well-visible, which confirms its existence.

Selected social predictors of verbal creativity

Environmental factors seem crucial in the understanding of potential differences in children creativity, especially verbal creativity. Two main lines of work in the field look the most important.

The first hypothetical reason why creativity may be strongly influenced by social factors is based on long tradition of studies on SES-IQ relations. There are hundreds of empirical studies showing the influence of status on intelligence, especially visible in comparisons of high and low IQ groups. There is no place to discuss the consequences of and possible explanations for the differences, especially those of moral aspects (cf. the discussion with Jensen's arguments, i.e. Rushton & Jensen [2005] for summary). The differences between groups are usually significant and correlations among SES and IQ are of moderate size. In one of the best Polish studies (Firkowska, et. al., 1978) on this subject it was proved that social structure has a strong influence on the intellectual level.

It is not very hard to realize that arguments from intelligence studies cannot be used as confirmative statements in creativity studies, simply because creativity is not the same as intelligence. Although the relations between the intelligence level and creativity are beyond doubt, usually they are significant but weak. Typical correlations about .2 make the conclusion possible that there are some common mental processes underlying both intelligence and creativity, however the common variance is extremely low, and the classic threshold hypothesis also lacks empirical confirmation (cf. Kim, 2005, 2008). On the other hand, it is also important to remember that classic sociological works developed mainly by Kohn and his colleagues (Kohn, 1969, 1976, 2006, Kohn & Slomczynski, 2006) showed that social structure influences also personality development. Higher class parents tend to be more pro-creative, strengthening such traits as self-confidence, self-direction and intellectual flexibility, whereas low-income, worse status parents concentrate mainly on obedience and conformity. Because of that, the possible differences in creativity may be attributed to the different socialization practices (Karwowski, 2004).

The second important area of possible hypotheses of connections between social status and creativity lies in the field of sociology of education, especially the well-known works by Bernstein (Bernstein, 1975, 1990). His works on symbolic control and different socialization strategies are known mainly because of showing the importance of restricted and elaborated codes in language development. The economically restricted code is more concrete, simple, closed and it is an effect of socialization in the lower classes. The elaborated code, not always characterized by

flowery use of the language, should be understood as much better at introducing something new, and verbal creativity. It is hard (or even impossible) to be verbally creative using a restricted code, as it is too rigid to overcome language constraints. Bernstein's works showed a clear connection between classes and codes and this is also the rationale for studying this problem in such a way, described below.

As Runco (2007, p. 53) wrote: "although family SES has itself been directly related to creativity (Bruininks & Feldman 1970; Dudek et al. 1994) and more generally to problem-solving strategies (Odom 1967), this is an area of research that is clearly incomplete". It is not clear whether SES is really an independent variable or if it should be treated as a moderator or mediator.

Current study

In the presented research, first of all, it was checked if it is possible to talk about "the child verbal creativity". If yes, what makes the child's fairytales creative? And also, if there are any social predictors of the child verbal creativity.

A few main questions were asked on the basis of the previous results (Bokus, 1988; Kielar-Turska, 2000). The most important question is about the general nature of the child verbal creativity, but also if there are any differences between girls and boys, and between children whose parents have a different level of education, or between children who are attending a private or state preschool.

Participants

The participants of this study were 99 five-year-old children from nine Warsaw preschools (there were four state and five private preschools). In the sample there were 50 boys and 49 girls. 62 children were from state preschools, the others were from private ones.

The parents of the examined children were asked about their education level and about the number of children they had. There were only people with a secondary and a higher education level, and no parents with a primary education level. Also, homogeneity among the couples was strongly visible – the majority of the couples had a higher education level (60.6% – both the husband and the wife), there were 28.3% married couples with a secondary education level. There were also married couples where the wife had a higher education level and the husband had a secondary education level (9.1%), or where the husband had a higher education level and

the wife had a secondary education level (2.0%). Those differences were statistically significant ($\chi^2 (1.99) = 57.6; p = 0.0001$).

Method

Each child was interviewed and asked to answer three questions. The answers were recorded with the parents' and the children's approval. The first two questions were related to verbal fluency ("Could you please think of and list yellow things – as many as you know?") and to verbal flexibility and originality ("Could you think of a special name for this bear in front of you?"). Those questions were connected with potential creativity and were a kind of "creative warm-up". The results of those tasks are presented elsewhere (Smogorzewska, 2009). The third, most important, task consisted in inventing a fairytale. The instruction put an emphasis on the originality and novelty of the fairytale ("Could you please try to tell me a new, interesting story which you have never seen or heard before? Try to tell it in a way other children will not ever tell it."). It was decided not to give the children any beginning of the story and not to ask any additional questions. The main aim was to observe how the children would manage this task. Also asking additional questions would be a cause of episode structure occurrence. The children could say what they wanted (in a free way and about freely chosen subject) and talk as long as they wanted. The children could also stop when and where they wanted and go back to their groups.

Coding and assessment

Eleven categories of assessment were created. There were : the fluency of statement (the number of words the child said), originality (if the fairytale was original or not), novelty (new elements in the fairytale or none), neologisms, logic and cohesion in the story, emotionality (if the story was cheerful or sad), the use of positive words, the use of negative words, dialogue occurrence, a sense of humor and the number of characters in the story. For assessment the CAT method was used; four competent judges (Amabile, 1990) were asked (there was a school teacher, a neuropsychologist – academic teacher and two students of psycho-pedagogy of creativity).

Results

As mentioned above, there were a few questions and hypotheses connected with the research. The first hypothesis was that children from private preschools are more verbally creative than their peers from state preschools. This hypothesis was formulated pursuant to a conviction that in private preschools children have better conditions for development. The groups are smaller, so the teacher has more time to help and observe each child. Children can feel safer. Moreover, their difficulties or their abilities can be seen easier and faster, which should improve their physical and mental conditions (Brzezińska, et. al., 1995; Przetacznik-Gierowska, 1987; Uszyńska-Jarmoc, 2003). However, ANOVA showed that there were not any differences between the children from these two groups. Only in one case (the number of characters) the difference was close to being significant ($F=1.91$; $p=0.17$). The comparison of the means showed that the fairytales of children from the state preschools had more characters ($M=3.18$, $SD=2.5$) than the fairytales of the children from the private preschools ($M=2.54$, $SD=1.6$).

The next hypothesis assumed a significant difference in verbal creativity between girls and boys. This statement was made in support of the fact that children at this age developed a little bit differently. The fifth year of life is a time when children discover some gender differences between themselves. At that age girls seem to have more extensive vocabulary than boys and are more confident about expressing their thoughts and feelings (Brzezińska, 2005; Eisenberg, 2005; Hyde & Linn, 1988; Schaffer, 2007; Turner & Helms, 1999). The ANOVA showed a few differences between the children in creating fairytale. There were significant differences in novelty ($F=3.71$; $p=0.01$) and the number of characters ($F=1.99$; $p=0.05$). In two other cases the differences were marginally significant – i.e.: the use of positive words ($F=1.62$; $p=0.10$) and originality ($F=1.71$; $p=0.14$). The analysis of the differences between the means showed that in those categories the girls had higher results – their fairytales were more novel ($M=1.57$; $SD=0.6$) than the boys' ones ($M=1.18$; $SD=0.84$), also in the girls' fairytales there were more characters ($M=3.3$; $SD=2.35$) than in the boys' ones ($M=2.6$; $SD=2.08$). In their fairytales the girls used more positive words ($M=3.04$; $SD=3.1$) than the boys ($M=1.74$; $SD=2.66$) and they told more original stories ($M=2.61$; $SD=1.32$) than the boys ($M=2.08$; $SD=1.26$).

The next hypothesis claimed that children who have parents with a higher education level tell more creative stories. ANOVA showed that there were significant differences between the children whose parents had different levels of education. In case of the mothers' education level, the significant differences were seen in two

categories: originality ($F=5.42$; $p=0.02$) and emotionality ($F=4.30$; $p=0.04$). In another category – novelty – the difference is nearly significant ($F=2.96$; $p=0.09$). The children whose mother was more highly educated told more original stories ($M=2.58$; $SD=1.36$) in comparison with the children of mothers with a lower education level ($M=1.88$; $SD=1.05$). The same direction of the differences is seen in emotionality ($M=-0.1$; $SD=1.65$ vs. $M=-0.8$; $SD=1.53$) and in novelty ($M=1.46$; $SD=0.79$ vs. $M=1.16$; $SD=0.62$, respectively).

In case of fathers' education level, the significant difference was seen in one category – emotionality ($F=3.81$; $p=0.05$), in another one there was a statistical tendency ($F=1.79$; $p=0.18$). After the comparison of the means it was seen that the children whose fathers were more highly educated told more emotional stories ($M=0$; $SD=1.722$) than those whose fathers had a lower education level ($M=-0.69$; $SD=1.38$). It is also clear that the children whose fathers are better educated told more original stories ($M=2.51$; $SD=1.35$) in comparison with the second group ($M=2.13$; $SD=1.24$).

The aim of the last analysis was to check if there were any predictors for verbal creativity. It was assumed that the most probable predictors for more creative stories were: a kind of preschool (private/state), the child's sex, the parents' education level, and also the number of children in the family. The multivariate analysis of regression was used. The constructed models were significant for: fluency, originality, novelty, and positive words.

For the fairytale fluency significant predictors were: mother's higher education level ($\beta=0.51$; $p=0.006$) and – at the same time – father's lower education level ($\beta=-0.48$; $p=0.01$). For originality the most important predictors were: higher education of the mother ($\beta=0.38$; $p=0.03$) and sex ($\beta=0.25$; $p=0.02$). The most original stories were told by the girls and the children whose mother was better educated. For novelty the predictors were the same: stories with new elements were told by the girls ($\beta=0.02$; $p=0.03$) and the children whose mother had a higher education level (statistical tendency – $\beta=0.27$; $p=0.14$). For the use of positive words the only significant predictor was sex – in the girls' fairytales positive words occurred more often than in the boys' ones ($\beta=0.24$; $p=0.03$).

Discussion

After the presentation of the quantitative data, there is still a question if the analyzed stories can be classified as creative? Looking for results with no point of reference it cannot be certainly said that those stories are creative. But if we look at

them more deeply, it can be said that they are creative. First of all, this task, telling a new story, was difficult for young children. The second remark is what children understand by the word “new” and “original”. It is very probable that it means a story which is new for themselves or a story which they like most. This level of telling stories is also absolutely appropriate for children’s age. In a different study (Kielar, 2000) it was showed that only $\frac{1}{4}$ of children at the age from 4 to 6 could tell a new and original story. Most of them told old fairytales or they included the elements of a few stories. There were also other studies (Uniker-Sebeok, 1979; Applebee, 1978) which showed that the obtained results were typical and characteristic of five-year-old children.

The presented results confirm the importance of socio-economic factors, especially parents’ education level. It is important that the type of preschool (state/private) was not a significant predictor of the children’s results, much more important were the parents educational achievements. This result is strictly connected with what Bernstein wrote about elaborate and restricted language codes. The elaborate language code is used more often by children from families with a higher social status. Their vocabulary is flexible, extended and diverse, which makes communication easier. The restricted language code appears more often in families with a lower education level. This kind of language is poorly developed, the vocabulary is narrower, and there is a smaller number of adjectives and participles in people’s (also children’s) speech. Studies based on Bernstein’s theory (Loban, 1966; Turner & Pikvance, 1971), showed that there is a significant difference in speech of five-year-olds from the middle and working classes, in favour of children from the middle class. In our study the participants were recruited from similar environments in Warsaw, so the variance in SES is relatively low, however even such small variability influences the creativity of 5-year-old children

The second interesting result is the fact that the children whose mothers were better educated than the fathers told the longest stories (almost $M = 280$ words), whereas the stories of the children whose both parents were higher educated had only about eighty words ($M = 83$). This result is in accordance with the results of Nalaskowski’s (1998) study. It was said that mother is the most important person in the baby’s life. What is essential is not only her education level, intellectual abilities, but also her motherly skills and protectiveness towards the baby. Mother in this conception is also responsible for the development of the child’s creative skills.

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New Educational Review



**Pedagogy
and Art**

Anna Łobos

Poland

In Harmony with Nature – Elements of Ecology in Pedagogy and Art

Abstract

The contemporary educational process, in its guidelines, is based on the formation of pro-ecological awareness just in the youngest generation. An interesting way of turning out specific contents by adults makes it possible to bring this theme into effect. There are applied direct and indirect effects. One has to remember the important role of the language used in each area of knowledge. Such an education is conducive to arousing sensibility to the surrounding world, and contact with nature beauty gives happiness and secures a young human being's comprehensive development.

In this paper some notes of selected ecological aspects in pedagogy and art are included. They are mainly focused on language, music and an interdisciplinary educational project realized in Silesia.

Key words: *ecology, education, elements of ecology in pedagogy and art, linguistic image of the world.*

Introduction

The conception of education and upbringing of society aware of the importance of environmental protection should be a crucial aspect of the contemporary educational process. This process is closely connected with young people, so the content that allows to mold a proper pro-ecological awareness has to be shown in an interesting way. Only in this way it can result in the effective and responsible study of attitude towards problems related to the environment.

Environmental problems are strictly connected with ethnic roots. Recent research shows that the absence of a meaningful ethnic culture for many students is both palpable and real. Youth, which have only intermittent contact with nature, are unable to live happily and they have serious problems with their culture identity (Tanaka, 2009, p. 84). As Nancy Wood said "Above all is the long-living spirit/ Which is the thread from generation to generation,/ As long as the land we live on is everlasting,/ And our children have a place to lie down" (Wood, 1989, p. 5).

It is important to teach sensibility to nature from the beginning of the educational process. There are two kinds of contact with the beauties of nature. The first is direct, e.g. walks, hiking trips, direct work with plants and animals during which children can observe interactions of ecosystem elements (Budniak, 2004, p. 325; Lawson, 1971, p. 22). The second is indirect and it concerns art in general, especially works of music, painting or poetry. Both of them make a human being happy and cause their comprehensive, versatile and harmonious development. They also allow them to experience nature with all the senses, which assists impressions connected with nature as well as elementary teaching it and also satisfies the need for uncovering and comprehension of the nature around us.

Children, teachers and artists – cooperation

Nature has always been a source of inspiration for artists and educators. Children have to be taught that man is an inseparable part of nature. In art the phenomenon of nature penetrates the work through the artist's imagination and it is seen in their mind's eye. Then, thanks to the pedagogical gift of people who teach and bring up the young generation, pupils start to be ardent lovers of nature. This feeling comes into being not only by skillfully passed knowledge but also numerous works of art created by outstanding poets, painters and composers assist this process. The word, picture and tone that are inspired by nature make us think of the beauty of the natural world and they help us in the life compatible with ourselves, other people, and nature.

An example of such a trend is the project *In harmony with nature – elements of ecology in pedagogy and art*, which was realized at the beginning of 2009 in Silesia. This unusual scientific, educational and artistic project was carried out by the Department of Music Education and Arttherapy of the University of Silesia in Katowice. Its originator, Professor Mirosława Knapik, attracted to the project a team of outstanding scientists and artists who deeply care about the education and upbringing of young people steeped in European culture. It was a return to

the sources of the European thought in its humanistic basis, which appreciate the harmony of human development. The program of the project encompassed several types of activity – there were concerts, exhibitions of pictures and photos, film projections. The title harmony was visible everywhere – it was a noticeable phenomenon between artists and audience, the young and the old, the healthy and the handicapped, teachers and students, and so on.

All projects of such a type conform to the foundations of authors and participants in the well-known Summerhill School pedagogical experiment (Appleton, 1992, p. 69) focused on the ecology of childhood. Its basic question is: how can we best nurture the child and allow it to take its natural course? In such artistic and pedagogical projects we do not only teach children but learn from them – for example, their delight, candour, engagement and getting profits out of nature's wisdom.

Language

The language is a basis which determines the process of upbringing of each human being (Malinowski, 2002; Kubica, 2000). The linguistic image of the world is included in the vocabulary and grammatical structures of a particular language, i.e. the ones which concern the content plane (semantic level) and the expression plane.

Words and structures used to describe the world around us give much information about how the relationship and attitudes towards the natural environment are perceived by the inhabitants of particular places, regions, and countries. Therefore, it is so important to study linguistic behaviour. Polish peasants' stances on the environment that are preserved in their language (often in local dialects) have an expressive character (Kurek, 2004). The pro-ecological stance was natural for Polish rural area inhabitants. It is authenticated by numerous examples of preserved linguistic constructions, rich in synonyms of names for plant (Pelcowa, 2001) or bird species (Kucharzyk, 2007). These examples should be included in the education of youth, especially now, at the beginning of the 21st century (Simonides, 2007). The youth of today have to know that the Polish peasant has inherited the knowledge of the responsible way of farming from his ancestors because only respectful handling of the soil and domestic animals or game made it possible for him to survive. The ecological stance is natural in the Polish culture of rural areas and it is not an invention of present times. Unfortunately, the young generation are learning it as something new, which is caused by the predatory exploitation characteristic of the totalitarian regime after the Second World War.

Poetry and music

A teacher well-prepared for their work appeals to rich folk icons connected with wide nature (mountains, water, trees, etc.) as well as domestic fauna and flora. The exemplification of that creative activity is the set of Christmas carols and songs, the largest and the oldest in Polish culture. The common knowledge of them results from deeply ingrained Catholic Church ceremonies, especially ones connected with the experience of Christmas (Łobos, 2008, p. 188). The harmony of the natural world, appearing in Polish Christmas carols, always brings to mind the history of their origin throughout the centuries, which helps teachers to introduce the young generation to the world of culture. A valuable tool, useful in the education and upbringing process, could be, inter alia, the artistically worked out Polish Christmas carols and songs, which are found in Polish folk songs and dances inasmuch as they are worked out by brilliant, outstanding, multi-talented poets, composers and artists. Namely, teachers can use the recently edited album with Witold Lutosławski's *20 Christmas Carols* (Lutosławski, 2007). This album is unusual owing to the mature interpretation and school age of the performers, who are mainly students of the Karol Szymanowski State Grammar Music School in Katowice (the choir was prepared by Mirosława Knapik, the orchestra was conducted by Szymon Bywalec). Christmas carols are miniature masterpieces. If they are used in the education process, then one takes note of the importance of the lyrics that build the essence of life principles, which are connected with harmonious living with God, fellow man and the world of nature. This knowledge is the inheritance from our previous generations with whom we have co-created European culture for over a thousand years.

Singing is the most effective way of values transmission because the beauty of music allows to deeply experience the essence passed by the semantic level of poetry. A carefully written and composed piece of art pierces into the depth of young souls, teaches them sensibility to the world around – people, animals and plants. This knowledge was carried into effect by Maria Konopnicka in her countless poetical works dedicated to children. Before the Second World War Maria Konopnicka's songs were very popular and the most frequently sung secular songs at homes and schools. For example, *Songbook for Children* by Maria Konopnicka and Zygmunt Noskowski contemplates the beauty of Polish scenery as well as its admiration. The songs praise the inhabitants of Polish picturesque countryside, who take care of their family and neighbours.

Nowadays these songs are almost unknown to youth because they were prohibited by censorship after the Second World War (Łobos, 2007). Hence, young

people are limited to singing and listening pieces promoted in the mass media. It is a truism that ecological songs have a stronger influence on youth than biology lessons at schools so many adults attribute great significance to these songs. Unfortunately, many authors of these “ecological” lyrics are surprisingly ignorant about environmental issues.

Music

The appropriate school education brings children closer to the cultural output of their region, country, etc. The nature was always a crucial imperative for composers living in the previous epochs – in principle, from the beginning to the present day. The output of Polish composers, such as Karol Szymanowski or Wojciech Kilar, is particularly attractive for young people. It is caused by the fact that these compositions are devoted to mountains – the Tatra Mountains are an important element in the Polish music landscape; simultaneously, they strongly appeal to feelings and show youth the beauty of classical music.

The music education of children was the passion of the Hungarian composer and educator, Zoltan Kodaly. His heritage has two aspects – one has to be in harmony with oneself (it can be reached by active contact with music, starting in childhood) and one has to live in harmony with nature (by casual, spontaneous contact with folk music in the family).

It is important during the work with young people that the background is always a specified leitmotif. Nature present in musical pieces is an extremely interesting subject. It can build the atmosphere of eeriness or mystery, sometimes it is a background for essential historic events (it is also an important problem in the young people education). Descriptions of nature are very vivid, which frequently gives an impression that they are very transient. Music education should make students aware of the role of nature in music, i.e. nature not only evokes idyllic sights but it can also arouse emotions, for example patriotism.

Final remarks

The delights of landscape beauty, the contemplation of phenomena that occur in the natural world are an inseparable part of hikes and holiday trips to many charming nooks of our homeland. A proper attitude towards the world of nature, i.e. one of respect and humility, is molded from early childhood on by direct contact with

fauna and flora. With time, the reflections resulting from personal experience and wonderful pictures which are the artistic interpretation of outstanding poets, musicians or painters complement one another. A human being, inclined in this way, is capable of making use of the knowledge in the field of environmental protection in action – knowingly and responsibly, as Józef Tischner said.

The project *In harmony with nature – elements of ecology in pedagogy and art*, mentioned in the first section, was a fruitful undertaking. Young people willingly took part in the concerts, exhibitions and workshops. For the sake of its interdisciplinarity (the linguistic, literary, pedagogical, artistic and philosophical problems were considered) it may be an inspiration for holistic education of Polish educators.

It is worth noting that experiments undertaken in other countries show that pro-ecological activity in after school clubs makes children benefit from a diversity of interactions, such as age, gender, ethnicity, different skills which not only play an important role to keep children motivated but also contribute to the formation of their self-identity (Calderon, 2009, p. 9). Simultaneously, one has to remember that “environmental education must incorporate at the outset training in basic pedagogic techniques as well as environmental matters. [...] Environmental education must lead to a way of thinking rather than provide ready made prototype solutions” (Lierop, 1998, p. 29).

Children frequently join spontaneously, willingly and enthusiastically in pro-ecological activity (e.g. they plant trees or collect recycling paper) but they simultaneously perceive the hypocrisy of pseudo-environmentalists and politicians that are responsible for the environment condition. The authentic pro-ecological standpoint arises thanks to education and upbringing compatible with oneself, other people and the environment, characteristic of Polish tradition. This standpoint surely will not be a result of expensive conferences or gaudy campaigns organized by ecologists who are advocates of eco-terrorism, which is based on disrespect for human life and spoiling somebody else’s property...

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