

# Students' Satisfaction with Communication in University Teaching

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## Editor's Preface

The fourth number of *The New Educational Review* in 2015 is the forty second issue of our journal since the start of its foundation in 2003. In this issue there are mainly papers from: Colombia, Croatia, the Czech Republic, Nigeria, Poland, Republic of Korea, Peru, the Slovak Republic, Slovenia, Russia, Spain, Taiwan, Turkey, Ukraine, and the United Kingdom, 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: General Didactics, Social Pedagogy, Pedeutology, Special Pedagogy, Psychology of Health, Letter to Editor and Chronicle.

In the subject session "General Didactics" we publish five articles. The objective of the article by Alicja Gałązka and Małgorzata Łączyk is to present the authors' reflections on the role of corporality in drama and to indicate the specific nature of kinaesthetic and corporal creativity observed in children, dominated by diverse forms of expansion. The aim of the study by Miriam Agreda Montoro and her co-workers is to describe and analyse faculty members' training in ICT in all faculties of education within Spanish public universities. The results of the research carried out by Carme Pinya Medina and Maria Rosa Roselló Ramon indicate changes that should be introduced in the design of the learning activities and the provision of feedback to utilise the blog as a tool to promote the development of professional skills. The article by Bronisław Siemieniecki and Kamila Majewska is a summary of one part of the research conducted in the Department of Didactics and Media in Education, regarding the use of tablets in the teaching process.

In the subject session "Social Pedagogy" we publish twelve articles. The study of Dana Hanesová focuses on some aspects of plurilingual and intercultural competences of future teachers – their theoretical outcomes and data from the comparison of two research studies. The paper by Marija Mrazović and Snježana Dubovicki examines satisfaction with university communication in students of private and state universities, which consider communication as one of the most

important competence frameworks. Rimma Mukhametovna Fatykova and Darya Vasilyevna Mingazova present the authors' methods of determining teenagers' disposition towards destructive communication, identifies the main types of destructive communication and provides their psychological characteristics. The aim of the paper by Tomáš Jablonský, Olĝa Okálová and Stanisław Juszczuk is to provide a research overview of practical information about Fetal Alcohol Syndrome (FAS or Fetal Alcohol Spectrum Disorder), a presentation of the 4-Digit Diagnostic Code method and a sample of the research results by the first Centre of Diagnosis, Treatment and Prevention of FAS in Slovakia. The article by Violetta Lappo deals with the problem of finding new means of spiritual education of high school students. The study by Alejandro Valencia and his Colombian co-workers examines factors involving the acceptance of social networks for academic purposes. In their article, the researchers from Nigeria I.O.O. Amali, A. Yusuf and M.B. Muhinat describe the impacts of schooling and human capital-development on agro-based rural communities in Southern Benue, Nigeria, from the perspectives of farmers and non-farmers. The description of a reconfiguration of social behaviours and the role of the teacher in the virtual class in Poland and South Korea can be found in the paper by Stanisław Juszczuk and Yongdeog Kim. The paper by Vincent Charles and Tatiana Gherman focuses on assessing the dimensions of brand equity of business schools from the MBA-enrolled student's perspective, with a specific reference to the Peruvian market. The research presented by Jaromír Feber and Jelena Petrucijová focuses on the professional ethics of social work in the context of the philosophy of education. The study by I.O.O. Amali seeks to examine the educational approaches and roles of the cultural puzzle and number riddle game used as an evening activity in the development of children's cognitive ability. The paper by Agata Rzymekka-Frąckiewicz and Teresa Wilk addresses the issue of the concept of lifelong learning based on Polish experience.

In the subject session "Pedeutology" we publish two articles. In their article, Snježana Dubovicki and Maja Brust Nemet, by triangulation of the results of a questionnaire, sociometry and interviews with students of teacher study, describe a significant level of their social competence. The study by Sonja Čotar Kondrad examines the relationship between metacognitive learning strategies and motivational beliefs, predicting academic performance of student teachers.

The subject session "Special Pedagogy" consists of two papers. The article by Pavol Bartík and his co-workers from Poland deals with evaluation of general motor performance in older school age pupils with a moderate mental disability. A. Parrilla, E. Martinez-Figueira and Raposo-Rivas in their paper show how a par-

ticipatory study on inclusive education was designed and developed in a town in the northwest of Spain.

In the subject session "Psychology of Health," Stanisław Seidel focuses on the differences in body dissatisfaction among young men who work out to reach different aims.

The subject session "Letter to Editor" contains a research report prepared by Dana Hanesová.

In the "Chronicle" we publish two texts dedicated to the memory of Professor Czesław Kupisiewicz, Honorary Editor of *The New Educational Review*, and real member of the Polish Academy of Sciences. The first has been prepared by professor Bogusław Śliwerski, member of the Presidium of Central Commission for the Scientific Degrees and Professor Title, and President of the Committee of the Pedagogical Sciences of the Polish Academy of Sciences. And the second one has been prepared by professor Jan Łaszczyk, chancellor of the Maria Grzegorzewska Academy of Special Education in Warsaw and by professor Stefan M. Kwiatkowski, vice-chancellor of this Academy.

We hope that this edition, like previous ones, will encourage new readers not only from the Central 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*, according to the formal requirements placed on our website: [www.educationalrev.us.edu.pl](http://www.educationalrev.us.edu.pl) – Guide for Authors.



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**General  
Didactics**





## **The Corporality Aspect in Drama and Creativity of Children with Diverse needs for Hubristically Motivated Expansion**

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### **Abstract**

The objective of this article is to present the authors' reflections on the role of corporality in drama and to indicate the specific nature of kinaesthetic and corporal creativity observed in children, dominated by diverse forms of expansion. The study consists of a theoretical and an empirical part. In the former one, the authors will present some fundamental scientific assumptions to justify their belief in relations occurring in the area of drama – corporality – need for expansion, which ensured also the space for empirical exploration taken up within the framework of experimental studies. Yet, before any observations made upon practical studies are discussed, we shall outline the scientific interpretation of assumptions verified throughout our study.

*Keywords: pedagogy of creativity, drama, children with diverse needs*

### **Some selected contexts for discussions on the body and corporality – role of the body in postmodernity**

The central point of reference of recent study has been the notion of the body, or rather corporality, thanks to which man not only becomes “visible” for his environment, but also liberates his personal self, embodied in him. Today, such forms of expression through the body turn into a challenge, as considering the perspectives and objectives of pedagogy we attempt, throughout the educational process, to elaborate the grounds for beautiful and noble “being” (i.e. manifesting oneself),

however at the age of the dominating tendency to “*commodify*” the body (...) this challenge appears extremely difficult to face. Current processes facilitating instrumentalization of the body provoke some thoughts where respect for the body and corporality becomes a unique, recessive, or even latent trait of contemporary people. This may be exemplified by the following statement: “A consumer culture triggers “*commodification*” of the body (its colonization by different branches of services, revealing, differentiating and fulfilling its needs”, (Jakubowska H., 2009, p. 20, as cited in Baldwin et al., 2007, p. 308), or a thought by M. Foucault (1995) quoted in the paper by K. Krasoń (2013, p. 114) The body “*authenticates*” a person because thanks to it she/he is visible, therefore it also wants to be recorded, records everything, all that in a transient and superficial manner ...” (Krasoń K., 2013, p. 114, as cited in Horney, 1993, p. 94)

The quotations chosen from among numerous ones, undoubtedly vivid, manifest the concern about the approach to the body showed by contemporary man. The body has become an element of the market game, a permanent element adding impetus to the demand and supply mechanism. It appears as a conglomeration of traits and needs, to be then colonized and annexed. Also, the rule of the so-called biopower (Jakubowska H., 2009, p. 20) has recently become truly tangible, manifested through the cult of the body it rules, or rather, through which it rules. Taking into account that throughout the post-industrial age and consumer culture man has been reduced to a purely organic “formation”, the more important are any steps taken to revive the ideas of a complementary approach to the spheres of *soma* and *psyche*. Unfortunately, considering today’s reality, it may be assumed that such a focus on the body is far from well-balanced as, treated marginally, it happens to turn into a “tool” ruled by the mind, overwhelmed with fear or, on the contrary, is idolatrously sacralised. Finding, then, the golden mean requires understanding and acceptance of synergy occurring between the body and soul (self-awareness), which should open the area for educational activities, accomplished through art.

Contemplating one’s own corporality may be achieved through a variety of artistic forms, e.g. fine arts, music, and particularly theatre and drama.

## **Body and corporality in drama**

In drama, similarly to theatrical patterns, the body plays a specific role, namely that of expressing oneself. It is through the body that “knowledge is acquired”. It makes it possible to perceive reality in a sensual way, thus underlying sensations,

experience, emotions as well as any change within the cognitive structures, which is fundamental for the shaping of identity. The body-identity relation is two-directional, however some specific apology of the body and of corporality, discussed in the context of their role in drama, is the consequence of the basic assumption, well documented now in the area of neurodidactics (e.g. Żylińska M., 2013), stating that “activity carves the brain”. Obviously, the notion of activity is extensive and complex, yet activity is associated here with some specific acts, where movement, any form of expression, any action observable directly or contained by the sphere of observation and reflection or acts of creative or analytical thinking require fundamental awareness of one’s body. Any form of human activity is directly associated with or even determined by the ability to receive stimuli, where soma and psyche act inseparably. Drama makes it possible to understand the essence of one’s corporality and extends the opportunities of employing the body as the means of communication. It ensures better chance for realizing one’s own concept (“self-feeling”) and being aware of others (Poston - Anders, 2012). The body has been programmed to perform the kinetic function, so important in relieving, learning and transgression. Under appropriately arranged conditions, corporal experience and acting through the body affect transformation in the realm of “psyche,” which enables nearly permanent transformation of the human being.

## **Pantomime and movement in drama**

The capability of corporal representation of a character, understanding oneself and one’s body through movement (pantomime) are key issues. Stimulated in a creative manner, movement is the natural activity of children, who mimic and join drama games already in their earliest years. Making use of movement (the body) and pantomime develops consciousness of one’s own body (“I” related to others), awareness of the body and of its abilities to “communicate” (stories, narration) and to express emotions. Miming can be defined as communicating through gesture and action and it is primarily non-verbal. It is a commonly used term and most students tend to engage easily in mime-based activities. Miming is particularly helpful for enhancing students’ knowledge of non-verbal communication (body language) as well as characterisation.

Any practice the body is “involved” in determines knowledge, emotions, sense of satisfaction, happiness (or lack of it) as well as open-mindedness, curiosity and willingness to know and to learn. From the neurobiological standpoint, some

positive experience recorded by the brain and resulting from corporal sensations may induce certain chemical processes participating in the development of, e.g., intelligence, learning skills or competence. Therefore, from the pedagogical perspective, it is important to develop the capability of appropriate adoration of corporality, interpreted as respect for the body, thanks to which and through which consciousness, self-awareness and identity are built. The essence of drama is to “walk into” a situation and to experience what is partly fictitious and partly real. The body, or rather body-awareness, is a major factor of drama strategies, ensuring self-discovery, learning new situations and, most of all, relieving oneself of one’s own limitations, which cease to exist while acting, yet under the protective umbrella of fiction.

### **Drama as a teaching and learning method**

Drama makes use of and develops a variety of intelligence patterns and offers multi-sensory access to pupils with diverse sensory representation and learning styles. Drama strategies and techniques comprise and develop all types of intelligence. Drama allows pupils to receive and generate information through all sensory systems and different types of intelligence.

The most important among the types of intelligence, discussed in the context of the role of corporality in drama, are the following: spatial intelligence – drama makes use of both, physical and interpersonal space; in practical and symbolical terms we work using the body and space; kinaesthetic intelligence – in drama we use movement and a variety of gestures and paraphysical behaviours. This is especially true in the movement theatre and in dance, allowing for the development of motor coordination and a better awareness of one’s own body.

Focus on such selected types of intelligence results from the design of empirical studies, attempting at the description of the use of space as well as manifestations of their creative kinetic expression (corporal-kinaesthetic intelligence). The evaluated children showed different forms of expansion which is, according to the assumptions of the concept by J.Kozielecki, motivated hubristically, i.e. by the need to confirm one’s own value.

## **Basic assumptions of the measure of hubristically determined expansion – distinguished expansion measures**

The observation of children carried out during studies within an earlier project headed by K. Krasoń<sup>1</sup> effected a specification of forms of child expansion. The following forms have been singled out: positive affective expansion (PAE), positive rationalized expansion (PRE), ambivalent expansion (AE), passive orientation (PO), and ostensible expansion (OE).

All the distinguished types of expansion have been described in detail in the article *Hubristic need and the creative power of children during early school education and the contemporary educational challenge* (Łączyk M., 2015, pp. 307–324), so at this point only a synthesis of premises about this subject matter will be made. Their characteristics included in this study are necessary due to the fact that they constituted the foundation for the construction of a tool (the expansion questionnaire), which was used to gather empirical material at the pre-test and post-test stage of the study described in this paper. The expansion questionnaire was used to determine which of the children are more oriented towards transgressive actions, and which of them prefer adaptive behavior.

The first and most desirable kind of expansion, due to the potential achievements of children, is typical of children that are open, bold and tend to be balanced. They are not afraid of challenges. They undertake various tasks and usually their execution is crowned with success. These children are likely to experience success, so their hubristic need is satisfied and natural self-regulation of behavior oriented towards new achievements occurs. These new achievements are an indicator of transgression. It has been described as a positive rationalized expansion. Another possible type of expansion is identified based on similar characteristics and behaviors, but affective and compulsive behaviors are more pronounced in this case. This type of expansion also allows the child to satisfy the “need for growth” and is associated with activities geared towards achieving new goals. It has been described as a type of positive affective expansion. Another model of expansion is ambivalent, which means that the need for growth in the child is situationally stirred up. It is determined by their character, coupled with the situation that they find themselves

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<sup>1</sup> Project of innovational and scientific pedagogical experiment – *Updating the modal and creative potentiality as key competences of 1<sup>st</sup> – 3<sup>rd</sup> grade pupils by integral cultural expression found in visual arts* approved and referred for execution by the Minister of National Education on June 24, 2014 (DKOW.WEPW.5019.15.2014). The experiment was conducted as part of the cooperation of the Pedagogy of Child Creativity and Expression Department of the University of Silesia with Helena and Ignacy Fick 1<sup>st</sup> Primary School in Mysłówice.

in. Such a child oscillates between adaptation and transgressive objectives. The latter two types of expansion are the apparent expansion, manifesting behaviors that enable the child to draw attention, but have nothing to do with progress. Finally, a completely defensive type of behavior has been defined, referred to as passive orientation. This type of behavior completely dissuades the child from transgressive actions and generally indicates lack of hubristic motivation.

An important assumption (appearing as interpretation of the specification scheme for particular expansion types) is associated with the hubristic need, which, expressed generally by Józef Koziński (2002, pp.118–119), decides upon dynamized human behaviours in terms of positively understood self-promotion. (Koziński J., 2002, pp. 118–119). Such a need is responsible for motivation to undertake tasks – “challenges”; increased greed; evidence of one’s own effectiveness; it facilitates transgressive activities and it may be assumed that it is their driving power. Its nature or force is diverse depending on the child’s experience. Those who build favourable opinions of themselves, associated with the experienced satisfaction of cause will rather tend to confirm such merits and exploit situations making it possible (challenges). Manifestations of this are different.

## **Methodological grounds for the Research**

The empirical material below is the result of studies conducted by Alicja Gałązka, PhD, and M. Łączyk, PhD. The objectives of the investigations were as follows:

- to establish the forms and measures of expansion in the children evaluated as well as manifestations of their corporal-kinaesthetic creativity;
- to establish potential changes in expansion, manifested by children, as well as changes in their corporal-kinaesthetic creativity due to drama applied.

The method of study was an individualized experiment.

Variables: X – drama, Y – corporal-kinaesthetic creativity; kinaesthetic-corporal; y<sup>2</sup> – expansion.

Taking into account the experimental nature of the study, assuming concurrence of particular traits and, first of all, changes in the affected spheres, the following hypothesis was made:

Drama activities will enhance strengthening of hubristic motivation, hence the changes in children’s expansion as well as alterations in the sphere of kinaesthetic-corporal expression (creativity).

**Procedures and population.** The study was carried out from February to April, 2015 in a private, bilingual nursery school in Tarnowskie Góry. It comprised a group of 9 children, aged 5. The first stage was a pre-test in the area of kinaesthetic-corporal expression (creativity). During the second stage, an experimental variable (drama activities) was introduced. Stage three was a post-test to evaluate manifestations of creativity and kinaesthetic-corporal expression as well as expansion forms preferred by the children.

## Test results

Potential indices of corporal-kinaesthetic expression

- harmony of movement;
- agility;
- suppleness, springiness;
- motor skills (large, small);
- precision and flexibility in bodily expression of diverse emotional states;
- narration through movement;
- imagination and kinaesthetic expression;
- sense of balance;

### Points scored by children in the area of expansion

Score	Children lp.	Expansion measure				
		PRE	PAE	AE	PO	OE
Pre-test	1	9	6	2	2	2
Post-test		9	5	3	2	1
Pre-test	2	7	5	6	3	7
Post-test		8	4	3	0	0
Pre-test	3	5	7	4	1	4
Post-test		8	6	3	1	2
Pre-test	4	4	3	3	3	2
Post-test		5	3	2	3	0
Pre-test	5	2	0	8	6	7
Post-test		5	2	5	4	7
Pre-test	6	2	6	5	2	5
Post-test		3	5	2	1	2



Score	Children lp.	Expansion measure				
		PRE	PAE	AE	PO	OE
Pre-test	7	1	5	6	3	4
Post-test		3	5	4	2	2
Pre-test	8	7	7	4	1	3
Post-test		8	6	3	1	1
Pre-test	9	6	8	5	4	2
Post-test		7	6	4	2	1

## Synthetic result

The results in randomly selected children (presentation) indicate that drama is a method which, in the case of children showing dominant **rationalised** or **positive affective expansion**, does not alter the mode of their performance significantly. The children usually scored similar values during the pre-test and the post-test and, more importantly, the nature of their expansion did not change.

The group of “selected” children included a child (5) characterized by withdrawal behaviours, yet the post-test (after drama activities) results pointed to specific progress. The evaluation made showed that the pre-test results indicated high ambivalence of expansion with passive and ostensible orientation. In such a case, employing drama could play the role of a “corrective” factor, although it should also be accepted that the minor change “effect” in scoring was accidental or due to some other variables.

What is intriguing are the results of child no. 2, who showed high pre-test scores of rationalized positive expansion, yet it was assessed as one showing “ostensible” expansion (likely to manifest some type of confrontative expansion). Nevertheless, the post-test results showed a lower degree of precaution.

In child no. 3 the results revealed some progress.

In child no. 4 the scores were similar throughout the measures of expansion.

Child no. 6 was described by the pre-test as showing affective expansion patterns, however scored high values of ostensible expansion. Most probably, such a discrepancy was due to difficult explicit evaluation of predilection in the child showing remarkable lability during this period of development. This assumption is also true for other children, other results however, are rather dichotomous.

The results of the next child (7) may be interpreted in a similar way.

Children no. 8 and 9 show a high and also constructive scope of expansion (positive rationalized and positive affective), clearly dominating (considering the scores) the measures of ostensible, ambivalent or passive expansion.

The children participating in the study (thanks to intensification of drama) better expressed their emotions through the body (improvisation), showing also improved coordination, cohesion and fluidity of movements.

Observation of the children taking part in drama also showed that their expression as well as corporal-kinaesthetic creativity increased thanks to the use of drama activities.

## Discussion

The ability to physically represent character and understand bodies through movement and mime is central to effective engagement in drama. Imaginatively derived movement is a natural activity in children who mimic and engage in drama play from a very young age. Drama in the classroom can be linked to those prior ways of doing as long as a safe space is established that provides children with security and confidence of the teacher and their peers. Working on mime and movement activities early in a drama program provides foundational activities and skills that will support ongoing work across the other forms of drama and allow for tools to explore the various elements.

In general, drama activities for mime and movement were used to support:

- body awareness (one's own and in relationship to others)
- understanding of the body and its ability to communicate a story (mime)
- understanding of the body, its parts and their ability to express emotion
- early development of characterisation

Mime and movement activities are often closely aligned with drama games and so they also provide effective warm-up, cool-down and simply fun activities. It is crucial that plenty of time is spent working with children to develop body awareness and an understanding of how their bodies can be used as a powerful tool for communication and expression of their creativity. It is easier to understand emotions when performing a physical activity during interpersonal development. The group of children reading a story and then depicting the scene with toys were better at comprehending the text and emotions presented. This brings us to 'embodied learning'. Some of these 'languages' the body uses are sensory experiences (smell, taste, sound, touch, vision, etc.). They are essential in saving and processing new

information. Touching a soft bunny for the first time is a sensory and therefore physical experience. This sensation occurs in children's hands and is registered in their neurological system. This is a sensation that will stay with them, possibly coupled with an image or smell. The next time a child feels, sees or smells the same or a similar thing, he/she is able to recall the sensations he/she has felt before. Empathic processes can also be attributed to sensory experiences. 'Embodied learning' challenges the formal educational form of presentation in plenary instruction, with little differentiation in the levels of subjects and children generally sitting in rows or groups, at desks – designed to accommodate developing 'knowledge above the neck'. Up to now, children have been allowed to walk around only during very few subjects, mostly the 'playful' classes such as art and physical education. But there is much to be said for a change in these settings. If the physical movement primes other constructs (like language), then learning via movement may add an additional modality and prime for later recall of knowledge. If instructional designers create more opportunities for physical, embodied learning then children may be able to utilize more neural connections -via movement – to aid in recall of new knowledge. The conducted research proved that drama can develop children's ability to express their emotions and knowledge in a creative, kinaesthetic way.

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## A Study on ICT Training Among Faculty Members of Spanish Faculties of Education

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### Abstract

Acquisition of digital skills by faculty members is a significantly important step when it comes to integrating ICT in teaching. In light of that, this study aims to describe and analyse faculty members' training in ICT in all faculties of education within Spanish public universities. The paper hereby presented describes results from 1,145 professors, obtained by an *ad hoc* online questionnaire. Both data and results have been obtained from one of the instrument dimensions: received teaching training and professors' perception of their own training. This instrument consists of 25 items. Results show the need for more profound training regarding the optimisation of ICT didactic and pedagogic potential in class, as well as an integrated approach to pedagogy, digital literacy and knowledge.

**Keywords:** *ICT, faculty members, training, higher education, digital skills, technology enhanced learning*

### Introduction

Technology is evolving so fast that faculty members not only need to master contemporary ICT tools, but also to keep a comprehensive approach in order to face the implied continuum this evolution results in. Given this situation, professors face the challenge of being ready and trained to implement new learning environments, and also the need for mastering ICT in their professional life. Thus, faculty members play a new role, in which they become the origin of these new situations within the new learning environments where the teaching/learning

process takes place: they are their students' mediators, tutors and guides, all at the same time (Cabero & Román, 2006; Sanz & Zangara, 2013).

Professors face a serious amount of pressure because of the need to update and renew their pedagogy towards ICT. This situation may result in a confidence loss and can also be the origin of their refusal to implement ICT in their teaching practices. This refusal can be explained by their inability to decipher the pedagogic potential of technology when it comes to helping their students to achieve a specific goal, so they decide to keep the traditional approach to the professor's role.

Shaltry et al. (2013) define six different stages of the decrease in faculty members' scepticism towards the use of new technologies in class. Although these stages are set within an online learning environment, we think they could help to bridge the gap between technology and teaching professionals. A cycle of six stages is then established: (1) awareness of online learning, (2) rejection of online learning, (3) understanding of all the possibilities online learning offers, (4) online learning practice, (5) sharing online learning resources and activities, and (6) being in favour of online learning.

We can conclude that faculty members must be aware of the importance of their digital skills: they must understand all the new possibilities ICT offer, use apps that may be useful for them when meeting the objectives of their curriculum planning, be aware of the importance of those objectives, and the importance of sharing their experiences in class to recommend the most useful resources. But this is not a one-size-fits-all and not everything works in every situation, although this is a very common approach, which leads teaching professionals to use every single new app. This may be one of the problems faculty members have to solve: new technologies are not a panacea for education and they cannot possibly give a solution to every single problem that teachers may encounter in class or in teacher training. We need to establish a difference between quality and quantity in the pedagogical ICT use.

Cabero (2014) argues that faculty members must receive conceptual training in ICT within the educational context: they need to learn how ICT transforms and supports the learning environment. This may help to change the view we have about ICT and will help faculty members to update their work as well as to elaborate their own contents and educational resources. This will result in a change of their role of repeating other people's experiences and techniques.

According to Méndez (2012), "education professionals must update their methodology constantly. Teachers need to master ICT in a pedagogic way: they will always play a major role in the learning process as well as in the teaching of ethical and moral behaviours. They are in charge of modelling collective intelligences,

encouraging future citizens to take more responsibility for themselves and society in general” (p. 21)

If we take into consideration the challenges faculty members in the Spanish faculties of education face, we can see that universities may have a lack of integration, efficiency, quality, flexibility and, last but not least, transformation and innovation of the educational experiences. All of that happens as a result of the gap between what is taught in class and what is required on the labour market nowadays. Students receive training that does not provide them, or teachers, with the appropriate tools and skills to develop their professional activities in the modern world. On top of that, curricula lack flexibility, they are too traditional and become out of date in this globalized world of ours.

This need for initial and constant training for professors has paved the way for institutions, both public and private, which offer a wide range of courses on education and ICT. Most of these are held online or with a semi-attendance format, in order to encourage this so-called pedagogical recycling (Cobo & Moravec, 2011; Schmidt, Geith, Håklev, & Thierstein, 2009; Stoyanov, Sloep, De Bie, & Hermans, 2014).

The teaching profession and teacher training are vital and they gain even more importance because these concepts are evolving. Marcelo, Mayor & Yot state that “[the teaching profession] is becoming a knowledge profession, not only because knowledge may have been or may be the core of the profession itself, but also because teaching professionals design learning environments and have the ability to make better use of the spaces where knowledge occurs” (2011: 2)

A study on the level of digital skills among the newly graduates in infant education conducted by the University of Alicante shows very interesting results. The skills were divided into four groups: technological literacy, intellectual work instruments, information processing and dissemination, and communication tools.

The highest ranked item in the study is one in which “[the subject] shows an interest in updating his/her knowledge about ICT”. Nevertheless, subjects admitted they had a higher level when they worked by themselves rather than in groups, contrary to what is expected by EHEA guidelines. This item is followed in the ranking by searching skills, localisation skills, and information evaluation and recovery skills.

“Website analysis and evaluation” was considered as a less important skill. This result allows for a conclusion that this may be so because the link students establish with websites is not seen as important enough (Roig & Pascual, 2012).

One of the most important studies on ICT skills among faculty members was conducted by Prendes (2010). Its objectives were to create a selection of ICT skill

indicators and afterwards work on a curriculum focused on the acquisition of those specific skills and their improvement.

A remarkable step ahead has been made by Rovira i Virgili University through the development of a digital skill self-assessment tool (INCOTIC). This tool is addressed to first-year students and its main goal is to change both the curriculum and the teaching methods to meet the students' needs. It also aims to pick on good methods and detect what is working and why. This tool helps professors to design individual training plans, which is the starting point of a monitoring process, and it also offers the possibility of providing a final assessment to develop an appropriate and high-quality training process (Gisbert, Espuny & González, 2011)

After having discussed all of the above, some questions arise concerning the ICT training faculty members are provided with. We need to answer these questions in order to suggest ideas to improve this training and support the updating process: What kind of ICT training do professors have? Which training options do they use? Does this training provide professors with the skills needed for their professional activity? What improvements does this kind of training need? Do we provide our professors with good-quality training which results in gaining digital skills?

In light of these questions, we designed our research work, which aimed to describe and analyse ICT training among faculty members of Spanish faculties of education.

## **Research Methodology**

After having revised the literature on the topic and posed our research question, we decided to use a descriptive methodology, due to our intention of describing some aspects of educational reality. Our research design was based on a non-experimental research frame. This is the main reason why we used a survey as a research tool. More specifically, we used a questionnaire in order to collect data. The mentioned questionnaire had been designed ad hoc after an in-depth literature revision.

Population consisted of the whole of the faculty members who taught at Spanish faculties of education during the 2013/2014 academic year. Given this characteristic of our target population, we covered almost 100% of the working professors, so there was no need to sample or to determine the representativeness of the sample with the use of stratified random sampling, cluster sampling, random sampling, etc.

For our study, we took into account the following sociodemographic variables: gender, department and university, professional status, and teaching experience. The questionnaire contains four dimensions and 118 items. We analysed and collected all data to reach our conclusions from the data obtained from dimension three, which deals with ICT training among faculty members. Dimension three consists of 26 items, classified using a four-point Likert rating scale –from none/non-existent to very high.

## **Research Results**

We worked with a finite population: 8,013 professors. We obtained a data-producing sample of 1,145. The dimension reliability indexes are as follows (Tables 1 & 2):

**Table 1.** Reliability indexes. Cronbach's Alpha

Cronbach's Alpha	N of elements
.964	26

**Table 2.** Reliability indexes

Cronbach's Alpha	Part 1	Value	.929
		N of elements	13 <sup>a</sup>
	Part 2	Value	.941
		N of elements	13 <sup>b</sup>
Total N of elements			26
Correlation between forms			.877
Spearman-Brown coefficient	Equal length		.934
	Unequal length		.934
Guttman's coefficient in two halves			.933

We grouped the variables which would indicate received training, both formal and informal. The summary is presented in Table 3.



**Table 3.** Summary of received ICT training

	Received ICT training							
	NONE		LOW		HIGH		VERY HIGH	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Self-taught knowledge and experimenting with ICT	31	2.7%	205	17.9%	491	42.9%	418	36.5%
Received ICT training through either b-learning or e-learning	408	35.6%	355	31.0%	265	23.1%	117	10.2%
Lifelong learning and updating of digital skills due to the evolution of educational technology	170	14.8%	362	31.6%	422	36.9%	191	16.7%
Received training in the use of mobile devices as pedagogical resources	578	50.5%	357	31.2%	159	13.9%	51	4.5%
Training in research software and data processing & data collecting software	296	25.9%	378	33.0%	326	28.5%	145	12.7%
Professors' knowledge updating and self-regulation processes when dealing with ICT changes within the learning environment	204	17.8%	364	31.8%	420	36.7%	157	13.7%

It is clearly visible how the professors admitted being self-taught or preferring self-conducted experimentation when working with ICT resources: -36.5% of the subjects, which increases to 79.4% if we count the “high level” as a whole.

A closer look at these results allows for concluding that technology evolves so fast that it becomes disruptive. That is the reason why teaching professionals have to learn how to use these tools following both a trial-and-error method and self-teaching.

Another conclusion that can be drawn from this table is that ICT is part of our daily life and, especially within the educational context, most teaching professionals show an interest in improving their digital skills. This leads them to self-teaching in order to improve and update their mastering of ICT resources.

However, the variables regarding the professors' knowledge updating and self-regulation processes dealing with ICT changes within the learning environment, as well as those analysing lifelong learning and updating of digital skills due

to the evolution of educational technology, show how the results change between the low and high levels of the spectrum. Taking the first above-mentioned item, there are 36.7% of the professors at the high level, whereas there are 31.8% at the low level. The second item shows very similar results: 31.6% (low level) versus 36.9% (high level). “None” and “very high” levels do not show results above 10% or 15%, respectively.

It could be argued that one of the causes of these results is that technology is evolving very fast, which results in new educational resources, so teaching professionals find it really difficult to keep updated and find quality use of ICT. By the time one has more or less learnt to use a resource, there is a new one which changes again our educational reality.

33% of the teaching professionals have attended ICT courses in official educational institutions, whilst only 23.1% have followed online or semi-attendance programs. 70% of the professors have not received any, or almost any, training, either through online or semi-attendance programs.

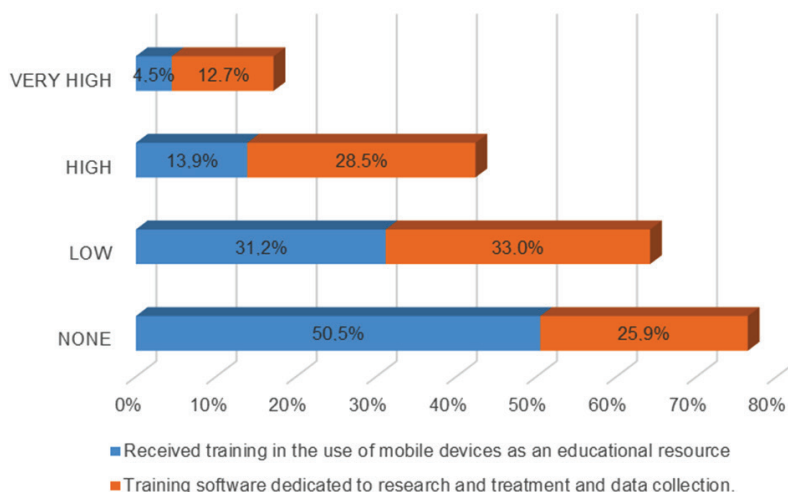
Almost 70% of the interviewees said they had not been trained in research software or data processing and data collecting software in order to improve their research work. The results obtained concerning experimenting and self-teaching on how to use ICT tools allow for concluding that the use of most of the technological resources that aid university professors’ professional activity is learnt by self-teaching, instead of through an official training program.

Mobile learning has become more and more important thanks to the development of the so-called “smart devices”. Nevertheless, our results show that faculty members do not receive any training in the use of mobile devices as a pedagogical resource. As shown in Graph 1, the total of both the “low” (bajo) and “none” (nulo) levels is 81.7% of the interviewees.

The interviewees have a high perception of their abilities to solve problems through the use of ICT resources. The percentage of the professors who show a low perception of their problem-solving abilities using ICT is very low, namely 6.9%. 41% of the professionals argue that their abilities are of a “very high” level. This total increases to 62% with both “high” and “very high” levels. There are however 349 professors (30.5%) at the “low” level.

Most professors consider their mastery of ICT as a pedagogical resource as high (42.4%) and very high (23.9%). 33.7% describe it as non-existent or low. This is a considerable result given that ICT resources have become increasingly important since the arrival of the Internet and the beginning of the so-called digital era.

ICT is characterised by the vision we all have about it: we think it is to be used during our free time, especially after the introduction of social networking. The

**Graphic 1.** Training in m-learning and research

capability of distinguishing their use differing depending on the situation is a vital skill, so trainers of future teaching professionals are able to make the best out of ICT in class. Results show a high level of the acquisition of this skill (43.2% of the interviewees).

We would like to highlight here that the vast majority of the interviewees defined their ability to create and work with a contact network either as low (34.1%) or non-existent (31.4%). This may be related to similar results obtained when asking about online collaborative tasks.

Table 4 shows that the faculty members did not assess using any ICT tools. Most of the interviewees defined themselves as part of the low level (34.2%), followed by the ones whose answer was “non-existent” (27.7%)

**Table 4.** Professional assessment through ICT tools

	Professional assessment through ICT tools	Frequency	Percentage	Cumulated percentage
Valid	NON-EX.	317	27.7	27.7
	LOW	392	34.2	61.9
	HIGH	306	26.7	88.6
	VERY HIGH	130	11.4	100.0
	Total	1145	100.0	

When considering the ability to classify information tools and information management software, most teaching professionals thought they had not acquired this skill: 35.5 % (low level) and 21.4% (non-existent). On the other side of the spectrum there are 32.2% of the interviewees who thought the opposite and defined this skill of theirs as a very high level one.

One of the most important, and most required, skills both for the labour market and in educational environments is being able to solve learning problems and being able to work within increasingly diverse contexts. The topic being discussed concerns facing these situations using technological support. Results show that 61.4% of the interviewees did not have this skill (non-existent) or their level of it was insufficient (low). However, the two higher levels of the table (38.6% in total) indicate that this tendency is being reversed and that university professors are acquiring this skill.

Using cloud computing to create an interactive learning environment is a very widespread skill among the first three levels of our scale: low level of acquisition (31.9%), high level (30%). Very high level of acquisition is only declared by 16% of the interviewees.

Cloud computing offers a wide range of possibilities, such as working in different environments within it, both at individual and collaborative levels. This item shows the following results: 32.1% of the interviewees declared having a low level of the acquisition of this skill, 29.8% of the interviewees defined their level as high, and 26.4% said this skill was non-existent among them.

The results concerning their mastery of ICT use to carry out management and organisation tasks in research show that most subjects (59%) defined the level of acquisition of this skill as high (level 3 of the scale).

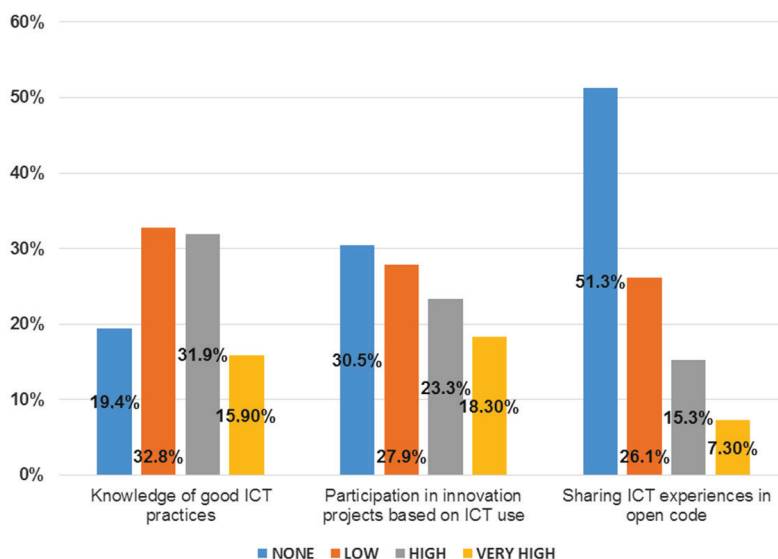
Personal Learning Environments' (PLE) educational value has increased over the last few years. Although our results show that PLE creation and maintenance is not yet a strong point of the professors in the Spanish faculties of education (27% non-existent, 32.1% low), there is a paradigm shift proved by 40% of the interviewees who confirmed having acquired this skill at a high or a very high level. The following table (Table 5) shows a summary of items related to curriculum policy, ICT integration and faculty members' participation:

**Table 5.** Participation, knowledge and integration of education policy and ICT

	NONE		LOW		HIGH		VERY HIGH	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Knowledge of ICT good practice	222	19.4%	376	32.8%	365	31.9%	182	15.9%

	NONE		LOW		HIGH		VERY HIGH	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%
ICT integration in curriculum planning and its relation to teaching and university curriculum policy	187	16.3%	415	36.2%	357	31.2%	186	16.2%
Participation in innovation projects based on ICT use	349	30.5%	319	27.9%	267	23.3%	210	18.3%
Sharing ICT experiences in open code	587	51.3%	299	26.1%	175	15.3%	84	7.3%
Comprehension and understanding of digital skills national and international standards and indicators	448	39.1%	362	31.6%	242	21.1%	93	8.1%
Knowledge of different reports about the use of technology in education in the short and medium term	555	48.5%	350	30.6%	166	14.5%	74	6.5%
Awareness of the importance of digital skills in future teaching professionals	120	10.5%	260	22.7%	446	39.0%	319	27.9%
The professor as a guide, a mediator and an apprentice in the teaching/ learning process: bilateral relationship with students	141	12.3%	29	23.5%	446	39.0%	289	25.2%

**Graph 2.** Sharing of knowledge and experiences through ICT



67% of the faculty members are well aware of the *importance of digital skills in future teaching professionals*. On the other hand, 79.1% have either *non-existent* or *low* notions about the different reports on the future of educational technology, such as the Horizon Report. The same concerns our fifth item: *Comprehension and understanding of digital skills national and international standards and indicators*, which shows a result of 39.1% for *non-existent* and 31.6% for *low*. It can be assumed that, in spite of the importance attached to future teaching professionals' digital skills, there is an important lack of information concerning the cutting-edge educational technology and its indicators.

Sharing experiences in open code gets an overall non-existent and low level. 15.3% of the interviewees chose a high level for this item, and only 7.3% chose "very high" as their answer. What is optimistic, however, is that 47.8% of the professors chose either a high or a very high level when it came to their knowledge of ICT good practice.

To conclude, we will analyse how the professors perceived the evolution of their teaching role after technology began to be used in education. The bar chart shows that the professor's role as mediator, guide and apprentice in the teaching/learning process, as well as the bidirectional relation with students, has been interiorized at a high and very high level (64.19% of the interviewees). The professors stated that there was a change in how they perceived their role: they were not just mere purveyors of knowledge anymore, but a part in a bilateral relation where students and professors learnt from each other's feedback.

## **Discussion**

Teacher training has acquired a new dimension in contemporary society: it has become vitally important. Lifelong learning has never been such an important need as it is today. As shown, both the labour market and the future of the teaching profession require technological literacy. This change of scenario must start with offering comprehensive and cross-disciplinary training to professors, in order to increase ICT quality use. Only then will ICT be able to create innovative education experiences that will have an actual impact on both teaching professionals and students.

Self-teaching and self-monitored experimentation with ICT tools is a major challenge among professors. This may be so because there are not enough training programs –or they do not solve professors' problems or meet their actual needs. Faculty members do not have the necessary tools to use ICT as pedagog-

ical resources, or have the possibility of updating and improving the previously acquired knowledge.

When discussing this topic, the issue of research work cannot be forgotten. Faculty members do not use ICT as research tools, and this is a highly important field. As stated in the previous section, the evaluation of this item showed deficient results.

Although digital skills are seen as increasingly important, there is a lack of basic knowledge about new trends in educational technology and different national and international standards that assess this reality. As already shown, high-level results for this item are merely anecdotic.

Detecting the professors' ICT training needs must be the starting point for supporting the teaching work carried out in our faculties of education. This is vital because being trained on how to use ICT from the pedagogical point of view constitutes a key element for work with young pupils in nursery and primary schools.

We cannot forget that university has been the cradle of several innovative projects and experiences in education. University, as an institution, must work towards integration, efficacy, quality, flexibility, and must focus on transforming and updating educational experiences.

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## **How to Learn Professional Competencies via Blogs**

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### **Abstract**

How can one encourage the development of professional skills in a university subject? How can one use a blog to improve teaching results? These questions motivated the study presented in this article. It is structured around the following two basic and complementary objectives: 1. Designing and implementing a teaching innovation project to promote the development of certain professional skills, using the blog as a tool for self-reflection and 2. Evaluating the experience and collecting students' comments on the use of the blog in a university context.

In pursuit of the second objective, we used a methodology that combined a questionnaire and content analysis. The results make us reflect on the changes that should be introduced in the design of the learning activities and the provision of feedback to utilise the blog as a tool to promote the development of professional skills.

*Keywords: blog, professional competencies, reflection, higher education, feedback.*

### **Introduction**

There are many reasons for the gradual incorporation of information technology in the university environment, including institutional, commercial or supposed modernity criteria (Osguthorpe and Graham, 2003). In Spanish universities, this fact has also coincided with the process of convergence towards the European higher education area and the proposal to reformulate the curriculum around professional skills.

In this context, many projects have promoted educational innovation. The experience presented in the article forms part of the research project: “The educational assessment of competencies using blogs” (REDICE Project 20101002-04), which was carried out during the 2011/12 academic year in various university teaching contexts in Catalonia. The project promotes students’ self-regulation in their own learning through regular, reflective contributions to blogs to assess competencies.

First, several initial questions must be answered: How can the skills be promoted in the context of a university course? What changes should be introduced into the instructional design? Can the blog be useful? How can the blog be used for it to become a tool for reflection and self-assessment? How should the experience be evaluated? How could evidence of its usefulness be collected?

The aim of learning for competencies in comprehensive training of university students is based on the acquisition and development of skills, attitudes, values and knowledge that can be transferred to various professional and social work situations. It is a personal learning system that combines theory and practice, and it moves away from more traditional systems that are based on memorisation. It involves constant learning and each student’s commitment to plan and manage his or her abilities and knowledge adequately.

In turn, learning for competencies demands a clear methodological change. As Zabalza notes (2008), from this approach, one has to bear in mind questions like the detailed planning of programs, selection and presentation of the subject content, mentoring and support of students, proper and consistent management of learning tasks or self-evaluation and reflection on the process itself.

Bearing in mind these considerations, the blog is an option to consider in the redesign of the subject. As noted by Richardson (2006), blogs “are the beginning of a radically different relationship with the Internet, one that has long-standing implications for educators and students” (p.133).

Therefore, we undertook a review of the literature centred on the use of this technology in the university environment. We noted that what first appeared were theoretical studies on the characteristics and advantages of blogs as a learning tool (Conole & Alevizou, 2010). Second, we noted experiences using the blog as a practice journal or as a class notebook (Chhabra y Sharma, 2001). Third, projects whose main focus was the development of digital competence through the development of electronic portfolios and other tools joined with a personalized learning environment (Buchem y Hamelmann, 2011). Fourth, suggestions of the development of the blog aim at increasing the sense of community and collaboration between teachers and students (Halic, Lee, Paulus y Spence, 2010).

Finally, research promotes the professional competencies, analyzing motivation, participation (Deng y Yuen, 2010) and reflection (Bartholomew, Jones y Glassman, 2012).

It is in this last line where the research we present in this article is situated, in which we seek to use blogs as a tool for learning and reflection to gain certain professional competencies.

## **Context of the study**

The experience developed within the course Educational Reflection and Innovation, belonging to the third year of the Master's Degree of Early Childhood Education.

This course aimed to train students in the development of five professional competencies:

- Autonomy in learning
- Reflection on the learning process
- Analysis of and reflection on the functioning of the Early Childhood Education centres
- Analysis of and reflection on the teaching-learning processes
- Reflection on improving their practices

Given that the experience was designed for a large group (102 students), we decided:

- Blog modality: individual.
- The slogan of the blog: learning environment to record the activities and reflections.
- Activities: linked to the training that enhances the acquisition of skills.
- Feedback: contributed by teachers on two occasions, it consisted of brief comments about the achievements and shortcomings of the student.
- Evaluation of the course: the blog is evaluated using a rubric. This evaluation represents 40% of the final grade for the course.

The students were offered an initial session to clarify issues related to the opening and management of the tool, while we gave them diverse manuals and tutorials to facilitate this work.

The following hypotheses were taken into consideration in the design:

- Creating a blog can be a satisfactory and useful learning experience for the students.

- The use of labels can facilitate the process of identification of professional competencies.
- Feedback can have a positive impact on the process of self-regulation of learning.

## **Methodology**

The aim of the study was to assess the implementation of this innovation and, in turn, collect empirical samples on using the blog in the university context. To do this we suggested the use of a mixed methodology, collecting students' comments (through a questionnaire) and qualitative (from content analysis).

### **Participants**

As noted above, the study population consisted entirely of students enrolled in the course of Educational Reflection and Innovation, a total of 102 students.

The sample size varied depending on the instrument used: 82 students responded to the questionnaire (80.39%), which is highly statistically significant and meaningful.

In contrast, only 40 students wrote a final entry relating to the assessment of the experience, representing 39.21% of the population. The content analysis of these entries allowed us to collect qualitative evidence on the views, comments and reflections demonstrated by the students, enriching the information collected in the questionnaire.

### **Data: collection and analysis**

The primary data for this study consisted of an end-of-semester questionnaire and the students' post messages and comments on the blog.

The questionnaire was piloted with a small group of students to ensure that the statements were understandable and meaningful.

The end-of-course questionnaire was given to all the students to gather their opinions about blogging following their experience with it and the learning of competencies. The questionnaire was administered by the course teachers, and the students were guaranteed anonymity in their responses.

This questionnaire includes 15 questions that are rated on a Likert scale from 0 to 10 (0 represents very deficient and 10 excellent). There was also a space provided for comments on each of the items. The areas assessed through the questionnaire were related to:

- Technical aspects of the tool;
- Skills related to the learning of competencies;
- The feedback provided by the teachers and Pedagogical issues.

The paper presents the results of the study participants' assessments in relation to the following:

- Usefulness of the blog for the acquisition of professional competencies.
- The use of labels in the process of identifying the competencies.
- Usefulness of the feedback on the self-regulated learning process.
- Evaluation of the experience: satisfaction in the selection of competencies addressed.
- Evaluation of the experience: satisfaction with the use of a blog.
- Evaluation of the experience: general satisfaction.

Analysis of basic descriptive statistics of the collected data was conducted using SPSS 21.0. (Statistical Package for the Social Sciences)

Moreover, we used content analysis. We asked the students to voluntarily make a blog post qualitatively assessing the course and its contribution to the development of professional competencies. Analysis of these posts was made with the use of the qualitative analysis software N-Vivo.

## Results

The statistics for each variable are shown in Table 1.

**Table 1.** The statistics of each variable

	Range	Mean		Std. Devi- ation	Variance
	Statistic	Statistic	Std. Error	Statistic	Statistic
The usefulness of the blog and the acquisition of professional competencies	10	7.52	.182	1.650	2.722
The use of labels in the process of identifying the competencies	7	7.88	.154	1.391	1.936
The use of feedback in the process of auto-regulation of the learning process	7	6.90	.171	1.592	2.536

	Range	Mean		Std. Devi- ation	Variance
	Statistic	Statistic	Std. Error	Statistic	Statistic
Satisfaction with the selection of com- petencies worked on	10	8.34	.159	1.442	2.079
Satisfaction with the use of the blog	5	8.11	.133	1.207	1.457
General satisfaction	5	7.44	.119	1.078	1.163
Valid N (listwise)			82		

A more detailed examination of each of the variables is presented below.

### **The usefulness of the blog and the acquisition of professional competencies**

The collected data show a satisfactory evaluation by the students and are consistent with other studies in the university that argue that creating a blog can be a satisfying learning experience and useful for students (Bartholomew, 2008).

However, at the beginning of the course, the blog host provoked reluctance among the students. From our point of view, university students have some control over social tools but are not familiar with the blog as a learning tool.

Once over these initial fears and insecurities, the study participants positively valued the blog as a tool for the acquisition of competencies.

*“At the start, we were ‘challenged’ to make a blog, which many of us didn’t even know how to do, but with time, a little effort and with the help of the teachers, we were able to develop our first blog about the class. Personally, until I got into a routine with the blog I hadn’t been familiar with it, but after doing a few entries and seeing how it worked, it was very easy to use in my day-to-day routine. The blog has been a totally new experience for me and mainly useful as a learning tool for the class. Never since I started my career have we worked that way, and I think it has been very beneficial in that we have learned to reflect on and exchange aspects of the class with the other students” (S41).*

### **The use of labels in the process of identifying the competencies**

As previously mentioned, the use of labels arose from the selected competencies in class. As discussed in the previous section, the students were encouraged to

label their blog entries to increase their awareness of which competencies they were working on.

The qualitative analysis of the blogs provided the following evidence on this variable:

*“Labelling may sound easy, but for me it wasn’t, it was difficult for me to find the way to reach this reflection. Now I wonder: what has this reflection done for me? And I can say that without this process I would never have come to understand that it is one more way to become aware of what one has done and how we can improve as professionals. Thanks to this class and this labelling process, I feel more professional; I know I am capable of rebuilding my professional knowledge” (S59).*

### **The use of feedback in the process of auto-regulation of the learning process**

Although the scores are lower than those of the previous items, the students assigned scores denoting average satisfaction with the usefulness of feedback.

Rodgers (2006) argues that one should not confuse feedback with evaluation. It should be considered as an opportunity to understand the context in which the professional moves, providing aid to improve. In the presented case study, the intention of the feedback was to aid in the identification of strong and weak points, facilitate the assessment of the performance of the competencies and influence motivation.

Due to the large number of students who participated in the experience, the teachers only provided feedback on two occasions, which is reflected in the students’ scores for this item. However, the opinions expressed in the qualitative analysis of this item recognise its importance:

*“The feedback received helped us to be aware of the competencies that we worked on to a major and minor extent, this was essential in order to identify our strengths and weaknesses and thus be able to continuously improve our teaching practice” (S27).*

To mention, finally, that although the feedback was raised within a formative evaluation proposal, it continued to be anchored to the professor. The students were invited to participate on two occasions, reviewing the blogs of some fellow students, but beyond this activity, a sufficient dynamic was not possible to be created so that the feedback by the students would have significant weight. So says

one of the participants: “I wish I had been able to count on more comments and opinions from my classmates” (S11).

### **Evaluation of the experience: satisfaction in the selection of competencies addressed**

The assigned scores for this research question are high. The students consider the skills addressed in the experience to be very important for their degree and professional training, as shown in the descriptive statistics.

Additionally, some students state that it was the first time during their degree studies that they worked explicitly on these competencies. The experience increased their awareness of their strong points and weak points to continue working on in the future:

*“Something that I found difficult was to work from the competencies because it’s a new aspect we hadn’t seen throughout our career. Little by little, we were working on ours, incorporating them into all of our reflections. Now I’m sure that I’ve got many more competencies than I initially thought, although there will always be a few that I don’t take on perfectly” (S15).*

### **Evaluation of the experience: satisfaction with the use of the blog**

This item allows us to determine whether, and to what extent, the students considered the development of the blog useful. The results of the statistical data analysis are as follows: mean 8.11, standard error of the average 0.133, standard deviation 1.207 and variance 1.457.

As noted, the students show high regard for the value of the experience for their learning processes. Most responses are placed in the rating of 8 and 9, followed by the rating of 10.

Moreover, the qualitative analysis complements previous data:

*“Not only have we been able to relate the theoretical knowledge that they have transmitted to us throughout the last few years, but what’s more, by the reflections proposed in class, we have been able to become aware of the learning we have achieved, the processes followed, the evolution and progress we have made, and what it has entailed for our learning and training as future teachers. So, I think the reflection class and the*



*blog have brought essential and valuable tools to the learning process we have lived and experienced throughout the practices during these last few months” (S4).*

### **Evaluation of the experience: general satisfaction**

The high scores for this item are also reflected in the qualitative data, which show the students’ overall satisfaction with the experience:

*“I’ve learned, I’ve shared, I’ve enjoyed the concept of the blog, I’ve come to know myself a little better, I’ve learned other ways to work or better said, to enjoy the experience of education, I’ve shared good moments with my friends. And therefore... the result has been positive” (S4).*

*“I’m grateful for this work, now I see the advantage. Having a blog has given many people the opportunity to know about my experience, to see what I was doing and how I did it... Some activities have helped me more than others, but put together everything has been the fruit of work done week after week” (S7).*

### **Discussion of the results and conclusions**

As the study shows, the use of a blog can facilitate the learning of competencies. This is reflected in the scores on the questionnaire items. The students give high scores to the selection of competencies in the experience, they state that it is the first time they have worked on them in a clear and explicit manner, they are satisfied with the process and they claim to have experienced some progress in the domain of competence.

Fessakis, Tatsis and Dimitracopoulou (2008) compare blogs with other social software applications for the support of learning. They clarify the advantages of blogging compared to the basic features of simple HTML pages, online forums, wikis, Content Management Systems or Learning Management Systems.

In agreement with this and other studies (Tekinarslan (2008), Hernández-Ramos (2004) William and Jacobs (2004)), we consider blogging to be the most useful tool to encourage reflection and awareness in the learning process of the established competencies. The students expressed the same view, confirming that the

experience was meaningful to their own processes of learning the professional competencies.

However, as Cano noted (2012), there are no good or bad technologies. Rather, their effectiveness lies in consistency with the objectives and proposed academic purposes as well as the adaptation of these technologies to the context and to the results of pursued learning.

The blog allowed us to present a typology of critical-reflective activities to the students. This overcame the writing code and offered the students the possibility to expand their languages, introducing photography, video or podcasts as communicative elements.

Moreover, the use of labels and their relationship with competency indicators introduced valuable elements of met reflection. The act of labelling the competencies addressed in each blog entry facilitates awareness thereto, the personalisation of the learning process and organisational ability. In this sense, utilizing the professional competencies (as well as the set of indicators that illustrate and detail each competency) as a list of labels was a great success. This approach helped the students to identify and reflect on the learning process that they are developing around the professional competencies.

In a similar study (Churchill, 2011), data showed that the participating students agreed that blogging facilitated and contributed to their learning (83%). The students agreed that due to the use of blogs, the facilitator appeared to be more involved in their learning (92%). Additionally, the students appeared to agree that compared to other courses, they were learning much more (79%).

The platform used in the experience allowed us to constantly visualise the competencies that the students selected, the extent to which they were working on some over others, how they identified them and the errors that they made. As an example, we detected some recurring errors: inappropriate use of labels, incorrect identification of learning actions and activities or merely descriptive argument of the labels used. This basic information allowed us to provide feedback for training purposes. The feedback should serve to confirm what is known and done well; adapt and adjust well the known; diagnose errors and shortcomings; correct prior beliefs or incorrect knowledge; add information to the known and restructure schemes and concepts with new information.

Although the results are not fully satisfactory, through the experience we raised the need for increased information about the feedback the students are going to receive: criteria, rubrics, time, type and frequency. Also, the study presents a clear limitation related to the levels of interaction. Our project did not pay all the necessary attention to all the connections and associations that

the students could have made that would have allowed the enrichment of the individual productions.

Other limits identified relate undoubtedly to the research techniques used or the low control of variables that can affect the development of the blogs (participants' prior knowledge, skills in the use of technology, writing strategies and met cognition...).

In sum, the experience was very satisfactory, as it allowed the students to test a reflective learning environment, and the teachers were able to observe how the students became aware of their professional competencies over the course of the semester. However, in future research it would be interesting to evaluate what the blog contributes to the students, collecting their perspective and identifying the benefits of the introduced innovation. It would also be useful to collect the voice of the teachers in terms of the benefits and difficulties of the experience in their professional roles (workload, changing conceptions, electronic tutoring strategies...).

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## Development of the Writing Skills of Students in Compulsory Education in Spain

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### Abstract

Acquiring writing skills requires an entire academic lifetime but acceptable levels of proficiency should be covered in compulsory education. This research verifies the beginner, intermediate and advanced levels of writing skills in the Spanish education system. It compares both the development of knowledge and the associated difficulties in interviews with 40 students from the even years of primary and secondary education. Descriptive and correlational analyses were made, after coding their statements according to the theoretical model used. They revealed an unexpected stagnation, depending on the levels, with important educational implications.

**Keywords:** *writing, basic education, progress, difficulties*

### Introduction

The studying of writing constitutes a challenge for professionals and researchers, given that learning to write – the primary aim of Basic Education– is fundamental to success in school. Writing sets the cognitive processes in motion that enable students to develop their knowledge, thus playing an essential role as a tool for further learning.

However, problems in learning to write are not uncommon. Research has revealed writing difficulties in several groups of subjects. In Primary Education (EP) and Compulsory Secondary Education (ESO, by their Spanish acronyms), e.g., drawbacks have been observed in thematic progression and in semantic, morphosyntactic and metacognitive knowledge (González & Martín, 2006), as well

as the production of ideas, adaptation to the audience, the use of drafts (Gallego, 2008b), self-regulation (Lecuona, Rodríguez & Sánchez, 2003), and textual review (Salvador & García, 2009).

Other studies, however, attribute the drawbacks to learning difficulties in general (Salvador, 2004); inadequate use of textual structures and style (Ramos, Cuadrado & Iglesias, 2005); social disadvantages (García & Salvador, 2010); hearing (Gutiérrez & Salvador, 2006), visual (Rodríguez, 2007), and cognitive (Gallego, 2008a) impairments; and even intellectual giftedness (Gallego & González, 2008).

There are few studies analysing the development of the writing skills of students in compulsory education in Spain (García & Fidalgo, 2003; Álvarez & García, 2014). This justifies placing this research within the framework of current studies, in which, according to the initial hypothesis, the higher the educational level, the higher the management of cognitive activity in general planning processes (mental draft of a composition), transcription (writing a text), textual review (formal and functional analysis of what has been written) and self-regulation (control over the writing process).

Consequently, the main objective of the research was to understand students' skills/difficulties in handling the operations involved in writing and detect potential differences between levels and academic years.

### **Theoretical framework**

In the sphere of teaching and research, the model of writing proposed by Hayes and Flower (1980), subsequently reformulated by Hayes (1996), stands out. The model, which provides a guideline for this study, shows writing as a problem-solving process in which the writer implements planning, analysis and inference strategies that are conditioned by the individual's external and internal variables. In fact, various cognitive processes, of a recursive and interactive nature which writers must go through efficiently, appear to be decisive for the quality of a text (Beauvais, Olive & Passerault, 2011).

In the Hayes model, two basic components can be observed: the individual and the context of the task. The first component includes motivation, affectivity, cognitive processes, long-term memory and working memory. The second component comprises two main aspects that delimit the writing activity: the social context and the material context.

## **Methodology**

An *ex-post-facto* methodology was used, in which a specific situation was described (the writing skills/difficulties of Basic Education students) and values were selected to estimate the relationships between the variables and draw inferences, based on descriptive and correlational methods.

The data was analysed using the SPSS 22.0 software. A 5% confidence interval was established for the tests and the estimated correlation was 70% (0.7 for the direct correlation and 0.7 for the reverse correlation).

### **Research Sample**

The research was conducted on a sample of 40 students in Basic Education (50% male and 50% female) between 8 and 18 years of age, who were in the 2<sup>nd</sup>, 4<sup>th</sup> and 6<sup>th</sup> grades of EP and the 2<sup>nd</sup> and 4<sup>th</sup> grades of ESO. The sample included eight individuals (4 male students and 4 female students) from each of the grades (clustered) indicated. Five schools were obtained (2 students per grade and school) in the city of Granada, from among the students who showed normal school performance, based on non-probability and intentional sampling.

### **Instrument and Procedures**

Semi-structured interviews were used to obtain the data, following a questionnaire guideline (Salvador, 2008) that gave clues to the students on the operations and processes that are supposedly activated when composing a text. The aim was to help them think about and verbalise what they were doing, so inferences could be drawn from the execution and regulation processes in writing and the potential relationships between the two. The questionnaire was validated using the procedure of “experts’ judgements” and triangulation (Fox, 1981).

The technique used is not significantly different from another informal technique (“thinking aloud”), which has been found to be a useful tool for capturing what is going on in the mind of an individual writer (Hayes & Flower, 1980). It enables researchers to analyse the cognitive and metacognitive functions operating in the mind of the writer.

To facilitate the students’ verbalisation during the interviews, these were carried out in a relaxed atmosphere, individually and in a separate room. They were asked to write a narrative text and, immediately afterwards, to recall the operations used during the writing process. The choice of the narrative text was justified by the

fact that it is the style most frequently used by students when they write freely (Salvador, 2008).

All the interviews were recorded and transcribed verbatim. Thus, the oral discourse was converted into a written text and used to conduct a content analysis, following a system of categories (Bardin, 1986; Krippendorff, 2002), validated by expert judges and triangulation of independent encoders. The categories correspond to the operations that the students carried out when writing the texts, according to the theoretical model on which this research was based (Hayes, 1996). The categories, extracted aprioristically (Bardin, 1986), were assigned codes and represented by capital letters and numbers (Table 1). The positive codes corresponded to the appropriate execution of the operation referred to in each category (by adding the number of times the students said they had used the strategy appropriately). The negative codes indicated that the operation requested had not been used or was used inappropriately (by adding the number of times that the strategy was ignored, not used or handled inappropriately).

**Table 1.** Variables in writing

PLANNING (P)		REVIEW (R)	
Genesis of ideas	+/-P1	+/-R1	Review of the plan
Consideration of the audience	+/-P2	+/-R2	Review of structure and vocabulary
Setting objectives	+/-P3	+/-R3	Review of the spelling
Selection of ideas	+/-P4	+/-R4	Review of the handwriting
Organisation of ideas	+/-P5	+/-R5	Review by others
Source of ideas	+/-P6	+/-R6	Self-revision
Capturing of ideas	+/-P7	+/-S1	Knowledge and control of planning
Textual organisation	+/-P8	+/-S2	Knowledge and control of transcription
		+/-S3	Knowledge and control of revision
Order of words	+/-T1	+/-S4	Knowledge and control of the structure
Richness of vocabulary	+/-T2	+/-S5	Attitude to writing
Word choice	+/-T3	+/-S6	Knowledge of good writing
Appropriateness of words	+/-T4	+/-S7	General knowledge and control of writing
TRANSCRIPTION (T)		SELF-REGULATION (S)	

### Data Analysis

Firstly, a content analysis was carried out to determine the frequency with which each writing operation occurred, as well as its suitability. Next, the data was analysed quantitatively, in a descriptive (averages and standard deviation) and



correlational manner (Spearman  $\rho$ - and Kruskal-Wallis -KW- tests). It was not possible to use parametric tests to measure the contrast between variables, since the Kolomogorov-Smirnov (KS) test was carried out. The Mann-Whitney (U) test was used to analyse the differences between groups.

## Results

### Planning

As the measures obtained indicate (Table 2), a certain amount of progress can be observed as the school year advanced, although the frequencies (positives versus negatives) were not very dispersed, as the standard deviation indicates. Moreover, there was also a significant correlation between the two frequencies, although a reverse correlation to what could be expected was observed in categories P5 and P8 of the 4<sup>th</sup> grade of EP.

**Table 2.** Descriptive data and correlations on planning

	2º EP			4º EP			6º EP			2º ESO			2º ESO		
	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$
P1 +	1.63	0.52	-0.07	2.13	0.64	0.00	2.13	0.35	-0.38	3.13	0.35	0.14	4.38	0.52	0.49
-	1.63	0.52		1.00	0.00		0.50	0.54		0.88	0.35		0.13	0.34	
P2 +	1.50	0.54	-0.26	2.50	0.93	0.57	3.75	1.28	0.00	5.5	0.76	-0.32	6.38	0.52	0.49
-	2.38	0.52		1.00	0.54		0.75	0.46		0.5	0.54		0.13	0.35	
P3 +	0.25	0.46	-0.41	2.50	0.76	0.37	3.13	0.35	-0.13	5	0.93	0.41	5.75	0.46	0.15
-	2.38	0.74		1.50	0.76		1.13	0.35		0.75	0.71		0.63	0.52	
P4 +	1.63	0.52	0.23	2.25	0.71	0.26	3.00	0.76	0.37	4.88	0.64	0.28	5.88	0.64	0.07
-	2.25	0.89		1.50	0.76		0.38	0.52		0.5	0.76		0.25	0.46	
P5 +	0.75	0.71	-0.62	2.88	1.25	-0.84	3.88	1.13	-0.34	4.88	0.64	0.56	4.88	0.84	-0.09
-	4.75	1.04		2.13	0.64		1.13	0.35		0.63	0.74		0.88	0.35	
P6 +	1.75	0.46	0.00	2.00	0.54	0.00	2.38	0.74	-0.54	4	0.76	0.00	6.13	0.99	0.62
-	3.63	1.77		1.38	0.52		0.88	0.35		0.5	0.54		0.13	0.35	
P7 +	1.25	0.89	-0.34	2.50	0.54	-0.25	3.75	0.71	0.25	4.13	0.35	0.38	4.25	0.46	0.45
-	4.50	0.93		1.75	1.17		0.88	0.64		0.5	0.54		0.63	0.52	
P8 +	2.75	1.04	-0.54	4.38	0.74	-0.71	5.88	1.13	0.00	6	0.54	0.50	6.5	0.54	0.58
-	5.25	1.75		3.13	0.64		2.00	0.54		0.5	0.54		0.25	0.46	



## Transcription

The data (Table 4) indicates some progress in this writing skill and some difficulties were overcome, though it was not possible to establish a significant correlation between them.

**Table 4.** Descriptive data and correlations on transcription

	2º EP			4º EP			6º EP			2º ESO			2º ESO		
	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$
T1 +	0	0	-	1.88	0.35	-0.29	1.75	0.46	-0.45	2.38	0.52	0.26	2.63	0.52	0.07
-	1.13	0.35		0.63	0.52		0.38	0.52		0.5	0.54		0.38	0.52	
T2 +	0	0	-	0.63	0.52	-0.29	1.38	0.92	0.41	2.25	0.46	0.33	2.75	0.46	0.46
-	1.63	0.52		0.88	0.35		0.5	0.54		0.5	0.46		0.38	0.52	
T3 +	1.38	0.52	-0.26	1.88	0.35	0.66	1.88	0.64	0.19	2.38	0.52	0.26	2.5	0.54	0
-	1.5	0.54		0.75	0.46		0.5	0.54		0.5	0.54		0.25	0.46	
T4 +	2.14	0.84	0	3	0.93	-0.58	3.3	0.99	-0.06	2.63	0.52	0.15	2.63	0.52	-0.26
-	2.14	0.64		0.25	0.46		0.5	0.54		0.75	0.46		0.5	0.54	

According to the KW test, the differences are significant in all the cases. The largest differences by grade are observed between the 2<sup>nd</sup> grade of EP and the remaining years, both in progress in skills and reduction of difficulties. In the remaining grades there are only occasional differences, which may emphasise the development of the skills corresponding to the T2 and T4 aspects (Table 5).

**Table 5.** Statistics of contrast between averages and groups on transcription

	Contrast Data		Contrast Cases U de Mann-Whitney									
	K-S	K-W	2º-4º	2º-6º	2º-8º	2º-10º	4º-6º	4º-8º	4º-10º	6º-8º	6º-10º	8º-10º
T1 +	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.13	0.02	0.08	0.02	0.44
-	0.00	0.04	0.13	0.02	0.07	0.02	0.44	0.72	0.44	0.72	1.00	0.72
T2 +	0.00	0.00	0.04	0.00	0.00	0.00	0.11	0.00	0.00	0.05	0.01	0.11
-	0.00	0.00	0.02	0.00	0.00	0.00	0.23	0.04	0.11	0.44	0.72	0.72
T3 +	0.00	0.00	0.11	0.16	0.01	0.01	0.96	0.13	0.07	0.19	0.11	0.72
-	0.00	0.00	0.04	0.01	0.01	0.00	0.44	0.44	0.11	1.00	0.44	0.44
T4 +	0.00	0.08	0.05	0.04	0.13	0.13	0.96	0.23	0.23	0.38	0.38	1.00
-	0.00	0.00	0.02	0.00	0.00	0.00	0.04	0.16	0.04	0.44	1.00	0.44

## Reviewing

Here, also, an increase can be observed in the averages of the positive frequencies to the detriment of the negative ones, with the dispersion being negligible. However, it is only in the case of the students in the 4<sup>th</sup> grade of ESO that there is a correlation between progress and difficulties in two of their improvements: R1 and R6 (Table 6). Curiously, one of them is direct (R1), expressing the opposite of what was expected: the greater the skill, the greater the difficulties. The other aspect did obtain the reverse correlation, as would be expected.

**Table 6.** Descriptive data and correlations on review

	2º EP			4º EP			6º EP			2º ESO			2º ESO			
	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	
R1	+	1.88	0.64	-0.58	4	0.76	-0.62	4.63	0.74	0.27	5.38	0.52	0.49	6	0.54	0.76
	-	3	0.76		1.88	0.64		1.13	0.35		1.13	0.35		0.88	0.35	
R2	+	0.5	0.25	-0.5	1.25	0.71	0.42	1.25	0.46	-0.55	1.75	0.46	0.15	2.13	0.35	0.29
	-	1.5	0.54		1	0.54		0.63	0.74		0.63	0.52		0.63	0.52	
R3	+	0	0	-	2	0.93	0	2.13	0.99	0.53	3.13	.35	-0.22	3.25	0.46	-0.22
	-	3.13	0.35		1.5	0.54		0.88	0.35		0.25	0.46		0.13	0.35	
R4	+	0.25	0.46	-0.07	1	0	-	1	0	-	1.5	0.54	-0.58	1.75	0.71	-0.21
	-	2.13	0.84		1.13	1.35		0.25	0.46		0.25	0.46		0.25	0.46	
R5	+	.13	0.35	-0.38	1.63	0.52	-0.13	2	0.54	0	1.25	0.46	0	1.88	0.84	0.64
	-	2.5	0.54		1.5	0.76		0.88	0.35		1	0.54		1	0.54	
R6	+	0.25	0.46	.033	2.88	0.84	0.42	3.75	1.28	-0.01	3.5	0.93	-0.19	4.13	0.64	-0.73
	-	2.25	0.46		1.38	0.74		0.75	0.71		1.38	0.74		1.13	0.64	

The above difficulties are significant (Table 7). The differences between the 2<sup>nd</sup> grade of EP and the remaining grades stand out. Behaviour is more erratic after the 2<sup>nd</sup> grade, although the differences between the 4<sup>th</sup> grade of EP and the 4<sup>th</sup> grade of ESO also stand out. The differences occur more frequently in the progress in the skill than in overcoming difficulties.

**Table 7.** Statistics of contrast between averages and groups on review

	Contrast Data			Contrast Cases U de Mann-Whitney								
	K-S	K-W	2°-4°	2°-6°	2°-8°	2°-10°	4°-6°	4°-8°	4°-10°	6°-8°	6°-10°	8°-10°
R1 +	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.07	0.00	0.07
R1 -	0.00	0.00	0.02	0.00	0.00	0.00	0.03	0.03	0.01	1.00	0.44	0.44
R2 +	0.00	0.00	0.07	0.04	0.00	0.00	0.96	0.19	0.02	0.11	0.01	0.28
R2 -	0.00	0.03	0.16	0.00	0.02	0.02	0.28	0.28	0.00	0.88	0.88	1.00
R3 +	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.02	0.02	0.03	0.02	0.72
R3 -	0.00	0.00	0.00	0.01	0.00	0.00	0.07	0.00	0.00	0.04	0.01	0.72
R4 +	0.00	0.00	0.01	0.00	0.00	0.00	1.00	0.11	0.04	0.11	0.04	0.57
R4 -	0.00	0.00	0.02	0.00	0.00	0.00	0.01	0.01	0.01	1.00	1.00	1.00
R5 +	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.23	0.65	0.03	0.02	0.16
R5 -	0.00	0.00	0.02	0.00	0.00	0.00	0.07	0.16	0.16	0.72	0.72	1.00
R6 +	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.23	0.05	0.65	0.72	0.19
R6 -	0.00	0.01	0.04	0.00	0.04	0.01	0.13	1.00	0.51	0.13	0.33	0.51

## Self-regulation

As in the preceding cases, progress increased and difficulties diminished, although no correlation was established between the two in each of the suboperations. This occurred infrequently in the A2 aspects of the 6<sup>th</sup> grade of EP (reverse correlation), and A3 and A1 of the ESO grades (direct correlation) (Table 8).

**Table 8.** Descriptive data and correlations on self-regulation

	2° EP			4° EP			6° EP			2° ESO			2° ESO		
	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$
S1 +	0.88	0.64	-0.33	1.63	0.52	0.15	1.88	0.35	-0.14	2	0.54	0	2	0.54	0.76
S1 -	2.13	0.64		0.75	0.46		0.88	0.35		1.13	0.35		1.13	0.35	
S2 +	0.5	0.54	0.19	1.5	0.53	-	1.88	0.35	-0.76	2.63	0.52	-0.45	2.75	0.71	0.19
S2 -	2.13	0.64		1	0		1	0.52		0.75	0.46		0.63	0.52	
S3 +	0.88	0.64	-0.58	3.25	0.71	0.28	3	0.76	0.35	3.38	0.52	0.75	3.88	0.64	0.26
S3 -	3	0.76		1.75	0.46		1.5	0.52		1.25	0.46		0.63	0.52	
S4 +	0.5	0.76	-0.57	3.25	1.04	-0.34	3.25	0.71	-0.01	3.5	0.52	0.58	3.75	0.46	0
S4 -	2.88	0.84		2.5	0.54		1.63	0.92		1.75	0.46		1	0.54	

	2º EP			4º EP			6º EP			2º ESO			2º ESO		
	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$	$\bar{x}$	$\sigma$	$\rho$
S5	+ 1.88	0.64	-0.45	4.13	0.84	-0.48	4.5	0.93	-0.38	4	0.54	0	4.63	0.52	0.07
	- 4.88	1.46		2.38	0.52		1.88	0.64		1.63	0.52		1.38	0.52	
S6	+ 1.25	0.46	-0.77	5.25	1.49	0.13	6.13	1.25	0.06	5.63	0.92	-0.62	6.75	0.71	-0.45
	- 4.75	1.49		2.5	0.93		2.5	0.54		2.13	0.35		2.13	0.35	
S7	+ 1	0.54	-0.64	1.13	0.35	-0.14	1.38	0.74	-0.28	1.88	0.35	-0.22	2.38	0.52	0.23
	- 2.88	0.84		1.13	0.35		1.13	0.84		0.75	0.46		0.5	0.54	

The differences are significant in all the cases, although not for every grade. They are undoubtedly significant between the first grade and all the others. After that, the most notable differences occur between the 4<sup>th</sup> grade of EP and the two grades of ESO, and also between the 6<sup>th</sup> grade of EP and the 4<sup>th</sup> grade of ESO. This fact suggests a certain amount of progress between EP and ESO (Table 9).

**Table 9.** Statistics of contrast between averages and groups on self-regulation

	Contrast Data		Contrast Cases U de Mann-Whitney									
	K-S	K-W	2º-4º	2º-6º	2º-8º	2º-10º	4º-6º	4º-8º	4º-10º	6º-8º	6º-10º	8º-10º
S1	+ 0.00	0.00	0.05	0.01	0.01	0.01	0.44	0.28	0.28	0.72	0.72	1.00
	- 0.00	0.00	0.00	0.00	0.01	0.01	0.72	0.28	0.28	0.44	0.44	1.00
S2	+ 0.00	0.00	0.01	0.00	0.00	0.00	0.23	0.01	0.01	0.02	0.02	0.79
	- 0.00	0.00	0.00	0.01	0.00	0.00	1.00	0.44	0.23	0.51	0.28	0.72
S3	+ 0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.79	0.13	0.38	0.05	0.16
	- 0.00	0.00	0.05	0.00	0.00	0.00	0.44	0.11	0.00	0.44	0.02	0.08
S4	+ 0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.57	0.28	0.57	0.19	0.44
	- 0.00	0.00	0.44	0.02	0.02	0.00	0.07	0.04	0.00	0.88	0.13	0.03
S5	+ 0.00	0.00	0.00	0.00	0.00	0.00	0.51	0.72	0.28	0.28	0.79	0.07
	- 0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.04	0.01	0.51	0.16	0.44
S6	+ 0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.44	0.02	0.38	0.33	0.03
	- 0.00	0.00	0.01	0.00	0.00	0.00	1.00	0.38	0.38	0.23	0.23	1.00
S7	+ 0.00	0.00	0.72	0.28	0.01	0.00	0.38	0.01	0.00	0.19	0.02	0.13
	- 0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.28	0.07	0.38	0.16	0.44

## **Discussion and conclusions**

The aim of this study was to investigate the writing skills/difficulties of students during compulsory schooling and detect possible differences between levels and school years. The shortage of similar studies in the Spanish context limits this discussion. However, the results obtained are consistent with the findings of García and Fidalgo (2003), who noticed some progress in the development of self-regulation in writing and a slight decrease in concentration on mechanical tasks. They also noticed an increase in the difficulties with handling some operations, which can be explained by the students' greater awareness of the complexity of the act of writing.

Moreover, a recent study (Álvarez & García, 2014) confirms the development of writing in EP and ESO. However, as occurred in our case, they admit that "it is not as gradual as could be hoped" (p. 5). Their findings also coincide with this research, in indicating that, during planning, more proficient writers invest more time in planning and make more progress in organising their ideas. No discrepancies were found between the two studies concerning reviewing, a skill in which progress is made during the grade and students acquire some experience.

Given these findings, it seems correct to analyse the development of writing by levels and grades, comparing not only the skill but also the difficulties. The lack of correlation between the two points to dissimilar progress, for although both improve, they do so differently. Moreover, progress was not always significant. A certain amount of stagnation was detected, which makes us question and review curricula, given the indisputable need to optimise learning to write.

Also, although there are other instruments for evaluating writing skills, one more is presented, of proven effectiveness. Its novelty lies in being rooted in one of the world's most recognised theoretical models.

The study's teaching potential is obvious. Work must be done to develop writing skills and at the same time address any difficulties that may arise in the complex process of writing.

Future research could build on ours so parametric tests can be used to make results more generalised. This, in turn, would require other instruments for gathering data, such as tests and questionnaires, as well as other qualitative methods (ethnographic observation, discussion groups, etc.) that would promote a better understanding of the development of writing and its problems.

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## Pedagogical Premises of the Use of Tablets in the Teaching Process

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### Abstract

The article is a summary of one part of the research conducted in the Department of Didactics and Media in Education, regarding the use of tablets in the teaching process. The paper provides an overview of the frequency of use, as well as ways of using the tools by students of the humanities. It presents the relationship between the presence of tablets in the teaching process and the cognitive-constructivist nature of acting. The presented study was carried out among 396 students of the humanities. The study used diagnostic survey methods, as well as the pedagogical crossover experiment.

*Keywords: tablets, constructivism, cognitivism, higher education*

### Introduction

Recent years have witnessed increasing use of new media in education. Information and communications technologies (ICT) are included in the process of education often in a manner not entirely thought through. It is generally acknowledged that their use in education benefits and contributes to the modernization of the educational process. However, when analysing numerous studies, the occurrence of cases that defy this common view can be noticed. What, then, determines the effectiveness of the use of new media? The studies conducted since 1992 in the Department of Didactics and Media in Education at Nicolaus Copernicus University in Toruń indicate the significant role of the environment in the educational process. So far, there has been a widespread view that a new medium used in education is only an addition to the existing arsenal of forms

and methods used in teaching-learning. Meanwhile, we are witnessing a change that requires tailored didactic solutions. There is also an impact of new media on the social, organizational, and cultural environment of education. By introducing these tools to the teaching-learning process, we also make transformations in the environment, contributing to changes in the awareness of both the learner and the teacher. In other words, new information and communications technologies enable us to achieve high results in learning when they are used in an appropriate manner, tailored to their specificity, distinct from the previously implemented educational process.

One of the most promising educational tools operating on the educational market for several years now is the iPad, which embodies the dreams of Allan Key, who in the early 1990s saw a need to replace paper notebooks and books with electronic tablets containing textbooks and learners' notes. Today, information technology allows us to make the dreams of that visionary of modern education come true.

The term *tablet PC* was introduced into general use in 2001, when Microsoft presented a device known as the Microsoft Tablet PC, dedicated to employees of the business sphere. Being a kind of personal computer which features a flat touch screen and lacks a physical keyboard, the tablet PC is a good tool for intellectual support in David H. Jonassen's meaning (Siemieniecki 1997, Siemieniecki, 2007, pp. 301–302). The small size of the device means that it can be used in the classroom, the lecture room, at home, and while travelling or walking. The studies conducted in the Department of Didactics and Media at Nicolaus Copernicus University in Toruń indicate the use of the tablet by teachers and students primarily as a tool to:

- shoot videos or take photos,
- work with text documents, multimedia, etc.,
- teach (it is possible to connect it to a projector, present interactive exercises, educational materials contained in e-books, or use it in the Moodle system, etc.),
- record the course of lessons, write notes, etc.,
- communicate,
- create blogs, post entries on websites, gather opinions, etc.,
- get connected to network drives, cloud storage of materials, etc. (Churchill, Fox, King 2012, p. 253).

Upon closer examination of these opportunities, we notice a number of problems that working with the tablet poses in the learning process. Wanting to get to know them better, some multi-faceted research on the students of Nicolaus

Copernicus University in Toruń was carried out in the Department of Didactics and Media Education. Because of its broad spectrum, only some of the results will be presented in this article.

### **Tablets in the teaching process from the perspective of cognitive-constructivist theory (Research Problem)**

Modern cognitive-constructivist theory makes it possible to predict effective actions taken by the teacher, which is possible by reducing the number of variables that determine the outcomes of educational efforts. It is also possible to consider educational processes at different levels of the education system hierarchy (Siemieniecki, 2002, p. 19). This approach was adopted while studying the use of tablets in the educational process. The starting point was an analysis of the communication process based on the interactive model developed by Bronisław Siemieniecki (cf. Juszczak, 2007). It shows three areas of relations:

- the sender – the content, the form of communication – the recipient
- the sender – the content, the form of communication – other participants in communication, e.g. Web surfers
- the recipient – the content, the form of communication – other participants in communication, e.g. Web surfers

Let us consider each of these relations in the context of using the tablet in the educational process. The first relation appears to be only seemingly the simplest. Two-way communication always relates to specific contents. They can be in the form of messages or information about the very carrier of the message itself. Let us note that most research does not separate the existing differences (for more detail, cf. Siemieniecki, 1991). Speaking of messages, we should take into account the comments made by Krzysztof Kruszewski on their form. Namely, messages may exist in four forms as:

- teaching material;
- messages received by the learner;
- messages generated by the learner;
- messages in the learner's memory.

When using the tablet, we have to deal with all of these forms of messaging. Accordingly, two-way communication is much broader than it may seem. From the pedagogical point of view, the tablet is also more complex. It is enough to look more closely at the structure of the software and the limitations of the tool itself.

Analysing the other relations of the interactive model, a number of problems associated with the use of tablets in education can be noted. An example could be

the possibility of direct and indirect contact (via the Internet) with other participants in the educational process.

### **A brief overview of the research so far (Research Focus)**

The research on the use of iPads has mainly focused on the search for their possible applications in the educational process, and on the description of the software and its utility. Clearly, there is lack of broader theoretical generalizations in terms of the impact of the iPad on the educational process as seen from the perspectives of both the teacher and the student.

Attempts to determine the advantages and disadvantages of iPads used for different types of activities have been widely made. The research has also shown that tablets:

- contribute to an increased level of acceptance of the learning process (Kinash, Brand, Matthew, 2012, pp. 115–128),
- facilitate access to information and work of persons who have problems with learning (McClanahan, Williams, Kennedy, Tate, 2012, pp. 20–28),
- make learning simpler and more interesting, which has a direct impact on student achievements (Rossing, Miller, Cecil, Stamper, 2012, pp.1–26),
- facilitate the implementation of different teaching strategies (Fernández-López, Rodríguez-Fórtiz, Rodríguez-Almendros, Martínez-Segura, 2013, pp. 77–90),
- assist in individualizing the learning process (McClanahan, Op. cit.),
- have a positive impact on learning to read (Sloan, 2012, pp. 87–104) and write,
- encourage pupils/students to talk, as well as facilitate cooperative work in the classroom (Geist, 2011, pp. 758–768),
- improve computer skills,
- stimulate pupils' creativity,
- are devices mobile in nature, which makes learning possible also outside the classroom (Kinash, Op. cit),
- facilitate the assessment of students and organization of school activities (Churchill, Op. cit.),
- allow for preparation and participation in multimedia presentations.

The cited studies indicate that there are many advantages of tablets used in the educational process. However, after conducting an in-depth analysis of the research so far, we have noticed a number of gaps, e.g. the lack of discussion on the adopted research methodology, and carrying out research in too small groups. The

lack of any specific indication of what prompted the decision that iPads should be used in teaching particular educational content has also raised objections. Are we dealing here with the adaptation of teaching material to the existing software or, on the contrary, was the software selected for a given subject? In addition, the description of the conducted research lacks information about its cultural and social contexts.

Taking into account these concerns, let us try to analyse the use of iPads in education using the cognitive-constructivist theory.

## **Research Methodology**

The presented research was carried out in 2014 in a group of 320 students from the Faculty of Educational Sciences, and 76 students of Cognitive Science from the Faculty of Humanities at Nicolaus Copernicus University in Toruń.

Diagnostic survey methods, i.e. a survey and an interview, were used in the first study. Statistical inference was conducted on the basis of the data of quantitative nature. The primary motive for the commencement of the presented analyses was to get to know the frequency and methods of using tablets in the educational process, and their relationship with the cognitive-constructivist nature of teaching. As a result, the following objectives of the study were highlighted:

- *getting to know the frequency and methods of using tablets in the educational process.*
- *getting to know the relationships between the presence of tablets in the teaching process and the cognitive-constructivist nature of learning.*

The following six key research questions were formulated:

1. *How often do students use tablets in the learning process?*
2. *What, if any, is the connection between gender and the frequency and form of using tablets in the learning process?*
3. *What is the purpose of students' use of tablets during the learning process?*
4. *How does the presence of tablets motivate students to learn?*
5. *How does the presence of tablets foster an autonomous search for knowledge?*
6. *How does the presence of tablets affect the social nature of education?*

The data for calculation were collected based on the questionnaires and interviews conducted with students. Statistical significance was verified with the use of the chi-square test, as well as appropriately determined correlations.

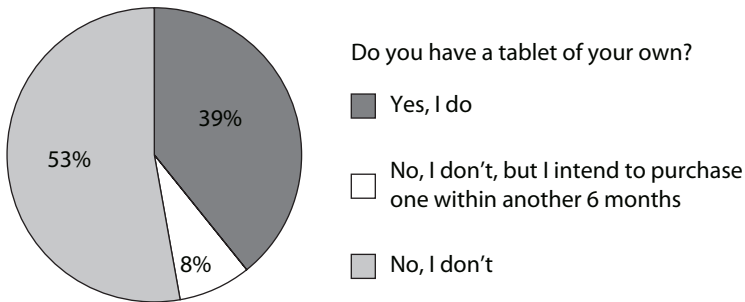
The second study was performed with the use of the pedagogical crossover experiment. The objective was to indicate didactic differences occurring in

the educational process while using the traditional method and the innovative method, the basis of which was the use of the tablet.

## Research Findings

The conducted research indicated an increase in the students' interest in tablets after the conducted classes. It turned out that almost 39% of the students owned the device, while 8% intended to purchase one within the next six months (cf., Chart 1). These results are consistent with those obtained by the American Pearson Foundation, which conducted similar research at the beginning of 2012. Among all the surveyed students, 25% already had such a device, and another 25% planned to purchase one within the next six months (Gałuszka, 2014).

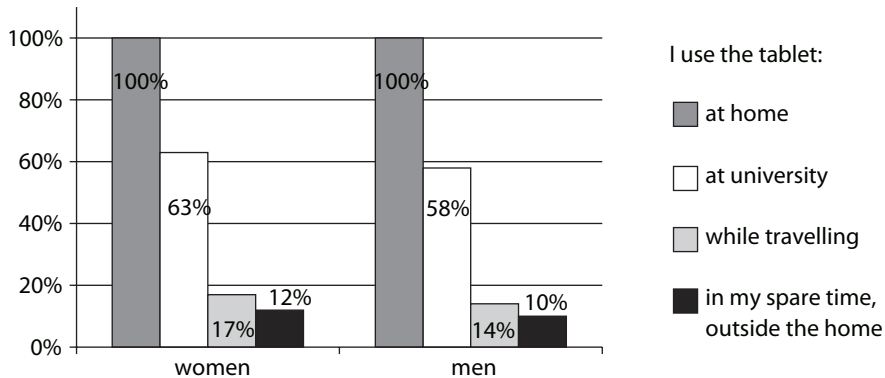
The students owning a tablet used it on average thirteen times a week. They emphasized that they reached for the tablet more frequently while studying at home, at university, when travelling, as well as in their free time spent outside the home.



**Chart 1.** The percentage of students owning a tablet of their own  
Source: own study.

It is worth noting that there is no statistical relationship between gender and the frequency and form of using tablets in the learning process. The students of either sex used the tools to search, view, analyse, play back, and assimilate the materials available for them through tablets. It turned out that the tablet was a good tool of intellectual support, and a handy notepad. Less often, the tools were used to create, e.g., long essays or complex presentations, etc. This results from the functions which the students used their tablets in. They preferred to use a traditional laptop for bigger undertakings. Probably, the decisive factor for the use of a tablet or laptop is their convenience for the tasks performed.

Chart 2 presents four places of the most frequent use of tablets by the students. Definitely, the first place is the home where all the respondents pointed to using the tablet for educational purposes. The second place is the university. The presence of the small but significant 5% difference between the male students and the female students is worth mentioning here. The women reached for the tablet more willingly while on the campus.



**Chart 2.** Places where students use the tablet for educational purposes  
Source: own study.

Differences in the frequency of using tablets in the learning process were observed during the study. Tablets were used to:

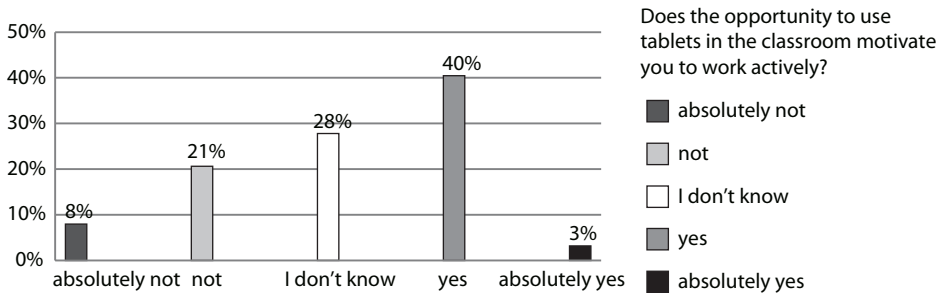
- search the Web and share one's experience – 86%
- download educational materials published by the faculty – 71%
- take traditional notes – 36%
- prepare notes containing hyperlinks – 29%
- read books – 42%
- prepare written assignments – 19%
- prepare multimedia presentations – 42%
- run blogs or web pages related to academic interests – 14%
- solve on-line tests – 29%
- communicate with other network users, e.g. send e-mails – 98%
- record videos – 29%
- record sounds, e.g. during lectures or classes – 11%
- take photos – 36%
- participate in on-line courses – 11%
- use mobile applications for learning, e.g. foreign languages – 38%.



As mentioned previously, an experiment using tablets was carried out as part of the study. One group used tablets, the other one used traditional paper notebooks. It turned out that the use of tablets by students strongly motivated them to work actively and independently, as well as to take active steps during classes. This was particularly visible during classes. Already during the first session, the students showed great interest in using this tool. Although there was the phenomenon of over-concentration on the tool during the first classes, it was a one-time event, which occurred only at the first contact with the tablet. With other media, the phenomenon usually lasted longer (Siemieniecki, 1991).

What is noteworthy is the fact that the use of tablets has a positive impact on the effectiveness of teaching, which is also indicated by other studies (Kinash, Op. cit.).

Chart 3 presents the opinions of the surveyed students on the impact of tablets used in the educational process on their motivation to work independently.



**Chart 3.** Motivation to work during classes

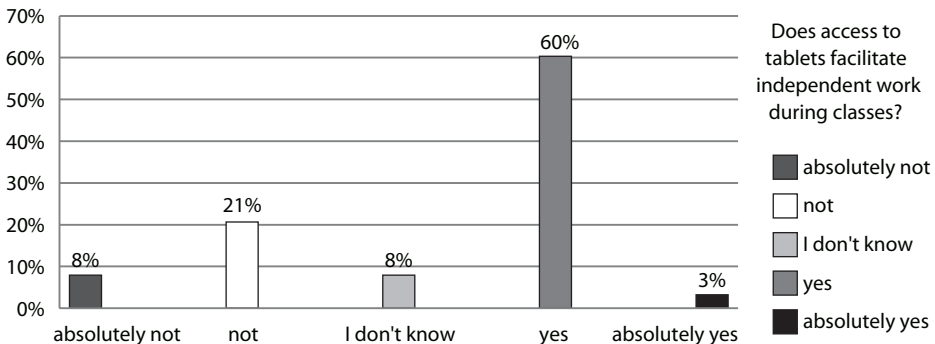
Source: own study.

The vast majority of the respondents pointed to the increased motivation to be active on their own during the process of learning, when there was an opportunity to use tablets (cf. Chart 3). That activeness is an important factor in developing the evaluation of the possibilities and limitations of using tablets in education. This in turn determines the success in solving tasks, and promotes the growth of motivation. A feedback loop, which determines the growth of achieved learning outcomes, was thus established. Being familiar with the possibilities of tablets was revealed in the statements of the students during the interviews, where the respondents indicated the limitations of their use, and provided examples of their advantages and disadvantages relative to conventional computers, such as, e.g.: *“Tablets are extremely useful, however, they are not able to replace traditional computers”*. Among the limitations of tablets, the students listed:

- lack of possibility of doing effective, multitasking work (49%);
- limited nature of mobile computing applications counterparts (57%);
- difficulties in working with the touch interface, e.g. when writing long-text assignments (92%);
- problems with the technical shortcomings related to tablet operation, e.g. non-custom input jacks requiring special converters or adapters (12% of the respondents), etc., and quite frequent cases of improper display on your computer of documents saved in standard formats (61% of the respondents).

The cited drawbacks noticed by the students using tablets on the one hand show the imperfections of the tool and, on the other hand, are an important indicator of where and how best to use them in the learning process.

Mobility, small weight and size, ease of use, and a large number of free applications were mentioned among the main advantages of this tool. Unlimited access to the Internet, allowing the retrieval of information and contact with other people on the Web at any time was of particular importance for the users. For the interviewees, this created the possibility of retrieving data actively, processing notes that contain numerous references to multiple pages on a current basis, and analysing problems in depth. A consequence of these actions was conscious participation in classes, which is important for learning outcomes.



**Chart 4.** The tablet and independent work during classes

Source: own study.

This fact should be taken into consideration when planning the use of tablets, not only in universities, but also in senior or junior high schools. Undertaking a study on the possibility of using tablets at the primary school level is also worth considering.

As already mentioned, during the study an attempt was made to find an answer to the question regarding the use of tablets in order to increase the autonomy of learning in the classroom. Chart 4 presents the results of the research into this issue. The majority of the respondents (63%) pointed to the relationship between the availability of tablets and an increase in independent work. It is worth quoting the results obtained during the experiment. It was observed that the students turned more and more frequently to tablets during subsequent classes, not only to obtain information, but also while solving problems. There was an important relationship between the frequency of the presence of tablets during classes, and their stand-alone application to solving tasks. The longer the tablets were used, the more frequently the students departed from an occasional verbal exchange regarding technical issues. In this place, the importance of network communication and collaboration within a group suddenly increased. Initially, there was a significant barrier in the form of a lack of the ability to cooperate. Most of the students had to learn this art, which took time. This phenomenon is related to the lack of wider application of the model of group work in Polish schools. It is also observed in the survey statements of the students. The majority (81%) were unable to answer the question *Does access to tablets facilitate working together during classes?* It was only in the distance studies that the vast majority of the respondents (89%) indicated an increase in the ability to cooperate with other students and attributed its acquisition to working with tablets.

The presented results indicate the need for higher education courses aimed at the acquisition of the skills of cooperation. Without them, it will be difficult to make effective use of tablets in the classroom. This is not the case with Internet communication. High mobility of this tool facilitates cooperation with other participants on the Web.

## **Discussion and Conclusions**

The presence of tablets in the educational process promotes independent and autonomous exploration, discovering, and analysing messages posted on the Web. The students had a positive attitude to working with this tool. They believed that the tablet promoted the growth of motivation, and encouraged activeness, bringing a breath of freshness to the traditional course of classes. Studies have shown that forums and topical sites rich in examples going beyond the scope of textbooks, as well as issues raised by the teacher, prove to be extremely valuable. This is confirmed by previous observations (Rossing, 2012, p.10). The importance

of the said materials is also increased by their broad context, showing the issues discussed from different points of view (Skibińska, Kwiatkowska, Majewska, 2014). Analysis, synthesis, as well as comparing information consequently result in the development of cognitive skills (Juszczuk, 2003, pp. 155–159). Also the multimedia nature of the data and exercises conducive to both the general development of interests and the thought processes of people in different age groups, is not insignificant.

In the case of working with the tablet, applications designed to make notes and drawings also appear to be helpful. They allow for voice recording, as well as saving the image on the tablet screen. Developed materials may be posted on the Web, or left for personal use. Computer recording allows tablet users to play back the course of lessons, pause at any time, fast-forward or rewind it by a specific time period. Unlike traditional notes, electronic documents prepared with the use of tablets allow for an analysis of the sequence of operations carried out to solve a problem.

The acceptance of the tool, as well as a positive attitude to working with the device fosters the application of various working methods, including problem-based teaching. Motivation seems extremely important in this context.

The introduction of tablets to the educational process is also supported by Lev Vygotsky's thesis which emphasizes the social nature of human development.

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## Plurilingual and Intercultural Awareness of Future Teachers

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### Abstract

The study focuses on some aspects of plurilingual and intercultural competences of future teachers – their theoretical outcomes and data from comparison of two research studies. After presenting the main concepts and situation in Slovakia, it describes and compares aims, samples, methodology and data from 2 studies (2002, 2015) on the perception of the need to use various foreign languages and cultures, especially in the performance of the teaching profession. Their comparison gives evidence about areas in which it has grown.

*Keywords: teacher, plurilingual, intercultural, awareness, competence*

### Introduction

Requirements on the scope of teachers' professional competence are continuously increasing. As a consequence of growing globalization and the current massive wave of migration, teachers' intercultural and plurilingual competence has become crucial. It is emphasised in documents of the Council of Europe (*Guide 2007*, Beacco et al., 2010; *CERR, 2001*), *FREPA* by the European Centre of Modern Languages ECML (Candelier & Camilleri-Grima, 2012) as well as the European Commission (*Key Data*, 2012).

First, some terms should be explained. The prefix “multi-” means simultaneous presence of several cultures (*multiculturalism*) or several languages (*multilingualism*) in a given geographic area (Guide, 2010, p. 16), where also people speaking one language may live. “*Plurilingualism*” designates a person's ability to use more languages, even if not mastering them perfectly (SERR, p. 12). The prefix “inter-”



indicates willingness to dialogue with “other” cultures. *Intercultural competence* is an ability to “understand different ways of perception of the world, thinking, customs and behaviour of members of other cultures, perceive mutual differences, an ability to communicate with one another also in foreign languages” (Mistrič, 2008) and act in intercultural situations so as “to promote an understanding of the participants in interaction without compromising their integrity” (Zelenková, 2015). Both competencies are closely interconnected since it is the language that is the means enabling the “cultural understanding among culturally different participants” (Kollárová, 2013).

The “top-down” pressure of EU institutions, as well as the “bottom-up” awareness of the social reality result in implementation of intercultural education and plurilingualism in school curricula. All teachers are expected to have adequate *plurilingual and intercultural awareness*.

“*Language awareness*” (Hawkins, 1984) includes, in addition to explicit knowledge, also conscious perception and sensitivity in language learning, teaching and use. Like a “bridge”, it connects various aspects of language training, thinking about a language and a discussion about language diversity. It does not directly mean learning languages/cultures, but learning about learning languages/cultures. It is connected with *cultural awareness*, *i.e.* perception of cultural diversity, one’s own cultural identity and the identity of the partner in communication and the necessity of dialogue.

A *plurilingually aware teacher* is able to stimulate interest in languages and cultures, their observation and analysis with the aim to internally adopt the idea of plurilingualism or pluriculturalism (Bernaus, 2007, p. 14). An *interculturally aware teacher* understands the substance of socio-cultural phenomena and the “subsequent adequate implementation of cultural elements in subjects ... which represents the first step toward the inclusive strategy for bridging cultural differences, thus also pupils’ success at school” (Cabanová, 2006). They can actively mediate not only semantic models of multiculturalism, but also their axiological dimensions (Vančíková, 2013). They focus education not only on superficial information of cultural differences, but in particular on the interiorization of principles of tolerance and justice (Kosová, 2013), which is manifested at 3 levels: cognitive (knowledge about cultures), affective (understanding, tolerance, empathy, appreciation of diversity) and conative (behaviour towards “others”) (Zelenková, 2010, p. 26).

Thus, the *plurilingual and intercultural awareness* are complex constructs including not only knowledge about languages/cultures and opinions on them, but also their value classification and formation of positive attitudes towards them.

They are manifested by an ability to sensitively perceive one's own and foreign languages and cultural needs/contexts; an active approach to learning about other cultures and languages. One characteristic of a plurilingual and interculturally aware teaching professional is an awareness of the needs for and opportunities to use foreign languages in life. From the psychological point of view, they belong to the needs for social inclusion, social activity, self-realization, prestige as well as curiosity (Oravcová, 2004, pp. 157–161). Therefore, the aim of our research was to find out how much the awareness has increased in our current student teachers over the past decade, of ***when, how and in what cultural context foreign languages can be used.***

## **Research Context**

Slovakia is a multilingual and multicultural region with a Slovak majority, some “historical” minorities and a growing number of representatives of other ethnicities. In 2008, *multicultural education* became a cross-cutting theme in the national education programme (ISCED 0–3). All teachers should develop the intercultural competence in pupils. However, are teachers prepared for this? Their university training is carried out only through the elective subject “Multicultural Education”. Poor development of the language awareness (e.g., according to research done at teacher training faculties in the SR (Hanesová, 2013) is also a shortcoming. Although multilingualism is not a prerequisite for the teaching profession, it is considered to be beneficial for the identification of the socio-cultural context of pupil development and overcoming communication barriers between family and school (*Profesijný rozvoj učiteľa, 2006*).

The assumption that teacher graduates are adequately familiar with this issue was not confirmed even in the research carried out in kindergartens in 2013 (Hutková & Vančíková, 2013).

2011 research on *multicultural education* in elementary schools (Rosinský, 2013) revealed misunderstanding of this curricular area. Out of 2218 schools, the questionnaire was completed only by 12%. Out of them, 82% had no qualified teachers for such an education, 82% had difficulties to answer the question about the time devoted to it. Up to 4% of the schools did not perform it, because they “have few Roma pupils at school”, while 51% of positive answers indicated its focus on the Roma culture, approx. 5% on the Arabic, Vietnamese, Jewish or Ruthenian culture. The teachers did not perceive the Roma language as equal to other languages, showed no interest in new information about other cultures.

Reid (2009, 2012) found out a low awareness of the importance of such an education in a large part of English teachers in the SR. Even teachers who included cultural elements in teaching focused on visible (material) aspects of culture and either ignored invisible (socio-cultural) aspects or were not aware of their importance for the development of the intercultural communicative competence.

## **Research Methodology**

The above results in the **research question** of whether and how the awareness of real needs/opportunities to use foreign languages is being continuously developed in student teachers of various subjects (*not foreign language teachers*). The answer requires vertical comparison in time.

The retrospective view is enabled by the use of outputs from wider **research carried out in 2002** (Hanesová, 2003), examining the general profile of students of the teaching profession as foreign language users. The issue of plurilingual and intercultural awareness was covered by some questionnaire items about *future teachers' needs to use foreign languages in various cultural contexts – in the past, at present as well as in future*. **The 2002 research sample** consisted of 547 student teachers from the whole SR (out of them 83% women), 95% of them under the age of 30.

For the sake of comparison, **2015 research** conformed to the defined data from 2002; quantitative methods were considerably replaced by the qualitative methodology while enabling to extract also quantitative data. **The 2015 research sample** was thus composed only of 111 student teachers (out of those 90% women), 97% under the age of 30, which is a sufficient sample for qualitative research conducted using a half-structured interview. The respondents answered 3 questions revealing not only their opinions, but also actual attitudes and the importance of foreign languages for them: Which foreign languages and knowledge of cultures did you actually need in the past and for what purpose? Which do you perceive at present? What needs do you anticipate in future? In addition to real situations, the respondents could indicate also hypothetical situations of their use of languages. This field of research in the SR attracted interest also of ECML representatives in Graz (at the conference in 2014).

**The aim of this study** was to present a sample of some results from 2 research studies different in time (2002 and 2015). Data from the questionnaires of 2002 as well as the interviews of 2015 were analyzed and categorized according to groups of language use needs. Further, quantitative tables with data on the data

occurrence were processed. The processed data were then compared and evaluated qualitatively. Since the data on existing needs were partially published (Hanesová, 2015), after their summary herein we focus on foreign language needs anticipated in future.

## Research Results and Interpretation

The 2002 research indicated the following categories of cultural contexts creating the need to use foreign languages: communication with foreigners in the SR, foreign tourism, work or study abroad, conferences, contacts with relatives and colleagues. It was established that the respondents felt the need for 5 foreign languages **in their past till the time of the questionnaire completion** (Table 1). Most frequently it was the English language (EL), which the respondents needed the most for communication with foreigners in the SR (33%). The need for it in activities abroad increased from 2% to 18% in comparison with the past. Other categories of the need for English did not exceed the limit of 10%. In total, approx. 42% of the respondents needed English in the past and the present time. The second most important language was the German language (GL) with the 14% need to communicate in it with professionals and other foreigners in the SR. Its need in communication during stays abroad was expressed by 11% of the respondents; in total, the need for the German language was expressed by approx. 18% of the respondents. The Russian language (RL) was the third most required language (6%). Values of the need for the Russian language were stable for a long time, with the greatest scope of interaction with foreigners in the SR (5%). The fewest of the respondents positively expressed their need for the Spanish language (SL) and the French language (FL) (from 0.2% to 1.2%). What is startling is the fact that more than 10% of the respondents had either no opportunity or need to use foreign languages *in the past; in the year the research was conducted* indeed even 1/3 of the respondents.

**Table 1.** Increase in the common categories of existing language needs (2002 and 2015) in %

Language	Year	Work abroad	Work in Slovakia	Foreign tourism	Foreigners in SR	Colleagues & relatives	Professional information
English	2002	8.7	7.1	2	37.8	11.3	5.2
	2015	12	16.2	58	22.5	18	7.1

Language	Year	Work abroad	Work in Slovakia	Foreign tourism	Foreigners in SR	Colleagues & relatives	Professional information
German	2002	4.2	3.8	12	2	11	0.9
	2015	14.4	7.1	26.1	4.5	0.9	1.8
Russian	2002	1	0.9	2	5.8	1.6	0.2
	2015	0	7.1	2.7	1.8	1.8	
French	2002	0.4	0.5	3.1	1.5	0.4	0
	2015	0.9		8.1	0.9	0.9	
Spanish	2002	0.9	0.8	4.3	4	1.5	0.5
	2015		0.9	4.5	0.9	0.9	

All the participants in the 2015 research confirmed their foreign language needs *in the past*. In addition to the 5 languages mentioned in 2002, the respondents indicated additional 14 foreign languages they had needed/used *so far*. In addition to the languages from 2002, they mentioned also the Italian, Croatian, Polish, Czech, Hungarian and sporadically also the Greek, Bulgarian, Ukraine, Japan, Arabic, Dutch, Rumanian, Jewish and Turkish languages. It is surprising that none of the respondents indicated potential usefulness of the Roma language in the past.

In addition to the number of languages, in 2015 also the scope of situations increased in which the respondents had needed a given language *as yet*. In addition to communication with foreigners in the SR, foreign tourism, search for a better job position, work or study abroad, the respondents expressed a need to obtain professional information not only through meetings with colleagues, but also studying professional literature. A specific need increased, namely the respondents' communication with relatives or colleagues abroad. A new group of needs appeared – the area of explicit cultural needs – to become familiar with foreign literature, art, following the media. Less frequent were foreign language needs for the purpose of mobility, internet communication (purchase, social networks), instructions, giving additional training, translations, and communication with neighbours – foreigners.

As can be seen in Table 1, comparing the intensity of personally experienced need to use a foreign language in the past (before the research), an increase was recorded almost in all the areas of the needs. The need to communicate with foreigners in their language on the territory of the SR decreased (by 40% in English, 70% in Russian, similarly in Spanish and partially also in French). Only the need for German gained intensity in this area. All other contexts of the needs showed an increase.

Having established the existing needs or opportunities to use foreign languages, we were interested in **anticipated needs for the use of foreign languages in future** (Table 2). First, the finding of the comparison should be stated, i.e. that there was a radical decrease in the number of respondents with zero anticipation of foreign language needs in future. In the sample of the 2002 research, almost 8% could not imagine any opportunity to use any foreign language or they commented on that subject in the questionnaires. In the sample of the 2015 research on the use of languages *in the performance of their profession*, there were only 2 answers explicitly expressing a negative opinion of the type: “So far, I have got by using only the Slovak language. I used English only at school, on lessons. I don’t think I’ll need any foreign language in my future profession, perhaps partly English.”

**Table 2.** Comparison of anticipated future language needs (2002–2015) in %

Language needs (respondents in %)	English	German	Russian	Roma	French	Chinese	Czech	Polish	Spanish	Hungarian	Korean	Italian
In any context (2002 sample)	52	24	5	-	2.5	-	0.3	-	-			0.25
In performance of profession (2015 sample)	100	40	20	4.5	3	3	3	3	2	2	1	

In 2002, more than 50% of the students anticipated the use of English, 24% of German, 5% of Russian and even fewer of French, Spanish and Italian (only in communication with foreigners in the SR and foreign tourism). In addition to the need for those languages, the sample in the 2015 research anticipated also the languages of the minorities in the SR and neighbouring countries (Hungarian, Polish, Czech, Chinese, Korean) and especially Roma (even if only 4.5%) in their future profession.

The data about the *scope of foreign languages* show a significant increase in the plurilingual awareness in the younger generation of student teachers. Not only do all the respondents of the 2015 research consider English inevitable for their future profession, which is certainly a logical result of the legislative preference for this language in ISCED1, but the increase in the anticipated need for languages spoken by minorities and in neighbouring countries, when compared with 2002, is encouraging. In 2002, no respondent mentioned Hungarian. It may be speculated that the respondents either mastered the Hungarian language (as their second

language), or, on the contrary, did not feel the need to learn it (no questionnaires returned from Hungarian speaking faculties).

Although the respondents of 2015 consider English the most important, universal language, also interest in German (2x) and Russian (4x) has developed. These three languages are characterized as world languages. One student argued against the plurilingual approach by Europe-wide coverage of English, which is why he could get by with English, e.g., in Germany. It is interesting that in 2015, also Czech appeared among foreign languages (in 2002, the respondents did not include it in foreign languages).

A positive sign of the teachers' increased plurilingual awareness is the explicit expression of the need for the Roma language, which the respondents explained by the anticipated presence of Roma pupils in their future classes (at kindergartens and primary school).

As far as the *scope of anticipated situations* with the need to use foreign languages is concerned, the **respondents of 2002** expected the widest use of foreign languages during *communication with foreigners in the SR* (42% in EL, 17% in GL, 3% in RL) and also during *foreign tourism* (33% in EL, 12% in GL, 2% in RL). Surprisingly, the second largest area of perceived needs was the area of *cultural experience (literature, media)* – 43.4% in EL, 10% in GL, 2.2% in RL. Other needs were a *better job position in the SR* (33% in EL, 12% in GL, 1.7% in RL) and an *opportunity to work or study abroad* (31% in EL, 8% in GL, 1% in RL). Even up to 1/5 of the respondents expected the inevitable use of English in *contacts with colleagues*, 15% during *international conferences* and 7% for *obtaining information relevant to their profession*. Anticipation of other languages in the mentioned areas ranged from 0.07 to 2.2%.

The data from 2015 (Table 3) show a higher degree of receptiveness to various cultural contexts than in 2002. Even up to 1/2 of the respondents are aware of the diversity of the existing school setting and consider situations of linguistically and culturally mixed classes a matter of course. They perceive more reasons for the necessity of intercultural and multilingual approach even already at kindergarten and primary school (pupils from minority families, families of foreigners working in the SR, bilingual families). In their opinion, the school staff should be equipped with at least the basics of languages for communication with such families, also in the case of Roma children. Some respondents prefer a better command of a smaller number of languages, others recommend learning as many languages as possible, in addition to a good command of English. The second largest group of respondents was marked with ambitions to found foreign language clubs or schools, develop plurilingual projects or directly teach English. Similar needs,

although a lower percentage, appeared also in the case of German. There were also examples of other needs for both languages, ranging from mobility (7% in both languages) through study of professional literature to the use of the Internet for various reasons.

**Table 3.** Overview of anticipated future language needs (2015) in %

Anticipated use of language/ambitions	English language	German language	Russian language
Inevitable for direct performance of the teaching profession (teaching children, contacts with parents, communication with schools abroad)	54	8	2
Wish to teach a foreign language at kindergarten / run a foreign language club, found a school supporting foreign languages	11	4	1
Conferences, exchange stays, teaching abroad	7	7	
To read professional literature, about cultures, discussion forums, blogs, information about further education abroad	4	1	
To use the Internet, media and IT technologies (for the purpose of teaching)	4	2	
Awareness of the inevitability of mastering as many languages as possible due to the current situation in society	2	2	
To understand product manuals (software, interactive board, etc.)	2	1	
School trips abroad		1	

## **Discussion**

The decision to compare the research studies distant in time made us realize the limits of the 2002 research and the presented data leave several questions unanswered. The result was that in addition to establishing facts about real needs to use foreign languages as well as anticipation of their needs, this study did not enable us to make a deeper comparison of the language and cultural plurality awareness formation. On the other hand, these research studies deliberately avoided direct questions (Do you consider languages important?), with the intention to prompt the respondents to formulate real positions of their needs in the face of the cultural and linguistic diversity in the school context. We are of the opinion that accounts about one's own need/decision to use or learn a foreign language represent more



than only an opinion on the foreign language usefulness. They also present a certain view of the value of a foreign language in one's own life and attitude towards it.

The majority of the respondents did not express their opinions on the studied needs from the position of a professional sufficiently sensitive to teach multicultural education, cognizant of the issue, actively using its terms and reflecting the studied issue (only 2 students in 2015 argued with technical terms). A prevailing part of the answers made a considerably "egotistical" impression, without overlapping to "others". From this point of view, the results of our research would confirm conclusions of the previous studies on teachers' preparedness.

Although the results show an obvious increase in the plurilingual awareness, the original needs had surprisingly low values (in comparison with other study courses) and therefore the resulting values are relative. Further considerations require examination of the correlations of these needs with other socio-cultural, economic and regional aspects.

## **Conclusion**

As emphasized in the first section, a multicultural and multilingual society presents increased demands on teachers' professional competencies – on their plurilingual and intercultural awareness. Examples of some previous studies indicated shortcomings in the application of such requirements. They probably resulted from a superficial, mostly formal way of introducing multicultural education to schools in the form of training courses, not experiential education in values and attitudes. However, this hypothesis is a suggestion for further research.

The results of the comparison of our research studies in the student teacher samples (in 2002 and 2015) confirmed an increase in their awareness of the needs and real opportunities to use foreign languages in various cultural contexts, in the past, at present and also in future.

Naturally, an awareness of such needs in future teachers is not sufficient. Another step is the person's decision to act – learn about languages and cultures, and if possible, also to invest in effective study at least of their basics, to encourage pupils to the same and gradually change school to an environment professionally responding to the linguistic and cultural diversity. The educational practice should aim at the development of a) higher cognitive functions – not only knowledge about the diversity of cultures/languages, but also their understanding, analysis and creative application (e.g., how to learn a new foreign language on the basis of one's existing knowledge of another language); b) the

affective area – attitudes of empathy, tolerance and justice; and c) corresponding social skills and conduct.

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## Students' Satisfaction with Communication in University Teaching. Comparison of Private and State Colleges. Croatian Experience

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### Abstract

Communication in university teaching has been experiencing years of reform led by modern media and technologies. This paper examines (by triangulation) satisfaction with university communication in students of private and state universities, which consider communication as one of the most important competence frameworks. The survey examined students' perceptions ( $N=267$ ) on the characteristics, methods, frequency, and quality of communication in the learning process, which is our primary research question. What was also researched was the existence of differences in students' attitudes towards private and state universities. Results show that the students of private universities, compared to the students of state universities, are more satisfied with communication.

**Keywords:** *state and private universities, communication, university teaching, students' satisfaction.*

### Introduction

Talking about communication, we know that it is almost impossible to find a uniform definition encompassing all that it implies. Different authors define this phenomenon differently. In defining communication, Čudina-Obradović & Težak (1995) emphasize the importance of social skills that are closely connected. The definitions of communication and the communication process, multiply deter-

mined, depend on the point of view, knowledge and attitudes of those who study it. Communication is defined as a process of direct or indirect exchange of meaning; mutual giving and receiving messages through different characters. Communication is, as opposed to information, a two-way process, and feedback is its integral part. Many theories that explain the essence of the communication process have been developed in the last 60 years. According to Shannon-Weaver's (SW) communication model (1948), when sending a message from one person to another, the person sending the message must encrypt their thoughts and feelings, find the words, verbally and non-verbally code their meaning. Communication is, therefore, a two-way process of achieving mutual understanding, in which the participants not only exchange (coding-decoding) information, news, ideas or feelings, but also create and share meaning. Considering that, contemporary communication theorists resent the SW model's linearity and disregard for constant feedback and they try to complete it with complex concepts that include feedback (Duff, 2003). This paper emphasizes the importance of communication in university teaching, which is considered as a two-way process in which all participants are equal and participate actively by exchanging opinions, experiences and ideas, thereby enhancing the learning process.

### Teaching as a communication process

Teaching is an organized institutional and non-institutional creative interaction, a partnership process of acquiring knowledge, abilities, skills and habits that prepare students for lifelong learning. A course objective is to create a critical, emancipated, creative and humane, multicultural personality, open to change in itself and society. Bratanić (2002) says that teaching communication not only has a purpose of information, but also is supposed to encourage thinking and creativity of all, enriching their spirit and developing their personality.

Wrench, Richmond & Goriian (2009, p. 4) define teaching communication as a *“process in which the teacher establishes an efficient and emotional communication link with students, so that students can achieve optimum performance in the learning environment.”* We can conclude that teaching, especially at university, is a communication process in which the professor<sup>1</sup> and the student<sup>2</sup> work as partners and

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<sup>1</sup> The term “professor” refers to persons of both sexes (in a variety of professions) who teach at universities.

<sup>2</sup> The term “student” refers to persons of both sexes involved in teaching performed at universities.

engage in achieving objectives and tasks of teaching, curriculum content is the work subject, joint activities for development and progress. In university teaching the student should not be a passive observer, an object, but should continuously, actively participate in communication (in all forms). Students' passivity, as well as poor communication with teachers, can lead to helplessness, withdrawal, a sense of inadequacy or defeat. Although teaching is a special form of the communication process, there are few studies that systematically research communication from the pedagogical aspect (Duff, 2003).

Recently, various authors (Sekulić-Majurec, 2007; Bogнар & Dubovicki, 2012; Dubovicki & Banjari, 2014) emphasized the new, changed role of the university professor as compared with the time in which university professors generally gave lectures, whose main role was to transfer knowledge. This paper understands communication as the main driver and motivator of student learning activities.

### **Communication crisis or contemporary communication era**

Recent research (Pirani & Sheehan, 2009; Salloum, 2011) warns of communication crisis, at least the sort that has existed so far (face to face), but embraces the flood of communication that takes place with the use of modern technology (Čaldarović & Šarinić, 2008) that has not missed the teaching process. Exploring modern communication means, they emphasize the possibility of mobile communications (Vaughan & Lawrence, 2013; Fojtik, 2014), which should be much more present in university teaching.

Research results (Vaughan & Lawrence, 2013) show that study participants indicated that mobile devices could be useful for supporting future professional responsibilities (career-long learning, collaboration) and facilitating student learning but less effective for planning, assessment, and managing the classroom environment. Salloum (2011) states that that respondents feel comfortable when using CMC tools, e-mail, forums, web conferencing, and chats and consider them useful tools in developing social skills, and maintaining communication. Participants who, in addition to Web conferencing, use forums perceive *higher learning and cognitive abilities*. Research shows that forum discussions are very successful in *promoting learning and teaching* (students can teach each other). Following these changes, teaching communication should get a new, improved version in which we can draw the best that will increase the quality of teaching communication.

## Research Methodology

### General Research Background

Our research methodology included three major components: a *literature review*, *quantitative questionnaire research* and *web-based quantitative interviews*. For the above reasons, the empirical part of the paper is divided into three parts. During the research, attention was paid to ethics.

The study aim was to determine students' satisfaction with communication in the teaching process with the help of features, modes, frequency of communication and quality, but also examination of the existence of differences with respect to these variables between private and state universities. The following variables were defined: the *independent variable* refers to the type of schools (private/public), the *dependent variables* refer to respondents' socio-demographic characteristics, satisfaction with communication, teacher characteristics, quality and competence of teachers associated with communication, style of communication between teachers, interpersonal communication features, teaching communication features and communication frequency.

Considering the research goal, the following hypotheses were formulated:

- H1.** *The content and learning outcomes of implementing plans of private colleges show a greater emphasis on communicative competence in relation to state colleges.*
- H2.** *Private college students are more satisfied with teaching communication than state college students.*
- H3.** *Private college students report greater presence of the characteristics of teaching communication in comparison with state college students.*

### Research Sample, Instrument and Procedures

The study was carried out on two occasions. During 2013, *pedagogical documentation* related to the comparison of public and private universities was explored, and the same year research was conducted with the use of a *quantitative questionnaire*, in which N=227 subjects participated, from undergraduate and graduate studies at the Faculty of Philosophy, Teacher Education, Faculty of Economics in Osijek, the Department of Physics in Osijek, VERN in Zagreb, ZSEM (Zagreb School of Economics and Management) in Zagreb and at ACMT in Dubrovnik (American College of Management and Technology). The snowball method was

used for collecting data. Descriptive statistics were used and t – test for independent samples. The data were processed with the use of statistical software for computer data processing (SPSS).

Data was gathered by student questionnaire, adopted from Katz & McClellan (1999) and transformed for the purposes of this study ( $\alpha=0.80$ ). It contains closed questions and a Likert-scale estimate of 5 degrees of quality and satisfaction (1 – completely unsatisfied, 5 – completely satisfied; – 1 not observed, 5 – always present) and frequency (1– never, 5 – always). The questionnaire consists of two parts. The first part includes five questions concerning sociodemographic characteristics in which respondents provide specific information: age, sex, college, year of study and number of courses per semester. The second part consists of questions concerning teaching communication, satisfaction with communication with teachers and certain forms of communication, qualities and competencies of professors, teachers' styles and characteristics and characteristics of interpersonal communication.

The second part was conducted in 2014, in which the students (of the same, above-mentioned faculty, N=40), via an *online interview*, expressed their views on satisfaction with communication in university teaching.

## **Data Analysis and Research Results**

### **Literature review**

In this part of the research, we studied pedagogical documentation related to implementing plans and programs of selected state (Faculty of Philosophy in Osijek) and private (VERN in Zagreb) universities for the purpose of detecting communicative competences visible in content and learning outcomes. Because of the number of different majors in both colleges, the contents and outcomes of the majors which emphasize the communicative competence were explored. At the Faculty of Philosophy in Osijek: pedagogy undergraduate and graduate study, and at VERN in Zagreb: business communication management graduate study. Because of the uniformity of researched documents, the authors investigated *Pedagogy graduate study* to better collate with *Business communication management graduate study* (Table 1).

Although the course number is not the same, for comparison we can see the percentages according to which it is seen that in the content and learning outcomes the private universities have a greater representation of communicative



**Table 1.** Representation of communicative competence in learning outcomes.

Type of study	Learning content and outcomes	
	Total course number	No. of courses with noted communication competencies
Pedagogy graduate study	13	6 (46%)
Business communication management graduate study	23	15 (65%)

competence than the state universities. These survey results confirm H1: *Content and learning outcomes of implementing plans of private colleges show a greater emphasis on communicative competence in relation to state colleges.*

### Quantitative questionnaire research

The study comprised students of undergraduate and graduate studies at the Faculty of Philosophy, Teacher Education, Faculty of Economics in Osijek, Department of Physics in Osijek, VERN in Zagreb, ZSEM (Zagreb School of Economics and Management) in Zagreb and at ACMT in Dubrovnik (American College of Management and Technology), involving a total of N=227. Basic statistical indicators more closely explain the sample structure. The total number was N=227 (M=50, F=177, M=23.73, SD=4.122). There were 62 students from the Faculty of Philosophy in Osijek, 26 students from Teacher Education in Osijek, 11 students from the Economics Faculty in Osijek, 13 students from the Department of Physics in Osijek, 46 students from VERN in Zagreb, 65 students from ZSEM in Zagreb and 4 students from ACMT in Dubrovnik. For the purposes of further analysis, the students of the Faculty of Philosophy, Teacher Education, Faculty of Economics and Department of Physics will be classified as “state colleges” (N=112), while the students of VERN, ZSEM and ACMT will be classified as “private colleges” (N=115).

Alongside the statistical indicators of the test sample, differences between the students of private and state universities in various aspects of satisfaction with teaching communication were considered. T-tests results show that the private college students are more satisfied with communication with teachers ( $t=6.578$ ,  $df=225$ ,  $p=0.000$ ). In addition to student general satisfaction with communication, we evaluated some aspects of communication satisfaction to further check their general satisfaction: the students’ satisfaction with *efficiency*, *affordability* and *response time*.

Results show the existence of differences between the private and state college students regarding their satisfaction with communication effectiveness. Overall ratings are higher with the private college students as compared with the assessment of the state college students ( $t=4.094$ ,  $df=225$ ,  $p=0.000$ ). Looking at specific communication forms, satisfaction with consultation efficiency before/after class ( $t=4.215$ ,  $df=225$ ,  $p=0.000$ ) and during teaching hours ( $t=5.886$ ,  $df=225$ ,  $p=0.000$ ) rated significantly higher scores by the private college students. In addition to communication efficiency, we explored another dimension, i.e., accessibility. By analyzing satisfaction with communication accessibility between the private and state college students, a difference in overall satisfaction and in some forms of communication was statistically confirmed. The private college students reported greater satisfaction with accessibility of communication before/after class ( $t=4.054$ ,  $df=225$ ,  $p=0.000$ ) and during teaching hours ( $t=5.522$ ,  $df=225$ ,  $p=0.000$ ) than the state college students. The next component is related to response time of processors (using different communication forms).

T-tests, regarding the results of satisfaction with time, show statistically significant differences between the private and state colleges. The private college students express greater satisfaction with the response time of consultation before/after class ( $t=4.584$ ,  $df=225$ ,  $p=0.000$ ) and consultation during teaching hours ( $t=6.329$ ,  $df=225$ ,  $p=0.000$ ). These findings suggest a necessity of changing the way and speed of communication in the state colleges. Results show that the private college students showed greater satisfaction with class communication than the state college students, confirming H2 *Private college students are more satisfied with teaching communication than state college students*.

For future research on class communication, we examined the students' views on its current "picture" (current state) regarding: *simplicity, clarity, brevity* (length) and *interest* (Table 2).

**Table 2.** Students' perceptions of the characteristics of class communication

Class communication (CC)	Type of college	N	M	SD	t	df	p																				
general attitude	private	115	3.85	0.74	6.35	225	.000																				
	state	112	3.26	0.66				CC is simple	private	115	3.89	1.06	4.56	225	.000	state	112	3.24	1.06	CC is clear	private	115	4.03	0.96	4.77	225	.000
CC is simple	private	115	3.89	1.06	4.56	225	.000																				
	state	112	3.24	1.06				CC is clear	private	115	4.03	0.96	4.77	225	.000	state	112	3.46	0.82								
CC is clear	private	115	4.03	0.96	4.77	225	.000																				
	state	112	3.46	0.82																							

Class communication (CC)	Type of college	N	M	SD	t	df	p
CC is brief	private	115	3.4	1.01	3.67	225	.000
	state	112	2.91	0.99			
CC is interesting	private	115	4.11	0.85	5.46	225	.000
	state	112	3.44	1.00			

Table 2 shows estimates of the characteristics of class communication a statistically significant difference between the students of private and state colleges, where the private college students demonstrate greater presence of the characteristics of class communication ( $t=6.355$ ,  $df=225$ ,  $p=0.000$ ), compared to the state college students. Research results can confirm H3 *Private college students report greater presence of the characteristics of teaching communication in comparison with state college students.*

### Web-based quantitative interviews

A semi-structured interview conducted online in 2014 researched the students' general ( $N=40$ ) satisfaction with communication in university teaching. The results show greater satisfaction of the private college students (90%,  $N=18$ ) compared to the state college students (75%,  $N=15$ ). The second part of the interview referred to proposals related to communication in university teaching. The answers were categorized and presented in Table 3.

**Table 3.** Suggestions for improvement of communication at university level

	Private colleges	f/%	State colleges	f/%
Extracurricular communication	• using contemporary technologies	14/70	• using contemporary technologies	18/90
	• more incentive when discussing certain topics on forums	12/60	• quicker response (via e-mail or Moodle) • more "face to face" communication	14/70 12/60
Class communication	• asking more questions in class by students	12/60	• greater motivation by teachers	13/65
	• more mutual active listening (by both teachers and students)	5/25	• using various social types would enable different types of communication (group, pair, circle)	12/60

Talking about *extracurricular communication*, Table 3 shows that the students of both colleges (90% state, 80% private) are happy to communicate with teachers using modern technology to a much greater extent than they have been doing. The private college students increasingly use social networks to communicate with each other but they find that there are still not enough course-related topics (60%) to address greater problems. However, the state college students greatly value time response (70%). The state college students miss “face to face” communication (60%) and believe that consultations once a week are not enough to personally talk with teachers.

Observing *class communication* we can say that in this area the students of the state and private universities emphasize different things. The private school students miss being asked more questions (60%) that would inspire discussion and interest. Also in this section they emphasize the importance of experience (by teachers/other scientists who are essential to their profession) that can help resolve posed problems. In addition, the private college students lack more active listening (25%) by the professors, but also by their fellow students because that shows evident respect for different opinions, but also for encouraging communication in general.

The state college students consider teaching of communication still insufficiently stimulated by professors (65%). A few students (30%) believe that teachers set rather rhetorical questions and do not expect a response. That should certainly change and enrich the teaching quality and successful communication, and this is the students' feedback that can contribute to the issue of communication. It is particularly important that the students stress the importance of exchange of social forms (60%) in teaching, because social forms contribute to different types of communication.

## **Discussion**

Research results show that the private college students are, on average, more satisfied with class communication than the state college students. In the private colleges, the representation of the communicative competence is 20% higher than that in the state colleges. In addition, the private college students are more satisfied with communication efficiency, accessibility of professors and speed of response. We can say that the teachers and students at the private colleges are more inclined to informal consultations, which create a relaxed and friendly atmosphere. Also, satisfaction with communication refers to communication quality, teachers'

abilities to recognize nonverbal messages resulting in the creation of a positive environment in the classroom. Data that is not in favor of the state universities is alarming and a sign that something should change. Certainly, it is necessary to start with oneself and educate oneself in the field of communication so that our messages would be clear, motivating and unambiguous. In addition, it is important to get students used to the necessity of class communication, thus contributing to teaching quality.

There is a statistically significant difference between the students of private and state universities, where the students of private universities demonstrate greater presence of the characteristics of teaching communication (simplicity, clarity, brevity and interest) compared to the students of the state universities. Mentioning the frequency of communication before and after the teaching process, the students of private universities communicate with teachers more frequently than the students of the state universities. The fact that we cannot forget is that private university teachers and students usually work in small groups, in which communication itself is more successful and better, but research poses new questions concerning the recognition of other factors according to which students of private schools evaluate teachers as communication competent.

Answers obtained with the use of the interviews conducted helped us to objectively approach the previously received answers to the questionnaire and analysis of documentation. In extracurricular communication, the students want greater use of modern technologies, quicker response to queries, encouragement in debate, greater motivation by all participants of the educational process, active listening, and change of social forms in the development of different communication types. Changing activities in the classroom as well as social forms are a combination for successful and efficient communication.

## **Conclusions**

Since communication is the basis of the teaching process, the underlying study problem was to determine possible differences in expressing satisfaction with communication. The aim was to examine the students' attitudes towards and opinions on private and state university characteristics, methods, frequency, quality and communication in the learning process, and the student-teacher relationship.

The research scientific value is evident in the selection of the research problem, original instruments, collected empirical data and theoretical explanation of the importance of changes in teaching communication. In addition to the presentation

of the students' attitudes and finding ideas for improving teaching communication, the study points to the importance of new changes affecting teaching communication. Methodologically, this research represents a genuine attempt to move away from the positivist approach.

For further research, the authors suggest exploring the communicative competence of university professors representing the imperative competence of local and foreign universities, which are also indicators of quality in university teaching.

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## **Diagnostics of Teenagers' Disposition Towards Destructive Communication as a Way of Youth Extremism Prevention**

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### **Abstract**

The article presents the authors' methods of determining teenagers' disposition towards destructive communication, identifies the main types of destructive communication and provides their psychological characteristics. It specifies the correlation between destructive communication and certain personal qualities of teenagers. It also determines the main role of the diagnostics of teenagers' disposition towards destructive communication as a way of youth extremism prevention in the system of correcting conditions of this type of interactions.

**Keywords:** *diagnostics, destructive communication, deviant communication, mercenary communication, barrier communication, conflictogenic communication, narcissistic communication, extremism, correction, prevention*

### **Introduction**

Extremism is one of the severest issues among the multiple contemporary issues. It is a wide-spread fact of the life of the 21<sup>st</sup> century society, which does not depend on borders, class or gender. This is evident from the fact that the vigorous destructive activities of the numerous parties and social movements increasingly appear in the political, economic, social, religious and other areas of society (Zubok and Chuprov, 2008, Seifert, 2012). Analysis of extremism as a negative phenomenon leads to the conclusion that it is a model of aggressive socio-political communication, built on the inequality of its parts and the opposition of their interests (Golovin and Aristarkhova, 2013). There are many views on the

nature and expressions of extremism. Briefly, its principal directions are as follows: extremism has increased; extremism is forming; extremism is reacting in strong emotions, extremism is a reasonable strategy in the race for power; extremism rises from an apolitical, eschatological ideology; extremism is a pathological disease (Seifert, 2012, Bartoli and Coleman, 2003, Czina, 2013).

On the basis of the definition given by Archbishop Desmond Tutu and due to the targets for determination of the role of education against extremism, Lynn Davies defines extremism as follows: "when you do not allow for a different point of view; when you hold your own views as being quite exclusive, when you do not allow for the possibility of difference and when you want to impose this view on others using violence if necessary". (Davies, L., 2014).

Extremism among teenagers has unique features. They appear from the nature of teenagers as a social category and are defined by the transitional nature of the formation of their personality. In course of investigation into the formation of teenagers' personality in the process of realization of their main social functions, which are reproduction and innovational, U.A. Zubok points out that it (formation) is associated with the overcoming of both internal and external contradictions. Young people, especially youngsters, are often forced to overcome internal contradictions that are the result of ambivalent manifestations, such as shyness and aggressiveness, openness and restraint, nihilism and fanaticism in an effort to gain self-sufficiency and independence from adults. External contradictions arise at the joint of interaction between teenagers and society, when meeting with its strict requirements. Realization of the contradictions promotes the extreme types of mind and behavior of youths, as its social group essential characteristics. This process is intensified under the influence of teenagers' social status characteristics associated with the transitional nature of the formation of their personality. Teenagers are only in the process of becoming subjects of social reproduction, so their social position is characterized by incompleteness of social status, marginality of social attitudes, and uncertainty of social identifications.

Adolescence has a special place in human life. During this period there is a large number of difficulties and disruptions in communication, related to both personal characteristics and environmental conditions and activities. Analysis of scientific sources of communication barriers and irregularities makes several forms of dysfunctional interpersonal communication stand out. These include: difficult communication in the form of shyness or modesty, deficiency in communication, which is evident as a disposition towards loneliness and strangeness, defective communication, i.e., a combination of an emphasis on personality, rigidity and anxiety of the person, as well as destructive communication, which is the subject of our study.



The term “destructive communication” is absent in psychological literature. Analysis of encyclopedic and philosophical literature allowed for identification of definitions and concepts of destruction and destructive human activity. Destruction (Latin: *destructio* – demolition) – demolition, damage of the phenomena structure. In the English language the term destructive means damaging, harmful. A well-known researcher, I.V. Lysak, gives the following definition of this phenomenon: “Destructive human activity is a specific form of an active relation of the subject to the world or to himself, the main content of which is the destruction of the existing objects and systems” (Lysak, 2004).

Foreign psychology describes a number of terms with the meaning close to our understanding of destructive communication, among them there are “miscommunication”, “communication breakdown”, “deficiency in communication”, and “destructive communication”. All of these terms are considered in the issue of communication as in foreign science interaction is regarded as a form of communication. The terms closest to our understanding of the destructive communication phenomenon are “deficiency in communication” and “destructive communication”, since they describe situations in which the parties of communication are dissatisfied with each other, and unable to establish positive dialogue, and as a result barriers and conflicts appear (Di Cioccio R.L., 2008, Infante and Wigley, 1986, Miczo and Welter, 2006, Rancer and Avtgis, 2006).

Based on the characteristics of the phenomenon peculiarities (Kunitsyna, 2001), we adopt the following definition of destructive communication: destructive communication is a form of interpersonal communication, which is represented by a subject-object interaction, which has complicated nature due to the personal characteristic of the communicants, which as a result affects the personality of the partners and disrupts the interaction.

## **Methods**

The problem of the content, psychological characteristics and forms of the occurrence of destructive communication in scientific literature remains understudied. Existing techniques give an opportunity to detect certain destructive communication appearances, but, unfortunately, do not cover the entire range of the studied phenomenon in the respondents, and do not allow for the identification of the disposition towards destructive communication (Mingazova, 2011). Therefore, the *objective* of this study is the creation of the authors’ questionnaire “Methods of determination of teenagers’ disposition towards destructive com-

munication" (MDDC), review of its psychometrical characteristics and standardization.

*Participants in the study.* The study was carried out on the basis of secondary general education institutions, among which there were: Municipal Educational Institution (MEI) Secondary General School (SGS) No.1 of Chishmy village, MEI SGS of Alkino village of the Chishminsky district of Bashkortostan (RB), MEI SGS No.34, 54 and MEI Grammar School No. 96 of Ufa city.

Totally, 578 people took part in this study. Five experts-specialists in psycho-diagnosis, professors of leading universities of Ufa city (M. Akmullah Bashkir State Pedagogical University, Bashkir Academy of Public Service and Administration under the President of the Republic of Bashkortostan) participated in the stage of questionnaire validation.

*Study procedure.* Research on the formation of the psychometric properties of the method was carried out in six steps. More detailed description of the steps is presented in the article (Mingazova et al., 2014). The developed questionnaire provides an opportunity to study destructive communication as an integral phenomenon and determine the disposition of the teenager towards one or more types of destructive communication.

Factor analysis of the characteristics which were obtained from the analysis of the participants' responses to the statements of the developed diagnostic methods for determining the disposition of teenagers towards destructive communication was used to define the types and structures of destructive communication (Mingazova et al., 2014). Factor analysis found out five factors, which represents five principal types of destructive communication (deviant, manipulative, barrier, conflictogenic and narcissistic), which in themselves combine types that are similar in their properties.

"Deviant communication" includes the proclivity for aggression, authority, egotism and criminality. It manifests itself in communication by lust for power, aspiration to take control of other people, inability to recognize wrongness, ostentation and often rudeness.

"Manipulative communication" is an aspiration to manipulate the partner and mercenary forms of destructive communication (falsehood, lies) dominates in this phenomenon. In this case, the partner is considered as a carrier of the properties which may be helpful in the achievement of his goal. It manifests itself in the form of deception, hypocrisy, clinginess and attempts to deceive the partner due to self-interest or the desire to find enjoyment in the process of deceiving others.

"Barrier communication" is an interaction which is based on the communication barriers – shyness, loneliness and strangeness. A person is characterized by low

extroversion, a constant sense of discomfort, tension in the interaction, which can be caused by low self-concept and self-esteem, sensitivity to the opinion of others, fear of being rejected, and at the same time, fear of emotional bond and distrust of people.

“Conflictogenic communication” manifests itself in behavior and interaction in the form of a disposition towards jealousy, envy, and high proneness to conflict. The behavior is based on conflict as a complex personal quality. It is characterized by susceptibility, quick temper, suspiciousness and envy or jealousy towards others. A person disposed towards envy in the process of interaction with people experiences hostility toward success, popularity, the moral ascendancy of another person, and the desire to destroy the object of envy. He/she feels bad when perceiving his/her lower position in comparison with other people. This jealousy is caused by the desire to be in the center of attention, by the fear of being left, becoming unpopular, as well as the distrust of the immediate circle.

“Narcissistic communication” takes its name from narcissism as a personal property manifested in the process of interaction, influencing the result of communication. Narcissism represents a borderline state of a person, and is expressed in the form of a hysteroid behavior and highly contradictory self-construction (Sokolova, 2001). Such a person is characterized by infantilism, egocentric motive orientation, a sense of inferiority, constant mental and physical fatigue, often hypochondria, strangeness, insane quest for excellence, internal permissiveness, lack of lofty aims, excessive idealization of people from the circle of contacts, lack of creativity, and low motivation to work.

## **Results**

Correlation analysis of personal qualities and types of destructive communication was carried out given the fact that destructive communication is based on certain personal qualities. It showed significant relationships between the outlined characteristics (Table 1).

Deviant communication has significant associations with egoism (0.48,  $p < 0.01$ ), negativism (0.32,  $p < 0.01$ ), verbal aggression (0.81,  $p < 0.01$ ), disposition towards transgression of norms and rules (0.34,  $p < 0.01$ ), authority (0.74,  $p < 0.01$ ) and negatively correlates with obedience (-0.42,  $p < 0.01$ ). It can be seen that deviant communication is basically developed thanks to a high level of the person's egoism and a desire to dominate over the partner in interaction, in the absence of acquiescence and emotional restraint it is often expressed in the use of different ways of achieving their aims verbally by altercation, menace, and abuse.

**Table 1.** Correlation relationships between the personal qualities types of destructive communication (DC) (N=207,  $p < 0.01000$ )

Personal qualities \ DC types	Deviant communication	Mercenary communication	Barrier communication	Conflictogenic communication	Narcissistic communication
Manipulation	0.20	0.79	0.18	0.34	0.21
Egoism	0.48	0.59	0.16	0.41	0.34
Negativism	0.32	0.16	0.08	0.24	0.26
Verbal aggression	0.81	0.04	0.04	0.22	0.06
Displaced aggression	0.25	0.36	0.09	0.31	0.01
Soreness	0.17	0.21	- 0.01	0.34	0.21
Suspiciousness	0.19	0.45	0.61	0.23	0.24
Susceptibility	0.14	0.12	0.10	0.28	0.10
Disposition towards transgression of norms and rules	0.34	0.17	0.04	0.18	0.16
Authority	0.74	0.09	- 0.35	0.23	0.14
Dependence	0.06	0.23	0.74	0.01	0.10
Obedience (shyness)	-0.42	0.01	0.61	-0.51	0.07

Mercenary communication, in turn, has relations with personal qualities such as a disposition towards manipulation (0.79,  $p < 0.01$ ), egoism (0.59,  $p < 0.01$ ), displaced aggression (0.36,  $p < 0.01$ ), suspiciousness (0.45,  $p < 0.01$ ). The basis of this type of destructive communication is egoism and a high degree of manipulation.

The positive correlation shows the association of the barrier form of destructive communication with suspiciousness (0.61,  $p < 0.01$ ), dependence (0.74,  $p < 0.01$ ) and obedience (0.61,  $p < 0.01$ ), and also negatively associated with authority (-0.35,  $p < 0.01$ ). The person initially relates to the outward things and people suspiciously and incredulously, they are not able to protect their own interests.

Significant positive relations were found between conflictogenic communication and disposition towards manipulation (0.34,  $p < 0.01$ ), egoism (0.41,  $p < 0.01$ ), displaced aggression (0.31,  $p < 0.01$ ), soreness (0.34,  $p < 0.01$ ), susceptibility (0.28,  $p < 0.01$ ), and a negative association with obedience (-0.51,  $p < 0.01$ ). This means that the person demonstrates distrust, envy and hate towards others, uses gossip and jokes against others, is very irritable and disposed towards manipulation

The last form of teenagers' destructive communication is narcissistic communication, which has significant associations with egoism (0.34,  $p < 0.01$ ) and negativism (0.26,  $p < 0.01$ ).

Based on the results, personal qualities have a close interrelation with the occurrence of destructive types of teenager communication. This applies primarily to such qualities as a disposition towards manipulation, egoism, displaced aggression, and suspiciousness, which have significant associations with a variety of types of teenagers' destructive communication. What is conspicuous is the fact that all types of destructive communication, except the barrier one, positively correlate with the person's egoism. The obtained results confirm the hypothesis and opinions of some authors that destructive communication is based on the qualities of the person (Kirsanov et al., 2014, Musdybaev, 2000).

## **Discussion**

Analysis of the content abundance, frequency of occurrence and the interrelation of destructive communication with personal qualities, mostly negative, allows for the conclusion that early diagnostics of teenagers' and young people's disposition towards destructive communication is necessary in order to prevent the transformation of the disposition into stable extreme forms of behavior. The necessity of diagnostics and subsequent correction of teenagers' destructive communication caused by the fact that the inconsistencies of views, marginality and unformed state of persuasion and worldview, which are common at this age can lead to aggression, fanaticism and criminogenic communication in the absence of such work and under unfavorable conditions of the social situation of development, rejection of the immediate circle.

The results of our research correlate with the opinions of some researchers in the field of formation of resilience to extremism among young people: «the key ingredients that should guide teaching outcomes for building resilience are:

1. A focus on building personal resilience and a positive sense of identity: supporting young people to be emotionally resilient to life's pressures and able to foster a positive sense of self.
2. Development of critical thinking skills, i.e. continually encouraging young people to think for themselves and in doing so take account of a balanced range of evidence and alternative perspectives.
3. Opportunities for interaction and team-work, so that young people develop transferable skills for positive collaboration and ongoing engagement (Joe Bonnell et al., 2011).

Diagnostics of a disposition towards destructive communication is one of the main conditions of the prevention of this phenomenon, but not the only one.

There is a variety of conditions which are essential to the successful prevention and correction of teenagers' disposition towards destructive communication. These include: the creation of a communication culture in the system of teacher-teenager, parent-teenager, teenager-teenager, realization of purposeful awareness-raising work with teachers and parents, the use of different methods of active social-psychological education and non-directive work methods. The solution that will help to take into account and implement the conditions of effective correction of teenagers' destructive communication is to create a program of complex type. Such a correction program should be based on proper diagnostics and realized in three directions: work with teenagers; work with teachers; and work with parents.

Extremism as the major problem of modern times is becoming increasingly widespread in the world. In most cases, extreme forms of behavior are observed among young people. This is caused by the transitional nature of personality formation of young people, associated with overcoming of both internal and external contradictions. Awareness of contradictions contributes to the formation of extreme types of mind and behavior of young people as their social group, essential characteristics. The greatest number of communication difficulties and defection accrue to teenage years. The most characteristic form of bad interpersonal communication of teenagers is destructive communication, which is based on mostly negative personal qualities. The above determines the necessity of preventive activity with teenagers for the prevention of aggression, violence and fanaticism. For this purpose, early diagnostics of various types of destructive communication and their correction is extremely important.

Further studies could be aimed at the determination of the causes of disruptions in communication and on the basis of these causes – identification of certain groups of teenagers. This will help to make preventive maintenance more individual and to perform it systematically as well as to predict teenagers' negative behaviors during communication.

## **Conclusion**

1. Active formation of the communicative and personality spheres of the human, whose development is immediately interconnected, takes place in the teenage years. Successful passage of this step contributes to the formation of a person who effectively functions in society. The occurrence of various disorders, destructions in the process of communication is not uncommon at this age stage, much of which is due to the fact that a teenager

- is a developing person and in many respects the formation of models of interaction and communication with society is still continuing.
2. The “Methods of determination of teenagers’ disposition towards destructive communication” (MDDC) questionnaire is primarily focused on the diagnostics of the main types of destructive communication as a form of dysfunctional communication that adversely (destructively) affects the personality of the participants in the interaction. Diagnostic material allows for effective detection of the disposition of respondents, and simultaneously the level of expression of the five major types of teenager destructive communication: deviant, mercenary, barrier, conflictogenic and narcissistic communication.
  3. Analysis of the content abundance, frequency of occurrence and the interrelation of destructive communication with personal qualities allows for the conclusion that corrective work with teenagers in educational establishments is necessary in order to prevent the transformation of the disposition into stable extreme forms of behavior. The necessity of correction of teenagers’ destructive communication caused by the fact that the inconsistencies of views, marginality and unformed state of persuasion and worldview, which are common at this age, can lead to the development of criminogenic communication as well as negativism and fanaticism in the absence of such work and under unfavorable conditions of the social situation of development.
  4. Objective and early diagnostics of teenagers’ disposition towards destructive communication is an essential condition and principal part of the complex target program of prevention and correction of youth extremism, based on the principles of dialogue, subject-subject interaction and non-directive work methods.

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## The Diagnosis of Fetal Alcohol Spectrum Disorder

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### Abstract

Prenatal exposure of a child to alcohol may cause Fetal Alcohol Syndrome or Fetal Alcohol Spectrum Disorder (FAS/FASD). As a result, the affected child may exhibit lower intellect, neurosensory disorders, hyperactivity, executive functions disorder, abstract thinking and behaviour disorders combined with growth disorders and facial dysmorphism. In addition, undiagnosed and untreated children may suffer from serious secondary and tertiary disabilities. The aim of this paper is to provide a research overview of practical information about FAS/FASD syndrome, a presentation of the 4-Digit Diagnostic Code method and a sample of the research results by the first Centre of Diagnosis, Treatment and Prevention of FAS in Slovakia.

**Keywords:** *Fetal Alcohol Syndrome, Fetal Alcohol Spectrum disorder, diagnosis, treatment, prevention, Slovakia*

### Introduction

FAS (Q 86.0) (Fetal Alcohol Syndrome) describes a set of symptoms in the children of mothers who consumed alcohol during the pregnancy and all the symptoms, such as typical facial dysmorphism, CNS damage and a growth deficiency, are present. If only a few signs are present, these are then covered under the term FASD (Fetal Alcohol Spectrum Disorder).

Four diagnoses fall under the umbrella of FASD: FAS, partial FAS, static encephalopathy, neurobehavioral disorder.

## **Research Problem**

Drinking in Slovakia is high above the average. According to WHO, Slovakia is in the 19<sup>th</sup> place for the consumption of alcohol. What is alarming is the fact that alcohol is increasingly consumed by girls. The average age of the first contact with alcohol is 10. According to the data of the Statistical Office of the Slovak Republic, the average annual consumption of pure alcohol by young people aged between 15 and 18 is almost the same (10.2 litres a year) as in adults (10.8 litres a year). Due to the immaturity of the central nervous system (CNS) and the growing incidence of binge drinking in this age group, an early onset of addiction may be expected among the girls of the reproductive age. This leads to the prenatal alcohol exposure (PAE) of the next generation. Justifications for such concerns are also confirmed by statistics, according to which up to 60% of sixteen-year-old girls attending vocational schools who regularly smoke and have experience with alcohol have already had a sexual intercourse. Some have already been engaged in sexual activity on a regular basis. Out of the girls at the same age who attend vocational schools and who do not smoke and do not drink alcohol only 26% have had a sexual intercourse. It follows that alcohol greatly speeds up the start of a sex life, brings more unwanted pregnancies and, in the end, more afflicted kids.

In the countries of Europe and North America, the treatment for the partial elimination or relief of the symptoms of FASD is known and used in practice. The systematic introduction of sensorimotor integration and executive function treatments is beneficial to the quality of life of the affected individuals and also to society. Research over the last 30 years has shown that children up to the age of 6 who have been diagnosed with FAS and with whom therapists have worked, have had good results, a higher quality of life and have been beneficial to society within their capabilities. The issue of the diagnosis, treatment and prevention for children with FAS/FASD, which is not systematically solved in Slovak society, has begun to gain in size, mainly in foster and adoptive families, where the concentration of such children is much higher.

## **Research Focus**

In 2010–2011, after one of the authors of this paper had completed a series of training courses for educators about FAS syndrome, organised by the civic association Návrát (Return), in cooperation with Malgorzata Klecka from Poland, in 2012, at the University, a systematic scientific research activity aimed at FAS diagnosing

started. The civic association *Návrat* (Return), which works with foster families and children from dysfunctional families, was looking for experts to help children who, despite the excellent care after placement in a new family, were not developing properly. In the fall of 2012, the members of the research team completed the training in the diagnosis of FAS at the University of Washington in Seattle, with Professor Susan Astley, the author of the 4-Digit Diagnostic Code manual (4DDC). In 2013, Susan Astley, with her colleague Theresa Grant, accepted an invitation to Slovakia in order to train our team. The multi-diagnostic team operating at the Education Faculty of Catholic University in Ruĝomberok, includes a paediatrician, a social worker, a speech therapist, a school psychologist, a special pedagogue and a therapeutic pedagogue, or physiotherapist. The diagnosing of children began in the pilot project “Support of the program dealing with children and youth with behavioural disorders”, supported by the Foundation *Mondi SCP, corp.* However, the team members worked as volunteers, so they met for diagnostics only once a month. Thanks to the cooperation with the University of Washington, Seattle WA, and the Research Institute of Child Psychology and Pathopsychology, as well as the *Nosko Health Prevention Organisation*, the professional activity of the team has been continuously pursued. The team has operated as the first in Slovakia, specifically in the area of the diagnosis of children at preschool and school age with the suspicion of FAS/FASD.

## **Research Methodology**

Given the increasing interest in the diagnosis and the assumption of the prevalence of FASD, the establishment of the centre with a systematic focus on FAS/FASD was highly important. As a result, the Centre for Diagnosis, Treatment and Prevention of FAS has been established. In Slovakia, in contrast to the rest of the world, the diagnosis of FASD in children is underestimated. The diagnosis of FAS comprises only children with significant facial dysmorphia and the record of the alcoholism of the mother. The prevalence of FASD in Europe is estimated at the level of 1/100 of alive-born children. According to the Statistical Office of the Slovak Republic, in 2012, 55,535 children were born, which would mean that 555 children were born with FASD. We can expect a similar number of newly affected children with FAS/FASD every year. If we were to estimate undiagnosed children under 19, we would be talking about a group of 10,500 children. The majority of children diagnosed with FASD are placed in foster care. Our centre is the hope for these children and their families. Since the children with FASD syndrome have

not got a specified diagnosis, they will not receive the special assistance required for the treatment and compensation of CNS impairment, nor the support for their integration into society. Thanks to the activities of the Centre, a network is being created, which is prepared to competently help children to cope with the consequences of their afflictions.

FAS/FASD is diagnosed on the basis of 4 criteria: exposure to alcohol during the intrauterine development, growth retardation, facial dysmorphism and brain damage in the cognitive and behavioural areas. Although these children have brain damage, there is a minimum difference in appearance from other children and their behaviour is also comparable to their peers up to preschool age. Due to sensorimotor and executive function disorders the children have the ability to communicate, yet are unable to think, perceive or respond equally. These children have similar symptoms to the children with ADHD or autism.

Early diagnosis and treatment of these disorders is essential and improves the condition of children suffering from FASD (Church and Kaltenbach, 1997). Diagnostic tools started to emerge after 1996. One of the first handbooks came from the Institute of Medicine in the USA (IOM). Separate manuals then followed, such as Canadian manual or CDC manual. The most comprehensive diagnostic system is the 4-Digit Diagnostic Code manual of FASD (Diagnostic Guide for Fetal Alcohol Spectrum Disorders – The 4-Digit Diagnostic Code (4 DDC)). In 1997 and 1999 (latest revision 2012), Astley and Clarren responded to the shortcomings in the diagnosis by creating the 4-Digit Diagnostic Code, which standardised the measurements and increased the objectivity of the diagnosis while having made provisions for the diversity in the manifestations of prenatal exposure to alcohol.

## **Instrument and Procedures**

The following are the four diagnostic codes for the classification of FASD diagnosis:

Facial dysmorphism: measurement of the eye length (palpebral fissure length), evaluation of the philtrum and the upper lip compared to the picture of the Likert scale or the use of a photo where deviations of facial features are measured by a photographic software program.

CNS impairment: an evaluation of the structural and neurological symptoms and psychological examination by standardised tests in 7 domains: Cognitive func-

tions (WISC, Stanford-Binet); School skills: (WRAT, WIAT, Woodcock Johnson); Social skills and adaptive behaviour (VABS, BASC, Adaptive Behavior Assessment System); Neuropsychological (Rey complex figure, NEPSY, CVLT); Sensorimotor integration (sensory profile, Bruininks-Oseretsky, VMI); Communication skills (Test narrative skills); Behaviour Rating Inventory of Executive Function (BRIEF).

Prenatal exposure to alcohol according to anamnestic data from the mother or from anamnestic data in the documentation.

Each code is evaluated depending on a 4-point Likert scale:

Code 1 indicates that the symptoms are not present.

Code 4 indicates the fully expressed classic symptoms.

By combining the codes, we obtain 256 resulting diagnoses, which are incorporated into 9 resulting diagnostic categories. During the diagnosis, we use the Diagnostic Guide for Fetal Alcohol Spectrum Disorders – The 4-Digit Diagnostic Code. Diagnostic categories: A: FAS with confirmed prenatal exposure to alcohol in the mother (FAS-AE); B: FAS prenatal exposure to alcohol in the mother is not known (FAS-AEU). Patients with partial FAS have manifestations of facial dysmorphism in combination with impaired brain development without growth deficiency. Damage to the brain in the diagnosis of FAS and partial FAS is comparable. Growth hormones do not result in an improvement of growth, because the cause is distinct C: Partial FAS with confirmed prenatal exposure to alcohol in the mother, when the child has all the symptoms of FAS except slow growth (pFAS-AE).

Other possible combinations of codes fall within the ambit of the diagnoses: D: Phenocopies of FAS (without confirmed alcohol exposure) (FASP-no AE); E: The presence of some physical symptoms along with static encephalopathy (SPF-SE-AE); F: Static encephalopathy (SE-AE); G: The presence of certain physical symptoms along with neurobehavioural disorder (SPF-NBD-AE); H: Neurobehavioural disorder (NBD-AE); I-U: a combination of the previous ones; V: No changes were detectable, alcohol in pregnancy has not been confirmed.

## Data Analysis

**Table 1.** Diagnostic codes according to the Four-Digit Diagnostic Code manual

Code	Growth Deficiency	Face Dysmorphic Features	CNS Impairment	Confirmed Exposure to Alcohol
4	Significant lagging under the 2 <sup>nd</sup> percentile	Significant All 3 features	Definite Structural and Neurological	High-risk drinking during pregnancy
3	Moderate 3–6 percentile	Moderate 2.5 features	Probable dysfunction	Mother drank occasionally during the pregnancy
2	Mild 6–10 percentile	Mild 1–2 features	Possible dysfunction	We do not have information about the mother's drinking
1	None > 10 percentile	Without afflictions	Unlikely	Mother did not drink beverages containing alcohol

Source: Astley, 2004.

The positive aspect of the system is the objective measurement that has replaced the previous subjective approach. Growth is objectified thanks to the growth charts divided into the percentiles by age and gender. An evaluation of face dysmorphia is compared to a Likert pictorial 5-point scale. Changes in the centre of the face correlate with the damage to the same part of the face in experimental animals with prenatal exposure to alcohol on the 19<sup>th</sup> up to the 21<sup>st</sup> day of gestation. This leads to disturbances in the development of the forebrain. We measure the plapebral fissure length by hand or with the use of photographic software using the Z-score which is adjusted to age and ethnicity. Further dysmorphic symptoms may be present, however, they are not specific to FAS. Genetic testing is also important for the exclusion of possible similar genetic syndromes. When coding CNS impairment, damage to the structures of the brain and its functions is taken into account. Furthermore, other prenatal factors are taken into account relating to genetic damage, inappropriate prenatal care or postnatal care, e.g., the placement of children in several foster families or other institutions, adverse life situations, premature birth. Two "old-new" concepts are here specified:

Neurobehavioural disorder is defined as a cognitive-emotionally-socially-impaired child, whose problems could also be caused by other factors, such as genetic changes, toxic substances, and problems during the perinatal period.

Static encephalopathy is defined as significant damage to the structures of the CNS or its functions manifested in the cognitive, emotional and social areas.

The weak aspect of the 4-Digit Diagnostic Code lies in discrepancy between the assessment of the facial dysmorphia and a consensus on the diagnostic codes.

In addition, the criteria are quite numerous. A revision of the 2004 Likert scale according to racial nationality has brought about more accurate documentation of brain function domains.

## Research Results: The measured 4 codes among a selected sample of Slovak children

Up till now, the Centre of Diagnosis, Treatment and Prevention of FAS has diagnosed 23 clients using the 4-Digit Diagnostic Code method. The children were under 15 years of age. Out of those we chose 19 records.

The youngest client was an infant of 6 months of age, in whom it was already possible to establish the diagnosis of FAS.

**Table 2.** The measured 4 codes in a selected sample of clients from the Centre of Diagnosis, Treatment and Prevention of FAS

Age at the time of the diagnosis	The form of care during the diagnosis	The presence of CAN syndrome	Code/category/diagnosis	Presence of secondary/tertiary manifestations
6 months	Children's home	Yes	3444/A/FAS-AE	No
1 year, 2 months	Foster Care	Yes	3224/G/SPF-NBD-AE	No
3 years, 2 months	Adoption	Yes	1323/G/ SPF-NBD-AE	Yes
4 years, 3 months	Adoption	Yes	3243/E/ SPF-SE-AE	Yes
4 years, 4 months	Foster Care	Yes	1344/ C/pFAS-AE	Yes
4 years, 6 months	Foster Care	Yes	4444/A/FAS-AE	Yes
4 years, 8 months	Adoption	Yes	1433/C/pFAS-AE	Yes
5 years, 3 months	Foster Care	Yes	4443/A/FAS-AE	Yes
5 years, 4 months	Foster Care	Yes	1224/H/NBD-AE	Yes
6 years 2 months	Foster Care	Yes	2244/ F/SE-AE	Yes
7 years, 4 months	Biological family	Yes	1223/H/NBD-AE	Yes
7 years, 6 months	Adoption	Yes	1424/G/ SPF-NBD-AE	Yes
7 years, 8 months	Children's home/ Professional family	Yes	1243/ F/SE-AE	Yes
7 years, 9 months	Foster Care	Yes	1234/ F/SE-AE	Yes
8 years, 2 months	Adoption	Yes	1232/L/SE-AEU	Yes
8 years, 7 months	Foster Care	Yes	1234/ F/SE-AE	Yes

Age at the time of the diagnosis	The form of care during the diagnosis	The presence of CAN syndrome	Code/category/ diagnosis	Presence of secondary/ tertiary manifestations
10 years, 4 months	Adoption	Yes	2234/ F/SE-AE	Yes
13 years, 7 months	Foster Care	Yes	2324/G/ SPF-NBD-AE	Yes
14 years, 11 months	Substitute personal care	Yes	2234/ F/SE-AE	Yes

## Discussion

We have measured severe afflictions predominantly with clients up to five years of age. Early diagnosis increases the success of intervention and protection before secondary and tertiary afflictions develop. The bulk of the clients aged from 6 to 14 were diagnosed with “static encephalopathy”. During the diagnosis, only one client was placed in his biological family, the others lived in substitute care, of which the most common form was foster care. In all of the clients it was possible to prove CAN syndrome. In only two clients, aged 6 months and 14 months, the presence of secondary and tertiary afflictions was not recorded. During the diagnosis of CNS, standardised tests for the Slovak population were used: Iq tests – WISC-III, Stanford-Binet, T-228 Test of the level of intellectual abilities – TURS, IDS – Intelligence and developmental scale for children from 5 to 10; Learning disorders – Woodcock Johnson, T-239 Diagnosis of specific learning disorders, T-41 Trail Making Test – TMT, T-92 Bender – Geštalt test, T-111 Battery of neuropsychological tests for number processing and calculation in children – ZAREKI, T-122 Tests of mathematical abilities, T-269 Dynamic test of the latent learning abilities of children aged 6–8, Attention test d2-R; Adaptive behaviour/ social skills – T – 18 A questionnaire on the behaviour of preschool children, T-85 The scale of classic fear, social-situational anxiety and examination fever – KSAT, T-98 A questionnaire on social segmentation, T-100 Children screening, T-106 CATO, T-112 Children’s Manifest Anxiety Scale – CMAS, T-161 State-Trait Anxiety Inventory – STAI; Neuropsychological examinations – T-111 Battery of neuropsychological tests for number processing and calculation in children – ZAREKI, T-65 Rey-Osterrieth Complex Figure test – TKF; Sensory integration – Bruininks-Oseretsky Test of Motor Proficiency, MABC-2-The Movement Assessment Battery for Children; Speech/Social Communication – TEKOS – Test



of Communication Behaviour, Heidelberg Speech Development Test (H-S-E-T); Executive functions – WCST – Wisconsin Card Sorting Test, BRIEF – Behavior Rating Inventory of Executive Function in children.

Since our set mainly represents primary school pupils, the reason for the diagnosis was to adequately integrate the children within the education system of Slovakia. The focal point of the caregivers' expectations was the creation of the social environment criteria of a child with FAS/FASD related to his community, adaptability and utility. We are processing more detailed scientific results about diagnostic recommendations in a separate study.

## **Conclusions and recommendations for practice**

Individuals with FASD have numerous secondary and tertiary afflictions, which are extensions of primary problems and are potentially preventable. These afflictions arise in children due to an inappropriate approach and the lack of a proper diagnosis. The afflictions are manifest in problems at school, psychiatric problems, unreasonable sexual behaviour, alcohol and drug addiction, conditional sentencing and punishment. Streissguthová et al. 19, 26 found that an early diagnosis, ideally before the age of 5, is the strongest correlation factor for the reduction and prevention of secondary afflictions. An early diagnosis prepares the family and the child for difficulties during adolescence and allows for support through adequate social benefits. A young person with CNS impairment may have a greater chance for his/her independence and in the end, fewer problems in applying himself/herself in adulthood. With the availability of special education, the child may have better conditions for the development of adequate self-esteem. An early diagnosis is also a marker of the mother's mental health. An effective treatment for mothers reduces the risk of the removal of the child from the mother, lowers the risk of an impact on other offspring and allows for intervention in the case of other affected siblings.

Obtaining the data from the mother's medical history seems to be challenging in Slovakia. If the biological mother is not known, we must rely on indirect information. When determining the medical history directly from the mother, the data is unreliable, often underestimated. Research by Streissguthová (2000) showed that when determining a diagnosis, the focus should not only be on physical changes, but also on the diagnosis of CNS deficits. An additional diagnostic dilemma is the ethnic differences in the white and Roma populations. The fact that Roma people are generally smaller results in a false positive code for the delayed growth and smaller head circumference.

In order to establish a FAS diagnosis, many social and medical obstacles have to be overcome. The level of knowledge about FAS within the European continent among paediatricians and school psychologists is alarmingly low. The opinions of gynaecologists in the EU are inconsistent and they often do not warn pregnant women of the harmfulness of alcohol. Gynaecologists are not trained on how to take care of pregnant alcoholics. Even when paediatricians know about alcohol consumption during pregnancy and suspect FAS, many of these children are not sent for FAS diagnosis because of the stigma and the fear of the biological family's reaction and resistance.

A final problem is the inconsistency of the international classifications. In Slovakia, the diagnosis of FASD is new in terms of the multidisciplinary approach. Due to the rising interest of the target group in this type of diagnosis and the need for new forms of treatment and prevention in the area of FAS/FASD among the children at preschool and school age, a diagnostic team was formed in 2012 at the Pedagogical Faculty, Catholic University, in Ružomberok, as a first step in the diagnostics of FAS/FASD. The Centre of Diagnosis, Treatment and Prevention of FAS at the Catholic University Faculty of Education provides comprehensive diagnostic, counselling, rehabilitation, preventive, methodological, educational, research, and development activities, including a set of special pedagogical interventions for children diagnosed with FAS/FASD, in order to reach the optimal development of their personality and social integration. The centre is set up according to the American model of the clinic at the University of Washington in Seattle, which is run within the Centre on Human Development & Disability and is called FAS DNP (Fetal Alcohol Syndrome Diagnostic & Prevention Network). Because for children with FASD accurate diagnosis is the first and most important step that changes the attitude of parents and teachers in order to seek help, the idea of our centre is to create a network of diagnostic and therapeutic centres.

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## Use of Internet Resources as a Means of Spiritual Education of Classical University Students

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### Abstract

The article deals with the problem of finding new means of spiritual education of high school students. An attempt was made to prove that Internet resources can be involved in the educational process, not only as educational supply, but also as a means of spiritual education. It is noted that students should be formed with interest to Internet resources that contain information capable of enriching the spiritual world of the individual. The leading role in the mentioned process is given to the tutor of a student group. Among the Internet resources that have a significant educational influence, what should be pointed out are digital libraries, virtual museums, and Internet versions of educational channels, social networks, and websites of educational institutions. The author emphasizes that the effectiveness of the use of Internet resources as a means of spiritual education of students is possible in the case of compliance with a number of educational conditions.

*Keywords: spiritual education, spiritual development of the individual, means of education, teaching census, Internet resources, educational content of the website*

### Introduction

Building of a civil society involves orientation to the priorities of spirituality and morality. In the mentioned process particular importance is centered on the problem of renewal of the higher education system as the leading center of spiritual culture of the nation.

The educational paradigm of a higher education institution should be directed at developing students' sense of national dignity, belonging to the famous Ukrainian nation. Young people must consciously focus on the ideals of goodness and beauty, truth and justice, compassion and human dignity. Eternal values should become an inner activity motive and the core of the human's spiritual world, which unite feelings, thoughts and will into a single unit.

In view of the diversity and multidimensionality the problem of spiritual formation of the individual has been reflected in a number of humanities. Thus, the concept of spirituality is reflected in scientific ideas of philosophers who consider spirituality as a sphere of reality understanding (V. Baranivskiy, L. Sokhan, L. Oleksiuk, V. Suhatovskiy, V. Sherdakov); psychologists who analyze psychological roots of spiritual values (I. Bekh, O. Zelichenko, H. Kostiuk); teachers who explore the essence of spiritual development of the individual, pedagogical conditions of spiritual education of students – O. Brezhneva, A. Marusenko, L. Moskaliova, N. Pysmenna, H. Shevchenko, T. Shkliarova. Domestic and foreign research on scientific achievements shows the need to create a theoretically grounded and methodologically varied system of spiritual education of the individual. Our research is based on the statement of H. Shevchenko, who says: “moral education of students is a priority direction in the educational work of the institute. It is aimed at improving the status of spirituality and morality in the whole system of educational activities of higher education institutions and aims at the formation of spirituality as a fundamental feature of the individual, which determines their position, behavior, attitude to themselves and the surrounding world” (Shevchenko, 2014, p. 3).

At the same time, the analysis of resources shows insufficient attention paid to the implementation in the educational process of higher education institutions of new educational means oriented to spiritual growth of contemporary students. In particular, this concerns network resources as the latest measurement of storage and information transmission. Traditionally, the pedagogical science pays great attention to educational possibilities of Internet space. (Zhaldak et al., 2014). As for its involvement in the educational process, there arises a very skeptical attitude. Usually the Internet is associated with negative factors affecting the spiritual world of the individual.

The purpose of the study was to determine the pedagogical potential of Internet resources and the conditions of their use as a means of students' spiritual education at higher education institutions.

## **Research Methodology**

Means of education are an integral part of the implementation of any form of educational process organization, e.g., different out-of-class and extracurricular art activities, classes at clubs, groups, tourism, amateur talent groups, and different kinds of work. They involve a system of educational means capable to promote educational influences on the individual.

Solving difficult cognitive and practical tasks based on the student's own desires allows him to train his will, perseverance, determination in accordance with the ideal. Through reflection the student is periodically able to correlate the results of self-education with life objectives and deeply-rooted ideals.

When looking for effective means of spiritual education we refer to Internet resources in view of their semantic content, ease of access, and multi-variant use. In order to become a valuable means of education it should not only determine the pedagogical census, but also the forms of organization and methods of education in which it will be involved. Internet resources selected by the teacher for use in the educational process of students are not an exception. In research on problems of students' spiritual and moral education, L. Moskalova indicates that the work of tutors with students should cover a complex of educational cases aimed at deepening and improvement of theoretical and practical preparation in the sphere of future professional activity. The scientist identifies a number of key directions of work:

- attending scientific conferences, concerts and mass performances, participation in social events and auctions and analysis of the conducted programs;
- working with archival and regulatory documents, primary sources, educational and teaching and methodological books, textbooks, additional literature, electronic versions of textbooks;
- improvement of professional activity practical skills (conversations, dialogues, discussions, lectures and seminars with analysis of specific pedagogical situations, situations of moral choice, training activities of moral action and acts, etc.);
- search, scientific research activity in the educational process of moral and ethical culture (Moskaleva, 2009, p. 361).

From our point of view, involvement of Internet resources will contribute to the implementation of almost each of the indicated directions. Such resources primarily include: digital libraries, virtual museums, Internet versions of educational channels, social networks, and education institution websites.

A modern electronic library is a large-scale service based on documents stored in digital form, access to which is provided through the network to a large number of users.

An electronic library is a distributed informational system that enables storing and using of different collections of electronic documents (texts, graphics, audio, and video) through a global network of data transmission in a convenient form for the end-user.

Apart from electronic documents the objects of processing in the electronic library are also databases, maps, user maps, links to other digital libraries, etc.

The main functions of the electronic library include:

- meeting informational needs of the users (society);
- providing information services (search, annotations, information about new incoming, etc.);
- organizing information so that it is convenient to use (cataloguing and convenient navigation);
- managing information location and transmitting the information to the users and their intermediaries;
- ensuring the integration of information resources.

Most electronic libraries allow for downloading books in the fb2, txt, doc, mp3 formats and other formats absolutely free of charge. All the reader needs is to visit the selected electronic library, to find a suitable book and download it.

A decisive advantage of digital libraries is the availability of the audio versions of primary resources, which allows for acquainting students with the best examples of spiritual culture, and thus contributing to their spiritual development. However, it is not enough for the contemporary teacher to give the students a list of recommended works for review. It is important to consider methodological ways and means to activate the reader's interest and desire to ponder questions of personal and individual, nation-state, general planetary dimension.

For example, when teaching a course of "Philosophy" the theme "World philosophical process" can be enriched with deep analysis of moral qualities of the individual represented in the work "Confessions" by the religious thinker of the Middle Ages, St. Augustine (Augustine Aurelii, 2008). While studying his works, in accordance with the theme of the program, it should be noted that he was one of the first to draw attention to the problem of the formation of the individual. For methodological provision of "Philosophy" (for independent study and in practical classes) we can use the printed version, but we consider it as more interesting for students to work with small fragments of an audio book. In order to attract the students' attention before listening to each fragment it is advisable to ask the following questions:

1. What features of human beings does St. Augustine define as unacceptable?
2. Under what conditions, according to St. Augustine, do the child's moral features appear?
3. Which children's actions does St. Augustine consider as innocent, which are negative for adults?
4. What were the challenges St. Augustine faced when he was at school?
5. Why did parents in those days approve of teachers' violence towards children?
6. Explain St. Augustine's statement: "Any disorder in the soul is its punishment."
7. Analyze St. Augustine's attitude to the requirements of education.
8. What way of children education and upbringing does St. Augustine define as correct?
9. Which novels studied at schools did St. Augustine subject to harsh criticism? What moral traits are promoted in them?
10. What are the rules that St. Augustine compares with the rules of conduct?
11. Describe the author's attitude to such features as dishonesty, arrogance, disbelief, anger.

It should be noted that the educational work through audio books is a new phenomenon, so it is important to organize the very process of active listening. The reader's speech, the sound effects which are part of the message, carry in it features such as: the reader's mood, his attitude to the content, to an imaginary conversation partner or imaginary listener. Intonation, expressive reading, compliance with orthoepic norms and logical stresses evoke special emotions.

Museums, churches and monasteries are increasingly offering virtual tours. So teachers (first of all tutors of academic groups) should plan and regularly conduct such trips during the academic year. In addition to the generally recognized advantages of the pedagogical influence, it is important to choose the websites of museums, churches and monasteries, which contain information not only about the history and significant events of parochial life but also provide an opportunity to communicate with art historians, artists, and priests in the "question and answer" mode. In the case of the desire and financial capacity of students, the teacher together with the group can visit the websites of travel agencies and pilgrim services that organize trips to the places of prominence. Special part of the aforementioned Internet resources is live communication of travel participants, and making new friends.

Nowadays it is difficult to overestimate the role of social networks in which there is active communication and creation of communities according to interest.



In the pedagogical context, it is important to orient students to intellectually rich and morally healthy communication. Staying in social networks has not become a kind of entertainment, but a way of demonstrating our own life position. Examples are Internet communities of charitable orientation. They unite people who want to do good actions, to serve to a neighbor, to create conditions for charity in different dimensions – spiritual and material. The task of the teacher is to motivate students for charitable actions. However, this must be preceded by hard work that involves the study of the relevant Internet resources, maintaining contact with coordinators, warning students about possible risks in the virtual space.

For interesting and useful leisure, the tutor together with students can choose Internet resources with specially selected films, photos, music, lessons developments of contest winners, video materials and presentations that complement and expand the knowledge in different training courses. The informational potential of cultural and educational television resources should be explored first. For example, we can provide some Internet versions of Ukrainian TV channels:

1. Academy – <http://odessa36.tv/>
2. Hlas – <http://glas.org.ua/>
3. Kievan Rus – <http://kievrus.com/>
4. Kozak TV – [http://ua.guzei.com/tv/watch.php?online\\_tv\\_id=3707](http://ua.guzei.com/tv/watch.php?online_tv_id=3707)
5. Culture – <http://cultureua.com/>
6. Museums of Ukraine – <http://museumua.blogspot.com/>

The Internet version of educational television channels contributes not only to expanding the audience (mostly because they work at regional level), but also provides availability of television programs at the time convenient for the viewer. Collective watching and discussion in the circle of group mates will provide the tutor with additional opportunities for educational cooperation. As this form of students' leisure time is optimal for the free exchange of thoughts, development of spiritual needs, and the formation of selectivity when consuming television production (not watching everything that is shown on TV, but choosing what is interesting, useful, and pleasant).

It must be admitted that today there are few educational channels on domestic television which are not compensated by volume and varieties of programs presented in the Internet versions. As for using foreign counterparts, it is a problem of discursive character, which requires a separate study.

The determinative level of spiritual development is the individual's desire for constant self-education. Therefore, it is important to acquaint students with the Internet resources that allow them to expand their educational horizon. The websites of educational institutions allow not only for receiving general information

about the institution, but also provide access to methodological and scientific resources. The websites of famous domestic and foreign higher education institutions provide the opportunity to study online and get additional education. At the same time, through such resources students have an opportunity to get acquainted with new editions, to learn about the organization of academic competitions, contests, conferences, and social projects.

## **Research Results**

In order to identify the best educational conditions for using Internet resources as a means of spiritual education of students, a program has been developed titled “Man does not live by bread alone”. The program contains themes and content of educational activities that will take place in the academic group during one academic year. In order to activate the students’ and tutor’s attention to the problems of spiritual content for each class the purpose and task of the meeting were described, Internet resources that will be used during the meeting were suggested, and also a number of methodological recommendations according to their use were provided. The program provides lists of Internet resources for students’ self-study with further discussion in the circle of group mates.

The experimental program was approved during the 2013/2014 academic year at the pedagogical institute and the institute of natural sciences of Vasyl Stefanyk Precarpathian National University ( Ivano-Frankivsk, Ukraine). The experiment included eight academic groups on a voluntary basis (total number of 216 students), who together with their tutors implemented the suggested program.

The diagnostic procedure of the education level consisted of three steps:

- collecting diagnostic information;
- estimation of spiritual problematic interest level;
- drawing general conclusions.

For the purpose different diagnostic techniques were used such as questionnaires and direct observation of students in conditions of professional training in higher education institutions. The study was divided into two types: 1) psychological and pedagogical testing, where the procedure standardization was reached and the quantitative assessment of education level was provided; 2) a comprehensive review, where quality characteristics of the student were checked.

At the same time, the group tutors were diagnosed on the use of the Internet resources as a means of spiritual education. For this purpose, preliminary and final conversations were conducted. If necessary, tutors were provided with individual

and group consultations by the experimenter through involvement of teachers of science.

Within the article we will show only separate data that confirms the level of the students' interest in the Internet resources proposed in the program.

The obtained data showed great interest of 74% of the students in the foundations of digital libraries. However, only 21% indicated their advantage in education. 73% of the respondents noted that thanks to the advice of the tutor they began to read works of world classics in audio format, 44% admitted they regularly studied the electronic resources of libraries in text format. The students stated that now they exchanged their views on reading more frequently and tried to learn the source of philosophy and world religions.

Virtual museum attracted the attention of 76% of the respondents. 68% of them indicated that they were interested in virtual trips in the circle of group mates and tutor participation. 32% said they searched the museum websites independently for further collective review.

A special interest was excited in the students by Internet versions of educational TV channels. 68% of the respondents explained their interest by their moral and ethical content, 31% – by a variety of subjects, 19% – by the availability of content. However, the students complained about their lack of time to watch interesting films and programs collectively. At the same time, the tutors saw something positive in this because young people were learning to schedule their time rationally, to plan review and discussion of the programs seen with friends.

72% of the subjects tried to discuss problems of spirituality in social networks. 28% admitted the fact that they started discussion first. 52% stated that they joined previously “open topics”. During the conversation, the students admitted with regret to the fact that in social networks the partners did not usually intend to communicate on vitally important moral or ethical themes. Thus, according to the respondents' conviction, today social networks mostly perform an entertaining function. At the same time, they expressed their willingness to join the Internet communities for spiritually rich communication.

The fewest students were interested in websites of other educational institutions. Only 35% of the students admitted that on the websites of national higher education institutions they could find information that would contribute to their spiritual growth. Usually these are the websites of educational institutions of different denominations. 22% could find audio-video material relevant to the discussion on the problems of spiritual content. 14% had a desire to publish their scientific and journalistic work in periodicals presented on the higher education institutions' websites. No one paid attention to the ability to get parallel education

through distant studying. The question about communication with students from other universities received a positive response (83%), but most respondents recognized that it was of utilitarian nature.

During the final conversation, the tutors who worked on the program “Man does not live by bread alone” recognized its timeliness and importance in the spiritual education of students and the formation of their information culture. According to the teachers, they managed to interest the student audience in Internet resources that will help to expand their outlook, humanize their world view, and formation of spiritual values. The students showed initiative to collectively review the suggested content and tried to independently find their own resources, which would become an occasion for the following thematic meetings of the academic group.

It is symptomatic that during the thematic meetings the students repeatedly expressed their willingness to create their own Internet projects in order to attract public attention to issues of spirituality, morality, and self-improvement.

## **Discussion**

The generalization of empirical research allowed for drawing the conclusion that the effective use of Internet resources as a means of spiritual education of students was possible in compliance with a number of pedagogical conditions:

- determining the specific tasks that the teacher plans to solve involving Internet resources in the educational process;
- establishing pedagogical census of each Internet resource proposed to student audience;
- selection of appropriate forms and methods of educational work relevant to the use of Internet resources (conversation, discussion, competitions, etc.);
- informing students about Internet resources that are worth their attention;
- selection of techniques for diagnosing the involvement efficiency of Internet resources as a means of spiritual education;
- systematic character of the use of Internet resources in planning and implementation of educational work by the academic group tutor;
- encouraging students both in independent and collective processing of Internet resources;
- encouraging students to create their own Internet resources that would distinguish by intellectual coloring, public utility, and moral orientation (with appropriate professional help of teachers of informatics).

## **Conclusions**

Higher education institution students' use of Internet resources as a means of spiritual education involves activation of various forms and methods of interaction between teachers and students, in which the formation and development of leading personality traits takes place, which create spiritual originality and affirm the moral imperative of the individual. Searching for and implementing in educational work Internet resources enriched by moral content are designed to encourage students to use network resources which meet the needs and demands of highly-educated noble man. This should be the initial step in rejection of resources that promote bad habits, cruelty, tastelessness and diminish the universal spiritual values.

The question of methodological provision of spiritual education requires further research; as well as the questions of pedagogical potential of interaction with students in an interactive way, leading factors in exercising reflection of moral and ethical experience, creating a complex of diagnostic techniques for the interpretation and forecasting of spiritual development of the student, creating thematic databases of Internet resources worth including in the educational process of higher education institution.

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## Acceptance Factors on the Use of Social Networks for Academic Purposes of Management Sciences Students

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### Abstract

This study examines factors involving the acceptance of social networks for academic purposes. A survey was applied to 290 graduate students as a quantitative methodological design. The main finding is that students thought that greater use of social networks for academic purposes would improve interaction and feedback among peers and also would improve teaching-learning processes. Also, students considered their skills as sufficient to use social networks for academic purposes, expressing their intention to incorporate them into the subjects dynamics.

**Keywords:** *learning, social networks, teaching innovation, university students, virtual*

### Introduction

A digital web revolution is taking place with the expansion of numerous types of social networks and online communities, which are used to be informed, purchase or sell diverse products online, receive information, make contacts, play, chat, share hobbies, among other daily uses. This revolution shows how our way of communicating has been modified by Information and Communication Technologies, ICT, (Islas & Carranza, 2011). It is affirmed that only a few technologies, like social networks, have proliferated fast in a short time. These have been globalized and have been incorporating into young people's daily life, sharing information and

knowledge in a fast, simple, and comfortable way (Gómez-Aguilar, Roses-Campos & Farias-Batlle, 2012, p. 135).

Fast moving advances of technology have caused improvements in communication networks, creating more and better information transfer to students through digital media such as learning platforms and social networks (Rodrigues, Sabino, & Zhou, 2011).

Social media attract millions of users worldwide creating an environment of ideas, exchange and mutual collaboration (Rodrigues, Sabino, & Zhou, 2011). Most college students are considered the “Millennium” generation because of having grown surrounded by a number of digital media, technological advances and gadgets such as tablets and cell phones, which explain their natural capability of doing multiple tasks and handling several devices at a time (Taleb & Sohrabi, 2012, p. 1106).

Applied knowledge is widely influenced by social media, where ideas are shared and spread (Cadima, Ojeda & Monguet, 2012). Virtual social networks promote interactive and experiential learning because they take place in a more dynamic environment (Imbernón-Muñoz, Silva-García & Guzmán-Valenzuela, 2011). The dynamics provided by these social networks have favored the creation of online learning communities and multiple communication networks among peers (García, 2009, p. 62) in an environment of mutual cooperation and based on reciprocal principles (Cobo y Pardo, 2007).

An advantage of social media is that they allow for uploading and sharing information, self-learning, team work, student-student and student-teacher communication and feedback, and access to different information sources which facilitate constructivist learning (Gómez-Aguilar, Roses-Campos & Farias-Batlle, 2012, p. 136). There are many academic social networks like ResearchGate and Academia, which are research-oriented. These academic social networks can be very helpful to the learning process, but in principle, they are not perceived as friendly as others.

To address these aspects, social networks must be recognized as an authentic revolution for networking and communicating, although they are not considered as a popular academic tool; that is the reason why they are used in an intermittent, isolated and disarticulated way (Espuny, González, Lleixà & Gisbert, 2011). One reason is the generation gap between digital natives (students) and digital immigrants (teachers); this situation highlights teachers’ need for skills and adaptation to new virtual environments. Additionally, teacher qualifications are necessary to know, select, create and use strategies of didactic intervention in the ICT context (Gómez-Aguilar, Roses-Campos & Farias-Batlle, 2012, p. 136). Also, even though there is a positive attitude of students towards social media as a learning resource

used by teachers, the frequency with which students use it as a learning tool is scarce (Gómez-Aguilar, Roses-Campos & Farias-Batlle, 2012).

In this respect, teachers must help students to find a flexible and fast thinking learning method which grants learning what is needed with innovation (Castillo, 2012, p 674). Accordingly, to the extent that teachers catch up with students and interact with them in the same appealing environment, commitment, interest levels and courses participation are improved (Lee, Teng, Hsuen & Li, 2013).

Social networks established as one of the most representative tools of WEB 2.0 must be promoted in learning contexts. Indeed, their credibility among students allows for great didactic possibilities, because social networks are linked to interaction, response capacity and fast communication and eloquence. Moreover, in order to obtain a more generalized use of them, teachers must consider social networks as an opportunity for tutorials and educational communication (Roblyer, McDaniel, Webb, Herman & Witty, 2010). An example of how well this technology can be used is shown in a study done by Fang – Lin y Lin (2013), in which the effectiveness of using social media technology in the classroom is proved; the study shows how students improve significantly their learning and also their academic responsibilities.

Teachers must be aware of the fact that students are immersed in social networks in their relationships and interests, but there is not enough clarity on how this tool can be used as an opportunity to make learning more attractive, by creating formal and informal channels in these social media (Gewerc-Barujel, Montero-Mesa & Lama-Penín, 2014, p 61). Besides, there is a considerable number of teachers who mistrust the use of social networks for learning because they think that those networks interfere with the natural flow of traditional teaching (Espuny, González, Lleixà & Gisbert, 2011, p. 182).

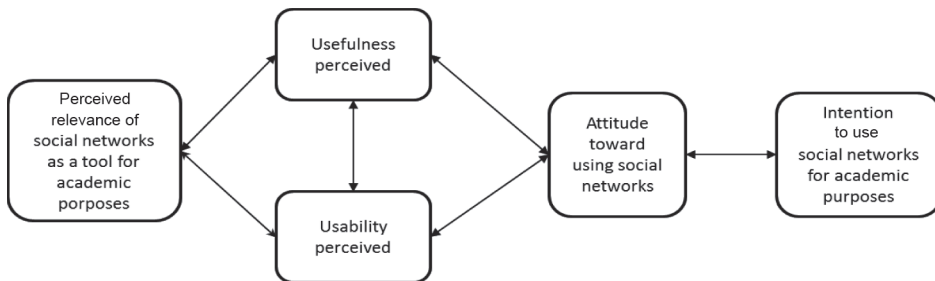
With the purpose of improving learning methodologies using this resource, what is proposed is the development of groups, contexts, and appealing dynamics, where academic communities can interact and be empowered by virtual resources (Piscitelli, Adaime & Binder, 2010).

The disadvantages of using social networks for academic purposes are: distraction caused by the variety of irrelevant information, lack of concentration on assignments, and distraction coming from links to data, texts or complementary information. Sites of irrelevant information, low academic quality and content overflow are also disadvantages of using social networks when they cannot be categorized in terms of their suitability and interest for students (Sandoval-Almazán, 2011). Furthermore, privacy and moral integrity inconvenience for the users may occur (Rodrigues, Sabino, & Zhou, 2011, p. 246).



## Research Methodology

In order to assure the quality of the qualitative instrument, the structure of the survey was previously tested with 42 students. The survey showed internal coherence, proper design and report analysis. The types of questions used were open-ended, close-ended and multiple choice ones (dichotomous and Likert-type response scale). The questions were designed and applied to measure each of the constructs and factors specified in the model of academic use of social networks, proposed by this study (cf., Figure 1).



**Figure 1.** Proposed model for the academic use of social networks

It is important to note that some factors are unobservable constructs; thus, these are compiled directly through a Likert-type scale. Based on the above, interdependence among each of the factors of the academic use of the social network model was analyzed, considering the typology qualitative analysis of the information gathered. Besides, aiming at assessing interdependence, levels of association among variables were quantified through Cramer's V, which is a symmetrical measure for the correlation between two or more variables on a nominal scale. This contingency coefficient was chosen because it is a value measurement regardless of the sample size. Subsequently, construct typology analysis was made to identify sub-populations whose factors of academic use of social networks can be better explained through the model proposed.

Cross-curricular field research was conducted with the use of a self-report questionnaire. This study was carried out at the MTI Metropolitan Technology Institute and Escolme University, where the questionnaire was applied to 290 graduate students of Management Sciences. This sample was chosen with the use of nonprobability sampling.

## Research Results and Discussion

Firstly, it is important to assure the degree of certainty with which questions of the survey measured every model construct, proposed by the methodology, known as reliability of the scale (Oviedo & Campo-Arias, 2005, p. 577). Therefore, two indices were applied: Cronbach's Alpha and split-half method. Cronbach's Alpha is used to measure internal consistency of a scale, i.e., to assess the magnitude of item correlation.

When the alpha value is between 0.7 and 0.9 it has high reliability (Oviedo 2005, p. 575). Therefore, in this research case, each of the scales represents values between 0.671 and 0.851, showing that the only construct with medium reliability is the facility of usage. However, this is also used for research measuring non-observable constructs, as in the case of perceived usage facility. On the other hand, the correlation analyzed with the use of the Split-Half Method, an indicator of co-variance between two halves of a complete sample, indicates good correlation to confirm internal consistency among the items measured (cf., Table 4).

**Table 4.** Reliability indices of the scale applied

Factor	Alpha	Split-half
Perceived relevance of social networks as academic support	0.851	0.836
Perceived usefulness	0.736	0.732
Perceived usage facility	0.671	0.664
Usage attitude	0.705	0.703

Furthermore, Table 5 shows the association of the factors considered when assessing the usage intention of social networks for academic purposes. What is more, the item Current Use of Social Networks for academic purposes shows the association among factors, considering the entire sample of the survey, and assessing its use dichotomously. The *Frequent Use of Social Networks for Academic Purposes* subdivides the survey estimating the time devoted to using social networks for academic purposes into 5 categories in a Likert-type scale (always, often, sometimes, rarely, never).

Other rows in the table indicate the association between usefulness perceived and perceived usage facility (main constructs) in relation to age and current semester; and considering the typology "Frequent use of social networks for academic purposes".

**Table 5.** Association of factors with the intention of using social media for academic purposes

		Cramer's Coefficient			
	Sample size	Perceived usefulness	Perceived usage facility	Correlation between usefulness and facility	
Usage intention of Social Networks for academic purposes (YES/NO)		290	0.486	0.539	0.608
Frequency of use of social networks for academic purposes (Always, often, sometimes, rarely, never)		290	0.628	0.706	0.608
Age groups	16–20	27	NA	NA	NA
	21–25	117	0.584	0.657	0.667
	26 and older	134	0.685	0.795	0.741
Current semester	Initial	57	0.658	0.907	0.770
	Intermediate	53	0.808	0.652	0.728
	Advanced	171	0.655	0.791	0.701
Typologies of students (Average)			29.2%	30.9%	NA

Table 6 shows improvements in the association of perceived usefulness and perceived usage facility after considering 5 categories in the frequency of use of social networks for academic purposes (always, often, sometimes, rarely, never). Furthermore, upgrading is observed when relating different factors of the methodology model to the level of social networks use mentioned above (demonstrating coefficient improvement compared to the obtained one). Besides, when asking for this item in a dichotomous scale (Yes/No) in relation to the above aspect, progress in association with the perceived usefulness is 29.2% and with the perceived usage facility it is 30.9%.

Moreover, the typology analysis presented in this research allows for identification of subpopulation groups, whose social networks usage intention is better explained when analyzing the student's typology (these typologies are age and current semester).

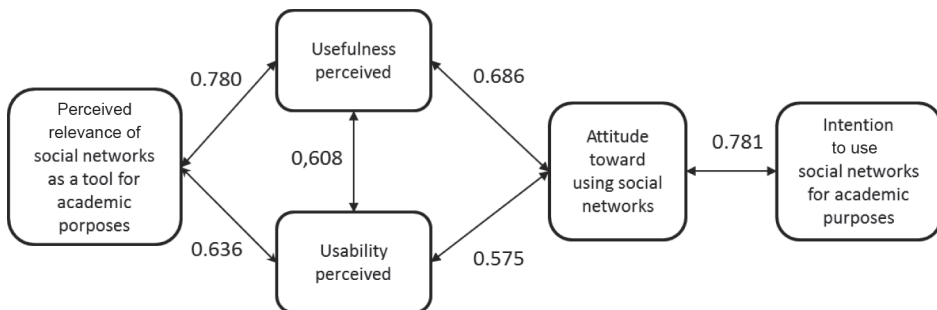
In the "age" typology group, it is observed that the model provides a clearer explanation of usage facility for a population group aged 26 and older (0.741). In the population group aged 21–25 (0.667) the difference is 11.1. In the case of the students aged 16–20, Cramer's coefficient was not calculated because the sample was not considered representative for this type of analysis.

On the other hand, in the “current semester of the career” typology, for the initial cycle sub-sample an explanatory improvement of 14% is observed in the perceived usefulness and perceived usage facility facing the coefficient reported at an advanced level and an explanatory progress of 39% of the same factor facing the intermediate cycle sub-sample. With respect to the explanatory improvement of Cramer’s coefficient, it is observed that the usage intention of social networks for academic purposes can provide wider and more reliable explanations when the population is subdivided in subsampling and in wider usage intention criteria.

**Table 6.** Factor correlation

Cramer’s Coefficient – Correlation				
	Perceived usefulness	Perceived usage facility	Perceived usage of social networks for academic purposes	Usage Attitude
Perceived usefulness	1.0	0.608	0.780	0.686
Perceived usage facility	0.608	1.0	0.636	0.575
Perceived usage of social networks for academic purposes	0.780	0.636	1.0	NA
Usage attitude	0.686	0.575	NA	1.0

Table 6 shows an association between the factors of perceived relevance to social networks as academic support usage attitude and usage facility, according to the analysis made with the use of Cramer’s V coefficient. There is also a strong association among these factors and usage intention of social networks for academic purposes, validating the application of the model proposed for 290 surveyed students of Management Sciences Associations as presented in Figure 2.



**Figure 2.** Cramer’s coefficient for the Technological Acceptance Model

In social studies framework, Cramer's  $V$  coefficient can be interpreted as follows: low association ( $0 < \text{Cramer's } V \leq 0.2$ ), modest association ( $0.2 < \text{Cramer's } V \leq 0.3$ ) and high association ( $0.3 < \text{Cramer's } V \leq 1.0$ ), which is a significant referent for research result analysis (Fierro, 2010). Based on this, it is observed that Cramer's  $V$  states that associations are more representative between the items mentioned: attitude of usage and intention of usage of social networks for academic purposes (0.781), between the perceived relevance of social networks as academic support and the perceived usefulness (0.780), and between the perceived usefulness and usage attitude (0.686). Also, it is observed that, when expanding the analysis of the research subsamples (Table 6), explanatory capacities of the model "*Use of social networks for academic purposes*" are improved, indicating higher associations in the following subsamples: group aged 26 and older, perceived usefulness according to the current semester (in the middle 0.808), and perceived usage facility in the semesters (at the beginning 0.907).

Besides, the fact that Cramer's  $V$  allows for finding associations among variables must be taken into consideration (Valencia, Cadavid, Echeverri & Awad, 2014). Consequently, Figure 3 shows arrows in both directions; thus, the methodology used indicates associations among the factors composing the usage intention model of social networks for academic purposes; but this did not imply casualty relationships among the perceived relevance of social networks as academic support, perceived usefulness, usage attitude, and usage intention of social networks for academic purposes.

## **Conclusions**

The diversity of cultural and social contexts of college students leads to varied acceptance factors of using social networks for academic purposes in specific departments of institutions. Studies involving specific target populations are required to facilitate the identification of particularities of each study group aiming to determine adequate strategies to foster the use of social networks for academic purposes.

Worldwide social networks have hugely grown and as a consequence, their academic use has become an essential tool for curriculum development. Due to constant asynchronous contact and feedback possibilities provided by networking, benefits of using social networks must be deeply investigated, with the purpose of reaching their appropriate inclusion in the methodological design of the subjects in which they could be implemented. In the case of Management Sciences, social

networks for academic purposes can be useful in the subjects of marketing, human resources, strategies and management.

The students stated that the main use of social networking is interacting with teachers, resolving doubts, sharing class topics and accessing online study groups. The previous statement shows that these resources have not been optimized because their use has focused on a limited dynamic, which impedes the opportunity to obtain better results out of the high interaction potential offered by these networking tools.

One of the uses of academic networking considered more important by the students is "Interacting with teachers"; therefore, the students think that teachers' greater use of social networks will benefit interaction and feedback among peers along with their learning processes. For that, it is suggested that institutions should design strategies towards this aim, because this option can integrate other academic interests in an assisted way, thus making more effective process.

On the other hand, students can have a very positive attitude towards networking for academic purposes, because social networks are perceived as tools for fun and entertainment. Thus, learning through social networks may be nicer and more fun, in comparison with the conventional strategies. Also, the students think they have enough skills and knowledge to use social networks for academic purposes, expressing their intention to get the best of these resources by incorporating them into their subjects.

The methodology employed in this study allowed for verification of the explanatory capacity of the model proposed in the research design, because significant relationships were found among the perceived relevance of social networks as academic support, perceived usefulness, usage facility, usage attitude and intention to use social networks for academic purposes. In that sense, the results showed that greater explanatory capacities are evident in the group subsample aged 26 and older. Also, in the perceived usefulness in the middle of the study (Current semester: Intermediate 0.808) and in the perceived usage facility at the beginning of the study (Current semester: Initial 0.907).

By using Cramer's V coefficient methodology, strong associations were observed among several factors. However, such a coefficient does not allow for establishing casualty among factors and intentions. Due to the above, it is recommended for future studies to validate this model based on statistical analysis which allows for the establishment of unidirectional casualty among factors, considering that its validity to calculate mutual influences among the constructs of the model has been proved.

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## **Indigenous Farmers' and Non-Farmers' Perceptions on Schooling and Human-Capital Development in Agro-Based Rural Communities in Southern Benue, Nigeria**

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### **Abstract**

The presented study examined the impacts of schooling and human capital-development on agro-based rural communities in Southern Benue, Nigeria, from the perspectives of farmers and non-farmers. This study made use of the descriptive survey method. 1150 farmers and non-farmers were sampled using a multi-stage sampling technique. A researcher-designed questionnaire, interview schedule and observation technique were used for data collection. Mean rating and chi-square were used for data analysis. The results showed that schooling and human capital development (SHCD) had disorientated agro-based work-force in rural communities of Southern Benue, which was ranked 1<sup>st</sup> with a mean score of 29.6 and the diversion of community resources towards schooling and human capital development (SHCD) instead of farming in rural communities of Southern Benue was ranked 2<sup>nd</sup> with a mean of 28.8. Also, insignificant difference was found in the perspectives of farmers and non-farmers concerning the impacts of schooling and human-capital development on agro-based rural communities of Southern Benue, Nigeria. It was, therefore, concluded that schooling and human-capital development have created economic and social challenges, not development in the agro-based rural communities of Southern Benue, Nigeria. It is recommended that there is a need for the Government's strong commitment to addressing the paradox created by schooling in the human input used for sustaining productivity in the agro-based rural communities of Southern Benue, Nigeria.

**Keywords:** *schooling and human-capital development (SHCD), agro-based communities, farmers, non-farmers*

## **Introduction**

Many communities in Southern Benue, particularly rural communities, put faith in the schooling of their young ones because they hope that it would promote economic growth of the individual and society. In this study, positive social and economic changes are associated with the creation of qualitative citizenry through schooling that would benefit the rural communities. Human capital is a collection of resources involving: all the knowledge, talents, skills, abilities, experience, intelligence, training, judgment, and wisdom possessed individually and collectively by the populace. These resources are the total capacity of the people that represents a form of wealth which can be directed to accomplish the goals of the nation or state or a portion thereof. According to Gbenga & Norhasni (2013), human capital development implies the acquisition of knowledge and intellectual stock through the means of education, for expansion of productivity, efficiency, performance and output. It is conceived that human capital plays the main role in economic growth, while the accumulated physical capital plays a secondary role. Countries accumulate human capital usually through formal training 'schools', research and development institutes, and learning-by-doing (in-service training) (Fadi, 2014). It is an aggregate economic view of the human being acting within communities, which is an attempt to capture the social, biological, cultural and psychological complexity as they interact in explicit and/or economic transactions.

The southern part of Benue state, Nigeria, as referred to in this paper, is the land area inhabited by the Idoma-speaking people. The majority of Idoma speaking people in Nigeria are found in Benue State, where they refer to themselves as "Idoma proper". With a population of about 941,621 people (National Population Commission, NPC, 2006), but now estimated to be about two million, they inhabit nine Local Government Areas in a Senatorial District. The Local Government Areas are Ado-Agatu, Apa, Ogbadigbo, Ohimini, Obi, Oju, Okpokwu and Otukpo (Amali, 2000).

The Idoma people are predominantly farmers who, with their Tiv brothers (to the North of Benue State), pride themselves on being called "The Food Basket of the Nation". Thus, agriculture and other economic activities still largely depend on what can be produced in the environment. The Idoma farmers produce crops such as yams, Guinea corn, maize, millet, cotton pepper, soya beans, rice, ginger, benne seed and other crops during the rain seasons. During the dry season they harvest, clear the bush in preparation for the next season (Amali, 2000). Farming is thus, a full life economic activity of the Idoma people.

Western education and schooling in Southern Benue started in 1924 with the creation of a mission station at Igumale in the present Ado Local Government Area of Benue State. Since then, the demand for schooling has been increasing.

In this respect, schooling would have consciously or unconsciously short-charged the active human labour, which hitherto has enhanced the economic production of the rural communities in Southern Benue. This is against the backdrop that an educated population is a productive population as opined by Babalola, (2005).

Education and schooling are two sides of the same coin called economic goods. The economist regards it as a consumer and capital good because it offers utility to a consumer and also serves as input into the production of other goods and services (Ayara, 2002, Garba, 2002). Thus, schooling as used in this study is an organic space proposed for teaching and learning, an institution or centralized location designed for teaching students or pupils under the supervision of teachers. In the Nigerian context, it is a formal system of education which is compulsory for all children aged 6–15 within the Universal Basic Education Scheme.

This makes it a process where students or pupils progress through a series of schooling institutions, some of which are Government or privately owned. Both Christian and Islamic religious organizations have been the forerunners in the development of the school system in Nigeria. Some scholars claim that schooling requires systematic methods of teaching which usually involve the use of a curriculum, a syllabus, an outline of work and a lesson plan (Ben 2006, Harris, 2006). In addition, they observed that typical schools have various areas, such as cafeteria ground, auditorium, library, laboratories, etc. (Rehman, 2008). Schooling has two purposes, which Rehman (2008) identified as practical and philosophical. The practical purpose of schooling is its usefulness to students or pupils, which can make them contributory citizens, workers, scholars and people in an increasingly complex society. These, he said, are derived through the contents taught in school. While in the philosophical context, schooling is designed to make intelligent choices and help pupils to make informal decisions. In Nigeria, schooling has become a foundation of hope for many parents who send their children to school because of the career opportunities it offers to its recipients. Human capital, on the other hand, represents the investment society makes in its members to enhance their economic productivity. Human Capital Development Theory concludes that investment in human capital will lead to greater economic outputs (Angela, 2009). In most communities, it is designed to bring about positive economic and social change, which would enhance productivity and large-scale production of goods and commodities.

Babalola (2005) argued that the rationale behind schooling and human capital development is the need for people to be encouraged to develop entirely new ideas, products, processes and methods through creative approaches so as to introduce new processes, production and social services. Fadi (2014) applied human capital theory to justify large public expenditure on education across the globe, more so that it is consistent with the democratic principles of the Western world. Thus, the maxim “educate part of the community and the whole of it benefits” has become the central notion to the reason why most communities send their children to school. Ayara (2002) reported that education or schooling has not had the expected positive impact on the economic growth of the rural communities in Nigeria. It is with these incompatible views expressed by scholars and researchers that this study sought to examine the impacts of schooling and human capital development on the agro-based rural communities of Southern Benue.

### **Purpose of the Study**

The general purpose of this study was to investigate farmers' and non-farmers' perceptions of schooling and human capital development in agro-based rural communities of Southern Benue. The specific aims were:

1. to examine the nature of the effect schooling and human capital development have on agro-based rural communities of Southern Benue in Nigeria.
2. to determine whether there are differences in the farmers' and non-farmers' levels of perception of schooling and human capital development in agro-based rural communities of Southern Benue.

### **Research Questions**

The research questions for this study were as follows:

1. What is the nature of schooling and human capital development in the agro-based rural communities of Southern Benue, Nigeria?
2. Are there any differences in the perception levels of farmers and non-farmers regarding the effect of schooling and human capital development on agro-based rural communities of Southern Benue?

## **Research Hypothesis**

**Ho1:** There is no significant difference in the perceptions of farmers and non-farmers regarding the effect of schooling and human capital development on agro-based rural communities of Southern Benue, Nigeria

## **Methodology**

The study adopted a descriptive survey method. The population of this study covered all farmers and non-farmers in Southern Benue. A total of 1150 participants, made up of 575 farmers and 575 non-farmers, were sampled with the use of the multistage sampling technique, i.e. a stratified random sampling technique at the 1<sup>st</sup> stage and a simple random sampling technique at the 2<sup>nd</sup> stage.

A researcher-designed questionnaire (with four Likert scale-type responses) was used to obtain data on schooling and human capital development in agro-based rural communities of Southern Benue. A structural interview and an observation technique were also used to enrich the data gathered.

Descriptive statistics (mean rating) were used to estimate the demographic data of the respondents and to provide answer to the research question posed, while inferential statistics (chi-square) were used to test the hypothesis formulated in this study at the 0.05 level of significance.

## **Data Analysis and Results**

Analysis of the data obtained from 1150 respondents (575farmers and 575 non-farmers) and the results are presented below.

## **Answering Research Question One**

Using a cut-off score of 2.50 as the baseline for determining the participants' responses, all the items (item1 to 10) were chosen and agreed on by the majority of the respondents, the mean score obtained from their responses in each item is above 2.50 as shown in Table 1. This implies that schooling and human-capital

development has a significantly negative effect on agro-based rural communities of Southern Benue.

**Table 1.** Mean and rank order of participants' responses concerning the effect of schooling and human-capital development in agro-based rural communities of Southern Benue, Nigeria

No.	Items	Mean	Rank
1	Schooling and human capital development have disorientated agro-based work-force in rural communities of Southern Benue	3.60	1 <sup>st</sup>
2	Community resources are being directed towards schooling and human capital development instead of farming	3.42	2 <sup>nd</sup>
3	Schooling and human capital development have led to rural-urban drift of youths in rural communities of Southern Benue	3.33	3 <sup>rd</sup>
4	Mass production of food has been reduced as a result of schooling and human capital development in rural communities of Southern Benue	3.04	4 <sup>th</sup>
5	The Agricultural Science subject as optional in schooling has shifted the minds of community children from farming in rural communities of Southern Benue	2.94	5 <sup>th</sup>
6	Schooling and human capital development have prevented farmers from inculcating the habit of manual work and farming in their children	2.87	6 <sup>th</sup>
7	Schooling and human capital development have increased the cost of living in rural communities of Southern Benue.	2.72	7 <sup>th</sup>
8	Proficiency of youths in traditional practical skills have been affected as a result of schooling and human capital development	2.69	8 <sup>th</sup>
9	Schooling and human capital development have oriented the rural communities of Southern Benue to other business activities instead of faming.	2.62	9 <sup>th</sup>
10	Government support for farming instead of education ought to be increased.	2.57	10 <sup>th</sup>

## Hypothesis Testing

As shown in Table 2, the  $t$  value is 321.212 with a  $p$ -value of 0.24. Since the  $p$ -value of 0.24 is greater than the 0.05 level of significance, the null hypothesis is confirmed. This implies that there is an insignificant difference in the perceptions of farmers and non-farmers regarding the effects of schooling and human-capital development on agro-based rural communities of Southern Benue.

**Table 3.** Chi-square analysis of farmers' and non-farmers' perceptions of the effect of schooling and human-capital development on agro-based rural communities of Southern Benue, Nigeria

	Response Types				df	$\chi^2$ -cal	Sig.
	S. Agreed	Agreed	Disagreed	S. Disagreed			
Farmers	2246	2680	1237	1620	4	463.677	0.24
Non-Farmers	1333	2087	1246	2246			
Total	3579	4767	2483	3866			

P>0.5

## Discussion of Findings

Questionnaire items (items 1–10) were structured to elicit data from 1150 (575 farmers and 575 non-farmers) respondents regarding the effect of schooling and human-capital development on agro-based rural communities of Southern Benue.

The findings of the presented study revealed that schooling and human capital development had disorientated agro-based work-force in the rural communities of Southern Benue. This was ranked 1<sup>st</sup> with a mean score of 3.60. The diversion of community resources towards schooling and human capital development instead of farming in the rural communities of Southern Benue was ranked 2<sup>nd</sup> with a mean of 3.42. Also, schooling and human capital development have reduced mass production of food, affected proficiency of the youth in traditional practical skills, led to rural-urban drift of the youth, prevented farmers from inculcating the habit of manual work and farming in their children, increased the cost of living, diversified the business activities of rural communities, shifted the minds of community children from farming, reduced government support to farmers among others in the rural communities of Southern Benue. This finding is in line with Fadi (2014), who found that schooling and human capital development had negative effects on the agro-based environment. Thus, schooling and human capital development have affected the agro-based rural communities of Southern Benue, Nigeria.

The findings also revealed that there is an insignificant difference in the perceptions of farmers and non-farmers regarding the effect of schooling and human-capital development on the agro-based rural communities of Southern Benue.

## **Conclusions and Recommendations**

There is some ambivalence towards schooling and human capital development in the agro-based rural communities of Southern Benue. The paradox is that in spite of positive theoretical formulations that schooling and human capital development would stimulate growth and development of the rural communities, there is still under-employment, loss of workforce, low capacity for effective production of goods and scarce resources and a general disorientation of attitudes from their basic means of life sustenance, which is agriculture. These have created economic and social problems and no development in the agro-based rural community of Southern Benue as examined in this study.

There should be various policies to a responsive and functional education system that would help address the socio-economic needs of a rural society. As examined in this study, it is not an achievement that a negligible contribution is made to the economic growth of the rural communities which are not commensurate with the demand of human capital put into schooling by the rural communities.

Therefore, there should be the Government's strong commitment to addressing the paradox created by schooling the human input used for sustaining productivity in the agro-based rural communities of Southern Benue, Nigeria.

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## **Social Roles and Competences of the Teacher in a Virtual Classroom in Poland and Korea**

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### **Abstract**

The paper analyses competences of the teacher in a virtual classroom. It describes the reconfiguration of social behaviours and the role of the teacher in the virtual class after taking into account the theory of dialectics of globalization by Anthony Giddens, developed by Norman Fairclough with respect to social discourse and interpersonal interactions. Taking into account the results of different authors' empirical research on online teaching, social features of such a process and personality traits, social roles and professional competences of a virtual class teacher in Poland and the Republic of Korea are described.

*Keywords: education in a virtual classroom, globalization, roles and competences of a virtual classroom teacher, reconfiguration of behaviours and social role of the teacher*

### **Introduction**

Nowadays, the main transformations in the knowledge-based society occur both in the sector of formal education as well as in the parallel one, that is in organizations which begin to play a crucial role, enabling people to develop new abilities and form new skills. The contemporary education system constitutes an unprecedented challenge for the implementation of these capabilities, therefore teachers are responsible for meeting the expectations set for them. However, in the contemporary instant culture (culture of immediateness), the mass media/pictorial culture to a large extent shaped by interactive social media, such as the

Internet with its services, mobile telephony, virtual communicators, social forums and, above all, by interactive computer games, shaping the culture of media constructors, users and recipients of media communication, depreciation of the teacher's authority has occurred (Juszczuk, 2012). Therefore, in the process of educating teachers, attention should be paid to these aspects of teacher competences which will allow for the rebuilding of their authority in the eyes of the pupils so that the teacher could become a master for his students.

What is becoming important for teenagers is indirect communication, searching for acquaintances and friends in the global network, overcoming the barriers of daily direct communication, undertaking such actions in an alternative reality that would not be possible in the real world, and in particular directing their avatar in computer games of the *Second life* type (Juszczuk, 2010). For young people, a role model is more and more often a holder of the following props: a computer with the Internet link, mobile phone, *smart phone*, iPod, tablet, and an original, although old car. Young people are increasingly heading towards the culture of "having". For this reason, in their opinion, a low-income inept teacher is not a role model for them to follow, and more so if the teacher has insufficient knowledge of working, learning and even playing with the digital mass media (Juszczuk, 2012).

However, paradoxically, in an alternative reality of computer games, omnipresent indirect communication, confirming affiliation to a group, cyber violence, including digital mobbing, harassment in the network, phone persecution, phone abuse, verbal aggression, as well as the temporality and instability of interpersonal contacts with friends in the virtual reality, feeble emotional bonds in a group, a young person who is able to find in the global network information and people interesting to him and to join their community (the so-called connectivism), is still looking for an authority. Functioning in the post-modern society, a young person is looking for durability, stability, sustenance, a sense of safety, advice and support in difficult situations. Still, he longs to be treated subjectively, wants to be a full participant in the educational dialogue, wants autonomy in self-education and creative self-development. Therefore, what kind of teacher may become an authority for him? The presented study makes an attempt at answering this question.

### **Characteristics of the contemporary teacher's competences in a virtual classroom**

A teacher should have psychological predispositions for this profession, abilities to communicate with young people in difficult and urgent situations, as well as

empathy. As early as during the first lessons he should clearly present to the students the requirements of teaching/learning and the required forms of behaviour. He should be able to initiate cooperation with parents, because otherwise, his pedagogical work will be hardly effective or even doomed to failure. A well-prepared teacher is not only a good didactician knowing how and being able to use digital media at work, but also a scholar, good psychologist and educator able to co-operate with a family and organize social support for his students.

When writing about environments of teaching and learning, we use the notion of **pedagogical ecology**, which contains a set of defined social roles and normative expectations concerning behaviours performed by the “actors” of social processes and events taking place in class. Institutionalization of the social space, namely the pedagogical ecology of class is related to a set of institutionalized social practices which may be called **pedagogical isomorphism** (Jaffee, 2003). This is related, among other things, to a commonly used model of education in a traditional class related to the central position of the teacher. However, as a result of the existence of numerous factors disturbing the functioning of this model, there is a proposition of a **polymorphism** option, which assumes the use of many pedagogical alternatives (cf., Bligh, 2000), and which is observed in the contemporary classroom in many countries, including Poland and South Korea.

When a student enters a traditional classroom, he sits at a desk, takes out textbooks, class books, a pen and sometimes a notebook, sees the teacher’s desk located in the central point of the classroom and a board and waits for commands or information. On the other hand, when a teacher enters such a classroom, he takes a central place which attracts the students’ attention; often the teacher assumes a standing position to be visible to the students, but also to dominate them. Frequently, the students assume a passive role, waiting for information and the teacher plays the role of a “sage on stage”, or a “source of knowledge”; in that case we talk about his “central position” (*teacher-centred position*) and about educating the class based on the central position of the teacher (*teacher-centred classroom-based instruction*). Namely, both the physical space and social roles are institutionalised in such a way that they create a teaching and learning environment, which is related to a system of assertive behaviours of the teacher and an attitude of complete respect expressed by his students (Gimenez, 1989).

The role of the teacher in a traditional Korean classroom was even more significant. The publications devoted to the educational, social, cultural policy, but also to teachers’ everyday life, show that until the early 20<sup>th</sup> century teachers in all fields were those who controlled the ideas and ideals and in accordance with the Confucian principle: *Gun-sa-bu-il-che* a ruler, a teacher and a father should be

honoured and respected in the same way (“*Gunsabuilche – the ruler, the teacher, and the father are one body or the same*”). What is more, the Confucian education mentioned that even the shadow of a teacher cannot be stepped upon because it would be a behaviour inconsistent with the commandment that a teacher should be treated with dignity and respect as an ideal, virtuous person and almost Saint (Deok-in) with four virtues: In-ui-ye-ji: goodness, fairness, good education (decency and personal culture) and wisdom (Park, 2008).

However, since virtual education was introduced in Korea, methods of teaching have encountered new paradigms, changes occur not only in the traditional practices of educational institutions but also among units. In virtual education, the role of the teacher is different, it goes beyond the role of a traditional teacher, in particular, higher skills and teaching techniques are required from him. In virtual education, the main role of teachers is to accompany students in independent acquisition of knowledge, to help students to learn more, and the role of information suppliers, displayed in a traditional teaching environment is now a thing of the past. In South Korea, in virtual training courses the teacher is expected to abandon the role of a provider of correct answers and to play the role of an asking person, to transform into a designer of learning and experience, to change from the controller of the educational environment into a co-learner, with whom the students could exchange their knowledge, to turn from a lone educator into a member of a learning team (Lee, 2006).

Virtual education in Korea can be divided into three categories. The first one consists in teaching and learning only in the cyber environment. The second type is blended, it is a combination of education in the cyber environment with direct, face-to-face teaching. In the third type, the regular teaching and learning process in the face-to-face environment is additionally supplemented by *on-line* education, which, however, is secondary. Education in cyberspace was established in South Korea in 1998, when the Ministry of Education created the pilot project of cyber-university of the first generation (Lee, 2010). Under the Act of 1999 on continuous education, 9 cyber-universities were created in 2001 and in 2002 – six new universities and at present there are already 20 cyber-universities (state as of 2014). Internet Universities in South Korea have become truly popular because within 14 years they reported an increase by 122% from the time of creating the first one in 2001. This cyber-university development phenomenon consists in the fact that they provide new possibilities of studying and create greater possibilities to achieve higher education because the Internet e-learning is permanent, and, in addition, they perform new roles and functions that were not available to the traditional universities. However, the dynamic changes in the

Korean social structure require new ways of solving emerging problems (Song, Yeon, Heo, Hong, 2014).

### **The reconfiguration of social behaviours and the teacher's role in a virtual classroom**

According to the theory of **globalization dialectics**, by Anthony Giddens (1991), globalization is characterized by three processes which are structuring social relations: separation in time and space and dismemberment (individuals can be found in different places) and thoughtfulness. The first feature corresponds to conditions where calculation of time and arrangement of space are dependent on different places occupied by people (Giddens, 1990). This dependence of time on space enables new ways of organizing both variables and gives the possibility to create the space of general nature (such general spaces are, e.g., McDonald's restaurants), where people participate in standard social activities regardless of their physical location (Durrschmidt, 1997). Giddens's concept offers useful ideas specifying the structure of a virtual classroom, which is at the same time the creation of globalization and it constitutes major features of the globalization process. Teachers and students located in various time spheres (as a result of asynchronous learning) and separated in space (located in different places) may participate in an interaction in spite of the remote boundaries of their physical location as a result of using the digital text and other forms of information. In addition, they can implement different types of activities in the virtual classroom, typical of a traditional class such as, e.g., reading the assigned reading materials, declamation or writing essays. Separation in time and space creates the freedom of social activities and reaction, which can disturb conventional actions typical of a traditional class. For example, in a virtual classroom, students may not respond to questions or posts of the teacher or may select those which are convenient for them. Such behaviours were occasional in the traditional class. However, the *online* teachers have several tools which will enforce giving an answer, e.g., they can repeatedly communicate with their students digitally, but students can still choose the option: do not reply. However, similarly as in other areas of social interactions initiated by the globalization impact, a virtual classroom creates possibilities of new combination and recombination of the old and new social conventions and interaction categories.

Developing Anthony Giddens' theory of globalization dialectics, Norman Fairclough (1992) focused on the changes in social relations created by globali-

zation. He examined the changes occurring in the institutional discourse and interpersonal interactions. He identified two types of discourse leading directly to globalization, i.e.: democratization of discourse and synthetic personalization. The former is responsible for “removal of inequalities and asymmetry in the processes of communication, duties and shaping of prestige of groups of people” (p. 201). On the other hand, synthetic customization strictly corresponds to the concept of Giddens’ thoughtfulness and is related to the shift of direct private discourse into the public mass media sphere (printed media, movies, television, Internet) or institutional sphere (educational, cultural, social, medical, etc.).

The ideas of democratization of discourse and synthetic personalization can develop and enrich the idea of social presence. The research on social presence in a virtual classroom focuses on how people shape the image of themselves for others so that they discover their characteristics, express emotions referring to others even when they are not required by the situation or are not expected. Fairclough’s ideas enable us to develop the social presence beyond the phenomenon of individuality and to examine it as the demonstrations of broader changes in our social relationships occurring under the impact of globalization.

In a virtual classroom, the education process aims towards learning concentrated on the student or on active learning. The paradigm of learning is changing: from the direct provision of information to the student to the process of active learning. There is a shift from problems concentrated on what and how a faculty or a class teaches to the issue of what and how students learn. This results in the fact that learning no longer is of passive nature, the reception of transferred content, but it becomes an active process, including the use of relevant solutions, synthesis and understanding of the perceived content. An active process of learning comprises a diversity of forms, i.e. individual and collective. When analysing the comprehensive content, students come into interactions with peers, and encountering real problems they try to understand them and to jointly build knowledge about reality. The real (as well as local) pedagogical ecology of the traditional class changes into the pedagogical ecology using a global network. The ecological configuration with the teacher standing on stage (podium) and using the method of dissemination of information of the one-to-many type, changes into the interactions of the many-to-many type. The previous social space, determining the performance of specified social roles by the participants of the education process, relations with students and applied practices by the teacher located in the centre of class, is radically changing. Virtual ecological space creates potential possibilities for reconfiguration of these roles, relations and practices (Girod, Cavanaugh, 2001). Initial posts with information sent to students change into a fully active learning

environment. Initial “participation” in class changes into active participation in exercises, tasks or discussions. In this sense the asynchronous virtual pedagogical ecology increases the level of distinguishing between the “delivery” of content to students and their active participation in the learning process. When teachers in a virtual classroom conduct mediations and direct the students, they cannot at the same time fully control the flow of communication. For this reason the relations between the teacher and the students are hierarchized to a smaller extent, they largely overlap and are of interactive character. This creates greater opportunities of discussion and diversity of the students’ opinions, without the teacher imposing them. Such situations, containing dynamic social processes are much more difficult to be implemented in a traditional class, limited by a strictly specified space (here: a classroom), lesson time interval and restrictions shaped for many years among students, e.g. of free discussion, interactions or changing positions within a classroom. Therefore, in a virtual classroom there is a potential possibility of creating new methods and forms of teaching and student interactions by the teacher, which favours shaping new roles and practices performed by both teaching and learning (Girod and Cavanaugh, 2001). Jaffee (2003) believes that although new methods and forms of pedagogical work are introduced in both types of classrooms, therefore indicating a large area of potential possibilities, high student activity in a virtual classroom, numerous and efficient interactions among the students, conducted mediations and cooperation are far more effective than passive perception of information in a traditional classroom. The interactions concerning learnt content, problems, exercises and tasks enable to construct knowledge and shape any required skills. Mediations involve interactions between the teacher and the students within the scope of the analysed problems, the questioned issues or referred to discussion threads. Cooperation takes place in the scope of student interactions, i.e., asking questions, giving answers, gathering information, team work and mutual evaluation. If the purpose of an interaction is asking questions, obtaining answers, exchange of information, exchange of points of view and perspectives and extensive participation in education, the virtual learning environment can, at least theoretically, achieve its goals far more effectively than in the traditional classroom. Another advantage of the online environment lies in the fact that the teacher and students can create more cooperating and collaborating learning space. Teachers in such classrooms, using the course management tools in the global network, may significantly increase the substantive level of discussion in class.

The application of such ICT technologies as: *cloud computing, e-books, mobile phones, game-based learning, augmented reality, gesture-based computing* or *learn-*



*ing analytics* has large potential in the cyber education in Korea. Such techniques were introduced to Internet schools in various forms and we can expect their impact on the on-line education in accordance with the speed of development of each of these technologies (Song, Yeon, Heo, Hong, 2014). When it comes to the ICT technology development bringing changes in the education development, Kim Yongsae distinguishes five larger domains of the ICT each being an important future technology: customized learning technology (adapted to a user/personalized technology of learning), mobile technology (technology of mobile telephony), multimedia content technology (technology of multimedia content), human-computer interaction technology (technology of interactions between man and computer) and e-learning (Kim, Jeong, Cha, Kim, Cha, 2006). The management system of students' learning process, LMS (Learning Management System), is constantly developed in Korea. The most important functions of LMS are as follows: (function of) class organizing, (function of) cooperative learning (collaboration in learning), management of presence/absence of course participants, function of the information board (the announcement board), etc. Technologies used in LMS are adapted according to the type of cyber teaching-learning, e.g., different for classes of "transfer of knowledge" and different for classes of "questions and answers" or classes of "configured knowledge," and this is dependent on the development state of the teaching-learning process, i.e., on the level of knowledge of the students (Yoo, Yoo, Jeong, Park, Oh, 2012).

Analysis of the teaching and learning process in virtual classrooms on the basis of the empirical research of various authors (e.g., Anagnostopoulos, Basmadjian, MccRory, 2005) shows that in virtual classrooms the most commonly used medium is the *WebTalk*, treated as the "common space", shared by students and teachers sending posts meant for everyone, concerning, e.g., questions related to the read texts, seen photographs or videos. Another medium may be a class "chat", enabling synchronous communication and giving better possibilities of learning than the previous medium, since it may result in more specific discussion on the presented questions: discussion becomes deeper and may reach beyond the agreed issues. If texts are subjected to analysis, then transcription of the analytical properties of texts is used, more suitable to present and structure the social relations in discourse: interactive control, modality, superiority and ethos of the teaching profession (Fairclough, 1992).

In Korea the mission and vision of virtual education is concentrated mainly on enabling the educated units to accordingly perform their role in the future in three areas: educational, personal and economic. The educational role consists in shaping a flexible system of life-long learning and expanding the student-oriented

educational environment. The role of virtual education concerning the student personal sphere means that adults at the age of 25–50, who have not graduated from university and would like to obtain a university diploma have an opportunity to do this, as well as to deepen their knowledge, to modify their skills and to obtain professional specialization. On the other hand, the role of virtual education in the economic sector refers to training strategic partners/employees or education of specialized staff for industrial structures (Song, Yeon, Heo, Hong, 2014).

It turns out that the desired personal characteristics of a teacher in a virtual classroom are consistent with the expectations of students and their parents towards a teacher of a traditional classroom and they are universal. Therefore, a good teacher should be characterized by tolerance, acceptance of diversities, frankness, energy, creativity, responsibility for the teaching of protégées, empathy, fairness, friendliness, understanding, method, patience, trust towards students, should have authority, demonstrate ethical and moral attitudes, provide support, should be warm in relations with students, kind, positive and even have a sense of humour (as stated by students and their parents in a survey in Poland), ambitious, fair, with pedagogical passion.

Due to the fact that in the Korean cyber education an educator should be able to help students choose relevant/effective programs, the following skills are required from the cybernetic educators. Firstly, teachers and students are connected with each other by means of technology, therefore teachers must identify the strengths and weaknesses of the system and be able to skilfully use them in different teaching environments and provide students with effective instruction. Secondly, teachers support students in the reception of educational content, therefore they should be supervisors facilitating students' easy acquisition of educational contents (contents). Thirdly, teachers must have the ability to create the sense of community and family relations among their students (human "consistency"). Fourthly, it is expected that teachers should be able to teach effectively without direct visual inspection. To sum up, cyber teachers must conduct the teaching program so that the students feel that in the cyber education the same free expression of thoughts, level of the sense of community and exchange of opinions are possible as in a traditional, face-to-face learning environment, in the same place and at the same time (Lee, 2006).

The scope of the social competences students and their parents/guardians require from the teacher includes effectiveness in communication (often extra verbal) with the objects of the education process, introducing relations of mutual respect in a virtual classroom, such relations should be of natural character rather than authoritarian, supporting the learning, the teacher should participate

in mediations, achieve a compromise, be open to interactions, be able to solve educational problems in a creative non-standard manner, and they should provide the ability to handle non-standard educational situations.

The scope of the required professional competences of the teacher of a virtual classroom includes: higher education, updating the knowledge at postgraduate studies and gaining new abilities, knowledge of effective methods of extra-verbal communication, effective cooperation with parents, easiness in using diverse media instruments, particularly spacer education tools, high accessibility, availability, readiness to provide answers to questions and explaining doubts, application of an individual approach to students, abilities to motivate students, comprehensive explaining reasons for assessment of action products and activities and openness to mediations. The aforementioned personality, social and professional competencies of teachers of virtual classrooms are universal for both surveyed countries.

## **Conclusions**

It turns out that characteristics of both a traditional and a virtual classroom in Poland and South Korea are similar. Also, the personality traits, social and professional competencies required from the teacher of a virtual classroom are similar in both countries. It is certainly a result of the first factor, namely the universality of the features of a virtual classroom despite the cultural, social or educational differences. In both surveyed countries teachers are expected, among other things, to shape the world of general and humanistic values among students, to act ethically, to have skills of motivating for learning, to develop cognitive interests, to shape social and health conscious behaviours. The observed significant reconfiguration of social roles of the teacher of a virtual classroom and functions performed thereby is also similar in both surveyed countries. It means that educational, social and cultural processes occurring in the contemporary virtual classroom are universal.

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## **Student-based Brand Equity in the Business Schools Sector: An Exploratory Study**

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### **Abstract**

Faced with increased competition, business schools seem to have realized that having the strongest brands, hence, a distinct image, is vital to strengthening their presence in the education market. It is in this context that the presented paper focuses on assessing the dimensions of brand equity of business schools from the MBA-enrolled student's perspective, with a specific reference to the Peruvian market. In this regard, it builds an instrument around five dimensions of brand equity, namely, *brand loyalty*, *brand association*, *brand awareness*, *perceived quality*, and *overall brand perception*. Additionally, it furnishes a snapshot of the Peruvian business schools sector by means of providing the order of dimensions pertaining to each business school. The analysis suggests that *perceived quality* seems to be the most important dimension of brand equity, while the *overall brand perception* is almost always ranked last. Conceptualizing brand equity from the MBA-enrolled student's perspective can prove to be useful as this framework could assist business schools in designing marketing strategies to improve their brand equity and gain a higher student share.

**Keywords:** *business schools, brand loyalty, perceived quality, brand awareness, brand association, brand equity, emerging markets, factor analysis, higher education*

### **Introduction**

Traditionally, brand equity has been primarily associated with commercial brands. Over the past few years, however, brand equity has also been recognized as a very important, strategic concept in business education as business schools can gain a competitive advantage – and thus, a better ranking in the higher education

market (Brunzel, 2007) – through the successful management of their brands focused on enhancing student loyalty and increasing student share.

The Master's Degree in Business Administration (MBA), one of the most popular post-graduate degrees available nowadays (Charles & Gherman, 2014), represents a competitive industry (Sharkey & Beeman, 2008), in which business schools compete for students (Segev, Raveh, & Farjoun, 1999). Faced with increased competition, business schools all over the world seem to have realized that having the strongest brands, hence, a distinct image, is vital to strengthening their presence in the education marketplace (Keever, 1998). The case of Peru is in no way different. As a matter of fact, for the past 15 to 20 years the Peruvian higher business education has registered phenomenal growth and figures are expected to continue rising.

Although numerous studies have been conducted to evaluate brand equity, no research effort has been made to apply the brand equity concepts to the Peruvian business school brands. As such, no effort has been made to understand the role played by brand equity or to examine the ways that the Peruvian business schools could develop to monitor and enhance loyalty towards their brands. Furthermore, as Lassar, Mittal, and Sharma (1995) assessed:

“In spite of the increasing importance of the brand equity concept, an instrument to measure brand equity from the customer perspective has been lacking. Because the source of brand equity is customer perceptions (Keller, 1993), it is important [...] to be able to measure and track it at the customer level.” (p. 11)

This view is supported by more recent research, such as the studies by Baker, Nancarron, and Tinson (2005) and Mourad, Ennew, and Kortam (2010).

Thus, the purpose of the presented paper is two-fold: on the one hand, to develop an instrument to measure the MBA-enrolled student-based brand equity of business schools and, on the other hand, to assess the dimensions of brand equity of business schools in Peru. Additionally, we provide a snapshot of the order of dimensions pertaining to each business school.

## **Literature Review**

The literature on brand equity comprises various definitions given by both the academics and the practitioners, having resulted in a variety of conceptualizations for the construct and a variety of methodologies to measure the same (Christodoulides & De Chernatony, 2009; Yoo & Donthu, 2001). Aaker (1991), e.g., defines brand equity as “a set of brand assets and liabilities”, such as brand aware-

ness, brand associations, perceived quality, and brand loyalty, which are linked to the brand, its name and symbol and add to or subtract from the value provided by a product or service being offered. Keller (1993), on the other hand, introduces brand equity from the consumer psychology perspective, i.e., consumer-based brand equity (CBBE), defining it as “the differential effect of brand knowledge on consumer response to marketing of the brand”. Regardless of the perspective adopted, i.e., financial or customer-based, brand equity represents the value that a brand name adds to a specific product (Farquhar, 1989).

Brand building of an educational institution lies at the intersection between the institution’s core values and the expectations of its stakeholders. In the context in which higher education is becoming more of a commodity (Aggarwal Sharma, Rao, and Popli, 2013), business schools need to find ways of highlighting their distinguishing features to gain a higher student share. In this regard, a good source of information regarding the business school’s image and ranking, which can predict mobility, is represented by student feedback (Segev, Raveh, & Farjoun, 1999). Furthermore, there are a number of studies that have focused on assessing the factors that impact on the perception of business school brand equity, such as the studies by Chen (2008), Kurz, Scannell, and Veeder (2008), Mourad (2010), and Paden and Stell (2006).

In brief, business schools should focus on measuring and enhancing their brand equity, as this can influence their image, with a direct impact on their performance. Nevertheless, it is important to bear in mind that a business school can spend years in the endeavor to establish and reinforce its brand (Bisoux, 2010).

## **Scale Development**

### **Research design**

The study is based on primary data which have been analyzed with the use of appropriate statistical tools, as explained in the following sub-sections. The primary data were collected by conducting an online questionnaire survey on the selected sample units (business schools) in Metropolitan Lima.

Based on the academic and practitioner literature review, taking as a base, mainly, Aaker’s (1991) well-known conceptual framework of brand equity and the study by Yoo et al. (2000), with some adaptations, and following the advice of Baker et al.



(2005), who suggested that in the absence of universal measures of brand equity, each sector has to determine its best-suited items, we identified 18 items which were included into a structured questionnaire in the form of 3 negatively-worded statements and 15 positively-worded statements, to which the participants had to respond by means of a 7-point Likert-type scale (where 1 represented strong disagreement and 7 represented strong agreement with the respective statement).

The content validity of the items was assured with the help of two experts in the field of marketing and two psychologists. Furthermore, to ensure a clear understanding of the questions, the instrument was pretested during a pilot study conducted with 57 MBA-enrolled students, a process which yielded a positive gesture in terms of face validity.

### Data collection

A total of 900 potential respondents were notified and invited to respond to a self-completion questionnaire which had been circulated online. The total sought sample size of 900 was equally distributed among nine business schools. Nevertheless, the findings we report here are based on 467 questionnaires (i.e., a response rate of 52%) that were received during a one-month period (cf., Table 1).

**Table 1.** Sampling plan

S.No.	Business School	Response Rate (% at the school level)	Response Rate (% of the total sample)
A	CENTRUM Católica Graduate Business School	80	17%
B	Universidad de Lima	44	9%
C	Universidad de Piura	77	16%
D	Universidad de San Martín de Porres	42	9%
E	Universidad del Pacífico	64	14%
F	Universidad ESAN	24	5%
G	Universidad Inca Garcilaso de la Vega	71	15%
H	Universidad Peruana de Ciencias Aplicadas UPC	45	10%
I	Universidad Ricardo Palma	20	4%

The sample had a strong representation of females (61%). Other personal characteristics of the respondents are presented in Table 2. It is to be noted that the respondents were informed about the general purpose of the survey and a guarantee of anonymity was promised before data collection.

**Table 2.** Demographic profile of the respondents

Category	Classification	Frequency	%
Age	[21–24)	5	1%
	[24–27)	59	13%
	[27–30)	130	28%
	[30–33)	87	19%
	[33–36)	48	10%
	[36–39)	58	12%
	[39–42)	40	9%
	[42–45)	21	4%
	>=45	19	4%
Gender	Male	184	39%
	Female	283	61%
Job Sector	Agribusiness	4	1%
	Commerce and Distribution	65	14%
	Construction	34	7%
	Consultancy	55	12%
	Education	7	1%
	Investigation	6	1%
	Mining	24	5%
	Services	86	18%
	Telecommunications	48	10%
	Other	138	30%
Income Status (Peruvian Nuevos Soles)	<3,000	16	3%
	[3,000–5,000)	126	27%
	[5,000–7,000)	141	30%
	[7,000–9,000)	68	15%
	[9,000–11,000)	52	11%
	[11,000–13,000)	18	4%
	[13,000–15,000)	19	4%
>=15,000	27	6%	

## **Data analysis**

The number of 467 final questionnaires was deemed adequate for statistical analyses of the data, which were then carried out through exploratory factor analysis with principal component analysis using *varimax* factor rotation. The

subjective element of factor analysis was reduced by splitting the valid sample of questionnaires randomly into two, one sample of 187 and the other one of 280 questionnaires, based on the 40%-60% rule of thumb (Charles & Gherman, 2014). As the factors (dimensions) extracted separately from both groups were identical, the analysis was considered reliable. Furthermore, although only items with a factor loading of .40 and above were considered significant in interpreting the factors, this criterion preserved the number of items to 18. Five factors emerged clearly from the analysis with the items loading on their appropriate factors.

Subsequently, Bartlett's test of sphericity was found to be highly significant for the 40%, 60%, and 100% of the sample with a  $p = .000$ , implicating that the data were suitable for undergoing factor analysis as there were underlying relationships between the items that might yield a pattern during the analysis. Moreover, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy gave highly satisfactory .932, .925, and .942, respectively.

For both samples, out of the 18 items, five factors were produced. The factors that emerged from the study were given appropriate names in accordance with the criteria, namely *brand loyalty* (Factor 1 – BL), *brand association* (Factor 2 – BAS), *brand awareness* (Factor 3 – BAW), *perceived quality* (Factor 4 – PQ), and *overall brand perception* (Factor 5 – OBP). The five factors, when added, accounted for 87.240% (for the 40% sample), 88.902% (for the 60% sample), and 87.948% (for the overall sample) respectively of the variation in the data obtained.

The results of the factor analysis in terms of the rotated factor loading matrices for the 100% of the sample can be seen in Table 3 and the loadings for the 40% and 60% of the sample are shown in Figure 1.

**Table 3.** Results of the exploratory factor analysis

Factors	Items	Factor Loadings	Reliability Analysis
<b>F1: Brand Loyalty (BL)</b>	*Even if the tuition fee is a little higher than that of its competitors, I will continue studying in the business school of my interest.	0.833	Cronbach's Alpha = 0.957 Mean = 4.768 Variance = 2.994
	I will continue to study in the business school of my interest as long as I am satisfied with the programs it provides.	0.833	
	I surely consider myself to be loyal to the business school of my interest.	0.774	
	I would love to recommend the business school of my interest to my circle of friends and acquaintances.	0.756	
	When choosing a future program, I would consider the business school of my interest as my first choice.	0.708	

Factors	Items	Factor Loadings	Reliability Analysis
<b>F2: Brand Association (BAS)</b>	I have a lot of admiration for the students who study in the business school of my interest.	0.788	Cronbach's Alpha = 0.918 Mean = 4.987 Variance = 3.107
	*Compared to the competing brands, the business school of my interest counts with a distinctive brand image.	0.766	
	I am fond of the brand image of the business school of my interest.	0.730	
	I have a lot of trust in the business school of my interest regarding the quality of the programs offered.	0.674	
<b>F3: Brand Awareness (BAW)</b>	I can rapidly recall some attributes of the business school of my interest.	0.837	Cronbach's Alpha = 0.947 Mean = 4.677 Variance = 3.254
	*Among the other competing business schools, I can quickly recognize the business school of my interest.	0.805	
	I am acquainted with the brand of the business school of my interest.	0.754	
<b>F4: Perceived Quality (PQ)</b>	The programs offered by the business school of my interest count with excellent attributes.	0.672	Cronbach's Alpha = 0.983 Mean = 5.278 Variance = 2.429
	I have a lot of trust in the quality of the programs offered by the business school of my interest.	0.670	
	The programs offered by the business school of my interest would be of very good quality.	0.642	
<b>F5: Overall Brand Perception (OBP)</b>	If another business school is in no way different from the business school of my interest, it seems smarter to choose to study in the business school of my interest.	0.821	Cronbach's Alpha = 0.836 Mean = 4.102 Variance = 2.975
	I would always prefer to study in the business school of my interest, even if a competing business school offers the same programs as the business school of my interest.	0.646	
	I consider the business school of my interest to be more than an educational institution to me.	0.538	

\* In the original questionnaire, these statements were negatively-worded

It is to be noted that the factor loadings for the 40% and 60% of the sample have been graphically represented in Figure 1 by taking into consideration the structure of the 100% of the sample.

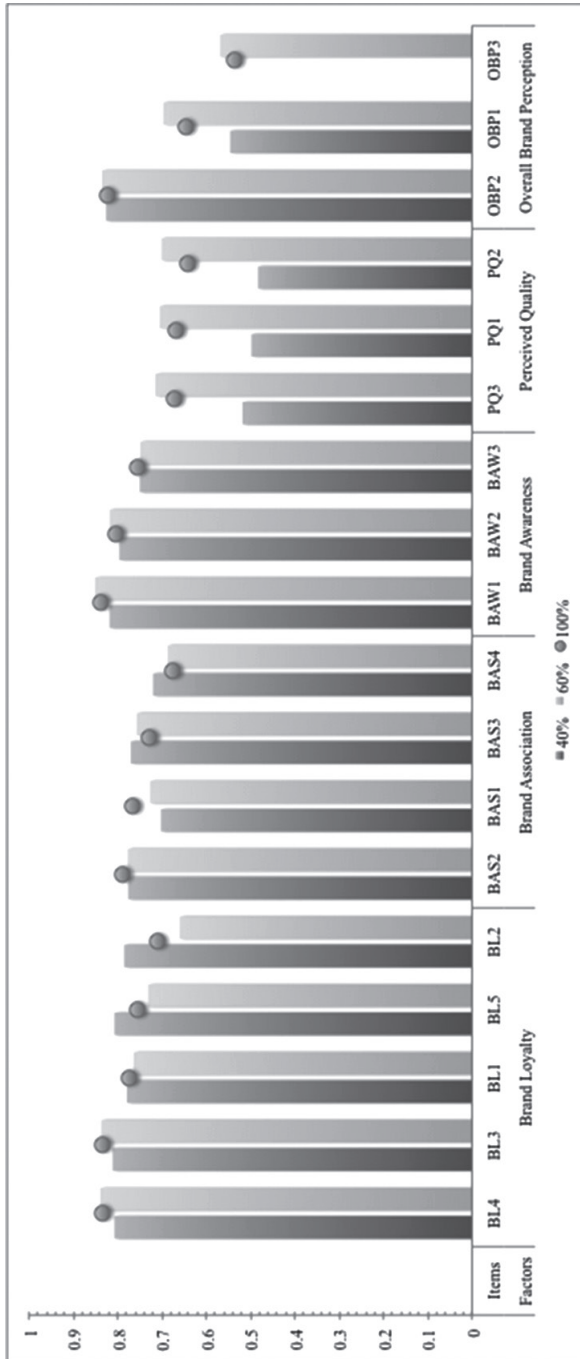


Figure 1. Factor loadings for the 40% and 60% of the sample versus the overall sample

## **Reliability of the Constructs**

The internal consistency was tested through Cronbach's Alpha. The Alpha values for the five dimensions are 0.957 (BL), 0.918 (BAS), 0.947 (BAW), 0.983 (PQ), and 0.836 (OBP), respectively (cf., Table 3), and the combined Alpha value for all the items is 0.969. As they all exceed the obligatory requirement of 0.70, this indicates that all of the items and factorial groups are sufficiently reliable measures. Thus, the statistical and factor analysis tests showed that the proposed items and dimensions of the instrument of the study are sound enough to measure the perceptions of the MBA-enrolled students regarding the determinants of brand equity for the Peruvian business schools, and, hence, can be used for further analysis and interpretation.

## **Snapshot of the Peruvian Business School Sector**

As presented in Table 4, we further used the data based on the knowledge obtained from the exploratory factor analysis to provide a ranking of the resulted five underlying dimensions of brand equity for each of the nine Peruvian business schools.

**Table 4.** Ranking of the five dimensions of brand equity within each business school

RANK	1	2	3	4	5	6	7	8	9
1	PQ	PQ	PQ	PQ	PQ	PQ	BAS	PQ	PQ
2	BL	BAS	BAS	BAW	BL	BAS	PQ	BAS	BAS
3	BAS	BAW	BL	BAS	BAS	BAW	BAW	BL	BAW
4	OBP	BL	BAW	BL	OBP	BL	BL	BAW	BL
5	BAW	OBP	OBP	OBP	BAW	OBP	OBP	OBP	OBP

*Note.* Each business school is numbered from 1 to 9. It is to be noted that the sequence of 1 to 9 is different from the previous sequence of A to I. The business schools have been shuffled to preserve their anonymity, as the sole purpose of the derived ranking of the brand equity dimensions is to provide a snapshot of the business school sector and not an individual assessment.

Except for the case of business school no. 7, we can observe that the most important dimension of the brand equity of Peruvian business schools, as appreciated by the MBA-enrolled students, is *perceived quality* (or, otherwise stated, the student's

perception of the quality of the programs offered by the business school with respect to its intended purpose and relative to alternatives (Zeithaml, 1988)). The second, third, and fourth most important dimensions are varying mainly between *brand association*, *brand awareness*, and *brand loyalty*. As such, *brand association* is reported as the second most important dimension in 5 out of the 9 cases, *brand loyalty* in 2 cases, and *perceived quality* in only 1 case. Similarly, *brand awareness* holds the third position in 4 out of the 9 cases, *brand association* in 3 cases, and *brand loyalty* in 2 cases. The fourth most important dimension is *brand loyalty* (5 out of the 9 cases), followed by *overall brand perception* and *brand awareness*, each reported in 2 cases.

What is notable is that *overall brand perception* – defined as examining the students' overall attitudes toward the business school of their interest and their intention to select the same against its counterparts (Yoo et al., 2000) – is almost always ranked last (in 7 out of the 9 cases).

## **Discussion, Implications, and Future Research**

Memorable brands are all about delivering experiences and creating relationships that engage and excite, and at the same time, are both complete and consistent. In today's increasingly complex competitive environment, students are becoming more and more selective about the business schools at which they decide to pursue their higher education. A recent study by Vukasović (2015) showed that the brand represents a notable influence on the selection of a university. It is not too bold to say, then, that brand management is of vital importance to each and every business school that wishes to attract prospective students and maintain the existing ones.

It seems only right to say that business schools should measure their brand equity on a regular basis. As Vašátková (2010) rightly stated, the spirit of self-evaluation is an element that ought to be strongly embedded at every level of the school. It is in this context that the presented paper focuses on assessing the dimensions of brand equity of business schools from the MBA-enrolled student's perspective. In this regard, it builds an instrument around five dimensions of brand equity, namely, *brand loyalty*, *brand association*, *brand awareness*, *perceived quality*, and *overall brand perception*. Conceptualizing brand equity from the MBA-enrolled student's perspective can prove to be useful as this framework could assist business schools in designing marketing strategies to improve their brand equity to gain a higher student share. As such, a thorough understanding of brand equity from

the MBA-enrolled student's point of view may be essential for successful brand management.

The usefulness of the presented research resides in the proposed framework, as this can help both to identify areas where more research and promotional support is needed in assisting the academic decision-making process and to uncover possible sets of intangible attributes in which the business school can differentiate itself. The advantage of the scale is that by being student-based, it enables the pursuit of further feedback from the students if the business school's brand equity is seen to deteriorate. Moreover, this feedback should be relatively easy to collect given the small number of items that compose the instrument and which have the capacity to assess individual dimensions of brand equity.

Derived from the analysis, the proposed model includes five factors and 18 items. A future direction of the presented study would be to employ structural equation modelling (SEM) to analyze the complex relationships among the items. Furthermore, it may be useful to evaluate the relationship between the tuition fee and the equity associated with the respective business school's brand. Additionally, future research could focus on extending the proposed instrument to assess the brand equity of a business school from the perspective of other stakeholders.

Finally, we should remember that it is the great confidence that students place in the brand of a business school that nurtures the very definition of the respective business school's brand equity. It is this confidence that predicts the students' loyalty and willingness to pay a premium tuition fee. As such, business schools find themselves in a position in which they need to examine the ways that they could develop to enhance the loyalty towards their brands. As previously mentioned, measuring and enhancing brand equity should become a priority for any business school which attaches importance to its image, and subsequently, its reputation and performance.

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## How Inclusive Education Becomes a Community Project: a Participatory Study in the Northwest of Spain

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### Abstract

This paper shows how a participatory study on inclusive education was designed and developed in a town in the northwest of Spain. The methodology included the development of collaborative inquiries at intra-school, inter-school and local levels. It was designed by following the principles of participative and community-based research. This study demonstrates diverse ways in which different educational levels face inclusion; the value of collaboration between agents and institutions for innovative thinking and practice; and the need to develop further and wider research connecting participatory research and community engagement movements to systematic research into inclusive education.

**Keywords:** *inclusive schools, education for all, participatory research, community-based research, collaborative inquiry*

### Introduction

The article summarizes research (funded by the Spanish Ministry of Science and Innovation, ref. EDU2011–2928-C03–01) carried out at the University of Vigo (Spain), on all the infant and primary schools and some local educational agencies, in a small town in the northwest of Spain. The paper sets out to illustrate and discuss the journey developed in the different institutions participating in the study to achieve a more inclusive education (IE). The study is grounded on two research traditions: community engagement research (Blank, 2005; Bottrell

& Goodwin, 2011; Cummings, Dyson & Tood, 2011) and participatory action research (Kemmis & McTaggart, 2005). This conjunction of approaches entails a new role for researchers and a fundamental role for schools and the community in the design, implementation and evaluation of collaborative inquiries aimed at promoting inclusion. Nine schools and diverse municipal associations and services from “A Estrada” took part in this process, on the basis that education and community development must be considered as linked and intertwined. Although most of the literature places schools at the heart of inclusion, it is clear that inclusion cannot be confined within the school. The need to study inclusion as an interschool and community process is increasingly being taken on board.

This study contributes to the strengthening and improvement of our understanding of how inclusive processes are built from such a viewpoint. More specifically, the aims of the study were:

- to map the content and analyse the processes of change inside schools in which teachers and other educational agents, through collaborative inquiry actions, undertake, develop and evaluate within-school plans to maximize IE.
- to map the content and analyse the processes of change between schools in which different school agents, through collaborative inquiry actions, undertake, develop and evaluate inter-school plans to maximize IE.
- to map the content and analyse the processes of change between schools and the local community in which diverse community educational agents, through collaborative inquiry actions, undertake, develop and evaluate local activities to maximize educational and social inclusion.

## **Research Methodology**

### **Research General Background**

As mentioned above, the reference frameworks for this paper are the community engagement model and participatory action research. The first of our references is consistent with the broad international agreement on the need to consider that IE does not depend on, nor will it be achieved by, simply improving or increasing participation and collaboration of professionals and stakeholders within schools, but rather between schools and their communities. Also, the grounding in participative action research attempts to answer the assumed need to consider inclusion as a process that should not be built as a technology (Allan & Slee, 2008), but rather as an on-going process that needs to be undertaken, considering the voice, the

thinking and the action of those engaged in it. The participatory action research approach assists participants in critically investigating their reality, analysing it and then undertaking constructive changes. Teachers, parents, community agents and marginalised people could be involved in the collaborative production of knowledge in pursuit of answers to the question of inclusion.

This way of thinking about the potential of participatory research has been taken into consideration in recent years not only by critical scholars or movements but also by funding bodies such as the European Union or the OECD (cf., diverse examples in Edwards and Downes, 2013). One of the most expressly recognised collaborative and participative strategies is the development of teams of participants in learning communities (Hord, 1997; Stoll, Bolam, McMahon, Wallace & Thomas, 2006). These are communities that join professionals and stakeholders with a common commitment to the improvement of their own practice. Communities of practice can be developed in a single institution or composed of members of different organizations, as pointed out by Wenger & Snyder (2000). In our research, we particularly deal with the development of learning communities able to develop collaborative inquiries and projects.

Other successful studies and proposals emphasizing participatory processes that promote collaboration between schools and between schools and communities that inspire our research are: *Success For All* (Slavin, Madden, Chambers & Haxby, 2009), and *Education Action Zones* and *Excellence in Cities*, with schools in underprivileged areas, be they inner-city or rural, as a strategy for improvement (Ainscow & West, 2006). Also, the *Great London Challenge*, the *Great Manchester Challenge* or the *Berlin One Square Kilometre of Education* can be viewed as studies exemplifying framework linkages and connections between schools and their communities to promote school and social development (Ainscow, 2015; Ainscow, Dyson, Goldrick & West, 2011).

Despite their individual characteristics, these undertakings share some fundamental points that are especially relevant to our study. All of them recognise diversity as an educational value that must lead to an equitable and qualified education for all students. Each scheme develops interaction between the schools and other local educational institutions, through networks, associations and diverse groups. Finally, all of them invite stakeholders (principally teachers, families, students and local agents) to actively participate in change management. But not one of them has connected community engagement and participatory research.

Bearing this in mind, the two fundamental starting points for this research are:

- The assumption of inclusion as a democratic and progressive social and educational challenge, which needs to be analysed with a research frame-

work able to harness their participatory nature. This calls for a kind of research that critically engages in the participation of all stakeholders and assumes the value and opportunity of alternative, bottom-up, processes of knowledge production in social sciences.

- The assumption of a community focus to research and develop inclusion. Every institution and context is viewed as a space with its own culture, identity and meaning that are constructed and shared by the community. In this manner, schools are considered as a public urban and political area. This privileges community as the place for articulating processes of development and research. Also, it reinforces the importance of managing research connecting schools with their local communities.

### **The research process: design, data recording and data analysis procedures**

The overall study was designed to follow the previous assumptions, based on requirements of participative and inclusive research (Allan & Slee, 2008), which attempts to develop research initiatives using democratic and collaborative research approaches (Hansen, Ramstad, Richter, Smith & Stratton, 2001; Nind, 2014). Furthermore, the study was particularly focused on researching and improving education from the local and community perspective.

To meet these objectives, a research study, called “Schools on the path to educational inclusion: working with the local community to promote change,” was designed with various levels of participation and stages: intra-school, inter-schools and local.

The study was conducted in all nursery and primary schools in A Estrada (Spain), a town with urban and rural areas, halfway between other important towns and cities in the area. The research started in 2009 in three of the 9 infant and primary local schools. In one year, all the remaining schools were involved in the research. Due to the participative nature of the research, the participation of schools and local institutions in the research was carefully negotiated and ethical aspects of the process were agreed on among the parties concerned. The main requirement in looking for schools was to identify schools willing to improve their capacity to respond inclusively to diversity. Also, it was important that schools were interested in seeking and building new experiences and pathways with other local schools and services in the community. Voluntary participation in the process was also guaranteed.

The sample comprised all the nine state nursery and primary schools in the town. Two were nursery schools (one municipal and the other private); further

two were town-centre state schools combining nursery and primary, while four other such schools were located in the surrounding countryside.

In this study, schools and teachers are the core referents for articulating the process of change. However, as participative action research suggests the voices of the groups which have had a marginal presence in IE research, these have also been incorporated at various stages and levels of study. Thus, in addition to teachers, families and students, educational and social agents (representatives of groups of people in vulnerable conditions, NGOs, social services, media, etc.) were invited to participate in the research process.

### Instrument and Procedures

Fieldwork was conducted in the period of 2009–2014. To identify central issues, we undertook a broad series of participative procedures and techniques, all aimed at documenting, understanding and analysing the different processes in which the schools and communities were engaged:

- *individual interviews* with principals, head teachers, class teachers, school project coordinators, and families;
- *recorded audio and/or video* of the fortnightly working meetings of the teaching staff, of the joint activities of the schools network: meetings of teachers from the six schools (three per year); of the Local Commission meetings or the aforementioned activities (Fairs, shows, etc.);
- collection of school documentation: statistical analysis of the schools, educational school plans, educational school curriculum; internal reports, etc.;
- *field notes* with observations and video recordings of new classroom practices,
- *focus groups* of school projects coordinators (one per year); and inter-school focus groups with a sample of students from each school (one per year).
- *memos* and minutes of improvement activities, and
- *documentation* from other qualitative activities and strategies developed in schools, such as official plans or short narratives made by students, families, teachers or other participants.

Participative research data analysis was developed in order to better understand user perspectives. This allowed researchers and other participants to creatively develop their own approaches to understanding participant experiences and narratives, as Hesse-Biber & Leavy (2010) pointed out. In this manner, an important number of documents and activities were analysed by the participants themselves, organized into research groups, such as students analysing a photovoice activity

developed in schools, following the proposals of visual research methods (Holm, 2010; Miles and Howes, 2015) and visual ethnography (Pink, 2007); teachers analysing memos and reports of “good practices”, or groups of teachers and other stakeholders analysing the content of short family reports about school transitions. Data analysis of audio-registered information was thematically analysed by the research team to identify common and contradictory themes through an iterative process of reflection and discussion, following the principles of document analysis (Flick, 2009) and content analysis (Bardin, 1977). These themes provided the framework for a coding structure for a second thematic analysis, which was organised using MaxQDA, a computer-assisted qualitative data analysis program.

### **Research results: The participatory process: mapping collaborative inquiries into inclusion**

As already discussed, a model combining features of participatory research and community research was developed in all the nine schools. This model included three different levels of work: level A: Intra-school collaborative inquiry; level B: Inter-school collaborative inquiry; and level C: Local collaborative inquiry.

At level A (Intra-school Collaborative Inquiry), following the model of learning communities, a teaching team in each school worked on the design and development of a collaborative research and improvement plan that would improve inclusion in school. At this point, the school participants, together with two members of the university research team in each school, established a participatory process through fortnightly working meetings. The role of researchers was to facilitate, by working with teachers, the necessary conditions for the research and change project, designed to support improvements in the school (Parrilla, Muñoz-Cadavid y Sierra, 2013).

At this level, each school articulated what is called inside schools a “school collaborative inquiry”: a whiting school analysis, design and development of pathways to reach inclusion, based on a selection of internal areas/topics on which improvement will be focused. Each institution working in teams followed a work cycle inspired by the participatory methodologies (McTaggart, 1994), which help participants to achieve the objectives identified by the group.

The cycle followed in each school, included the following stages: needs analysis; data collection; data analysis; prioritization and planning for improvement; development; monitoring progress; and finally, review and revision. But this is not a step-by-step proposal, but rather an approach to research that is used in many

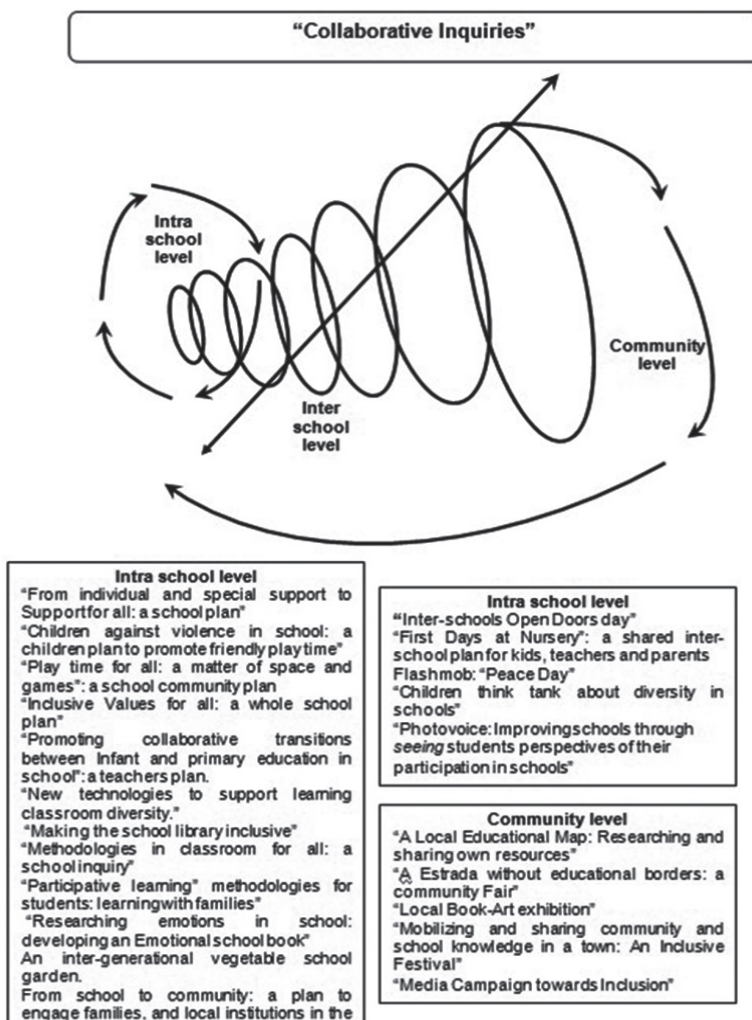


Figure 1. Synopsis of collaborative inquiries and plans at different levels: inside schools, inter-schools and community (elaborated by the authors)



different ways by participants in the same school, and between schools, adapting the stages in each case to the situation. Although it was common to develop a cycle each academic year per school, there were some schools that developed more than one cycle per year (working in successive topics in the same year).

In doing so, the schools found many different, innovative ways to respond to their commitment to inclusion, depending on the context and needs. Table 1 shows the collaborative inquiries developed in the nine schools throughout the research process.

Within schools it is possible to identify different ways to face inclusion, whether the primary focus is on change in a particular area of interest in the school, or on the school as a whole. For example, at a classroom level, a school collaborative inquiry developed in at least 4 schools was focused on “*Methodologies for all*”. This consists of the analysis, design, development and assessment of new learning activities that encourage teachers to think about all students when they design and develop teaching in their classrooms. Another example, in this case of a collaborative inquiry focused on the institution as a whole was named “*Inclusive values for all. A whole school plan*”. In this case the collaborative inquiry developed within school assumed the participation of teachers, parents and students designing and developing interdisciplinary activities to promote inclusive values.

The diverse and innovative collaborative enquiries developed in each school involved changes in daily practice and behaviour; they contributed to the strengthening of ties between the teachers, and they created new relationships between the members of the school community. The participants considered all these changes as inclusive, not only in their objectives, but also in their procedure and development.

Level B (Inter-school collaborative inquiry) involved the creation of an inter-school network around a workgroup and committees made up of members of the nine schools, which analyse and develop actions to improve and respond to the mutual inter-school needs. The nine schools discussed and reached common “inter-school collaborative inquiries” that, as at the intra-school level, followed a work cycle inspired by the participatory methodologies. The school network was based on quarterly meetings of the schools to enable the teams of teachers and students from the schools to analyse, design, develop and review their common proposals and solutions to common needs.

The development of the nine schools network varied over the years, both in its breadth, and in the depth of collaboration established among the schools. Creating a shared inter-school identity can be reported as one of the main results of the schools network. But, establishing collaboration and common values takes time, as

different stakeholders join the process of change, and the network, with different aims, ideas and values about the shared goal of inclusion. The collaborative inter-school inquiries developed in the network usually amounted to no more than two each year. The most common inter-school collaborative inquiries were linked to the critical exchange of ideas and inclusive practices among the colleagues. Members of the school community reported that these activities offered important gains in personal confidence, professional development and motivation. Nevertheless, more complex activities, such as new practices involving teachers, students, and agencies, were more difficult to achieve. An inter-school student activity using a photo-voice methodology (Doval, Martínez-Figueira, Raposo, 2013), a FlashMob networked activity, a think tank of students to promote active answers to diversity in schools, or an inter-school proposal to make inclusive educational transitions could be cited as examples that contributed to facilitating inter-school participation, allowing schools to embrace new and imaginative channels of collaboration.

Level C (Local collaborative inquiry) involved the creation of a *Local Inclusive Education Network*, including the local community and some socio-educational institutions (local council, Ministry of Education, Social Services) to set directions, analyse and inclusively act at the local level. Following the same process described in previous phases, local collaborative inquiries were developed between the university, schools, the local council and diverse local organisations and associations to amplify and promote inclusion in the social field.

The local collaborative inquiries developed included a reduced number of inquiries in contrast to inter-school or intra-school inquiries. This is due to the complexity of the processes that include a broad number of agents. School Shows in local halls exhibitions, Education Fairs, Inclusive Media Campaigns or an Inclusive Educational Festival were just some of the local inquiries developed to promote inclusion beyond the school walls.

The level of implication of local educational institutions in the collaborative inquiry, the commitment of the participants, and the presence of distributed leadership between the members were determinants at the third level of the study. As well as at the inter-school level, collaboration between schools and agencies was a powerful stage for innovative thinking and practice.

## **Conclusions and Reflections**

The study invites us to reconsider IE, paying special attention to its conceptualization as a process that places the community and the school community

relations in their core. In so doing, a new role for schools in communities, a new relational framework, as well as the establishment of relations with local agencies is required to carry out IE plans that scale their scope from the limits of the school towards the community.

As other studies pointed out (Ainscow & West, 2006), IE provides an opportunity to challenge commonplace practices within and beyond the institutional context, inviting us to improve them, indicating new settings for this change. The thematic analysis of collaborative inquiries developed in this study, at the intra-school, inter-schools or community levels, establishes different and new pathways through which expertise and lessons from innovations could be extended. In such a manner, our study offers specific lessons about innovative ways to face inclusion such as: support for individual students' needs in schools; management of social and affective issues; development of methodologies for all in classrooms; building of a shared identity and understanding between schools, the community and citizenship engagement in inclusive actions, or the way to translate, and disseminate the knowledge into the social arena. These proposals differed in scope and treatment in each context, but were developed using shared processes based on collaborative strategies (collaboration with colleagues, professional dialogue, listening to students' voices, learning conversations, micro-collaborative inquiries with external educational agents, etc.). In general, these processes coincide with previous research in the idea that working together is a key tool for IE. As Ainscow (2015) has recently argued, a theoretical interpretation of this is the fact that the collaborative work of different agents strengthens the social capital in a specific context, and subsequently, its capacities and possibilities.

This study also suggests that connecting community-based and participatory action research to design and analyse IE provides a framework that responds to the challenges and needs that IE requires at different levels (intra-school, inter-school, and local). Our study is clear in confirming the value of different ways of learning together to develop inclusion, but this does not mean that we have solutions to transfer to any place. On the contrary, the study suggests that IE requires a different kind of collaboration and particular development in any context if we seek to develop approaches relevant to a particular situation.

By way of an example of participatory and community research, this study has some limitations that need to be taken into account in further research. The most important one is that this is a small-scale study. Also, we do not report in this paper, due to the word limit, the in-depth analysis of collaborative processes developed in the research (cf., Parrilla, Muñoz & Sierra, 2013, to a full-scale analysis of the research process). Nevertheless, the evidence provides clear pointers to the

potential of both approaches to be used as a useful lens for a systematic manner of improving and researching IE in a way that is sensitive to the complex and interactive nature of the inclusive processes.

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## Limits of The Ethical Training of Social Workers (Altruism Issue in the Moral Space of Professional Ethics)

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### Abstract

The article is focused on the professional ethics of social work in the context of the philosophy of education. The authors analyse its educational pitfalls seen as a possible tension of personal ethics and professional ethics. Analysing the altruism issue (one of the essential values in social work) the authors reflect on the relationship of autonomy and heteronomy of will (e.g. regulated by institutional codes) in moral acting.

*Keywords: ethical education in social work, personal ethics, professional ethics, altruism, autonomy, heteronomy*

### Introduction

The motive for writing of this text was the statement: “Professional ethics ... is not a study of what makes a ‘good’ or successful person, but what makes a good professional. [...] We think virtue ethics and the teleological method are so important for professional ethics because, to the extent that if professional ethics is about more than ordinary ethics it is about the practicalities of doing the job well” (Bowles et al. 2006, pp. 61–62). This statement suggested a possible difference between a ‘good person’ and a ‘good professional’. Regarding that both – a ‘good person’ and a ‘good professional’ – can be understood as a certain result preceded by a process of education and training, it was decided to give some thought to possible relations of professional ethics of social work (including ethical training of future social workers) and selected issues of theoretical ethics reflected in the

educational process of specialist training. In our text social work is mentioned as a) theory, b) professional activity and c) training of future social workers.

In the Czech Republic the social work profession is regulated by the law (Act no. 108/2006 Coll., *On social services*). The same law also regulates the compulsory education and training of future social workers. An integral part of this education and training is the area of professional ethics. This underlines the importance of the ethical plane of social work.

Even though it is evident that ethical training of future social workers is related to the very core of social work, the question is still open: What kind should it be as it is influenced by the ambivalent character of social work as theory and practice? S. Banks pointed out the ambivalent character of social work and contradictions rooted in the arrangement of society (Banks, 2001, p. 16). Social work exists only as a result of public policy or public concern: "All social work, to count as such, is authorised and legitimated as a result of public and political processes ... this remains true even in those regimes where the delivery of social work services is delegated to non-state organisations" (Clark, 2000, p. 4). In the opinion of Bettinger (2005), 'traditional social work' operates within a neoliberal and politically regulated framework. It is involved in, e.g., criminalisation and stigmatisation of addressees/users of social services. It advocates the transfer of structural factors onto clients' individual defaults. It (re)produces its own forms of exclusion. Clients are considered as primarily passive recipients of services. The opposite of 'traditional social work' is so-called 'critical social work', which emphasizes the critical analysis of social problems and promotes overall social transformation.

The theory of social work is not characterized by unity. Social work may be seen as a largely administrative activity, i.e. a future social worker is perceived primarily as a future officer and his training is focused on gaining of administrative competences. Other possible approach is a 'philanthropic concept,' based on highlighting the philanthropic nature of the social worker, his empathy for the poor and disadvantaged, i.e. formal education is not considered as important (Musil, 2008). We address the 'professional concept' of social work which, compared with the previous approaches, emphasizes the importance of training of social workers.

The ethical dimension of the profession is recognised in the Statement of Ethical Principles adopted by IASSW and IFSW: The social work profession promotes social change, problem solving in human relationships and the empowerment and liberation of people to enhance wellbeing. Utilising theories of human behaviour and social systems, social work intervenes in the points where people interact with their environments. Principles of human rights and social justice are fundamental to social work (<http://ifsw.org/policies/statement-of-ethical-principles/>).

Ethical training of future social workers has to consider various levels of tension that may be faced in practice. One of the levels of tension in social work can be formed by the prevailing all-society value context determining, e.g. the concept of justice that is normative and ideologically just. Social workers must be aware of the possible differences between (1) personal values and attitudes and (2) values of their profession and also (3) values of the institution they work for. They also have to consider a possible (4) difference of values and attitudes of clients they work with. Let us rephrase Hugman (2005), who writes of the need for a 'bilateral perspective'. In our opinion, it is the 'multi-lateral perspective' as an essential part of ethical competences of a social worker. "The notion of competences implies both – a positive attitude towards the development of character and critical assessment of the collective social systems, in which the person is situated, including the organisations in which they work. It thus requires a commitment to a professional approach to ethics that overlaps with but may be in some tension with personal ethics" (O'Hagan, 2007, p. 92).

The example of an analysis of the issue of altruism (regarded one of the fundamental values of social work) is to show possible difficulties of the simplified interpretation of professional ethics not respecting the critical reflection of the relationship between autonomy and heteronomy of ethical behaviour.

### **Ethical tensions of social work. Altruism within autonomous and heteronomous morality**

At a general level, social work is a purposeful endeavour to improve the lives of people in society. Especially of those who need it most. Here, social work is necessarily grounded in the moral principle of altruism.<sup>1</sup> We are of the opinion that the core of social work as a professional activity is the rightful intention to institutionalize altruism in society. The general trend of the development of civilized society is a gradual surpassing of elementariness and chaos through activities that are regarded important in society and that acquire an organized or institutional character. The process of institutionalization also affects social work because the contemporary society cannot make do without it. Social work carried out within specialized institutions is more rational because it acquires a more systematic and efficient character due to its expert management and control. Above all, it is more just because the activity of social workers within an institution is grounded

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<sup>1</sup> This statement will be considered in the following text.



in explicitly set rules of the distribution of limited means intended to help the others. Nevertheless, it is true that the contemporary trend in social work is certain de-institutionalization, overcoming of one-sidedly conceived paternalism and implementation of subsidiarity.

Social institution is a normatively general aspect of social work. The basic characteristic of a social institution is its ethos, i.e. a complex of norms and values set in the institution shared by all the workers participating in the institution's activities. The ethos creates and structures the employees' behaviour, and thus it fulfils a number of particular functions in the institution, namely the simplification and legitimation ones. The ethos simplifies solutions of frequently complicated situations because the complex of norms clearly states what can be regarded as an adequate behaviour within the institution. Further, it reasons correctness of conduct. Moreover, by offering order ethos allows for the understanding of the meaning and sense of conduct (cf., Pratchett, 2000, pp. 111–112). The ethos of an institution is usually explicitly articulated in the corresponding ethical code.<sup>2</sup> It provides objective criteria enabling to impartially regulate individuals' activities from the perspective of the institutional complex, i.e. from the perspective of the contribution of individual activity to the institution and also from the perspective of harmony of partial conduct with the generally set rules. Beckett and Maynard even state: "Behaving 'professionally' in this sense is not just about skills, or competences, or conscientiousness, but something more specific. It is about (a) playing the role that you signed up to when you joined the profession, and (b) setting aside your own personal feeling where they conflict with that role (Beckett, & Maynard, 2005, p. 73).

In this context Pratchett points out a cardinal ethical problem. Institutionalization of ethical decision-making can be interpreted in principle as an immoral phenomenon because institutions offering an ethical framework for particular employees' conduct "exempt them from moral and ethical responsibility for their behaviour at the same time" (Pratchett, 2000, p. 123). The authors consider this problem as absolutely principal from the perspective of general morals and ethics.

Institutionalization of ethics, especially in the sense of sharing a common ethos, certainly provides an essential degree of integrity that is a condition of the development of professional collective activity. According to Banks, codes of practice articulate the ethical responsibility of professionals, regulate their conduct and

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<sup>2</sup> In this context the issue of a possible tension between professional values and institutional values is not addressed although we are aware of the fact that representatives of various professions whose professional codices can differ may work in the same institution.

distinguish their role from others (Banks, 2001, pp. 106–124). Still, unquestioning and mindless observance of rules, insisting on formal requirements, submitting to duties resulting from institutionally set rules may lead to amoral conduct.

Harmful consequences of social conformism are pointed out by, e.g. H. Arendt, who enriched the ethical theory with the term ‘banal evil’ in this context. ‘Banal evil’ is to describe the evil created as a consequence of mindless fulfilment of orders and duties. Thoughtlessness, an inability to reflect on one’s activity from the general moral perspective, can lead to the worst crimes against humanity. In her book *Eichmann in Jerusalem* (Arendt, 1994), Arendt showed that even a person without sadist tendencies, not a psychopath or sociopath, is capable of the worst atrocities as a result of mindless fulfilment of professional duties. “I was only following orders” (Arendt, 1994), Eichmann defended his conduct. It can be summed up that so-called ‘banal evil’ can be committed by persons who do not question the rules of their institutions but only follow them. They fulfil their duties imposed by the institutions but do not think about their more general moral quality, i.e. do not confront the institution’s rules with universal moral values.

It is evident that submitting to the whole and unquestioning obedience is certainly not a guarantee of good. The phenomenon of ‘banal evil’ gives reasons for the necessity to complete the institution’s essentially heteronomous ethics with autonomous ethics, thus the training of future social workers should not be focused on formal gaining of ethics codes only, as it potentially involves the danger of **defensive** practice putting the institutional manuals and codes above the needs and interests of service users (clients). Within **defensive** practice service users are being transformed to suit the practices of the organization, rather than the organization being reshaped so as to be able to respond to individual client needs (Banks, 2001)<sup>3</sup> The risk of ‘banal evil’ can be surmounted only if the institution’s ethics is constantly confronted with autonomous ethics, which should be not only of relative validity, as in the case of heteronomous ethics, but of universal validity. When Kant emphasizes that moral duty should be motivated exclusively by ‘respect to the moral law,’ he inclines to the autonomous concept of ethics, rejecting reductionism because he does not want to derive moral conduct from non-moral facts.

The complex of norms and values followed by any institution can be regarded the morals of an institution. The morals of an institution is of instrumental character because it is a means of fulfilment of the particular institution’s objective

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<sup>3</sup> Sarah Banks points to differences of attitudes to practice among those involved in social work, including the model of bureaucratic social work.

(purpose) that does not necessarily fall into the field of morality or can even contradict morals. On the basis of the morality of purpose, institutions can be divided into three groups: 1) institutions the purpose of which is morally neutral; 2) institutions the purpose of which is immoral because it presumes direct violation of universally valid moral norms and values; and 3) institutions the purpose of which is to do moral good. These include institutions focusing on social work because altruism as a purpose is a moral value.

Altruism can be defined as an ethical principle ordering unselfish conduct focused on satisfying other people's interests.<sup>4</sup> The term altruism was introduced by A. Comte to describe the attitude contrary to egoism. "Live for others" is the requirement of altruism as articulated by A. Comte. It is evident that the corresponding idea had existed even before and could be expressed, e.g. in terms of charity, kindness, care, concern or liking. Altruism was understood as reduction of personal interest for the sake of general interest, and sometimes even social interest under the influence of utilitarianism in the 19<sup>th</sup> century.

Altruism was even interpreted as a historical type of morals by some moralists, e.g. J. Bentham, I. Kant, A. Schopenhauer or W. James. In this sense altruism could be understood as the shaping of the type of morals surmounting the egoist types of morals (e.g. eudaemonist, hedonism, asceticism or perfectionism), which are primarily focused on the life of an individual. Individuals need to live in society and depend on it but have a tendency to define themselves against society and defend and advance their own interests in their lives, i.e. to prefer their *egos* in relation to society. Such an attitude is incorrect and even unrealizable in its escalated form. Here the well-known paradox of 'absolute egoism' is found, showing that egoism cancels itself because the possibility to satisfy one's own interests and needs depends on the functioning of the social whole. Still, individuals must restrict their *egos* for the sake of the whole in order to enable the functioning of the social whole. Altruism as a type of morals cultivates awareness of the necessary sense of belonging and protests against egoism that at least ignores the social character of human life.

The issues related to altruism were developed mainly in the context of research into various forms of prosocial behaviour or solidarity and mutual help in the 20<sup>th</sup> century. Nevertheless, it is necessary to point out that the dilemma 'altruism versus egoism' does not in fact express the discrepancy between 'private and social interest' but 'my and someone else's interest'. The definition of the term altruism

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<sup>4</sup> Cf., "Altruism – a desire to benefit someone else for his or her sake rather than one's own"... Batson, C. D., 2011, *Altruism in Humans*, Oxford: Oxford University Press, part II, p. 3.

implies that it is not the supporting of general interest but someone else's interest. Altruism differs from collectivism subordinating an individual to the interests of the group.

The definition of altruism implies a number of problems, and some of them should be pointed out in particular. First of all, who and in what way should judge someone else's interests, especially in a situation when the others are not capable of evaluating their real interest, i.e. they are not sovereigns of their lives. How to evaluate the application of altruism to the other who is a bad person, i.e. breaking norms of behaviour, doing injustice, etc. What criteria should one take into account when distributing material aid in a situation where social resources are limited? How to evaluate when help becomes 'disservice', i.e. it is more harmful than helpful. Limitless altruism does not motivate individuals because relying on external help prevents one's own endeavour. Limitless altruism demoralizes because charity as undeserved enrichment contradicts the principle of justice. Limitless altruism gets into internal conflict also because preference of one's interests leads to the harm of someone else in the socially interconnected world.

### **Limits of professional ethics and their impact on practicing. Human being within the tension of moral goals and means**

The ethics of social work is applied ethics because it does not concern universal morality but morality of partial validity. The moral space of applied ethics is determined and defined by the purpose of the particular specialized conduct. Thus, a relative moral space is created. At the same time, every specialized conduct is part of the general moral space where universal ethics applies. Universal morality (morality of duty) gives orders and bans that are absolutely necessary, i.e. their violation is impossible from the moral perspective.

Every human conduct is always guided by a specific purpose, and thus it comes in the area of applied ethics that formulates norms regulating conduct in the specific area. At the same time, every conduct is part of the universal moral space where ethical laws should be valid. Ethical imperatives of applied ethics are hypothetical imperatives because they are conditioned by partial specific purposes; on the contrary, imperatives of the universal space (ethical laws) are categorical imperatives because they are unconditional.

The principle of altruism, as institutionalized in social work, is related to the needy, i.e. persons whose lives are not of the normal course because they do not achieve the quality regarded standard in a particular society. In other words, the

objective of social work is not to help all the people generally but only those who do not manage without help. Charity realized in this way cannot be an absolute moral value because it cancels universal values such as, e.g. equality.

The principle of altruism cannot be absolutized (its application requires a number of limitation and strictly set rules); and this is the reason why it becomes the principle of applied ethics, focusing not on the universal moral space, where ethical laws are valid as absolutely necessary norms, but on the particular space where norms are of relative validity, are valid only in relation to their partial purpose. The purpose of a social institution is to help people under certain conditions who cannot help themselves for various reasons.

We believe that it is rational to base applied ethics on the ethics of utilitarianism because certain rational calculation heading to the maximization of benefit is justifiable in the field of applied ethics; at the same time, a rational calculation should not cancel ethical laws completely. These should postulate only the unsurpassable ethical minimum formulated in the form of necessary orders and bans. Still, setting the necessary ethical minimum and thus defining the limits of applied ethics and its specific norms is not so easy and causes ethical dilemmas.

In general, ethical dilemmas arise at the moment when different moral spaces and values constituting different moral spaces become contradictory. The issue of ethical dilemmas is intensively reflected on in the contemporary ethics literature, and elaborated procedures of their solutions are proposed (e.g., Reamer, 2011). It is certain that employees in social work face various dilemmas too.<sup>5</sup> There is an opinion that contrary to an ethical problem, an ethical dilemma is characterized by having no 'right' solution and is a mere choice of unwanted options (cf., Mátel, 2010, p. 110). We do not share this opinion because the choice may be good from the viewpoint of space and bad from a different viewpoint. The only thing that is really bad is a compromise when one gets into conflict with all the values, i.e. conduct cannot be justified at all from the perspective of values. This should not happen because the principle of justification has to be regarded a universal moral criterion. The fact that every human decision is always imperfect necessarily does not mean that it has to always be bad; all the more so, because the so-called lesser evil is also a certain lesser evil. An ethical decision in a dilemmatic situation simply requires prioritizing some value over another. In such a context, the training of future social workers should involve the drilling and test running of dilemma solving. Ethical competencies and their practicing involves the ability to identify

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<sup>5</sup> The environment of social work is characterized by continuous proximity of a fall into an ethical problem or dilemma.

ethical issues in complex, multi-layered contexts and to adjust conduct in accordance with ethical frameworks, social responsibility and other considerations. Systematic introduction of a value-based approach<sup>6</sup> encourages students to engage in reflection for periods of time in order to better understand themselves and the impact of their attitudes, decisions and behaviours on others. (Nucci & Narvaez, 2008)

What is considered the fundamental dilemma of every field of applied ethics, and thus the ethics of social work, is the contradiction between heteronomous and autonomous morals. Heteronomous ethics is based on relative values, i.e. values valid in a specific area defined by the set purpose; on the contrary, autonomous ethics is based on absolute values, i.e. values not conditioned by a partial purpose but are of necessary validity in the general universal moral space. This dilemma manifests itself also in the evaluation of the moral quality of an individual. An individual submitting to morals (values and corresponding norms) is evaluated as a good person. The morals to which one is to submit as a good person are of both heteronomous and autonomous character. A good employee is one performing their profession correctly, i.e. in harmony with heteronomous morals. Still, a good employee has to obey rules and values of autonomous morals to be regarded a good person as well.

When constructing ethics and ethical training it is fundamental to realize that human conduct is always of teleological orientation because it always serves the realization of certain goals. Every moral, i.e. autonomous moral too, is thus of instrumental nature because it serves the realization of certain values defined as desirable goals of our conduct. What is the absolute moral requirement imposed on a person is the requirement of participation in the creation of a better world. Ethical laws formulated and reasoned by general ethics express an ideal state of society. The purpose of ethical laws is to create a stable moral basis of social life; on the contrary, the purpose of relative norms formulated and reasoned by applied ethics is to ensure the realization of partial goals in specific areas of human conduct. The purpose of ethical laws is to determine the way the world should be in order to get closer to a particular moral ideal, i.e. a certain absolute target value.

What we regard as inspirational in this context is Kant's ethics; he defines the absolute target value in the second formulation of categorical imperative: "Act so that you use humanity, as much in your own person as in the person of every other, always at the same time as end and never merely as means (Kant, 2002, pp. 46–47; G 4:429).

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<sup>6</sup> Rather than viewing values as an appendage to be taught alongside other subjects.

If social work is rated among the categories of institutions the objective of which is a moral value this is stated because the moral good is traditionally related to charity exceeding duty. Kant's perspective of equal treatment is opposed by the idea of asymmetric moral commitment to someone else in the form of help. It is charity expressed by the principle of altruism that can be regarded a constitutive basis of the ethics of social work. Its compliance is not obligatory; still, exercising it is definitely a desirable complement of this ethical minimum defined by the autonomous ethics of duty.

## **Conclusion**

A number of authors stressed mutual interconnection of social work and ethics with the emphasis on professionals' ethical conduct; still, we would like to point out some significant issues: social work is an ethical project in principle, i.e. "all social workers must become ethically articulate and have high levels of ethical virtues, knowledge and skills" (Bowles, 2006, p. 220), and thus ethics must become the core (and not a marginal subject) of the training of social workers. The emphasis on the ethical practice means that ethics becomes everyone's business (not only the matter of experts) (cf., Hugman, 2005). Unless social workers understand and can act upon the ethical dimension to their practice, they will be unable to work coherently towards their goals of social justice, altruism and human wellbeing

The ethical training of a future social worker cannot be approached as mere study of what is good, as simply memorizing specific rules and standards of practice for every situation that may arise. It is rather a requirement of developing sensitivity for the identification of ethically dilemmatic situations, capability of their critical reflection<sup>7</sup> and subsequent search for ethically correct solutions (and conduct) and acquisition of the knowledge of theoretical starting points justifying proposed solutions. Ethical competence requires responsible, reflective and reflexive actors, aware of their multiple accountabilities, and of their socially and historically differentiated locations (cf., O'Hagan, 2007, p. 76).

Therefore, ethical training of students should involve value-based moral and character education grounded in social interactions in the classroom (across the

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<sup>7</sup> Critical reasoning is a skill of being able to analyse a situation and decide on the best decision to take.

spectrum of subjects) and in the institutions of practice, because ethical practice requires professional self-awareness, critical thinking, and the ability to manage complex information, values and principles from a variety of sources.

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## Using Idoma Cultural Puzzle and Number Riddle Game (Odiyonee) in the Development of Children's Cognitive Ability Among Idoma-Nigerians: Bilingual Approach

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### Abstract

Odi Yonee is the Idoma cultural puzzle and number riddle game used as an evening activity to teach children how to count objects or figures. This study seeks to examine its educational approaches and roles in the development of children's cognitive ability. It uses cultural instructional techniques in an intellectual condition to impact on the knowledge of Idoma pupils. Its objectives are to help modern teachers develop new ideas with the use of interpretation from cultural and environmental data as a source for the teaching and learning process in modern schools. A study like this will guide our present-day curriculum developers and school teachers to adjust their planning and methods of teaching to the mentality of their pupils by making use of the child's cultural and environmental data.

**Keywords:** *Idoma cultural puzzle, number riddle game and development of children's cognitive ability*

### Introduction

This study is based on the Idoma speaking people of Benue state, Nigeria. The Idoma ethnic group occupies seven local government areas of Benue state, where they have a population of nearly a million people (National Population Census (NPC) (1991)), Amali (2000). In traditional Idoma society, Odi yonee, or a puzzle

and number riddle game, is a game playing session that usually takes place in the evening when children are gathered after an evening meal. Amali (1980) noted that is a form of riddle that is used as a source of children's cognitive development in society.

Piaget (1950), Bloom (1956) and Brunner (1947) claimed that the cognitive ability involves a complex set of processes that concern the acquisition of knowledge and its use. They also asserted that the content and course of cognitive development are influenced by environmental factors, climate and geographical region, society, culture and the innate capacity of the individual, through the process of cognitive development (Bame and Therese, 2012). Thus, cognition requires stimulation of the senses, perception and memory of the child, which can lead to the development of meaningful language, reasoning capacity and creativity (Daniel, 2014 and Emily, 2015).

In the traditional Idoma society, as in other Nigerian societies, lack of toys, books, objects, shapes, and colours in the early years of the child's development have been found to have an adverse effect on his or her cognitive development. With such a background, it is easily discernable that the use of Odi Yonee-puzzle and number riddle game would have far-reaching positive effects on the cognitive development of the child when properly utilized.

Its method of teaching and presentation is essentially oral, using the Idoma language as a medium of communication and instruction. Ethnologically, the Idoma language belongs to the Kwa language family (Armstrong, 1955 and 1970, Erim, 1999). The contents in Odi Yonee are based on what the child can perceive, remember, interpret and relate; this vowel helps in education to improve learning (Blorm, Madaus and Hasting, 1984).

## **The purpose of the study**

The study sought to examine the cultural technique used in imparting and in developing the knowledge of the younger members of the Idoma society. It is to show the general educational role of Odi Yonee, with the use of cultural elements and environmental data used in intellectual conditions to impart knowledge to children. It is also to develop, in teachers and curriculum designers, new ideas to acquire intellectual interpretation from cultural environments that can be useful in Nigerian conventional schools.

## **The Objective of this study**

The objectives of this study were to:

- illustrate how Odi Yonee puzzle and number riddle game sessions are used for the cognitive development of children, with the use of cultural elements and environmental data as sources.
- show the value of human and natural settings in the child's environment as sources of intellectual development.
- demonstrate the values of the indigenous teaching method, which is the basis for fostering societal values.
- help to eliminate over-reliance on foreign concepts of self-knowledge and
- reinforce personality identity of the Idoma ethnic group.

## **Methodology**

Odi Yonee usually takes place in the evening among the children aged 3–6. It is like a kindergarten class. The teacher is usually a mature person or an adult. The Idoma people use the game of Odi Yonee puzzle and number riddle game to teach children to count. It has rules and formulas. For example, a child that has learnt the procedures of counting based on the classification of objects presented to him or her can do it so perfectly that at times it takes the form of tongue twisting. For the mistake to become so apparent, counting has to be done fast. The procedure is that, in reciprocal manner, the teacher serves as the 'guidance' and the children constitute the class. Chorus or group answer is used to address the teacher's questions or prodding. Answers, when given fast enough, would sound like a chorused tongue twisting exercise. The class teacher acts as 'supervisor' or 'moderator' and corrects their errors when the need arises.

Before the commencement of the teaching and learning exercise, the composition is as presented below:

1. The class is made up of a teacher or an adult. The teacher is the moderator and guidance and he is responsible for checking errors and mistakes made during the exercise. There is also a class prefect, who acts as supervisor, while the other pupils in the class chorus the required answer.
2. The pupils are seated in a circle or in an arc formation as in Figures A and B below:

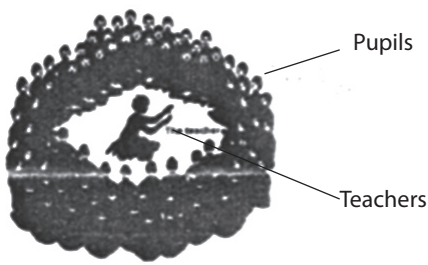


Figure A: The pupils are seated in a circular classroom with the teacher in the centre

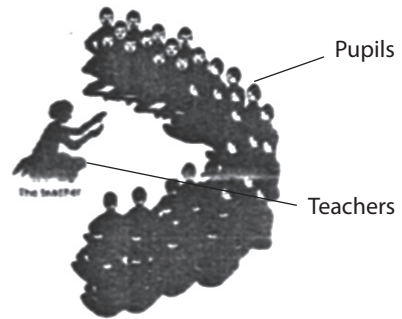


Figure B: The pupils are seated in an arc facing the teacher

### The Teaching Apparatus

This includes the following apparatus:



- a. Bush
- b. Lizard
- and
- c. Persons

### The Teaching and Learning Exercise:

The teacher runs the class by asking the pupils. The pupils respond to his questions in chorus. For the purpose of illustration, the exercises used for this study are ten persons. It can, however, be continued to infinity. The procedure is presented in bilingual form i.e. English and Idoma and goes like this:



**1. English**

Teacher (Q):

What's for the evening!

**Idoma**

Odi Yonee!

Pupils (A):

Grass for the evening

Aci Yonee



**2. English**

Teacher (Q):

What's for the evening!

**Idoma**

Odi Yonee!

Pupils (A):

A Lizard chases the grass

Apa na Aci



**3. English**

Teacher (Q)

What's for the evening!

**Idoma**

Odi Yonee!

Pupils (A):

A dog chases a lizard,  
the lizard chases the grass

Ewo na Apa,  
Apa na Aci



**4. English**

Teacher (Q):

What's for the evening!

**Idoma**

Odi Yonee!

Pupils (A):

A man chases a dog,  
the dog chases a lizard and  
the lizard chases the grass.

Ocee nEwo, Ewo na Apa,  
Apa na Aci

**5. English**

Teacher (Q): What's for the evening!

Pupils (A): Two men chase one man,  
one man chases a dog,  
the dog chases a lizard,  
and the lizard chases the grass.

**Idoma**

Odi Yonee!

Acepa nocee, ocee nEwo,  
Ewo naApa, Apaa na Aci

**6. English**

Teacher (Q): What's for the evening!

Pupils (A): Three men chase two men,  
two men chase one man, one man  
chases a dog, the dog chases a lizard,  
and the lizard chases the grass.

**Idoma**

Odi Yonee!

Aceta n Acepa, Acepa  
nocee, ocee nEwo,  
Ewo naApa, Apaa na Aci

**7. English**

Teacher (Q): What's for the evening!

Pupils (A): Four men chase three men,  
Three men chase two men,  
two men chase one man,  
one man chases a dog,  
the dog chases a lizard,  
and the lizard chases the grass.

**Idoma**

Odi Yonee!

Acene nAceta, Aceta nAcepa  
Acepa nocee, ocee nEwo,  
Ewo naApa, Apa na Aci



### 8. English

Teacher (Q): What's for the evening!

Pupils (A): Five men chase four men,  
four men chase three men,  
three men chase two men,  
two men chase one man,  
one man chases a dog,  
the dog chases a lizard,  
and the lizard chases the grass.

### Idoma

Odi Yonee!

Aceho nAcene Acene nAceta,  
Aceta nAcepta Acepta nocee,  
ocee nEwo, Ewo naApa, Apa  
na Aci



### 9. English

Teacher (Q): What's for the evening!

Pupils (A): Six men chase five men,  
five men chase four men,  
four men chase three men,  
three men chase two men,  
two men chase one man  
one man chases a dog,  
the dog chases a lizard,  
and the lizard chases the grass.

### Idoma

Odi Yonee!

Acehili nAceho, Aceho  
nAcene, Acene nAceta,  
Aceta nAcepta, Acepta nocee  
ocee nEwo, Ewo naApa, Apa na Aci



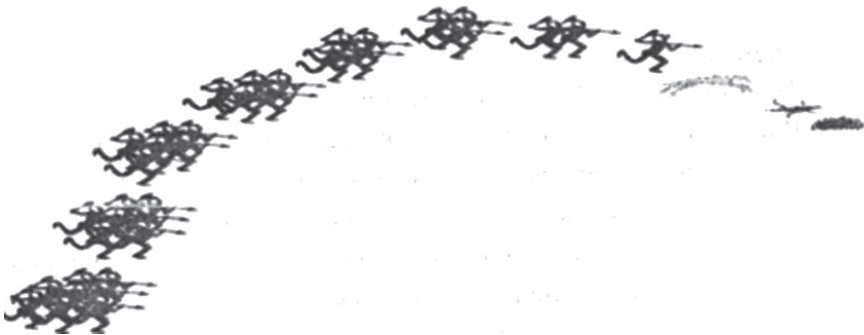
**10. English**

Teacher (Q): What’s for the evening!

Pupils (A): Seven men chase six men,  
 six men chase five men,  
 five men chase four men,  
 four men chase three men,  
 three men chase two men,  
 two men chase one man,  
 one man chases a dog,  
 the dog chases a lizard,  
 and the lizard chases the grass.

**Idoma**

Odi Yonee!  
 Acahaapa nAcephili,  
 Acehili nAceho, Aceho  
 nAcene, Acene nAceta,  
 Aceta nAcepta, Acepta nocee  
 ocee nEwo, Ewo naApa,  
 Apa naAci



**11. English**

Teacher (Q): What’s for the evening!

Pupils (A): eight men chase seven men,  
 seven men chase six men,  
 six men chase five men,

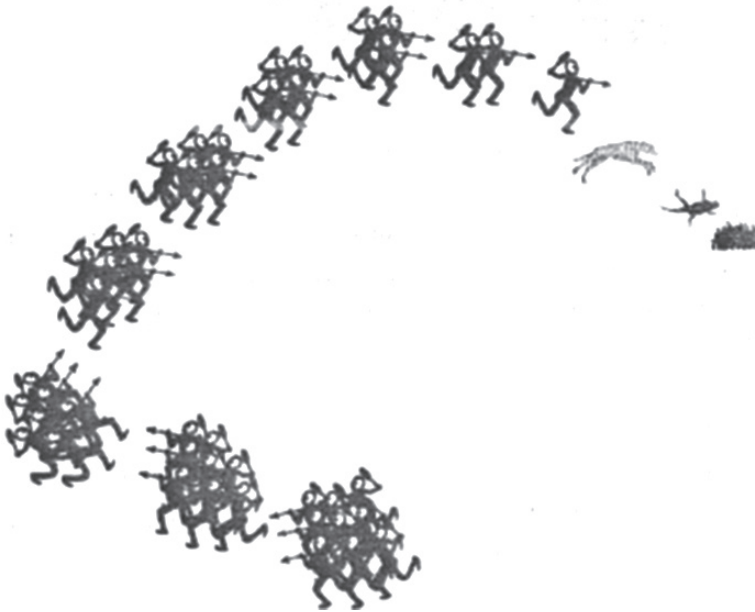
**Idoma**

Odi Yonee!  
 Acahata nAcahaapa  
 Acahaapa nAcephili,  
 Acehili nAceho, Aceho



five men chase four men,  
 four men chase three men,  
 three men chase two men,  
 two men chase one man,  
 one man chases a dog,  
 the dog chases a lizard,  
 and the lizard chases the grass.

nAcene, AcenenAceta,  
 Aceta nAcepta, Acepta nocee  
 oceenEwo, Ewo naApa, Apa naAci



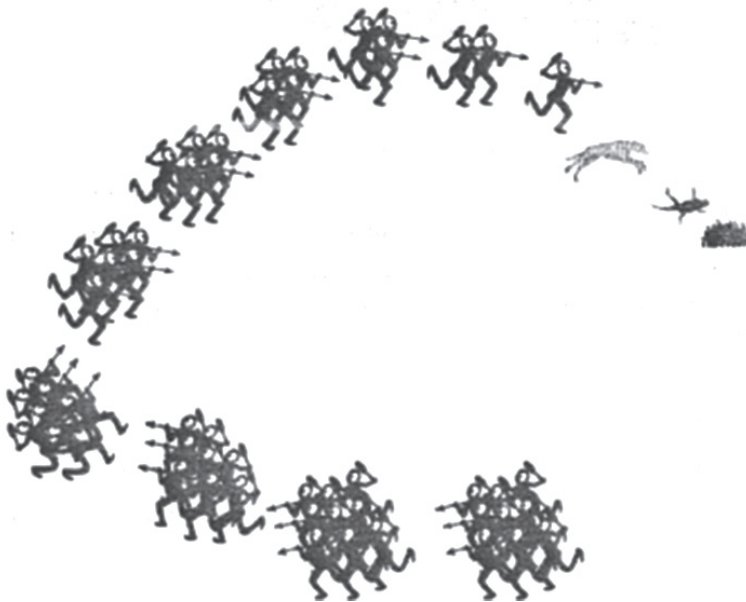
## 12. English

Teacher (Q): What's for the evening!

Pupils (A): Nine men chase eight men,  
 eight men chase seven men,  
 seven men chase six men,  
 six men chase five,  
 five men chase four men,  
 four men chase three men,  
 three men chase two men,  
 two men chase one man,  
 one man chases a dog,  
 the dog chases a lizard,  
 and the lizard chases the grass.

## Idoma

Odi Yonee!  
 Acahane nAcahata,  
 Acahata nAcahaapa  
 Acahaapa nAcehili,  
 Acehili nAceho, Aceho  
 nAcene, Acene nAceta,  
 Aceta nAcepta, Acepta  
 nocee ocee nEwo,  
 Ewo naApa, Apa naAci



### 13. English

Teacher (Q): What's for the evening!

Pupils (A): Ten men chase nine men,  
 nine men chase eight men,  
 eight men chase seven men,  
 seven men chase six men,  
 six men chase five men,  
 five men chase four men,

four men chase three men,  
 three men chase two men,  
 two men chase one man,  
 one man chases a dog,  
 the dog chases a lizard,  
 and the lizard chases the grass.

### Idoma

Odi Yonee!

Acigwo nAcahane,  
 Acahane nAcahata,  
 Acahata nAcahaapa,  
 Acahaapa nAcehili,  
 Acehili nAceho, Aceho  
 nAcene, Acene nAceta,

Aceta nAcepa, Acepa  
 nocee ocee nEwo,  
 Ewo naApa, Apa naAci

As the teacher continues to ask “what’s for the evening”, the pupils continue to chorus the answer by adding one number or one man each time the teacher asks the lead question. For each question asked, the pupils repeat every process

of the counting order until they end with “the lizard chases the grass”. The joy in the game of using Odi Yonee to learn numbers is when the pupils make a mistake in following the procedures accurately. It usually results in teasing the class or the particular child who fumbled in the counting order. To correct such failure, the teacher uses his discretion by allowing those individuals or the class to repeat the process of the counting order. However, social reinforcement such as smiles, taunting such as a nod, booing, eye contact, a simple statement, have been found to be greatly appreciated and they facilitate classroom learning and help to contribute to the cognitive development of the pupils.

### **Contribution to the Cognitive Ability of the Child**

This type of the Idoma riddle game has made the following contribution to the child’s cognitive ability:

- The use of number language as presented in the grouping of men and the of pertinent questions is extremely important in the child’s mathematical development.
- It presents an adequate pattern of learning, where arrangement is orderly and the material that is to be memorized is arranged in an orderly way to give it form or make it more easily understood.
- It creates a pattern of associations, whereby we link the things to be remembered with some easily remembered objects. Here we learn numbers by counting men in groups and capturing the image of the learning experience by associating numbers with a dog, a lizard and grass. This is achieved by mental processes such as reasoning, remembering or recalling what cognitive learning is.
- It encourages effective learning since the pupils repeat each process after adding a number. The more often we do something, as noted by Farrant (1990), the more established it becomes as part of our total learning ability. Thus, this riddle game helps to emphasis the importance of activity both in its doing and in repetitive aspects as an integral part of the learning process.
- It is learned in contents that are meaningful to the children as it stimulates their imagination due to the vivid learning experience it offers.

### **Implication of this study for Nigerian education**

The following are the implications for teachers:

- The knowledge of cognitive development is important in teaching because it is through cognitive development that the child learns to adapt to his environment.
- Since studies have shown that there is cognitive deficit among African school children, African teachers are therefore called to seek ways of how this cognitive deficit can be ameliorated in Nigerian school pupils. Including Odi Yonee or puzzle and number riddle game in the school lesson plan and in the teaching methods could be beneficial.
- Similar to Murphy's (2005) assertion, this study has implications for teaching, since it helps children to acquire language and invent new verbal means.

## **Conclusion and recommendation**

The presented study has shown the cultural techniques used in the teaching of numbers to Idoma children at the most elementary levels (beginners) of their cultural education. Thus, it is recommended for curriculum designers and modern school teachers to show the value of the use of human and natural elements in the child's environment as sources of intellectual development in the teaching and learning process.

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## The Idea of Lifelong Learning – Polish Experience and Reality

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When planning for a year, plant corn.  
When planning for a decade, plant trees.  
When planning for life, train and educate people  
(Bauman, 2012, p. 26)<sup>1</sup>

### Abstract

The presented study addresses the issue of the concept of lifelong learning based on Polish experience, on the basis of the latest research: the international programme: Programme for the International Assessment of Adult Competencies (Study on an international scale, realised for the first time in Poland on a sample of more than 9 thousand people) and Polish reports: Report on the State of Education 2013 – Teachers Matter, and Social Diagnosis 2013 – the Labour Market and Social Exclusion in the Context of the Perception of Poles.

The presented study and the authors' considerations revolve around the concepts of: learning, schooling, undertaking educational activity by adults, which, as clearly indicated by the research results, constitutes an insignificant part of Polish society. This situation puts our country on one of the last places in the ranking of highly developed countries.

**Keywords:** *education, the idea of lifelong learning, modern personality, characteristics of modernised societies, civilization competence, educational research: PISA, PIAAC, Social Diagnosis 2013, Report on the State of Education 2013*

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<sup>1</sup> A Chinese proverb quoted by Zygmunt Bauman.

## **Introduction**

Development of education in contemporary conditions is an indicator of the level of achieved social, cultural and economic development, which becomes an investment in the future, one of the important measures of achieving the desired quality of life, as well as the possibility of playing an active role in all dimensions of social, public life. Educational and vocational preparation implies the possibility of undertaking innovative projects, and the development of independence, and creative activity of individuals in different areas of life (Szempruch, 2012, p. 152) in societies globalising themselves. Experienced modernity introduces changes, and leads to the generation of a specific type of modern man, who is forced by external factors, and often also by his own internal motivation, and cannot remain indifferent to the idea of lifelong learning.

## **Modern personality**

One of the best recognised concepts of “modern personality” was created in the 70s of the twentieth century by an American social psychologist Alex Inkeles, who came up with the assumption that the personality of people living in modern society is significantly influenced by four factors: the degree of urbanisation, industrialisation, social mobility, and mass communication and culture (Inkeles, as cited in: Sztompka, 2002, p. 565). In the presented considerations the concept of *modern personality syndrome* is worth paying attention to. This category includes nine personality traits:

- openness to innovation and change, the need for new experiences,
- readiness to express and justify one’s own opinions, while tolerating distinct opinions, and even finding satisfaction in such a diversity;
- prospective orientation to time, focused on the future rather than the past, and highlighting the virtue of punctuality,
- the feeling of subjective power, i.e., the belief that the challenges and problems, both personal and social, will allow for resolving themselves under the condition of taking, individually or jointly, appropriate actions,
- anticipation of future events and planning future actions, and therefore the involvement of imagination in order to properly set oneself up towards the future,
- confidence in the social order, the belief in the accuracy, predictability and calculability of social life thanks to the existence of fixed and enforced rules

of business transactions, the policy of the state, as well as mores and moral rules that shape everyday activities of citizens,

- a sense of “distributive justice”, i.e., the recognition of unequal distribution of wealth, the value of privileges, as long as they are not arbitrary or adjusted by clear principles, in particular the meritocratic principle demanding unequal remuneration of unequal merits,
- attaching great importance to education, training, self-improvement,
- respecting the dignity of others even those with lower social status or remaining in relations of subordination (Inkeles, as cited in: Sztompka, 2002, pp. 565–567).

According to Inkeles, not only do the conditions of modern society shape each of these personality traits individually, but each of these traits, once formed, supports and reinforces the others, leading to the emergence of a coherent personality type. Hence, there is a need to create education systems that take up the task of purposeful shaping of the desired types of personality.

On the other hand, in Polish literature we find the stance of Krystyna Ferenz, who believes that the man of the twenty-first century should be an autonomous personality, with a flexible mentality, distinguishing boundaries of needed adaptation and necessary innovation, understanding the need for and the terms of subordination of choice or necessity, but also to govern oneself and the others (Ferenz, Walasek Ed. 2009, pp. 347–356). The image of modern personality, of rational, progressive man, is seen as one of the classic conditions for the successful development of modern society in the era of globalisation. It is an attempt to construct a role model useful for creators of all socialisation and educational processes of the present day. The record of such traits was aptly drawn by Marek Szczepański, who noted the register of traits attributed to modernised societies; what follows is that the most important characteristics of modern personality include:

- extensive need for achieving,
- a high level of empathy, and
- nonconformity.

One can assume that people strongly motivated by the need for achieving are characterised by at least four special traits:

- constant tendency to take risks and concurrent awareness of their consequences,
- predisposition to innovation,
- capability of analytical assessment of undertaken activities completed with both success and failure,



- complete internal mobilisation in terms of competition, ensuring achieving very good results (Szczepański, 1999, pp. 272–273).

Everyday life requires having civilization competences. Piotr Sztompka, therefore, rightly ascribes these attributes to modern man. The author suggests understanding the term “civilisation competence” as deep-rooted (internalised) habits, skills and reflexes, etc., necessary for the full use of institutions, organisational forms, ways of life, as well as technical equipment that have been created in the context of modern industrial civilization (Sztompka, 1997; Sztompka, 1999). Acquisition of modern personality traits, of civilization competences, becomes a chance of a lifetime of every individual for the full and active participation in social life.

From the point of view of the education systems it seems legitimate to attempt at sketching the map of desirable competences of modern man, so that the school should educate individuals with competences relevant to the post-industrial reality. Contemporarily, education is generally considered a “good thing”, and most people who have passed through the system of education and learned to write and count, and have acquired the desirable knowledge, would agree that education has clear benefits. However, the process itself, especially compulsory education, is not without its faults. “Sociologists distinguish between education and schooling. Education can be defined as a certain social institution enabling and promoting the acquisition of skills and knowledge, and expansion of personal horizons, which can happen in a variety of different conditions. In contrast, schooling is a formal process during which certain types of knowledge and skills belonging to a predetermined program are transmitted; schooling understood as such is mandatory for people up to a certain age (Giddens, Sutton, 2014, pp. 103–104)”. By adopting such definition solutions, lifelong learning should be considered as education whose part is schooling.

The challenges of today and the upcoming future are the reason why education in the broad sense should prepare people for using current developments of changing civilization, but also involve them in creative and independent participation in social life. The mission of education in the contemporary, global, information society is to create the conditions for all, without exception, for revealing their talents and creative abilities. It requires everyone to be responsible for themselves and realize their life plans. The well-known and respected Report of the International Commission on Education for the 21<sup>st</sup> Century, chaired by Jacques Delors – *Learning: the Treasure Within*, stresses the importance of education. The authors of the report believe that education, in order to fulfil its mission, should be organised around four aspects of education:

- *Learn to know*, which is not about gathering encyclopaedic and codified information, but about mastering the tools of knowledge, about equipping with tools, concepts and methods of references, relevant to the advancement of knowledge and paradigms of the era;
- *Learn to do*, while it is not the point in this statement to prepare the individual to perform a specific task, but to develop skills for using the advancement of knowledge in the application of innovation, in solving problems, it is about skills known as competences;
- *Learn to live together*, learn the peaceful resolution of conflicts, non-violence, to which learning to discover the other and engagement in joint realisation of projects can contribute;
- *Learn to be*, to have the ability to form independent and critical thinking, independence of opinion, personal responsibility, and a sense of spirituality and aesthetics (Report of UNESCO, 1998).

Contemporarily, due to the progressive ageing of society<sup>2</sup>, and the economic changes that result in increased insecurity of employment, in education the need for permanent, continuing education is noted. This concept includes comprehensive development, both intellectual as well as social, in all forms and contexts, both in formal as well as informal systems. It is considered crucial to provide educational opportunities to each person who will feel such a need, regardless of age, professional status or place of living (Giza, Sikorska, Ed. 2012, p. 71). In other words, this concept implies the possibility of learning, gaining new skills and competences, changes to the original education – throughout our entire life. And the need for this lifelong learning will be generated by the situation on the labour market, economic changes, or one's own internal needs.

Very highly developed and highly developed societies (Rzymełka-Frąckiewicz, 2012, pp. 33–44; Rzymełka-Frąckiewicz, Wilk, 2014, pp. 13–26), with established democracy, treat the idea of lifelong learning as a normal part of modern societies with the standards of modern market economies. Those are selected countries of Western Europe, North America, Japan, Australia, whereas in countries where democratic processes have not been fully established the concept is still considered marginal. This applies especially to the countries of Central and Eastern Europe. It particularly concerns the generations which finished the stage of compulsory and

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<sup>2</sup> The ageing of the population indicates that we live longer and longer, and we live to our old age in better and better physical condition, which has a number of consequences for the pension system, health and social care, and economy.

formal education a long time ago. This situation is well illustrated by the results of international and national studies.

## **Educational studies**

Educational studies on the relationship between the level of human capital of each country and the rate of their long-term economic growth, which indicates the correlation of education systems and the fate of the graduates in the labour market, conduct research analysis of skills and core competences of respondents. An example of the largest and most widespread international test of academic skills is the Programme for International Student Assessment (PISA). This program analyses such skills as reading comprehension, mathematical reasoning, and reasoning in the natural sciences. The tested skills have been defined quite generally, and are not connected with any particular curriculum. At the same time, the content of tasks is largely rooted in everyday situations. The study involves students at the age of 15 (the main study) as well as parents and school head teachers (a survey). Tests have been performed regularly every three years since 2000. The study results allow for comparisons between the countries participating in the project, provide the opportunity to observe how the abilities have been changing over time. The conclusions of the study are to indicate what elements should be changed or improved in different education systems. PISA test organisation in Poland is supervised by the Institute of Philosophy and Sociology (PAN). On the websites<sup>3</sup> of the institution there is information about the assumptions, the participating countries, and the results of the study. Among other major international studies on school students' skills there are PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study).

## **The Programme for the International Assessment of Adult Competencies- PIAAC**

The most interesting international study of skills, this time not only school youth's, but most of all adults', is the Programme for the International Assessment of Adult Competencies – PIAAC<sup>4</sup>, in which Poland is also involved.

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<sup>3</sup> PISA Programme in Poland: [http://www.ifispan.waw.pl/index.php?lang=pl&m=page&pg\\_id=98](http://www.ifispan.waw.pl/index.php?lang=pl&m=page&pg_id=98)

<sup>4</sup> Information on PIAAC Programme acquired from the websites: OECD:- <http://www.oecd>.

The PIAAC Programme is the largest international survey of adults in the history. It measures the skills and competences that are indispensable to individuals participating in the society and economy of highly developed countries. It also helps to understand better how, in what direction, to transform education systems, all kinds of education, in order to develop the desired skills and competences. The initiator of the study is the international organisation OECD. The presented programme was carried out in the years 2011–2012, on a group (in Poland) of 9366 people between the ages of 16–65, and the first results were obtained in October, 2013. The programme comprised over 20 countries all over the world (Australia, Austria, Belgium, Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, Spain, the Netherlands, Ireland, Japan, Korea, Germany, Norway, Poland, Portugal, Russia, Slovakia, Sweden, the United Kingdom, Italy, the USA), and other countries (Argentina, Bulgaria, China, India, Israel, Romania, Singapore, Turkey) consider taking part in the study.

The PIAAC Programme is a response to the growing interest in the skills of adults. In accordance with the provisions of the programme, it is already a common belief that it is the knowledge and skills, and not the level of formal education, which the prosperity of economic development depends on. For this reason, the ways to improve the quality of education and training are sought for.

The innovation of the PIAAC study is to verify real skills rather than the level of formal education. On the basis of the results of these studies, it will be possible to know the actual efficiency of education systems in the world.

PIAAC identifies three groups of key competences:

- literacy – competences associated with reading and evaluation of information contained in various types of texts, i.e.: involvement in reading, understanding and evaluation of the information contained in written texts, and using this information to participate in social life, to achieve one's objectives, and to develop one's own knowledge and potential;
- numeracy – competences related to the interpretation and practical use of mathematical issues in everyday life, i.e.: the ability to use, interpret and analyse mathematical concepts and information expressed in the language of mathematics, for the purpose of responding to and dealing with mathematical challenges that occur in everyday life of adults;

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[org/general/piaacprogrammefortheinternationalassessmentofadultcompetencies.htm](http://org/general/piaacprogrammefortheinternationalassessmentofadultcompetencies.htm); Education Enthusiasts; the website presents the process and results of a systemic project run by the Educational Research Institute: <http://eduentuzjasci.pl/piaac-postpiaac>; <http://eduentuzjasci.pl/badania/110-badanie/194-miedzynarodowe-badanie-kompetencji-osob-doroslych-piaac.html>

- problem solving in technology-rich environment – competences related to the use of computers, and the Internet to search for and transform information, i.e.: it relates to the use of digital technology and digital communication tools and networks, to obtain and analyse information, communicate with other and perform practical tasks.

## PIAAC results

As the results of the study show (*Umiejętności Polaków... / Skills of Polish people*, 2013)<sup>5</sup>, the skill level of Polish people aged 16–65 is lower than the average skill level of the residents of the OECD countries that participated in the study. The Polish score in reading comprehension is within 6 points of the OECD average (267 pts. to 273 pts.), and in the field of mathematical reasoning – 9 points (260 pts. to 269 pts.). The biggest concern about Polish people's skills is in using ICT<sup>6</sup>, they are lower than in the OECD countries: 38% of adult Poles have a low level of ICT literacy, and only 19% a high level – compared to 27% and 34% on average in the OECD countries.

In Poland, nearly 15% of adults have low levels of both reading comprehension skills and mathematical reasoning, and further 13% – in one of these areas. Almost all of these people have a low level of ICT skills or do not have them at all. At the same time, 14% of adult Poles achieve very high scores in at least one of the studied areas of skills.

The average skill level is lower among the elderly. In Poland, as in other countries, a decrease in the level of the tested competences is observed in persons over 30 years of age. Polish people aged 16–24, and 55–65, are separated by 32 points in the understanding of the text, and 25 points in mathematical reasoning. 38% of young people have a high ability to use ICT, among the elderly this percentage is only 3%.

The dependence of skills on education is very strong. In Poland, the difference in the average scores of people with higher education and those with lower secondary education or less is 70 points in the understanding of the text, and 74 points in

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<sup>5</sup> The report prepared within the systemic project *Quality survey and effectiveness of education and institutionalisation of research facilities*, co-financed by the European Union through the European Social Fund, realised by the Educational Research Institute.

<sup>6</sup> Information and Communication Technology.

mathematical reasoning. About 37% of people with higher education have a high level of ICT literacy, compared to 2% in the group with the lowest education.

Based on the results of the PIAAC study, it can be concluded that low scores obtained by Polish people against the average of the other countries participating in the study, especially among people over 30 years of age, among people with secondary and vocational education, indicates a real problem. Adult Poles rarely take or do not take at all any further education or gain new skills or competences upon completion of the stage of formal and compulsory education. In view of the dynamics of change in the reality in which we live, individuals without proper education adequate to the changing conditions become a group exposed to social exclusion, marginalisation and noticeable impoverishment.

### Polish reports on Lifelong Learning

Similar conclusions are drawn by the authors of the *Raport o stanie edukacji 2013 – Liczą się nauczyciele* (*Report on the State of Education 2013 – Teachers Matter*), and the authors of *Diagnoza Społeczna 2013 – Rynek pracy i wykluczenie społeczne w kontekście percepcji Polaków* (*Social Diagnosis 2013 – The Labour Market and Social Exclusion in the Context of the Perception of Polish People*).

The former, *Raport o stanie edukacji 2013 – Liczą się nauczyciele*, presents the following conclusions:

“The level of education of Polish people increases: the proportion of people without education or with the lowest level of education decreases, the share of people with higher education increases. These changes result from entering adulthood by the youngest age cohorts, whose skill levels do not differ significantly from those of their OECD peers. However, participation of adults in various forms of learning in Poland is relatively low, and for years it has remained at a similar, unchanged level, and the least likely to improve their competences are people who are not working and with lower levels of education.

In the opinion of Polish people, education is not – as yet at the beginning of the 21<sup>st</sup> century – a guarantee of employment and career development. Hence, it appears that with the increasing popularity of education at a higher level, to maintain a position on the labour market it will be increasingly important to improve professional qualifications and gain new competences – taking part in lifelong learning (*Report on the state of education 2013, 2014*, pp. 21–40)<sup>7</sup>”.

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<sup>7</sup> Chapter 1. M. Rokicka, M. Sitek: *Wysztalcenie Polaków / Education of Polish people /*.

The second report, *Diagnoza Społeczna 2013 – Rynek pracy i wykluczenie społeczne w kontekście percepcji Polaków (Social Diagnosis 2013 – Labour market and social exclusion in the context of the perception of Polish people)* presents the following conclusions:

“In 2011–2013, only 9.6% of people aged 25 or older participated in any activity associated with the improvement of their professional qualifications, or other skills, which is slightly less than that indicated by the results of previous studies. The results of the *Social Diagnosis 2013* (and previous editions) indicate that adult people continuing education, which is recognised as one of the basic conditions for increasing employability, still constitute a small scope in Poland. It is a worrying signal, as the summary of results of the educational activity of the adult population in Poland, with the structure of population by the level of education and civilization skills, shows disparities regarding the development opportunities of inhabitants of towns and villages, as well as generally people aged 35 and over, and especially those in the immobile age<sup>8</sup>. Differences in the level of education and linguistic skills or the use of the Internet between young people and those aged 35 or over, indicate a gap of competences, which deepens with the transition to older age groups” (*Social Diagnosis 2013*, 2014, pp. 55–80)<sup>9</sup>.

The summary section of *Diagnoza Społeczna* reads:

“The discrepancy between the demand for educational services, due to the existing level of education, and qualifications of the population – on the one hand, and of technological change and requirements of work resource on the other hand, and the model of educational activity of selected groups of the population, shows a constant need to intensify the process of lifelong learning in Poland. It is necessary to develop various forms of complementary education and improve skills and actions to extend the scope of the use of educational services” (*Social Diagnosis 2013*, 2014, p. 79).

## **Conclusion**

Today’s reality clearly shows the connection and the relationship between education and the labour market, the ability, flexibility of employment in various

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<sup>8</sup> The age range comprises working age and includes those who are no longer willing to change jobs, train or retrain to change positions. Immobile age range: from 45 to retirement age (year).

<sup>9</sup> Chapter 2. I. Grabowska, I.E. Kotkowska: *Aktywność edukacyjna dorosłych członków gospodarstw domowych / Educational activity of adult household members /*.

occupations and obtained earnings. The challenges of today and the upcoming future are the reason why education in the broad sense should prepare people to use current developments of changing civilization, but also involve them in creative and independent participation in social life and active creation of their own future. The mission of the contemporary processes of schooling (formal education) is not only to equip individuals with the necessary knowledge, competences, and skills useful and necessary in the reality of here and now, but also to develop an awareness – individual and social – of self-responsibility for the quality of life. The priority becomes the idea of lifelong learning operationalized, considered a natural, primary and safe form of adaptation to constantly changing conditions in our global reality.

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Informacje o programie PIAAC pozyskane ze stron internetowych:

- OECD: <http://www.oecd.org/general/piaacprogrammefortheinternationalassessmenttofadultcompetencies.htm>
- Entuzjaści Edukacji; strona prezentuje przebieg i wyniki projektu systemowego prowadzonego przez Instytut Badań Edukacyjnych:  
<http://eduentuzjasci.pl/piaac-postpiaac>;  
<http://eduentuzjasci.pl/badania/110-badanie/194-miedzynarodowe-badanie-kompetencji-osob-doroslych-piaac.html>

Information on PIAAC Programme acquired from the websites:

- OECD: <http://www.oecd.org/general/piaacprogrammefortheinternationalassessmenttofadultcompetencies.htm>
- Education Enthusiasts; the website presents the process and results of a systemic project run by the Educational Research Institute:  
<http://eduentuzjasci.pl/piaac-postpiaac>;  
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**Pedeutology**



## Self-Assessment of the Social Competence of Teacher Education Students

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### Abstract

Social competence (SC) is one of the most important competences required for successful performance of the teaching profession. Strengthening students' social and emotional competences provides aid and support for lifelong learning and social and emotional implementation of the teaching process.

By triangulating the results of a questionnaire, sociometry and interviews with students of teacher study, a significant level of social competence was observed. Students' sociometric status is not in full accordance with their self-assessment of SC, so more frequent are the allocations of popular students, but one rejected. SC is usually acquired in the family; college is placed in second place, which increases the importance of this issue in terms of intentional education.

*Keywords: curriculum of teacher studies, students, social competence, sociometric status*

### Introduction

When talking about the teaching profession, social competences (SC) are among the basic most important ones for successful performance of this important profession. Therefore, it is important to research that issue at university level, among students being educated for the teaching profession. SC is usually defined as an ability to create and harmonize flexible, customized responses to demands and to create and exploit opportunities in the environment. According to this definition, socially competent individuals are those who can take advantage of incentives

from the environment and their personal potential to achieve good development results (Katz & McClellan, 1999). SC is an interactive process that promotes social values like interpersonal skills, pro-social behavior, an ability to make decisions (self-control), understanding others and self-confidence.

Theoretical starting points of SC are based on a postmodern paradigm (Previšić, 2002). From the pedagogical perspective, the SC concept implies education for the community, while the notion of unity stems from the dialectic of freedom of thought (Komar, 2010). According to the humanistic approach towards education, an education goal is not merely acquisition of knowledge, but holistic development of the individual with respect to his interests and needs, where besides intellectual also emotional development features are important, such as self-awareness, research and awareness of one's own emotions and motivations, social communication skills and pro-social behavior and development of satisfaction and pride. Social and emotional competences are important for understanding, managing and expressing the socio-emotional aspect in life due to successive management of life goals such as learning, establishing relationships, solving everyday problems and adjusting the complex requirements of progress and development (Jurić, 2010).

Brestan & Eyberg, 1998; Patterson, DeGarmo & Kuntson 2000; Webster-Stratton & Taylor, 2001 already dealt with the encouragement and development of SC. Literature includes different theoretical models of SC, which condition different definitions of the said notion: Guilford & Argylov, 1967; McFalolow & Ford in 1982; Riggiov & Marlovea 1986, Dodgeov 1987; Cavellov, 1990; Kazlauskienė, Ušeckienė, 2007 (according to Buljubašić-Kuzmanović, 2010). The term SC depends on the difference in its understanding. Therefore, there are authors who relate SC to ability (Vučić, 1981; Thorndike, 1920) and those who associate it with personality traits (Allport, 1937). Hargie, Saunders and Dickson (1981) define social skills as a set of inter-related social behaviors directed toward a goal, which can be learned and controlled by the individual. Goleman (1997) also identifies SC with emotional competence. Brdar (1993) equates the concept of SC with social and emotional intelligence, thus a possible relationship between social and academic intelligence is noted, but at least average intelligence is needed for a high social intelligence, whereas very high academic intelligence can even be a negative indication of social intelligence.

### **Curriculum of social competence of students of teacher education**

The curriculum of SC studies is shown as an important contemporary component because it can reduce undesirable behavior and disturbances in the social

life of the individual. The SC curriculum is based on socioconstructivism and sociocultural theory of development, which emphasizes that the development of people is strongly influenced by the social and cultural context. The SC curriculum should be focused on learning about acceptable behavior, sharing, exchange of ideas, asking questions, free expression of opinions, co-construction of study program, critical feedback, giving suggestions and comments, developing partnerships with others, and paying compliments. Such a curriculum takes into account all developmental, cultural and interpersonal differences and different approaches to learning so that it would leave room for individualized activities.

Research results (Markuš, 2010) show that encouraging the development of social competence has a positive effect on many areas of behavior and experience, it reduces the incidence of inadequate and risky behavior, significantly improves the quality of relationships with peers and adults, and there is a positive correlation of academic achievement and cognitive competences. Teaching students about the social (and emotional) skills, as one of essential characteristics of the development of social skills through friendship, empathy, cooperation, mediation, sharing and resolving conflicts, will allow for collaborative and partnership relations (Dubovicki, 2013). Peer interactions contribute to collaborative learning, management skills, impulse control of aggression and hostility, the development of prosocial behavior, they provide emotional security, love, affection, intimacy, solidarity and are a basis of all relationships. In the context of peer thinking, behavior patterns, lifestyles and value systems, young people achieve success increasing their sense of competence, self-confidence and autonomy as necessary preconditions of future teachers. Pedagogical and social implications of peer relationships are woven into the micro-pedagogical and social structure of educational institutions (Buljubašić-Kuzmanović, 2010).

### **Research Problem and Research Focus**

This paper starts with defining students' SC as a set of skills that help to develop and maintain relationships, i.e. effective functioning in the social context. Development of social skills is facilitated by various educational programs of encouraging the SC as an important primary prevention strategy: development of emotional literacy (Goleman, 1997), providing empathy, developing communication skills, problem solving, success in school. Possession and development of social skills is one of the preconditions for creating a favorable emotional climate in the classroom, creating a stimulating environment for learning, so it can be concluded that students become more successful in their academic education with "progress" in

social contacts (Bognar & Kragulj, 2010). If educational institutions want to maintain and develop values and ensure students' holistic growth and development, they must go beyond teaching certain subjects. Traditional teaching has, in its conception and structure of teaching, regularly ignored the development of social skills and it focused on educational skills, while contemporary university classes encourage development of students' multidimensionalism.

## **Research Methodology**

### **General Background of Research**

The study was aimed at self-evaluation of SC of students of teacher education (N = 180). It was conducted by triangulation, based on which result objectivity was to be achieved. To assess SC, a *Likert-type scale* was used (adapted from Katz & McClellan, 1999), *sociometric research* and *interview*. For this reason, the empirical part of the paper was divided into three parts. In addition to the *quantitative approach*, the *qualitative* one was used to ensure better result interpretation, but also to move beyond the positivist approach in the research, adhering to the postmodernist and humanistic paradigms in education. During the study, *research ethics* was taken into account as well as and issues that did not infringe on individuals' intimacy.

The research aim was to obtain students' self-assessment of SC, determine students' social status and explore to what extent the university contributes to SC development. According to the mentioned objective, the following hypotheses were formulated:

- H1 Teacher education students self-assess themselves as socially competent.*
- H2 The sociometric procedure does not determine "stars" and "rejected" ones.*
- H3 Students' attitudes are in favor of the university's contribution to developing social competence.*

### **Research Sample and Instrument and Procedures**

The study was conducted in 2014. It included a total of N=180 (F=169, M=11, M=22 067) teacher education students. 1<sup>st</sup> year students (N=45) participated in the questionnaire (scale of social competence), 3<sup>rd</sup> year students (N=45) participated in the interview, and two groups of students (2<sup>nd</sup> year, N=45 and 5<sup>th</sup> year N=45)

participated in the sociometric procedure. Research statistics were processed by SPSS version 19.0.

## **Data Analysis and Research Results**

### **Scale of social competence**

The starting point in creating the *Questionnaire of social competence*, which was developed for the research purposes, was the scale of social competence (Katz & McClellan, 1997). The questionnaire was adapted to particles appropriate for students, and one particle was left. The original version of the questionnaire consists of 23 items. The reliabilities of the subscales were relatively high (alphas ranging from .68 to .71), the Cronbach alpha coefficient of reliability of the whole scale was determined as  $\alpha=0.70$ . The scale that was used in this study consists of 22 items divided into three sub-scales: 1 – *students' Individual features*, 2 – *Social skills features* and 3 – *Peer relationships*. When answering the questions, the respondents used the Likert-type scale of 5 degrees where 1 signified *strongly disagree* with the statement, and 5 *fully agree* with the statement. Table 1 provides the students' self-assessment of SC explored through individual features.

**Table 1.** Representation of communicative competence in learning outcomes

Type of study	Learning content and outcomes	
	Total course number	No. of courses with noted communication competences
Pedagogy graduate study	13	6 (46%)
Business communication management graduate study	23	15 (65%)

All the particles in subscale 1 have high values (3.63 to 4.60), while the particle “*I have a positive approach*” stands out by all values. It is extremely important to have a positive approach to SC because it relies on the quality of establishing social relations from which the educational process benefits. The claim with most deviations in the students' self-evaluation is “*I'm empathic.*” Therefore, it can be concluded that in the educational process it is important to have, alongside SC, also professional competence and there is a question to what extent the teacher should be empathic towards students and vice versa.



Table 2 shows the results of subscale 2, relating to the students' features of social skills. The research results show that the students evaluated themselves as highly competent in all the particles (3.87 to 4.72). The particle that emphasizes the students' intercultural competence, which is closely related to SC "I accept the company of members of different ethnic groups," stands out.

**Table 2.** Students' attitudes towards the characteristics of class communication

Class communication (CC)	Type of college	N	M	SD	t	df	p
general attitude	private	115	3.85	0.74	6.35	225	.000
	state	112	3.26	0.66			
CC is simple	private	115	3.89	1.06	4.56	225	.000
	state	112	3.24	1.06			
CC is clear	private	115	4.03	0.96	4.77	225	.000
	state	112	3.46	0.82			
CC is brief	private	115	3.4	1.01	3.67	225	.000
	state	112	2.91	0.99			
CC is interesting	private	115	4.11	0.85	5.46	225	.000
	state	112	3.44	1.00			

Subscale 3, (Table 3) which explores peer relationships, also shows high self-assessment (4:01 to 4:05) of social competence. The third subscale results are especially significant because of the comparison with the results of research on sociometric status displayed below.

**Table 3.** Suggestions for improving communication at university level

	Private colleges	f/%	State colleges	f/%
Extracurricular communication	– using contemporary technologies	14/70	– using contemporary technologies	18/90
	– more incentive when discussing certain topics on forums	12/60	– quicker response (via e-mail or Moodle)	14/70
Class communication			– more "face to face" communication	12/60
	– asking more questions during class by students	12/60	– greater motivation by teachers	13/65
	– more mutual active listening (by both teachers and students)	5/25	– using various social types would enable changing different types of communication (group, pair, circle)	12/60

The results obtained from the research instrument confirm **H1: *Teacher education students self-asses themselves as socially competent.*** The students evaluated themselves as highly competent in all particles (particle values range from 3.63 to 4.72), which is considered a very desirable self-assessment.

### **Students' sociometric status**

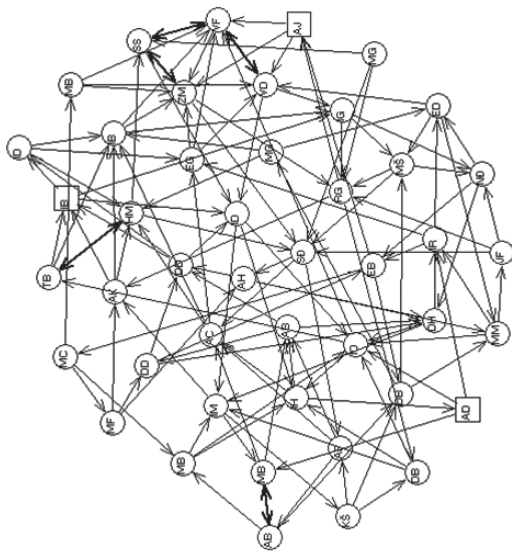
A sociometric structure of a study group includes the structure of affective relationships among members of the group, i.e. relations of attraction, which express general atmosphere as the indicator of study group cohesiveness. The 2<sup>nd</sup> and 5<sup>th</sup> year students were to single out three names based on sociometric criteria, which was a *positive personal choice*, i.e. desire to cooperate with three people selected. The condition for applying sociometry was the students' mutual understanding and spending time together. For the purposes of this research the students only chose positive votes. Figure 1 shows two sociograms of the 2<sup>nd</sup> and 5<sup>th</sup> year students.

The sociograms show the study groups' structure, in which interactions among the students are visible. After examining the 2<sup>nd</sup> year sociogram (left) it can be seen that the majority of students were selected and there were no isolated students, two students received the highest number of votes (5), which puts them in the center of the concentrated circles. Students with most votes are called popular, *stars of educational groups*. It is evident that the students achieve mutual interactions and there are a lot of those who have 3 and 4 votes, who make unique groups within the group. On examining the 5<sup>th</sup> year sociogram (right), it is evident that there are more popular students (8), and one student was *isolated and not chosen for possible cooperation*. So, both sociograms demonstrate popular students, or "stars". Although among the 2<sup>nd</sup> year students there are no isolated or "rejected" students, there is one such person among the 5<sup>th</sup> year students. Therefore, hypothesis H3: *The sociometric procedure does not determine "stars" and "rejected" ones* is refuted.

It can be concluded that although the students self-assessed themselves as socially competent (which is also evident in the results of the third group of questions in the above-mentioned instrument, where the students self-assessed themselves in relation to peers (1.4 to 5.4) as highly competent), the sociometric status of individual students (stars and isolated) says that it is not always so. It is assumed that the students generally considered themselves socially competent, but when it comes to individuals, they deviated from it.

### Sociogram of Choice

Poster Question: *Še navedi prijatelja*

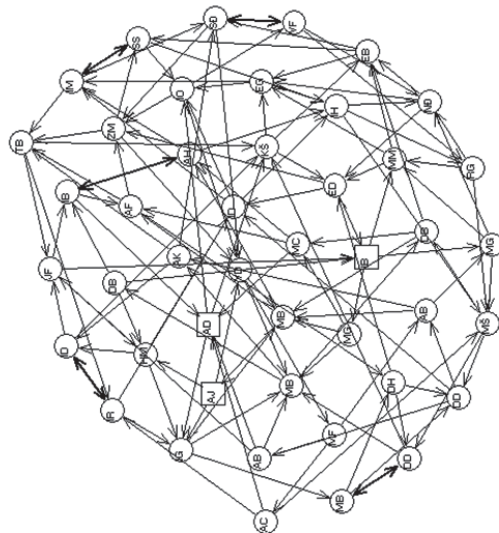


F (circle) Male  
 M (square) Male  
 → → 74 % of choices are mutual  
 - - - - 17,8 % have mutual choices.

School : Učbeniški lakater u Opatiku  
 Teacher : Dubovicki-Brust Nemet  
 Period : 2010.-2014.  
 Date : 7.1.2014.

### Sociogram of Choice

Poster Question: *Še navedi prijatelja*



F (circle) Male  
 M (square) Male  
 → → 74 % of choices are mutual  
 - - - - 22,2 % have mutual choices.

School : Učbeniški lakater u Opatiku  
 Teacher : Dubovicki-Brust Nemet  
 Period : 2010.-2014.  
 Date : 7.1.2014.

Figure 1. Sociometric status of students (2nd year-left sociogram, 5th year-right sociogram)

## Interview of students' social competence

The study used a *semi-structured interview*, aimed at establishing the understanding and definition of the respondents' SC, attitudes towards personal competence, as well as the importance of SC in relation to others; the place for acquiring SC, the impact of university activities on the success of relationships with others, contribution of specific activities to SC development, the respondents' attitude towards relationships with others, and the respondents' suggestions concerning the possibilities of contribution of the Faculty to students' SC development.

The first question concerned the students' understanding of SC. 22.2% stated that SC was the ability to cope in social situations and understanding of self and others (relationship with others). 20% stated that the concept of SC was associated with communication skills, 13.3% that SC was adjustment of the individual to the environment, while 4 individual responses (each of 2.2%) defined SC as follows: non-violent conflict resolution and tolerance, including skill sharing, support and understanding of others, knowledge and skills needed for coping in a particular social situation, and sociability. The respondents' answers show that they are aware of the importance of SC.

The next question referred to self-evaluation of SC. Both students of the 2<sup>nd</sup> and 5<sup>th</sup> years, as well as 1<sup>st</sup> year students, in the above-mentioned survey, considered themselves socially competent (95.5%), which confirms *H1: Teacher education students consider themselves as socially competent*.

The next question related to the place of SC acquisition (Figure 3). The largest percentage of the respondents claimed they acquired SC in their family (31.1%), in college (24.4%), among friends (22.2%), in primary and secondary schools (11.1%) and elsewhere (11.1%). It is particularly interesting that if the percentage of 24.4 (related to the acquisition of competences in college) is added to the percentage of 11.1, which refers to the acquisition of SC in primary and secondary schools, the total is the percentage of 35.55 and therefore it can be concluded that education system in specified percentage contributed to SC development. The presented findings suggest partial acceptance of hypotheses *H4 Students' attitudes are in favor of university contribution to SC development*, given that most respondents claimed that family was the most responsible for SC development, while college is a second component.

We examined whether university activities influence successful relationships with others. 100% of the respondents said that various university activities affected their successful relationships with others, and this is the starting point for SC development of each individual. The next question referred to the students'

perceptions of activities offered at the Faculty of Educational Sciences in Osijek contributing to the development of their SC. 82.3% responded that *communication skills, developing cooperation* (75.6%) and *tolerance* (42.3%), *taking into account differences among students* by teachers (31.1%), *developing empathy* (28.9%) and *respect for rights and needs of students* by teachers (26.7%) mostly contributed to SC development.

Another question related to how the students see themselves in relation to others. Most of the respondents (53.33%) thought they were accepted as members of their groups (study, seminars, work), but also that the majority of other students considered them to be friends (53.33%). One part of the students estimated themselves as associates (15.56%), and significant data shows that the students are happy when their mates achieve success (13.33%). The results obtained by answering this question can also be compared to the results obtained with the help of sociometry and their sociometric status.

The final question referred to the respondents' opinions about the way the university could further encourage SC development. The research results show that the students mostly emphasize the importance of workshops (28.9%), projects (17.8%) and more group work (13.3%) as primary contribution of the university's to SC development. A part of the students believed that group size (11.1%), on which the quality of communication depends, had a great influence on SC development. The research results show that the students are willing to cooperate (8.9%) with students (and teachers) from other faculties, but also that they see the need to restructure study programs (8.9%), which should offer more elective courses that would develop students' SC.

The students' further responses indicate the importance of encouraging discussion and debate by professors, taking into account students' needs and rights and organization of different activities developing students' interests.

## **Discussion**

The students' definitions of SC largely overlap with the initial definition of this paper, which means that the students are informed about its importance and necessity. Triangulation shows that the students are more inclined to generally self-evaluate SC, which can be seen by examining the results of the questionnaires and interviews, while sociometry proved things to be a bit different compared to what the students presented in them. Frequent changes of teams will enable greater group cohesion and will thus strengthen the ability to work with all the

students, which is especially important for the future workplace where new teams, necessary for co-operation, positive school culture and successful work, will be formed.

Family and the education system contributed to the students' total SC. It is important to emphasize that 100% of the students responded that various university activities affected their successful relationships with others, which should be our starting point on the path to teacher college curriculum reform. Although teacher education promotes students' SC development through its activities and teachers' methods of work, students' greater involvement in projects, collaboration with other schools and teachers, greater possibility of choosing elective courses and extracurricular activities and even greater interaction and activity in smaller study groups would help strengthen students' SC.

## **Conclusions**

Guided by postmodern theoretical framework, as well as humanistic paradigm, SC is the foundation of building individual interests and needs. The curricula of teacher faculties should nurture encouragement of students' SC through content, learning outcomes and activities.

The study's scientific contribution is visible in the original instruments as well as in the approach to studying of this issue, based on which original results were obtained, and based on them the full SC picture was presented, from the teacher studies students' point of view.

Future research can explore SC of university professors. In addition, students' self-assessment of SC can be explored at different teacher education faculties in the world, and the results can be compared and presented with regard to the curricula of individual faculties in the framework of content and outcomes of individual courses.

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## **“How and Why Should I Study?”: Metacognitive Learning Strategies and Motivational Beliefs as Important Predictors of Academic Performance of Student Teachers**

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### **Abstract**

The study examined the relationship between metacognitive learning strategies and motivational beliefs, predicting academic performance of student teachers. The main aim of the study was to examine the predictive value of motivational beliefs and metacognitive learning strategies for students' academic performance. In the study 307 student teachers of the Faculty of Education completed the revised version of Motivated Strategies for Learning Questionnaire (Pintrich & de Groot, 1990). Regression analyses revealed that a higher sense of self-efficacy predicted better academic performance and a higher test anxiety predicted poorer academic performance. The implications of motivational orientation for cognitive engagement and self-regulation at the faculty are discussed.

**Keywords:** *motivational beliefs self-regulated learning, metacognition, students*

### **Introduction to metacognition and learning motivation**

The term self-regulation involves the ability to control and regulate one's behaviour, cognition, and emotions (Bakračević Vukman & Licardo, 2011). It represents an important aspect of student learning and academic performance in the classroom context (Corno & Mandinanch, 1983; Corno & Rohrkemper, 1985). The concept of self-regulated learning, which derives from the latter (Zimmerman



& Schunk, 2001), is in fact learning which involves the regulation of cognition (control over cognitive learning strategies), the regulation of motivation and affect while learning (control over motivational beliefs and emotions), and the regulation of behaviour.

Pekljaj (2001) notes that metacognition includes two major components: i) knowledge about cognition (declarative, procedural and strategic knowledge.) and ii) control of cognition (processes that facilitate the control aspect of learning, such as planning, monitoring the learning process and the quality of achievement, and evaluation of the learning process).

A meta-analysis as defined by Dinsmore, Alexander, and Loughlin (2008) surely contributed to the clarity of the above-mentioned concepts, concluding that the definition of the term metacognition referred in particular to the cognitive aspect of learning. The definitions of the terms self-regulation and self-regulated learning comprise, along with the cognitive aspect, also significant motivational factors and emotional aspects of learning (Pekljaj & Pečjak, 2011).

The results of previous research on the relationship between metacognition and academic performance are relatively inconsistent (Pekljaj, 2001). Some authors (Corno & Mandinach, 1983; Zimmerman & Pons, 1988) note that there is a highly positive relationship between the use of metacognition and academic performance. Thus, some studies indicate that the learners who keep their focus on solving a specific cognitive problem and persist with a specific task perform better than learners who cannot control their attention to the same extent (Corno & Mandinach, 1983; Zimmerman & Pons, 1986; 1988, Čagran, Ivanuš Grmek, Štemberger, 2009).

The theoretical framework for conceptualising the motivation of an individual was derived, just like in previous studies (Pintrich & de Groot, 1990, Puklek Levpušček & Pekljaj, 2007), from a three-component motivation model (Pintrich & de Groot, 1990; Wiegfield & Eccles, 2001), which proposes three general motivational components associated with learning: value, expectancy, and affect.

The value component concerns the reasons why students become involved in an instructional activity. It includes intrinsic goal orientation, extrinsic goal orientation, and internal task value (Puklek Levpušček & Pekljaj, 2007). Various studies (Meece, Blumenfield, & Hoyle, 1988; Pintrich & Garcia, 1991; Boekaerts, 1997) have shown that the individuals that possess intrinsic motivation would use significantly more metacognitive skills, persist considerably longer in learning, and put more effort in an activity than those that do not have the value component of motivation.

The expectancy component is, within different motivational models, defined as the student's perceived personal competence, self-efficacy, attribution style, etc. (Pintrich and de Groot, 1990). It concerns the student's beliefs whether he/she is capable of performing specific tasks and whether he/she is responsible for such performance. In correlational studies, the degree of perceived self-efficacy is closely related to efficient performance of a task and thus to good academic performance (Bandura, 1986; Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). Students with a high level of self-efficacy use self-regulated learning strategies more frequently (Pintrich, Roeser, & de Groot, 1994).

The affective component, representing the emotional response of an individual to a school task, in the motivational model is primarily measured through one's test anxiety, since it is one of the most significant variables in the school context (Wigfield & Eccles, 1989; Pintrich & de Groot, 1990). It could be described as fear and discomfort together with cognitive (learning) difficulties (Isaac & Orit, 1997). Studies have shown that test anxiety is associated with the fear of grading and evaluation, general rejection of tests, and less efficient learning skills (Hembree, 1988). Furthermore, it has been identified as one of the factors that compromise one's academic functioning (Everson & Millsap, 1991; Gregory, 1990). In addition, research has shown that there is a strong correlation between test anxiety and metacognition, the use of cognitive strategies, and balancing the effort put in a specific task (Pintrich & de Groot, 1990; Peklaj, 2001). Peklaj (2001) notes that the relationship between test anxiety and performance is usually negative, which some other studies have confirmed (Pintrich & de Groot, 1990), pointing out that students with a higher level of test anxiety show lower academic performance.

## Research Focus

The study focused on two main research questions:

1. to examine the correlation and interaction between motivational beliefs and metacognitive learning strategies according to the level of one's expressed motivational beliefs.
2. to establish if there was any correlation among motivational beliefs, the use of metacognitive strategies and academic performance and consequently examine the potential predictive value of measured variables for students' academic performance.

## **Research Methodology**

### **Research General Background**

The descriptive method was used to establish the level of students' expressed motivational beliefs and metacognitive strategies and the explicative method was employed to determine the correlation between motivational beliefs and metacognitive learning strategies according to the level of expressed motivational beliefs, the differences according to participants' age and consequently examine the potential predictive value of the measured variables for students' academic performance.

### **Research Sample**

The research included 307 students (96.4% female and 3.6% male) enrolled in the Faculty of Education at the University of Primorska and the Faculty of Education at the University of Maribor. The participants were students of Preschool Teacher Education (51.1%) and Primary Teacher Education (48.9%) programmes, with the mean age of 20.35 years (19–24 years). The participants mainly attended the first year (156 students – 50.8%) and the second year of study (121 students – 39.4%), and a few of them were older (third year: 28 students – 9.1% and fourth year: 2 students – 0.7%). The statistical analysis of the data was performed using SPSS 20.0 statistics software.

### **Instrument and Procedures**

In the study we used the revised Slovene version of the Motivated Strategies for Learning Questionnaire or MSLQ (cf., Pintrich & de Groot, 1990). In revised version, however, we used a 5-point scale (1= not at all true, 5= very true). Originally, the questionnaire is composed of five subscales, i.e., three motivational scales – Intrinsic Value, Self-Efficacy, and Test Anxiety – and two cognitive subscales, namely, the Cognitive Strategy Use scale and Self-Regulation scale (Pintrich & de Groot, 1990).

### **Data Analysis**

Data were processed with the use of SPSS (20.0). According to the aims of the study, the following statistic methods were employed:

- Descriptive statistics (M, SD), the Spearman correlation coefficient,
- two- and three-way ANOVA and multiple regression analyses.

## Research Results

### Motivational beliefs and metacognitive learning strategies according to the level of expressed motivational belief

The results indicated (cf., Table 1) that there is a significant moderate to high correlation between the students’ motivational beliefs and the use of metacognitive learning strategies. In particular, we found a high positive correlation between metacognitive strategy use and intrinsic value of study. The correlation between metacognitive strategy use and the participants’ self-efficacy was also high, positive and significant. On the other hand, as expected, the correlations between test anxiety and metacognitive strategy use and also between test anxiety and self-efficacy were low and negative.

**Table 1.** Correlations between motivational beliefs and metacognitive learning strategies

Variables	IV	SE	TA	MeCog
IV	-			
SE	.43**	-		
TA	.01	-.25**	-	
MeCog	.49**	.45**	-.12*	-
<i>M</i>	3.49	3.33	2.90	4.04
<i>SD</i>	0.55	0.61	0.88	0.52

Legend: N= 289; \* statistically significant at level 0.05; statistically significant at level 0.01; IV – intrinsic value, SE – self-efficacy, TA – test anxiety, MeCog – metacognitive learning strategies

Further, we examined the possible differences and the potential interactions between specific motivational beliefs and metacognitive learning strategy use. For this purpose, we dichotomized the motivational learning components according to their median value. Then, we used three-way ANOVA for two intrinsic values (low intrinsic value, high intrinsic value) × two self-efficacy (low self-efficacy, high self-efficacy) × two test anxiety (low test anxiety, high test anxiety) × metacognitive learning strategies. Descriptions presented in Table 2.

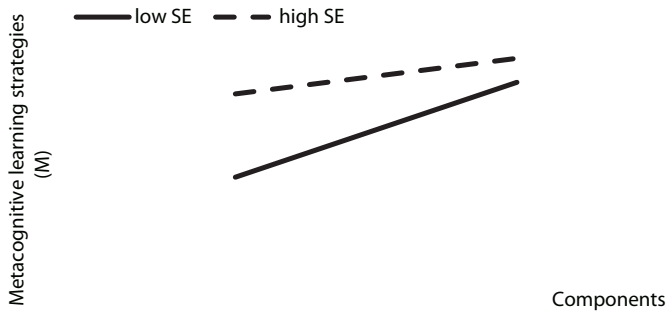
**Table 2.** Descriptions of metacognitive learning strategies for high and low expressed intrinsic value of study and sense of self-efficacy

		Metacognitive learning strategies	
Motivational beliefs		M	SD
IV	Low	3.89	0.33
	High	4.23	0.43
SE	Low	3.92	0.45
	High	4.21	0.29

Legend: N= 289; IV – intrinsic value, SE – self-efficacy

The results indicated significant differences in the use of metacognitive learning strategies according to the reported intrinsic value of study,  $F(1, 281) = 32.66, p < .001$  ( $\omega^2=0.09$ ) and according to the level of the students’ reported self-efficacy,  $F(1, 281) = 22.14, p < .001$  ( $\omega^2=0.07$ ). Differences in the use of metacognitive learning strategies according to low and high test anxiety were not significant.

The results also revealed a significant intrinsic value  $\times$  self-efficacy interaction,  $F(1, 281) = 6.73, p < .05$  ( $\omega^2=0.02$ , mean values as in Figure 1), indicating that the students who used metacognitive learning strategies more often reported a higher intrinsic value of study and a higher sense of self-efficacy. On the contrary, the students who used less metacognitive learning strategies reported a lower intrinsic value of learning along with a lower sense of self-efficacy. Consequently, the students with a lower sense of self-efficacy and a low intrinsic value of study significantly less often reported the use of metacognitive learning strategies than the students with a high sense of self-efficacy and a high intrinsic value of study.



Legend: SE – self-efficacy, IV – intrinsic value

**Figure 1.** Interaction between intrinsic value of study and self-efficacy depending on the use of metacognitive learning strategies.

### Motivational beliefs and metacognitive strategy use as predictors of academic performance

Firstly, we considered the differences in motivational beliefs and metacognitive learning strategies in relation to final high school grades. Three-way ANOVA was conducted for three motivational beliefs (intrinsic value, self-efficacy, test anxiety) × metacognitive learning strategies × final high-school grades (sufficient, good, very good, excellent). Score analysis revealed significant final high-school grade differences for the intrinsic value of study  $F(3, 281) = 5.87, p < .01, (\omega^2=0.02,$  mean values as in Table 3) and in the metacognitive learning strategy use,  $F(3, 281) = 4.65 p < .01, (\omega^2=0.01,$  mean values as in Table 3).

**Table 3.** Average mean value for intrinsic value of study and metacognitive strategy use according to final high school performance/grade

Final high-school performance (grade)	Intrinsic value (M)	Metacognitive learning strategies (M)
Sufficient	3.54	4.20
Good	3.29	3.90
Very good	3.54	4.06
Excellent	3.65	4.23

A detailed post-hoc pairwise comparison of mean differences indicated the same pattern of differences in the final high-school grades with regard to the intrinsic value and the use of metacognitive learning strategies. We found out that significant differences in the intrinsic value component occurred between the students with the ‘good’ and ‘very good’ final high-school grades (dM intrinsic value = - 0.25,  $p < .01$ ) in favour of the ‘very good’ grade. Moreover, significant differences in the intrinsic value and metacognitive learning strategy use occurred also between the ‘good’ and ‘excellent’ final high-school grades (dM intrinsic value = - 0.36,  $p < .01$ ; dM metacognitive learning strategy use = - 0.33,  $p < .01$ ) in favour of the ‘excellent’ grade. We can conclude that the students with higher high-school grades report a higher intrinsic value of study and more frequent use of metacognitive learning strategies later on, at university level, as opposed to the students with lower high-school grades.

Considering that there is a low non-significant correlation between final high-school grades and average grades in the first year of study at university ( $r = .13, p > .05$ ), we separately examined the predictive value of motivational beliefs and the predictive value of metacognitive learning strategies for academic performance.

We performed linear regression analysis with Enter model for all predictors (Field, 2009). In the first regression analysis, the average grade in the first year of study represented the criterion variable, while three motivational beliefs (intrinsic value, self-efficacy, and test anxiety) and metacognitive learning strategies were the predictors. The results revealed a significant predictive value of the above-mentioned components for first-year academic performance,  $R^2 = .20$ ,  $F(3, 137) = 11.09$ ;  $p < .001$ ; with the students' self-efficacy and test anxiety scoring the highest predictive value (as shown in Table 4). The intrinsic value of study had no significant predictive value for academic performance.

**Table 4.** The results of linear regression analysis of academic performance at university with regard to the level of motivational beliefs and metacognitive learning strategies

Variable	B	SE	$\beta$	t	p
Intrinsic value	-.12	.12	-.09	-1.02	ns
Self-efficacy	.44	.10	.37	4.24	.000
Test anxiety	-.17	.07	-.20	-2.54	.012
Metacognitive strategies	-.01	.12	-.01	-1.04	ns

Legend: ns – variable has no statistically significant predictive value

## Discussion

Our first research question focused on the relationship between motivational beliefs and the use of metacognitive learning strategies. We examined correlations and differences in the use of metacognitive learning strategies with regard to different levels of expressed motivational beliefs. As for the results, there was a positive moderate correlation between the intrinsic value of study and the students' perception of their own self-efficacy as well as the use of metacognitive strategies in learning. Similarly, there was a relatively positive correlation between the sense of self-efficacy and the use of metacognitive strategies. In line with our expectations, the results indicated a low negative correlation between test anxiety and the sense of self-efficacy as well as between test anxiety and metacognitive strategies. Other studies (Hill & Wigfield, 1986; Pintrich & de Groot, 1990) reported similar results, as test anxiety was also negatively correlated with self-efficacy. A more in-depth analysis of the results revealed that there were significant differences in the use of metacognitive strategies with regard to a specific motivational belief. At the same time, there was an ongoing interaction between the intrinsic value of study and the

sense of self-efficacy. Thus, we came to the conclusion that the students who reported a higher intrinsic value of study, displayed strong intrinsic motivation and interest in learning, understood the sense of the effort they put in, as well as had a clear goal and purpose of their study, were the same students that reported significantly more frequent use of metacognitive strategies and a high level of personal competence. The interaction among the above-mentioned motivational beliefs showed that the students with a strong sense of self-efficacy used metacognitive skills and strategies to relatively the same extent, regardless of whether they had either low or high intrinsic values. On the other hand, the students that reported a weak sense of self-efficacy in study assignments used considerably fewer metacognitive strategies in combination with a low value of study than in combination with a high value of study. In light of this, we concluded that it was particularly reasonable and important for the teacher to incite and maintain the student's intrinsic motivation to study, enhance the intrinsic value of study as well as the interest in learning and the fulfilment of study requirements. The latter does not merely represent an investment in one's academic achievements but, above all, an enhancement of the student's interest in daily cognitive activity while performing study assignments.

The second research question focused on establishing how motivational beliefs and the use of metacognitive strategies correlated with high-school performance, determining also the potential predictive value for the later academic performance at university. Based on the results, we discovered significant differences in the self-reported intrinsic value of learning and the frequency of metacognitive strategy use in relation to the last year of high school grades. A more detailed analysis revealed a similar pattern in both measured components of learning: the students who performed better at high school either had a higher intrinsic value or used metacognitive strategies more frequently. However, a high level of intrinsic goal orientation towards acquiring certain knowledge and mastering certain skills, etc. proved to be a better predicting factor for long-term learning, better learning strategies, cognitive engagement and continued study (Puklek Levpušček & Peklaj, 2007, Kukanja Gabrijelčič, 2015). Certain studies indicate that students who know and use metacognitive strategies report better academic performance than students who do not use them (Garner & Alexander, 1989; Schneider, Schlagmueller, & Vise, 1998). Yet, some studies indicate a zero correlation between metacognitive engagement and academic performance (Pressley & Gathala, 1990). Our results were similar to the latter. We believe that the results of regression analyses to a certain extent reflect the above methodological conceptual problem. The intrinsic value of study and the use of metacognitive strategies had no predictive value in our model, while academic performance at university could be predicted solely



based on the student's perceived self-efficacy in learning and the absence of test anxiety. Taking into account that there was a positive correlation between self-efficacy and the use of metacognitive strategies, we could establish that cognitive strategies were merely a factor that facilitated certain academic performance. In fact, the perception of one's own competence with regard to facing everyday requirements of the study was considerably more relevant in predicting academic performance in our sample. This might indicate that teaching students how to use cognitive strategies is important for academic performance in secondary school, while in order to predict academic performance, it is more essential to build and enhance one's belief that one possesses the knowledge and the ability, and can expect a successful outcome based on the effort one puts into learning.

### **Limitations of the study and further research suggestions**

The study also has some limitations in terms of the representative sample (age, gender, and regional belonging) and the use of self-evaluation scales (they merely indicate the perceived level of the measured components). Altogether, the results might have been considerably more reliable and unambiguous, provided we had focused on motivational beliefs and the use of metacognitive strategies in a more specific academic area or subject or if we had defined academic performance more specifically (e.g., preparation of a seminar paper, grade obtained in a preliminary exam, etc.).

### **Conclusions**

The presented study is an important contribution to understanding the way in which the academic milieu at teacher education faculties functions. It shows that teaching students how to use relevant learning techniques is not sufficient to guarantee satisfactory academic performance by the students. It is important that the system of academic programmes at university should be designed to create an academic milieu within which the study requirements are adequately ambitious and adapted to an individual and in which learning is a challenge and a means of building one's personal competences. It could contribute a great deal to shaping one's academic self-image and the sense of one's self-efficacy. This would result in a high level of motivation for cognitive engagement and hence, in a greater quality of academic achievement.

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**Special  
Pedagogy**



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## **Evaluation of General Motor Performance in Older School Age Pupils with a Moderate Mental Disability**

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### **Abstract**

The authors of the contribution deal with evaluation of general motor performance in older school age pupils with a moderate mental disability. The aim of the research was to find out differences in the general motor performance between mentally disabled pupils and non-disabled pupils. The research sample consisted of 100 pupils aged 13 to 15. They included 25 boys and 25 girls with a moderate mental disability and 25 boys and 25 girls without a mental disability. To evaluate the general motor performance, the European test of motor performance Eurofit Special was used, modified for the needs of mentally disabled persons by Jean-Claude de Potter (1996). The research confirmed that the general motor performance of the youth with a moderate mental disability was statistically significantly lower than that of their non-disabled peers.

**Keywords:** *motor performance, mentally disabled pupils, Eurofit Special test battery*

### **Introduction**

Persons with a moderate mental disability have a reduced perceptual ability. They perceive concrete features while not being able to distinguish substantial from unsubstantial. They manifest also difficulties with voluntary attention. However, they concentrate well on the performance of simple mechanical actions and observation of interesting objects. What is prevailing is involuntary attention. Such

persons have a limited memory range, but a good “photographic” memory can be encountered in some cases. They retain a good mechanical memory. Their pace of learning is very slow. A moderate mental disability is the most common among all the disability levels. Children with such a disability attend special schools or special classes of normal elementary schools, sometimes normal classes integrating pupils with special educational needs. The average pace of physical development is slower when compared with their non-disabled peers. The difference gets even deeper with the higher level of the disability. What is typical of them is lower strength, speed, endurance and coordination. Their motor development closely correlates with their mental development (Gawlik and Zwierzchowska, 2004).

### **Research aim**

The aim of our research was to find out differences in the general motor performance between the youth with a moderate mental disability and the non-disabled youth.

### **Hypothesis**

The youth with a moderate mental disability compared with their mentally non-disabled peers is characterized by reduced motor performance.

### **Research questions**

1. Is the performance of girls with a moderate mental disability lower than that of their healthy peers?
2. Is the performance of boys with a moderate mental disability lower than that of their healthy peers?

### **Research Methods**

The research was carried out in February 2013 in the Associated Special School in Polanica Zdroj (Zespół Szkół Specjalnych w Polanicy Zdroju) and in the Grammar School No. 3 in Klodzko (Gimnazjum nr 3 w Kłodzku) in the Lower

Silesian Prowince. The research sample consisted of 100 pupils aged 13 to 15. They included 25 boys and 25 girls with a moderate mental disability and 25 boys and 25 girls without a mental disability. The average IQ of the moderately mentally disabled boys was 45.5 and girls 43.8.

All the pupils attended 45- minute physical education classes 4 times a week. Within their extracurricular activities, the mentally disabled as well as the non-disabled pupils went in for similar free time sports activities, e.g. basketball, football, swimming and skiing. To evaluate their general motor performance, the Eurofit European test of motor performance was used, modified for the needs of mentally disabled persons as Eurofit Special by Jean-Claude de Potter (Potter, 1996; Skowroński, 1999; Ziemilska & Skowroński, 1996).

The Eurofit Special test battery consisted of 6 tests:

1. Standing long jump with a two-foot take off (explosive strength of the lower extremities)
2. Sit ups in 30 seconds (dynamic strength of the abdominal muscles)
3. Sit and reach (flexibility)
4. 25 m dash from the standing position (speed)
5. 2 kg medicine ball throw with one hand (explosive strength of the arms)
6. Balance walk on a gymnastics bench- A test, and on an inverted gymnastics bench- B test (dynamic balance).

To compare the general motor performance in older school age boys with a moderate mental disability and non-disabled pupils of the same age group, the non-parametric Mann-Whitney U-test was used. The reason for the application of the non-parametric test instead of Student's parametric t-test was the abnormal distribution of results in many tests of the used Eurofit Special test battery. The correlation of the general motor performance test results and their score conversions was analyzed by means of Pearson's simple correlation coefficient.

The distribution of the studied somatic parameters was normal within the population, therefore Student's t-test for independent samples was applied in the comparative analysis (Ferguson and Takane, 1999).

The non-disabled boys had a higher body weight and body height when compared with their mentally disabled peers. The difference was statistically significant at the 1% level of statistical significance. With the girls, this phenomenon was observed in the youngest group only (13 years of age). The difference did not appear in the older girls (14 and 15 years of age) (Tables 1 and 2).



**Table 1.** Somatic indicators of the boys

Age (years)	Non-disabled boys		Mentally disabled boys	
	BW (kg)	BH (cm)	BW (kg)	BH (cm)
13	53.0	157.9	44.2	149.9
14	57.2	167.7	41.1	152.0
15	63.0	170.9	51.6	157.4

Legend: BW- body weight; BH – body height

**Table 2.** Somatic indicators of the girls

Age (years)	Non-disabled girls		Mentally disabled girls	
	BW (kg)	BH (cm)	BW (kg)	BH (cm)
13	54.0	156.4	44.0	146.6
14	54.7	159.4	55.4	154.4
15	52.3	160.9	63.7	161.6

Legend: BW – body weight; BH – body height

## **Research Results**

The research was carried out on a sample of 50 pupils (25 boys and 25 girls) with a moderate mental disability and 50 non-disabled pupils (25 boys and 25 girls). The aim was to compare the general motor performance of the above groups based on their results in the modified Eurofit Special test. The comparative analysis of individual Eurofit Special tests was made for the girls and the boys separately. Actually measured performances and scores were taken into account.

The non-disabled boys obtained considerably better results than their mentally disabled peers. All the results were statistically significant ( $p < 0.01$ ) (Table 3).

The non-disabled girls obtained considerably better results than their mentally disabled peers. All the results were statistically significant ( $p < 0.01$ ) (Table 4).

The Eurofit Special test results were converted to scores. The better the result was, the higher the score was. The conversion to scores did not change the picture of comparisons. The scores of the group of non-disabled boys and girls were always higher than those of the group of pupils with a mental disability. The conversion to scores made the differences in the results of both groups even more pronounced. They were all statistically significant. The unambiguous consequence of the substantial prevalence of the non-disabled youth group over the group of

**Table 3.** Comparison of the non-disabled boys' and mentally disabled boys' results in the Eurofit Special battery subtests

Eurofit Special tests	Boys	AM	SD	Mann-Whitney U- test		
				U	Z	p
Standing long jump with a two-foot take off (cm)	Non-disabled	180.6	17.0	0.0	6.063	<0.001
	Disabled	86.6	28.4			
Sit-ups (number)	Non-disabled	26.9	3.2	0.0	6.063	<0.001
	Disabled	12.0	3.3			
Sit and reach (cm)	Non-disabled	40.1	5.0	0.0	6.063	<0.001
	Disabled	16.8	4.2			
25 m dash from the standing position (s)	Non-disabled	4.8	0.5	74.0	4.628	<0.001
	Disabled	8.1	3.4			
2 kg medicine ball throw with one hand (cm)	Non-disabled	796.6	125.2	0.0	6.063	<0.001
	Disabled	375.3	109.0			
Balance walk on a gymnastics bench(score)	Non-disabled	5.8	0.4	147.5	3.201	0.001
	Disabled	4.6	1.4			

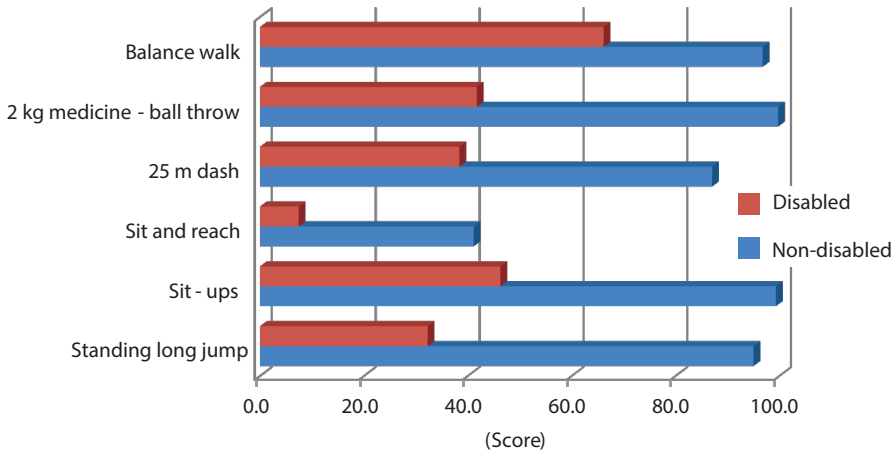
Legend: AM – arithmetic mean; SD– standard deviation; U – U-score; Z – Z-score; p – Statistical significance

**Table 4.** Comparison of the non-disabled girls' and mentally disabled girls' results in the Eurofit Special battery subtests

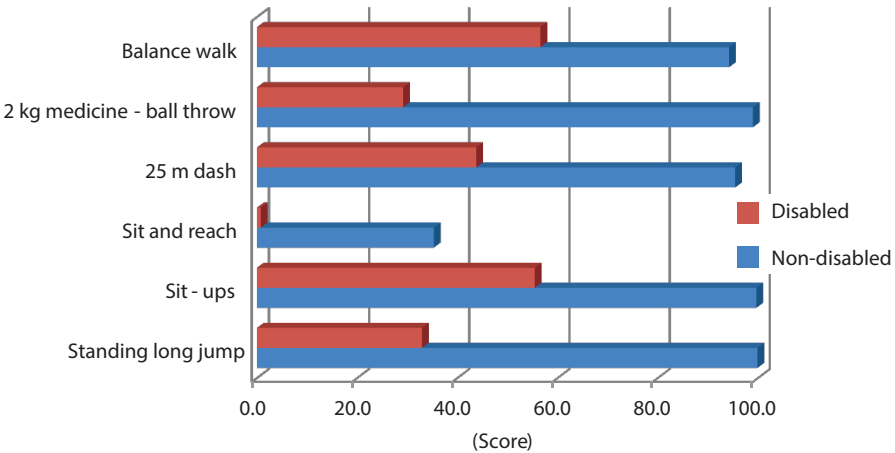
Eurofit Special tests	Girls	AM	SD	Mann-Whitney U –test		
				U	Z	P
Standing long jump with a two-foot take off (cm)	Non-disabled	167.0	8.9	0.0	6.063	<0.001
	Disabled	70.2	24.0			
Sit-ups (number)	Non-disabled	21.0	2.5	0.0	6.063	<0.001
	Disabled	10.7	2.7			
Sit and reach (cm)	Non-disabled	41.4	5.9	0.0	6.063	<0.001
	Disabled	13.5	3.3			
25 m dash from the standing position (s)	Non-disabled	4.9	0.5	1.0	6.044	<0.001
	Disabled	8.7	3.0			
2 kg medicine ball throw with one hand (cm)	Non-disabled	613.5	44.6	0.0	6.063	<0.001
	Disabled	252.4	63.9			
Balance walk on a gymnastics bench(score)	Non-disabled	5.6	0.5	158.5	2.988	0.003
	Disabled	4.3	1.7			

Legend: AM – arithmetic mean; SD – standard deviation; U – U-score; Z – Z-score; p – Statistical significance

their mentally disabled peers in each of the Eurofit Special tests was the statistically highly significant prevalence of the former in terms of the summary evaluation of motor skills (measured as the sum of scores) (Pictures 1 and 2).



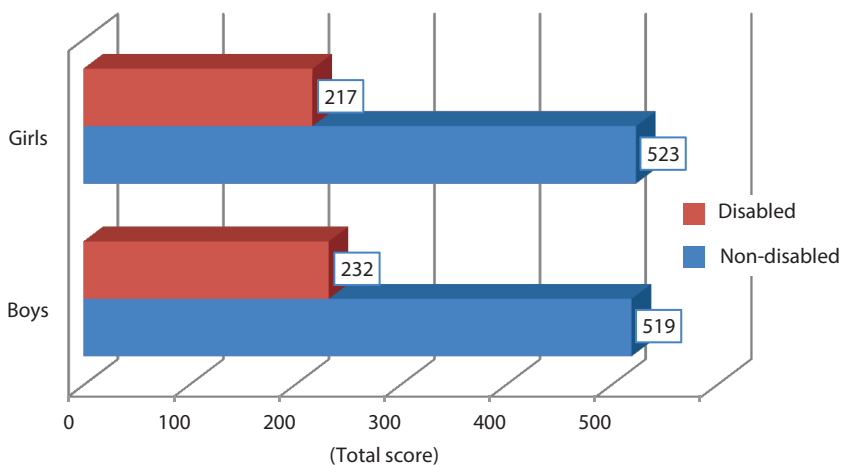
**Picture 1.** Comparison of the non-disabled boys’ and mentally disabled boys’ Eurofit Special test results



**Picture 2.** Comparison of the non-disabled girls’ and mentally disabled girls’ Eurofit Special test results

In all the cases studied, the average results of the group of non-disabled youth (independently of the gender) were statistically significantly higher in comparison with the average results of the group of their mentally disabled peers. The most considerable difference was recorded in the third test (sit and reach), both in the boys and the girls.

The sum of scores in all six tests of Eurofit Special showed that the group of non-disabled youth (independent of the gender) had better motor skills than their peers in the mentally disabled group (Picture 3).



**Picture 3.** Comparison of general motor skills (sum of scores in all Eurofit Special battery tests) of the non-disabled boys and girls with mentally disabled youth

## **Discussion**

The general motor performance of persons with various levels of mental disability and various age and gender plays an important role in their social life. A lower performance level impairs the co-existence with their environment and cooperation with others, thus their social health (Blacburn et al. 2000, Block et al. 1998, Bendikova, 2012, Kornatovska, 2014). A higher level is a chance for a longer independent life. It makes sense for these people to take care of their performance. At present, attention is focused not only on the life span, but also on its quality (Gawlik & Zwierzchowska, 2004).

Baranowski (2005, 2006) examined the motor activity of people with a moderate mental disability. To gather data, he used a questionnaire compiled by himself,

with questions about their interest in motor activities, general motor performance, care of appearance, and leisure activities. Results showed that the actual activity was lower than that declared, which was caused by poor motivation to engage in any activity. Moreover, he found out that one of the reasons for mentally disabled persons not living actively was their poor awareness of the importance of exercise for a healthy lifestyle.

In their paper, Marchewka and Schmidt (200) studied the influence of selected factors on the decision of the youth with a moderate and severe mental disability to engage in sports activities. Results showed that the motor performance and sports activities were clearly higher in the research sample attending a particular special school than in the pupils of a different specialized facility. Research also showed that pupils with a moderate and severe mental disability from a school attended mostly by children with a mild mental disability showed no interest in sports.

According to Bolach (1995), the general motor performance of 9–11 years old children with a moderate mental disability was statistically significantly lower than that of non-disabled peers in all tests of the Eurofit Special battery and increased with the subjects' age. Galecka et al. (1998) examining the motor performance in children with a light mental disability arrived at similar results.

Similarly, in their studies, Bolach (2000), Bolach & Bolach (2003), Bolach & Ficyk (2006) and Bolach et al. (2008) confirmed the findings by Marchewka and Schmidt (2000) and Markis (2001) when evaluating the general motor performance of children, youth and adults with various levels of mental disability. The authors confirmed that general motor performance depended on the IQ and motor activity, because the higher the subjects' motor activity and IQ were, the higher general motor performance was recorded.

Also Ziemilska and Skowroński (1996) carried out measurements of general motor performance, including all types of mental disability. The research sample consisted of 198 persons (111 men and 87 women). They included 115 persons with a mild mental disability, 56 with a moderate mental disability, 20 with a severe mental disability and 7 with a profound mental disability. The age of the subjects ranged from 10.5 to 56. The authors also used the methods of the Eurofit Special test battery. In the test measuring the strength of abdominal muscles, a statistically significant difference was found only between the mild and the moderate mental disability, as well as between the women and men with a moderate mental disability. A statistically insignificant result was recorded in the test measuring flexibility, since the women with a profound mental disability reached higher values than the women with a moderate and a severe mental disability.

Similar results were obtained also in our research. The general motor performance of the non-disabled youth (boys and girls) was statistically significantly higher than that of their peers with a moderate mental disability. It is clear that due to the low number of respondents the obtained results cannot be generalized and they are valid only for the sample studied.

## **Conclusion**

1. The general motor performance of the youth with a moderate mental disability was statistically significantly lower than that of their non-disabled peers. The fact that the average IQ of the boys with a moderate mental disability was 45.5 and the girls 43.8 is considered one of the causes.
2. The non-disabled boys had higher body weight and body height in comparison with their mentally disabled peers. The difference was statistically significant at the level of 1%. Also, this fact was one of the causes of their higher general motor performance. In the girls, this phenomenon could be observed only in the youngest group (13 years of age). The difference did not appear in older girls (14 and 15 years of age).
3. The results in the test of balance walk were on average better in the group of non-disabled boys and girls than in their peer group with a moderate mental disability.
4. The average results in the standing long jump were statistically significantly higher in the group of non-disabled boys and girls in comparison with the average results in their peer group with a moderate mental disability.
5. The average results in the medicine ball throw were statistically significantly higher in the group of non-disabled youth than those in the mentally disabled group, with a more pronounced prevalence of the group of non-disabled girls.
6. The average results in the sit and reach test of both boys and girls in the non-disabled group were statistically significantly higher in comparison with those of the mentally disabled group, with a more pronounced prevalence of the girls in the non-disabled group.
7. The average results, expressed in scores, in the non-disabled group both of boys and girls were higher in comparison with those of the mentally disabled group. All the results were statistically significant.
8. Both the girls and boys in the non-disabled group obtained better average results in the sit-up test.

9. To increase the general motor performance of youth with a moderate mental disability, special attention should be paid to instruction providing development of this group's motor skills such as the explosive strength, flexibility, dynamic strength and balance.
10. On the basis of our results we would like to suggest further research in this area to examine a possible increase in the motor performance through motivation and influence on self-confidence and to verify the effect of IQ on the motor performance of youth with a moderate mental disability.

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**Psychology  
of Health**



## Why Do They Sweat? Body (Dis)Satisfaction and Evaluation of Health and Body Attractiveness Among Young Men Taking Regular Gym Exercises

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### Abstract

Studies on men's body image are becoming increasingly popular. They show that body dissatisfaction may lead to certain health disorders (depressive mood, bigorexia, anxiety). This study focuses on the differences in body dissatisfaction among young men who work out to reach different aims (to increase, strengthen or to shape muscle mass). Body dissatisfaction was measured using the Bodybuilder Image Grid Scale. The results of this study show that there are no significant differences between men who exercise in gyms using different types of work-out. However, there is a significant difference between men who exercise to gain muscle mass and those who do not work out at all; the first group is less satisfied with their bodies as far as fat mass is concerned. Moreover, the evaluation of health and body attractiveness was measured using the questionnaire 'Your values' and asking men about the hypothetical possibility of giving up their longevity for a perfect body. The results indicate that men who exercise tend to treat health more instrumentally than those who do not train. Finally, those who train regularly find attractiveness of the body much more important than those who do not exercise at all.

**Keywords:** *body image, body dissatisfaction, gym, working out*

### Introduction

For many years body image studies were focused on women. However, since the early nineties of the twentieth century it is more and more popular to concentrate on men's body image (Brytek – Matera, 2008). As the studies show (e.g. Zarek,

2007) women are usually less satisfied with their bodies than men. However, the attitude towards one's body is different for each sex. Men are less concerned about their body weight and focus more on their silhouettes (Zarek, 2007). It leads toward ambivalent attitudes – men exercise to increase their body weight (muscle mass) and at the same time to reduce their body weight (fat mass) in order to reach their goal, i.e. a 'perfect' body shape and satisfaction with their bodies (Tantleff – Dunn, Thompson, 2000).

Olivardia, Pope, Borowiecki, Cohane (2004) show that men's body dissatisfaction has a vital influence on their self – esteem, lowers their mood and may lead to eating disorders. However, the topic of body (dis)satisfaction as an important issue in the context of well-being and physical and psychological health still needs to be verified empirically.

One of the most popular activities aimed at obtaining a 'perfect' silhouette among men is exercising at gyms (Grogan, 2008). So far, however, researchers have not paid attention to the variety of popular gym exercise. Rychlik (2008) mentions three types of exercise which differ in their aim: to increase muscle mass, to increase the strength of muscle mass, and to shape muscle mass. While examining the relationship between training at gyms and body (dis)satisfaction, it seems to be vital to remember the purpose for which workouts are done.

Exercising at a gym might be connected with some dangerous behaviors that might harm one's health (e.g. Ricciardelli, McCabe, 2003; Sas-Nowosielski, 2004, e.g. Czuma, Orłowska, 2005). Therefore, actions taken by young men (using steroids, undertaking debilitating training, etc.) might be understood as considering the attractiveness of one's body as more important than health. No scientific studies focused particularly on this phenomenon were found. Nonetheless, the problem is vital, especially from the practical point of view.

## **Research Methodology**

### **General Background of Research**

In the presented study attention was paid to the variety of types of workout done (or not) by men in connection with their body (dis)satisfaction. It seems to be an important issue that might explain the fact that previous studies on relations between workouts and body dissatisfaction are contradictory. Schier and Rakfal-ska (2008) showed that there are significant differences in body dissatisfaction between men who do regular workouts and those who do not. However, Ayensa,

Martinez, Rancel (2011) revealed no significant differences. None of these studies has included the variety of possible types of workout that might be done. It seems to be an important issue to check the differences in body (dis)satisfaction between men who do different types of workout.

Thompson (as cited in: Cash, Pruzinsky, 1999) showed that many researchers often use the term 'body image' as a synonym of other terms (e.g. body schema, body satisfaction). It seems to be significant to specify precisely which aspect of body image is the subject of investigation. Since the purpose of starting gym workouts is usually a desire to obtain a "perfect" silhouette, it was decided that the object of this particular study would be dissatisfaction with one's body. Grogan (2008, p. 4) explains it as 'a person's negative thoughts and feelings about his or her body'. It might also be understood as a difference between the perception of desired, ideal silhouette and the perception of one's actual body. The latter was applied in the presented study.

Pope, Phillips, Olivardia (2000) show that doing regular exercise at gyms is becoming more and more popular. The main motivation to begin workouts at gyms is aesthetic – the desire to get a 'perfect' silhouette. That prompts the reflection that the beauty of the body and an attractive appearance might be values of particular importance. As Grogan and Richards (2002) show, aesthetic values are the main factors that lead men to start workouts at gyms (even though a muscular body is identified with health and fitness). It seems to be a logical conclusion that the beauty of the body will be much more important for those who exercise regularly at gyms than for those who do not.

The adduced studies prompt also the reflection on how health is valued among young men. Puchalski (1997) focused on perceiving health as a value – autotelic or instrumental. The data shown by CBOS (2004) suggest that people generally tend to treat health as a value of the greatest importance. However, in everyday life it loses its dominant position and practical importance when confronted with other values. Consequently, it is necessary to analyze its position in relation to other values (Puchalski, 1997; Górnik-Durose, Jach, 2013).

It is worth mentioning in this context a study by Garner (1997). In his survey he asked men how many years of their lives they would 'give up' to get their ideal body weight. More than 11% of the respondents would 'exchange' more than five years while 17% – more than three. The survey had some limitations. First of all, the highest possible answer in the survey was 'more than five'. Furthermore, the respondents were asked about body weight, while it is, as mentioned before, considered to be less important to men than a perfect silhouette (Zarek, 2007). Gaining muscle mass is one of the most common reasons for working out (Giess-

ing, 2011). Nevertheless, the results of Garner's survey show the quantifiable and instrumental value of life and possibly also health. Almost 1/3 of the subjects declared that body weight was more important than longer life.

In the presented study the differences in body dissatisfaction among young men who exercise at gyms and those who do not was examined. The relative value of health and body appearance was also taken into consideration. The following hypotheses were formulated:

- a) There will be differences between young men who exercise at gyms and take different types of training and these who do not exercise in relation to body dissatisfaction.
- b) The men will value a perfect silhouette more highly than perfect weight.
- c) The men who exercise regularly will value the appearance of their bodies more highly than the men who do not exercise at all.
- d) The men who exercise regularly will value the appearance of their bodies more highly than their health.

## Methods

Men answered questions about their age, education, whether they exercise in gyms and what kind of training they do (to gain muscle mass, to "sculpture" muscle mass, to increase muscle strength, others). The participants answered the question about how long they had attended the gym (in months). Then their body dissatisfaction and health valuation were measured.

### *Body dissatisfaction*

The body dissatisfaction was measured by The Bodybuilder Image Grid (Hildebrandt, Langenbucher, Schlundt, 2004). BIG is a tool aimed at checking the perception of one's body image and desired body image. BIG consists of thirty images representing men's silhouettes. There are two dimensions that measure body image – fat mass and muscle mass. The respondent's task is to select four images related to: 1. his present body image; 2. ideal body image; 3. the one that is most attractive to the respondent; 4. the one that is the most attractive to the opposite sex (for homosexual men – for the same sex). For the purpose of this study, the respondents were asked to select images related to the first two criteria. The difference between the present and ideal body image was considered as an indicator of dissatisfaction – the greater the discrepancy the more dissatisfied the men were considered to be with their body.

### ***Health evaluation***

Health evaluation was measured in two ways. The first was inspired by Garner's (1997) popular survey. The respondents were asked: 'How many years of your life would you »give« to get desired body weight?' and 'How many years of your life would you »give« to get a desired body silhouette?' Some doubts may be raised here in relation to the identification of life with health. Such a solution was applied because the worth of life was possible to objectify in years of life given up, whereas it would be difficult in relation to health.

In the second step, the questionnaire 'Your Values' was used. The questionnaire was created by a research team from the Psychology of Health and Quality of Life Department at the Faculty of Education and Psychology at the University of Silesia in Katowice. The respondent's task was to decide to what extent each of the 30 values was important to him on the scale from 0 ("not at all") to 7 ("it dominates in my life"). For the purpose of the presented study, only the value of health in relation to the value of the "beauty of the body" was analyzed.

### **Respondents**

The respondents were men aged 19–29. Oliver, León, Guerra-Hernandez (2011) say that it is the period of time when men are most likely to pay attention to the appearance of their bodies. There were two groups of respondents – those who worked out in gyms and those who did not. The first of those groups consisted of men who had exercised at a gym for at least a year. The assumption was that for men who have trained for at least for a year it becomes an important part of their lifestyle. Men who do not work out were considered as a control group. 151 respondents took part in the study – 77 who regularly worked out and 74 who did not at all. Questionnaires were distributed in two ways – sent by e-mail (83 questionnaires) or handed out directly to the respondents (68 questionnaires).

The men who exercised in gyms were mainly customers of one of the most popular fitness clubs in Silesia, Poland. Their managers did not agree to reveal the names of the gyms.

### **Research Results**

Table 1 shows discrepancies between ideal and actual muscle mass and fat mass as perceived by the subjects. In relation to muscle mass, the most dissatisfied sub-



jects were those who worked on muscle mass and strength, the least – the subjects with non-specific muscle sculpting plans as well as those who did not exercise at all. The Kolmogorov-Smirnov test shows statistically significant differences between the group with non – specific training plans and those who work out to gain muscle mass ( $p < .025$ ) as well as the ones who work out to increase their strength ( $p < .025$ ). However, there were no significant differences between any of the groups of those who trained at gyms and those who did not exercise at all (in all cases  $p > .10$ ).

As far as differences in the actual and ideal level of fat mass were concerned, once again the most dissatisfied subjects were those who worked on muscle mass and strength, the least – the subjects with multiple plans and those who did not exercise at all. However, the differences were not statistically significant in most cases. Comparison between all the groups showed that the men who trained to gain muscle mass were less satisfied with their level of fat mass than those who did not train at all ( $p = .04$ ).

**Table 1.** The differences between ideal and actual fat mass and muscle mass among men who train different types of workouts and those who do not (from Bodybuilder Image Grid)

	Muscle mass (n=25)	Sculpting muscle mass (n=16)	Increasing strength (n=16)	Non-specific (n=20)	Workouts – overall (n=77)	No workouts (n=74)
Difference: ideal and actual level of muscle mass						
M	23.33	13.13	22.50	12.00	18.03	16.89
SD	16.33	14.01	10.00	14.73	14.97	14.70
Difference: actual and ideal level of fat mass						
M	27.08	16.25	19.38	13.50	19.61	14.19
SD	19.67	16.68	21.44	15.31	18.86	15.70

The results shown above indicate that the hypothesis that there were significant differences in body dissatisfaction between the men who chose different types of gym workouts and those who did not exercise did not find sufficient support. However, some tendencies requiring further investigation were revealed.

Next, the claim that for the men who work out and those who do not a perfect silhouette is more important than perfect weight was verified. The respondents were to decide how many years of their lives they would ‘give up’ to obtain perfect weight and a perfect silhouette (if, of course, such a situation was possible). For

the men who trained regularly at gyms the mean result for 'giving up' their lives for perfect weight was 2.07 years and for a perfect silhouette – 3.01 years. The pair comparison (Wilcoxon test) showed that there were significant differences between both scores ( $p < .01$ ). This result showed that for the men who worked out regularly a perfect silhouette was more important than perfect weight. The same procedure was applied to test the group of men who did not exercise at gyms. The mean result of 'years of life given up' for perfect weight was 0.75, and for a perfect silhouette – 1.17 ( $p < .01$ ). The results obtained suggest that for both groups a perfect silhouette was more important than perfect body weight.

Furthermore, the men who regularly worked out at gyms were more likely to devote their health and lives to gaining an ideal silhouette than those who did not exercise. Comparison between both groups with the use of the Kolmogorov-Smirnov Test showed that there were significant differences ( $p < .05$ ). In relation to 'perfect body weight', the statistics did not show significant differences ( $p > 0.1$ ). However, when it comes to evaluating health in a more direct way (Questionnaire 'Your Values'), the men who regularly trained at the gym did not differ from those who did not exercise at all ( $p > .01$ ). In both cases health was indicated as the most important value.

It seemed to be logical to assume that the men who worked out at gyms considered the value of 'beauty of the body' as more important than the men who did not exercise. The mean result of the men who worked out at gyms for the 'beauty of the body' was 5.28 while for the men who did not exercise – 4.04. The comparison between both groups shows that the difference was statistically significant ( $p < .01$ ). Thus, this assumption was confirmed.

## **Conclusions**

The level of dissatisfaction with men's body was investigated by Ayensa, Martinez and Rancel (2011). It showed no differences in body dissatisfaction between men who regularly work out at gyms and those who do not. On the other hand, the study conducted by Schier and Rakfalska (2008) revealed opposite results – men who work out tended to be more satisfied with their bodies. The presented study seems to confirm the results obtained by Ayensa, Martinez and Rancel (2011) – no statistically significant differences were found between the groups. However, when the types of training were included, the groups differed: those who did not work out were more satisfied with their fat mass than those who trained to gain greater muscle mass. Also, the subjects who were more relaxed

about their training (non-specific training) were less dissatisfied with their muscle mass than the subjects aiming at muscle mass and strength. It might be explained by the time spent in gyms by those men – they were the least experienced groups among all the men who worked out ( $M=30$  months). They had just begun their training to gain muscle mass (Rychlik, 2008). In comparison, those who worked out to ‘sculpture’ their muscle mass were more experienced in training ( $M=46$  months) and less dissatisfied with their bodies. The same applied to the group with non-specific training ( $M=60$  months for training plans other than described, and  $M=40$  months for multiple plans). Such a result seems to be understandable. The reasons for taking up exercise are usually connected with aesthetic issues – to sweat in the gym men must have been dissatisfied with their bodies in some way. However, it could happen that despite exercising some men are still dissatisfied, thinking that they do not achieve their goals. This group is at risk of developing bigorexia and other body image disorders (Czuma, Orłowska, 2005). Thus, it is important to pay attention to the relationship between exercising, dissatisfaction and the actual results of exercising which were not monitored in the presented study. The results obtained in this study show also that while examining men who work out at gyms it is necessary to focus on different types of training.

The presented study has shown that gaining a ‘perfect’ silhouette is much more important than achieving ‘perfect’ weight – for both men who work out and those who do not. It corresponds with Zarek’s (2007) claims that men’s dissatisfaction with their bodies is different from women’s. For women dissatisfaction is related to their body weight, whereas for men – to the silhouette. This is why – as Phillips, de Man (2010), Drownowski, Yee (1987) and Maisey, Vale, Cornelissen and Tovee (1999) argue – using BMI (body mass index) in studies on body image among men is unjustified.

In the presented study the subjects were asked how many years of their lives they would ‘give up’ for a ‘perfect’ silhouette and ‘perfect’ body weight. The results showed that the men were more likely to ‘exchange’ their lives for the ‘perfect’ silhouettes than the ‘perfect’ body weight. The same tendency was shown among the men who worked out and those who did not. However, the first group would ‘give up’ much more of their lives than the second one. It may mean that they treat their lives and health more instrumentally. However, health was considered to be one of the most important values in both groups, much higher than body attractiveness. It might be explained by Górnik-Durose and Jach’s (2013) considerations – health is often treated as a ‘ceremonial value’ when people are asked directly about its importance. In practice it often loses its ‘ceremonial value’ and is used as an instrument to achieve other goals.

Due to the fact that this is the first study which takes into account the purpose of training, more studies on this issue are needed. It is important in the context of the prevention of mental disorders (such as bigorexia) to draw attention to the appropriate education of young men, especially those who are starting their adventure with exercising at the gym. A crucial role might be played here by personal trainers.

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2021 New  
E|Educational  
Review

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**Letter to  
Editor**



## Evaluation of Education and Research at Universities (Research Report)

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Similarly to recent developments in other EU countries, Slovak universities, including Matej Bel University (UMB) in Banská Bystrica, have been investing a lot of effort in raising the quality of research and the level of professional preparation of their graduates as well as in the evaluation of their quality and the quality of assurance systems. One means of supporting these processes has been the project “Mobility – Enhancement of research, science and education at Matej Bel University” (ITMS code: 26110230082), conducted under the Operational Program of Education. The research and activities presented in this report were supported by this project, co-financed by the European Social Fund, during the years 2013–2015. The purpose of this report is to give an overview of the main benefits of this project as we believe that to some extent they are applicable to other institutions as well.

Important note: The word *mobility* in the project is used to denote the ability to move freely and easily in terms of international exchange of university teachers and researchers who thus can share their know-how with the host universities.

The project supported several exchange trips by Seppo Saari, a Finnish expert on international evaluation of education and research (from the University of Tampere), and one trip by the Slovak team (Bronislava Kasáčová and Dana Hanesová from the Faculty of Education UMB in Banská Bystrica). S. Saari had been invited to join the project thanks to his extensive experience in international evaluation of education and research at some Finnish universities (especially Helsingin yliopisto and Tampereen yliopisto). He has also had ten years of experience as an evaluator at the Finnish Ministry of Education and Science as well as in Switzerland and South Africa where he contributed to designing national systems for evaluating the quality of university education.



The project focused on adjusting the quality of education and research at UMB to European standards of education and research. The project aim was to facilitate mutual learning of new research procedures, as well as evaluation tools and methods for evaluating competencies of university administrators, teachers, graduates and researchers in order to improve the quality of future professionals.

The project consisted of several categories of activities for various target groups: university management, researchers and teachers, and PhD students and their supervisors. The Finnish expert gave ten lectures and seminars, and he held a number of consultation and mentoring sessions in which he presented the Finnish universities' quality development and evaluation framework as well as the criteria for quality research. He also presented his analysis of Finland's PISA success and of the processes in place to support critical thinking among PhD students. He emphasised especially the use of the Publication Forum – a successful tool for evaluating scientific and publishing activity of university researchers, ensuring a balanced evaluation of all fields of study (not only in Finland but also in Norway, Australia, and Canada). He presented these themes in the context of their underlying theories and with reference to outcomes of successful projects, but he also offered specific practical steps, e.g. how to increase one's level of internationalization. In their feedback, the participants expressed appreciation for his presentations as well as for the content of these meetings. What was perhaps the most surprising was the Finnish expert's emphasis on the interdisciplinary cooperation of university researchers and on the challenge of internationalization of research outcomes.

A thorough analysis of the feedback on the activities focused on PhD students showed that the aim of these activities was achieved. The project team prepared two new elective subjects: "Scientific research in social sciences" and "Evaluation in social sciences" for PhD students consisting of lectures and seminars taught by the Finnish expert in the English language over two semesters. Analysis of interviews, written assignments and feedback from the students and their supervisors gave evidence that they found the material enriching in several ways: in their critical thinking skills and ability to establish and correctly define their research problem; in their ability to choose and apply valid and reliable research tools and methods of processing research data; and in their ability to publish the outcomes of their research in international contexts.

The final conference on the project took place at the Faculty of Education, Matej Bel University on 12<sup>th</sup> November 2014 as an integral part of the 60<sup>th</sup> anniversary conference on teaching education in Banská Bystrica. It was attended by about 80 experts from Slovakia, Poland, the Czech Republic, Finland and Norway. The

afternoon workshop section, “How to Survive in the Jungle of Unknown Paths of Research,” was especially appreciated by the participants as an open, friendly platform for sharing their own research ideas, problems and experiences. The Proceedings of this conference *Education – Research – Evaluation: Edukácia – výskum – evalvácia*, edited by Dana Hanesova (Banská Bystrica: PF UMB, 2015. 155 s. ISBN 978–80–557–0884), are available via [dana.hanesova@umb.sk](mailto:dana.hanesova@umb.sk).



New  
Educational  
Review

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**Pedagogy  
of Creativity**



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## **Dimorphic Outlook on Children's Creative Attitudes on the Verge of Education Application of Creative and Re-constructive Attitudes Rating Scale (SPTO)**

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### **Abstract**

This study has been devoted to creative attitudes represented by 6–7-year old children, evaluated by the creative and re-constructive attitudes rating scale (SPTO)<sup>1</sup>. The central focus was to relate differences in attitudes among children commencing their education at the age of 6 to those who had started their school attendance before the reform (at the age of 7). An attempt was made to answer the question whether pupils differing in the year of birth, joined within one school form, would generate any disruption of their potential creativity. A complementary issue was to evaluate the level of creative attitudes along the dimorphic pattern.

*Keywords: creative attitude, diagnosis, school threshold lowering*

## **1. Introduction**

Assessment of the lowered primary school threshold, so widely commented on across different milieus not necessarily involved in education, makes us state

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<sup>1</sup> The study was conducted within the framework of the Elementary Education Group, under the auspices of the Committee for Pedagogical Studies, Polish Academy of Sciences.

explicitly that numerous arguments for or against lowering must evoke some mixed feelings. It is not our objective, however, to suggest any solutions, but rather to indicate certain regularities in shaping of a child's creative attitude, revealed when accepting certain functional strategies, divergent or, on the contrary, conformist one, which determine the approach towards homework and success achieved when taking up the school challenges.

The issue appears of utmost importance, as actualization of the creative potential, therefore a creative attitude towards the task are among the key competences indispensable for the contemporary citizen to perform in the continuously changing reality (Bauman Z., 2007). It should be emphasized that children need a creative inclination to explore the world, as the need is a primary one, necessary for the optimum development of a human being throughout the growth period of *self-creation* (Trojanowska-Kaczmarek A., 1971, p. 57). Here, we arrive at the traits that need to be shaped during the educational process. In this context, it is worth generalizing some creative predispositions, as proposed by Marian Golka, who took into consideration the following primary attributes: intelligence, extensive knowledge, independence, courage, reluctance to authorities, aloofness from achievements of science, concentration skills, persistence in interests, flexible thinking, imagination, penchant for fantasizing or ability to marvel at the world. The latter is particularly valuable, making it possible to generate the pupil's open-mindedness and curiosity about the world, which should occur in line with recognition of "*the wide range of stimuli available for an individual associated with emotions, desires and thoughts*" (Zborowski J., 1986, p. 26), in other words, a desire to launch a rich variety of experience, as postulated by Jan Zborowski. Moreover, the emotional layer is a rudimentary one, as a first-former must feel safe and has to experience positive emotions when discovering the world. One should not underestimate resistance to failure encountered upon such exploration/education. Are the youngest pupils ready to take up challenges, risking some unsuccessful attempts and will they be able to cope with such emotions? We will try to answer this question further on.

However, let us first define some terms, placing the notion of the creative attitude in the pedagogical context. For the purpose of this study, we assumed that an attitude is the effect, or rather, result of beliefs, emotions and behaviours (Wojciszke B., 2002). Beliefs result in an emotional attitude towards an object resulting from conscious valuation (recognition of advantages and disadvantages). "*An attitude is a go-between linking past and future experience with a given object and may be determined with emotions experienced so far in relation to the object (...) an attitude influences later emotional response to the object, opinions and decisions as well as*

*actions taken with regard to the object*" (Bernacka R. E., 2004, p. 74). The tools to evaluate such attitudes are based upon recognition of some specific approach (long-term experience), interests, motivation as well as style of performance.

It should not be different when creative attitudes are objects of our investigation. We assume that a creative attitude is a predisposition "*to create, which potentially exists in all humans at any age*" (Gloton R., Clero C., 1985, p. 49), determined by the environment, i.e. the social and cultural surroundings in which one grows up.

In such a context, the major issue is to look for relevant diagnostic patterns to evaluate the creative attitude of a child just beginning its school education. It is essential, then, to accept the specific nature of the subject of the study. As application of the "adult" rules to assess a child's creations is a major mistake (Kubicka D., 2003, p. 60). The diagnosis of an approach to creation or a creative attitude requires a specific outlook as well as specific exploration methods. The available questionnaires<sup>2</sup> accept basically the self-estimation pattern to enable a diagnosis of creative predispositions "*thanks to information on an individual's perception of the world, other people and himself*" (Nęcka E., 2001, p. 194). They assume no creative tasks, unfortunately based on one's ability to make accurate and generalized opinions about oneself - personal interests, likes and ways of behaviour, which for a few year old child may appear a challenge difficult to face. It would be hard, then, to speak of sophisticated knowledge of oneself, self-reflection or verbal conceptualization ability; therefore the questionnaires are usually dedicated to educated adults. It may also appear unfortunate to recognize the tendency to present oneself in a better light, just to be appreciated by the examiner. D. Kubicka emphasizes, however, that it may have a positive measure, informing about creativity from the subject's perspective (Kubicka D., 2005).

It should be indicated that the evaluation of form 1-3 pupils requires highly precise instructions, tailored to the developmental level of the early school age, while any tasks given must also be specially expressed, preferably in the form of icons or verbally, both, however, referring to the child's interests and experience. Further on we are going to present a tool, in our opinion, helpful to penetrate the specific attitudes of a small child.

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<sup>2</sup> Cf.: *How do You Think* (HDYT) Gary A. Davis; *The Adjective Check List - Creative Personality Scale*, Harrison G. Gough and Alfred B. Heilbrun; KANH Creative Behaviour Questionnaire by S. Popek; Creative Behaviour Style Questionnaire by A. Strzalecki.



## **2. SPTO3 tool – brief characteristics**

The scale contains some accurately designed scenes – diagnostic situations rooted in the nearest environment of form 1–3 pupils, referring to their past experience or perceived earlier reality. Based on the dichotomy choice of one strategy, out of the two presented ones, it points to preferences of the evaluated individual. It has been our intention not to make choices in the dimorphic way, therefore we are not comparing the girls' and the boys' strategies upon a single story to avoid any stereotypical selection (which cannot be excluded at the early school age). To make a task precise, it is presented in the iconic manner, including a description, most of the message, however, is based on drawings, exemplifying the selection options. This has been done on purpose, following the visual presentation schemes as well as coding redundancies when working with a child whose thinking levels have only started to turn towards some abstract categories. The concrete terms are needed for a diagnostic situation, while the pictures reflect precisely the scope of choices the child is supposed to make. The way of solving the problem is explained in the introduction addressed to the pupils, telling them to mark one of the squares with a letter, corresponding to the story he/she likes best and in which he/she would act in the same manner. It is essential to emphasize that there are no "good" or "wrong" answers and that any choice is correct, provided it is accepted by the child.

The tool has been designed to incorporate several parts within two modules: module I – identification and module II – self-assessment. In module one, choices are made from the observer's viewpoint and facilitate the task through concrete identification with the character. Then, the choice of a strategy should be made, at least to a certain extent, from another person's perspective, as a few year old child may find it difficult to recognize the so-called personal perspective and if employing the I relation tends to reply in the way the person asking a question would expect. Here, he/she assesses the strategy him/herself, not him/herself within the strategy. To sum up, a pupil makes his/her choices through identification with the character of the scene, preventing therefore a problem associated with self-estimation, where the focus is shifted towards selection of a strategy rather than self-reflection.

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<sup>3</sup> The rating scale is published along with the Manual, cf. K. Krason (2011). The manual, including the test, has been developed within the project by Andrzej Frycz Modrzewski Academy, Cracow, co-financed by the EU – European Social Fund "Human Capital. National Cohesion Strategy".

Module I is divided into 4 parts:

- 1) determining divergence<sup>4</sup>;
- 2) referring to motivation<sup>5</sup>;
- 3) showing a tendency to extensive elaboration of new behaviours<sup>6</sup>;
- 4) revealing attitudes towards failure in creative activities<sup>7</sup>.

Module II – self-estimating one – is a sub-scale also based upon a dichotomy choice, however referring to self-knowledge, assuming that module I has already shaped readiness to evaluate a strategy, now easier referred to self-reflection. This module brings up the major issues of coping with difficulties (difficult situation), from an interpersonal outlook, when a situation is evaluated “in the company” of

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<sup>4</sup> Evaluation of divergence focused on diagnosis of readiness to search for one's own, original solutions, where divergence is understood as a tendency to a high level of thinking flexibility and novelty with no reference to ready solutions and the algorithm assumed as an inclination to apply the known solution as well as those given by others.

The 4 stories given followed the pattern – from the most obvious one (Treasure Hunt), which clearly distinguishes between “easy”, “straightforward” strategies and procedures based upon one's own effort. Story 2 (Island) follows the same scheme. Story 3 (Helping in the school garden) shows a different measure, where the ways of behavior point to the need of some effort, however in real terms, the most frequent strategy taken up by children at this age is to seek the assistance of adults. The choice is then not so explicit. Finally, story 4 (Gift) is a task to be considered basically in individual terms (i.e. when a teacher evaluates his form with the purpose of an internal diagnosis of the team or its individual members). The choice here is even more difficult, as both solutions seem attractive; moreover there is a question of which choice the person given a gift will like best.

<sup>5</sup> This part provides a diagnosis of the motivation sphere, i.e. it indicates whether a pupil assessed is driven by the care of his/her own image of an original individual or rather prefers not to stand out and to obey the rules; it also defines the reasons for creative activities – for one's own sake or for others. Therefore, the choice is between a story supposed to bring satisfaction to the writer exclusively (it has to be liked by him/her or be considered to be the best) or one to bring joy to the addressee.

<sup>6</sup> Part 3 diagnoses the inclination to extensive elaboration of new activities and is supposed to evaluate orientation towards detailed activities, association with the number of elements of a situation perceived or superficial outlook on new reality.

<sup>7</sup> Part 4 refers to coping with a difficult situation, appearing as criticism of the undertaken creative activity. In this case, some withdrawal strategies are possible, where criticism blocks the creative activities in more sensitive pupils or the task-based ones, where criticism is used as “a statement” to improve the solutions. The value of this part is worth mentioning. The replies given by pupils should ensure important information for the teacher to tailor his impact during the lesson to match the child's needs. We need to be aware that criticism of a pupil, who declares (by identification) a flight into withdrawal strategies after failure, will ultimately block him/her. The story also shows those who will develop better if appreciated in a constructive manner, even when imperfections are pinpointed.

other people (I prefer to work with my mate or I like to be assessed by others), to an intra-personal one, preferring individual activities, however focused only on oneself (mainly 8.4). In this way, choices of what is liked or disliked upon creative tasks are indicated.

### 3. Study report

The enforced reform of elementary education assumed the shift of the school age from seven down to six. It appeared interesting, then, to compare the level of creative attitudes in the group of seven-year-old pupils, learning in the same form. The presented study focused on this issue<sup>8</sup>. The study comprised children from different regions of the country, with the distribution by age and sex criteria presented below:

**Table 1.** Age and sex of respondents

Sex	Child's age				Total	
	6 years		7 years		n	%
	n	%	n	%		
Girls	74	15.1	168	34.3	242	49.4
Boys	82	16.7	166	33.9	248	50.6
Total	156	31.8	334	68.2	490	100.0

Source: own study.

The fundamental component of our considerations was comparing differences in the levels of creative attitudes among children starting their school education at the age of 6 to those whose learning at school started before the reform, when they were seven. It was attempted to answer the question whether combining pupils of different years of birth in one form would generate any disruption resulting from different levels of actualization of their creative potential. Moreover, a dimorphic criterion was introduced to verify whether the approach to creative tasks was manifested to a higher degree in girls or in boys.

Let us start with some differences revealed for 6- and 7-year-old girls (Table 2).

<sup>8</sup> The study comprised children from different areas of Poland: Podlasie, śląskie region, Mazowsze and lubuskie region to provide a sample of 490 children in total (200 from small towns and villages and 290 from medium size and large cities).

**Table 2.** Results of SPTO rating scale among the group of girls

Rating scale	Results for girls				U Mann-Whitney test	
	age	M	SD	Average rank		Test parameters
Module I divergence aspect	6.0	1.39	1.02	112.41	U=5543.0; Z=-1.403	p<0.161
	7.0	1.61	1.05	125.51		
Module I motivation aspect	6.0	2.04	0.96	129.18	U=5647.5; Z=-1.235	p<0.217
	7.0	1.86	0.85	118.12		
Module I identification	6.0	4.66	1.68	109.03	U=5293.0; Z=-1.876	p<0.061*
	7.0	5.07	1.56	126.99		
Module II interpersonal aspect	6.0	2.36	1.16	104.85	U=4984.0; Z=-2.561	<b>p&lt;0.010</b>
	7.0	2.78	1.02	128.83		
Module II intrapersonal aspect	6.0	1.16	0.74	104.91	U=4988.0; Z=-2.654	<b>p&lt;0.008</b>
	7.0	1.43	0.79	128.81		
Module II self-assessment	6.0	3.63	1.53	99.76	U=4607.5; Z=-3.284	<b>p&lt;0.001</b>
	7.0	4.29	1.31	131.07		
Creative attitude	6.0	8.29	2.57	103.95	U=4917.0; Z=-2.613	<b>p&lt;0.009</b>
	7.0	9.37	2.18	129.23		

Source: own study

The results in module I (identification), regarding divergence and motivation, show no differences between 6- and 7-year-old girls. Nevertheless, the evaluation performed along the whole module scale showed results within the statistical tendency limits. Statistical significance was within the range  $p>0.05$  and  $p<0.1$ .

The results in module II (self-assessment), in the interpersonal and intra-personal aspect as well as the generalized view of all the components constituting the creative attitude measure, was statistically significant. This indicates differentiation between the 6- and 7-year-old girls. In all the sub-scales, the scores obtained by the seven-year-olds were higher than those obtained by the younger girls. Evidently, seven-year-olds better cope with difficulties and are more resistant to criticism. Although such differentiation is not visible in the area of divergent solutions, alterations appear in the sphere of specific maturity to face the learning challenges. Six-year-old girls may prove sensitive to failure, which may in consequence hamper their creative activities.

This supports the opinions frequently expressed by those who were critical of the lowered school threshold and although six-year-olds will undoubtedly cope

with the curriculum their cognitive competence does not correspond to the emotional resistance of seven-year-olds. Indeed, this very aspect is a key factor of the generally understood creative attitude of a child.

Let us now consider the values scored by the boys in the same categories (Table 3).

**Table 3. Results of SPTO rating scale among the group of boys**

Rating scale	Results for boys				Non-parametric test	
	age	M	SD	Average rank	Test parameters	
Module I divergence aspect	6.0	2.07	1.36	141.23	U=5434.5; Z=-2.702	
	7.0	1.60	0.95	116.24	<b>p&lt;0.007</b>	
Module I motivation aspect	6.0	1.48	0.91	100.9	U=4871.0; Z=-3.952	
	7.0	1.92	0.73	136.16	<b>p&lt;0.000</b>	
Module I identification	6.0	4.46	1.28	106.16	U=5302.0; Z=-2.929	
	7.0	5.02	1.28	133.56	<b>p&lt;0.003</b>	
Module II interpersonal aspect	6.0	1.98	1.14	101.03	U=4881.5; Z=-3.743	
	7.0	2.56	1.06	136.09	<b>p&lt;0.000</b>	
Module II intra-personal aspect	6.0	1.15	0.80	111.96	U=5778.0; Z=-2.088	
	7.0	1.37	0.76	130.69	<b>p&lt;0.037</b>	
Module II self-assessment	6.0	3.18	1.55	101.81	U=4945.5; Z=-3.577	
	7.0	3.95	1.36	135.71	<b>p&lt;0.000</b>	
Creative attitude	6.0	7.65	2.18	98.88	U=4705.5; Z=-4.008	
	7.0	8.97	1.91	137.15	<b>p&lt;0.000</b>	

Source: own study

All the results in the sub-scales were statistically significant, which shows differences between the seven- and six- year-old boys. What is symptomatic is that the divergence level is higher in the boys who are a year younger, in other words, the inclination to look for unconventional solutions is lost with age. Obviously, such a hypothesis would need much more extensive studies than those presented in our contribution; however, the tendency is worth further exploration. Other sub-scales, including motivation and self-estimation components showed results pointing to the advantage of the seven-year-olds. Eventually, the overall attitude measure places the older group higher, also with statistical significance. This seems to confirm the results obtained by the girls. Again, it may be concluded that the

specific lower resistance of the younger boys may remarkably impair complete actualization of their divergence potential in school environment.

Collective analysis was next made for the variables of sex and age: 6-year-old girls, 7-year-old girls and 6-year-old boys, and 7-year-old boys. In all the sub-scales, the results were statistically significant, which means that at least one group differed from the other ones. The results are presented in Table 4.

Let us analyse individual sub-scales shown in the table below.

- In the case of divergence, the highest average scores were obtained by the 6-year-old boys (Mrank=289), while the lowest values were scored by the girls of the same age (Mrank=214). The seven-year-old girls and their peers (boys) scored similar average values of about (Mrank=240). We may suggest that the six-year-old boys focus on selecting strategies based on original solutions far more than the girls of the same age as boys who are a year older. A six-year-old is ready to take an effort of seeking his own, original solution and avoids any algorithms, finding them uninteresting.

**Table 4.** Evaluation of differences among four groups by individual scales

Rating scale	Group	M	SD	Average rank	p*
Module 1 divergence aspect	girls – 6 years old	1.39	1.02	214.47	0.005
	girls – 7 years old	1.61	1.05	240.71	
	boys – 6 years old	2.07	1.36	<b>289.86</b>	
	boys – 7 years old	1.60	0.95	242.27	
Module 1 motivation aspect	girls – 6 years old	2.04	0.96	<b>272.16</b>	0.000
	girls – 7 years old	1.86	0.85	250.19	
	boys – 6 years old	1.49	0.91	189.46	
	boys – 7 years old	1.92	0.73	256.55	
Module 1 identification	girls – 6 years old	4.66	1.68	225.7	0.005
	girls – 7 years old	5.07	1.56	<b>264.68</b>	
	boys – 6 years old	4.46	1.28	204.18	
	boys – 7 years old	5.02	1.28	255.32	
Module II interpersonal aspect	girls – 6 years old	2.37	1.17	229.95	0.000
	girls – 7 years old	2.78	1.02	<b>278.74</b>	
	boys – 6 years old	1.99	1.14	181.97	
	boys – 7 years old	2.56	1.06	250.17	

Rating scale	Group	M	SD	Average rank	p*
Module II intra-personal aspect	girls – 6 years old	1.16	0.74	215.35	0.009
	girls – 7 years old	1.43	0.79	<b>263.58</b>	
	boys – 6 years old	1.15	0.80	217.46	
	boys – 7 years old	1.37	0.76	254.49	
Module II self-assessment	girls – 6 years old	3.64	1.53	218.94	0.000
	girls – 7 years old	4.30	1.31	<b>282.70</b>	
	boys – 6 years old	3.18	1.54	184.51	
	boys – 7 years old	3.95	1.36	249.83	
Creative attitude	girls – 6 years old	8.30	2.57	225.74	0.000
	girls – 7 years old	9.37	2.18	<b>279.83</b>	
	boys – 6 years old	7.65	2.19	180.02	
	boys – 7 years old	8.97	1.91	251.91	

Source: own study \*based on Kruskal-Wallis test

- The highest motivation level is observed in the 6-year-old girls (Mrank=272), while the lowest one in the 6-year-old boys (Mrank=189). This indicates that girls make use of their potential mostly for others (selecting creative tasks to please the audience of such performance), manifesting even some “community commitment” traits. We would even claim that they tend to shock their environment, to astonish and to be recognized; therefore their performance avoids any accepted rules. They are not afraid of astonishing others as they have a well-established awareness of their own merits. Boys, on the other hand, look for some well-proved solutions to ensure success. They want to be accepted and this is why they submit.

In this category, the average scores were similar for the whole group of seven-year-olds, about (Mrank=250), which points to counterbalancing of adaptive inclinations but also to the presence of nonconformist behaviours.

- The highest level throughout the identification level was achieved by the 7-year-old girls (Mrank=265), while the lowest by the 6-year-old boys (Mrank=204). Similarly, in self-assessment module II, the highest average values were scored by the 7-year-old girls (Mrank=283), and the lowest ones by the 6-year-old boys. This proves the ability of self-reliant coping with difficult tasks among seven-year-olds, regardless of opinions expressed by others. They show little interest in their friends’ opinions and are not afraid of being ridiculed. Nevertheless, they are able to understand those

who failed (empathic traits). Seven-year-old girls show more interest when facing a difficult task, which they find challenging and where they can prove themselves. Therefore, they look for even more opportunities to improve and do not hesitate to face most of the challenges.

- Taken globally, the creative attitude reaches the highest level among the 7-year-old girls (Mrank=280), and the lowest in the 6-year-old boys (Mrank=180).

Interestingly, there is a regularity of advantage of the seven-year-old girls, who are likely to turn the earliest to mature targeted choices of creative strategies. They show stronger motivation to perform in an original way, caring about their image of an outstanding, nonconformist individual.

Finally, we compared the evaluated children, abandoning the dimorphic division, to leave only the variable of age (Table 5).

The most important observation is that in the sub-scales of divergence and motivation, both the six- and seven-year-olds obtained very similar results (with well-balanced scores in the girls and boys). In the identification scale, the seven-year-olds obtained higher scores (Mrank=260.03) than the six-year-olds (Mrank=214.39). The older children scored higher values also in the interpersonal and intra-personal scales and globally, throughout the self-assessment module. Eventually, this proved true also for the overall measure of creative attitudes. In all the scales, the results proved statistically significant at  $p < 0.001$ , which points to age as a significant differentiating factor in the tested group.

**Table 5.** SPTO results by age (N=490)

Rating scale	Age	M	SD	U- Mann Whitney test	
				Average rank	Test parameters
Module I divergence	6.0	1.75	1.25	254.10	U=24711,000; Z= -,961; p<0,337
	7.0	1.61	1.01	241.49	
Module I motivation aspect	6.0	1.75	0.97	228.69	U=23429,500; Z=-1,952 p<0,051
	7.0	1.89	0.79	253.35	
Module I identification	6.0	4.56	1.48	214.39	U=21199,000; Z=-3,410 p<0,001
	7.0	5.04	1.42	260.03	
Module II interpersonal aspect	6.0	2.17	1.16	204.73	U=19692,000; Z=-4,515 p<0,000
	7.0	2.67	1.05	264.54	
Module II intra-personal aspect	6.0	1.15	0.77	216.46	U=21522,000; Z=-3,356 p<0,001
	7.0	1.40	0.77	259.06	



Rating scale	Age	M	SD	U- Mann Whitney test	
				Average rank	Test parameters
Module II self-assessment	6.0	3.40	1.55	200.84	U=19085,000; Z=-4,878 p<0,000
	7.0	4.13	1.35	266.36	
Creative Attitude	6.0	7.95	2.39	201.71	U=19221,000; Z=-4,729 p<0,000
	7.0	9.17	2.05	265.95	

Source: own study.

#### 4. Conclusions

The obtained results seem to reveal a remarkable difference in the levels of creative attitude among the six- and seven-year-olds. Therefore, the concept of earlier beginning of school attendance by younger children is worth reassessing. This, however, is not the major issue. It appears most dangerous to combine within one form those who have not turned seven yet and to create “inequality,” which may have an effect, at least among some children who were implemented into the school schemes too soon, of certain learning difficulties based not on their intellectual development but rather on emotional immaturity. It is necessary to compare again the measures of creative attitudes of six-year-olds completing their pre-school education and six-year-olds placed in form 1 (which will be the subject of our next elaboration). Only then will it be possible to justify ultimately the sense of the lowered school threshold.

There is no need to convince anybody of the importance of the opportunity to actualize the creative potential of a child, showing his/her genuine creative inclinations. It is a regrettable that such arguments do not persuade the decision-makers, who recognize only the benefits of their actions. But it is only a creative child whom a creative potential will give a chance to participate actively in the educational process, preparing him/her to turn in future into a transformable *intellectual* – an individual ready to change him/herself and his/her environment and ready to inspire others to take new, unobvious ways to arrange the given reality, courageous and open to express his/her own, subjective standpoint.

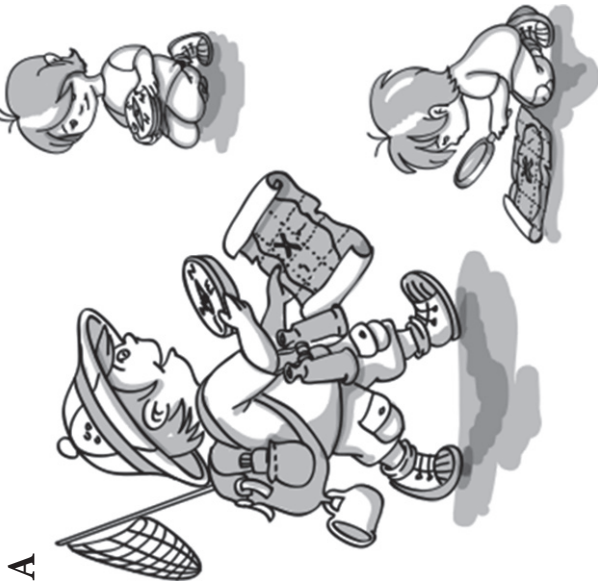
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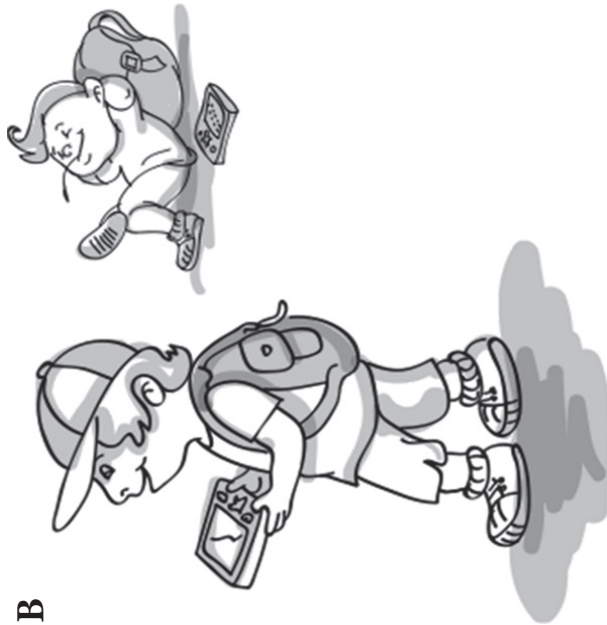
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**ANNEX**  
**(some examples of Creative and Re-constructive Attitudes Rating Scale, SPTO tasks)**

The boys learn where the hidden treasure was. Alec and Bart have different ideas how to get there.  
**Which idea do you like most?**

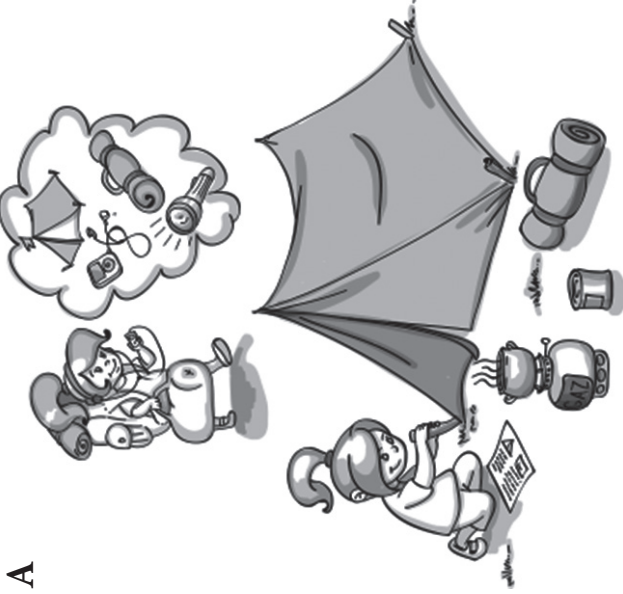


Alec uses sat-nav. (he does not have to find the way; his navi will guide him down to the treasure, safe and effortless)

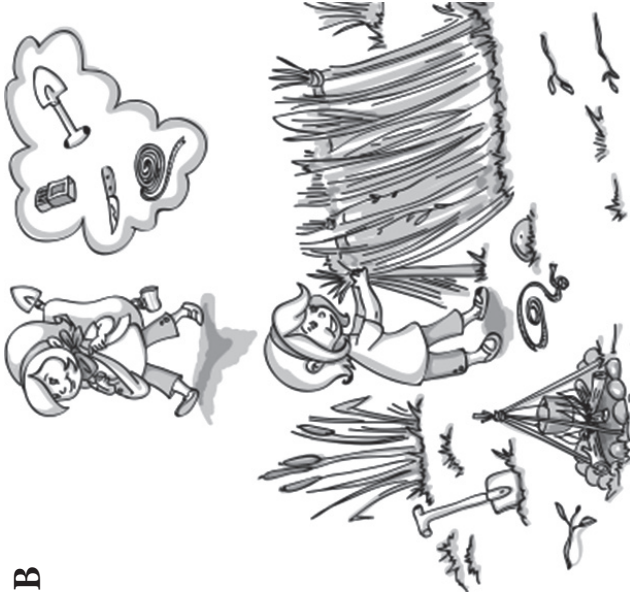


Bart took a compass, a map and binoculars (the trip will cost some effort but he will be able to find the treasure on his own).

Ann and Barbara are spending holidays at the Lake District. Their parents allowed them to stay overnight on a small island. Each of the girls has her own idea how to arrange accommodation.



Ann brought some ready-made items (sleeping bag, tent, torch and MP3 player). She is putting up a tent following the instruction pictures.



Barbara brought some items helpful to make a camp (a camp shovel, penknife, string); now she has to learn how to put up a shelter from what she finds on the island.



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**Chronicle**



**In memory of Professor Czesław Kupisiewicz  
Honorary Editor of The New Educational Review  
Real Member of the Polish Academy of Sciences**

DOI: 10.15804/tner.2015.42.4.25

On the 5<sup>th</sup> of November 2015, CZESŁAW KUPISIEWICZ passed away to do his eternal duty, an eminent educationalist, member of the Polish Academy of Sciences, retired professor of the University of Warsaw and Maria Grzegorzewska University, the author of several dozen monographic studies on general didactics, comparative pedagogy, educational policy and history of pedagogical thought as well as hundreds of scientific contributions published in renowned Polish and international journals.

Already during his lifetime, Professor Czesław Kupisiewicz became one of the classics of the pedagogical thought, famous not only for a vast scope of the scientific research carried out but also for making the best use of the experience and wisdom of the masters of his generation, gained throughout his long life of dramatic occurrences and, last but not least, the author of a frequently reissued academic textbook. Thousands, or shall we say dozens of thousands of teachers, studied his excellent treatises on the theory of education or pupil school failure. In his own opinion, it was a paradox to fight school failure together with those who actually had contributed to it.

He passed away at the age of 91, a scientist, the teacher of teachers and the educationalist of educationalists; a man of letters and master of the Polish language, whose perfect scientific narration not only complied with the highest methodological standards of liberal arts and social science but was comprehensible and convincing.

Let me recall, following the publishing chronology, the works of the professor, fundamental for the pedagogical science: “On Efficacy of Problem Teaching” (1960) “, “Teaching Failures. Reasons and some Improvement Measures” (1964),



“Preventing School Year Repetition” (1966), “Programmed Teaching” (1966), “Essentials of General Didactics” (1973), “Programmed Teaching in Higher Education” (1974), “Methods of Didactic Programming” (1974), “Educational Transformations Worldwide (1978), “The Education System During Reconstruction” (1982), “The Paradigms and Visions of Educational Reforms” (1985), “Directions of the Education System Reconstruction in the Industrialized Countries” (1988), “Outline of the Education System Reconstruction in Poland” (1988), “School Reform Concepts in the Eighties” (1992), “Proposals and Directions of School Reforms in the USA, the UK and Poland at the Turn of the Eighties and Nineties:” (1994), “School Reform Concepts in some Selected Countries of the World at the Turn of the Eighties and Nineties:” (1995), “On the School Reform. A Selection of Studies and Articles 1977–1999 (1999)”, “The Question of Educating. A Selection of Studies and Articles (1999)”, “Selected Problems of Pedagogical Theory and Practice on the Eve of the 21<sup>st</sup> Century (2003), “World Projects of Educational Reforms” (2006), “School of the 21<sup>st</sup> Century” (2006), “Sketches from the History of Didactics” (2010), “From the Theory and Practice of Education” (2012), “Didactics. Academic Textbook” (2012).

We shall proudly admit that Czesław Kupisiewicz was one of the most eminent intellectuals and the greatest thinker of Polish pedagogy in the 20<sup>th</sup> and throughout the first decade of the 21<sup>st</sup> centuries. An unattainable example for the generations of scientists to come, he never contented himself with the achieved degrees and titles, the positions held and academic responsibilities taken, but continued to enrich his accomplishments with new studies and novel areas of scientific insight, sharing his cognitive passions and encouraging changes in the widely understood educational theory and practice. His comparative studies of pedagogy presented the education systems worldwide, emphasizing the role of development tendencies, which should be recognized not only by educationalists and policy makers but also by the public.

Not everybody knows that Professor Czesław Kupisiewicz was involved in the effort for new initiatives of the Committee for Pedagogical Science, Polish Academy of Sciences. Three years ago the members of the Committee met with the Professor, declaring their intention to write an academic textbook, each in his discipline of pedagogical science. Then, the Professor not only shared his historical and cultural knowledge on the essence of an academic textbook, its functions, roles, the importance of visualization of knowledge, the role of didactic measures taken to educate a candidate for the profession of an educationalist, but also pointed to the obstacles he had faced when working on his textbooks.

His intellectual support contributed to the publication of a dozen or so of textbooks, issued under the auspices of the Committee for Pedagogical Science, Polish Academy of Sciences, where the authors attempted faithfully to make the best use of the art of academic dissemination of knowledge. A national conference to commemorate the 110<sup>th</sup> anniversary of professor Bogdan Suchodolski, held at HUMANITAS University, the Rector of which, Jerzy Kopel, PhD, was his friend, was the last public focus on his own biographic studies devoted to an outstanding humanist and educator of culture.

Let me express my gratitude for enriching our milieu with the timeless values, for the art of shaping pedagogy on the very highest level, for obliging us to accept the mission and take joint responsibility for the educational reforms, those including the ability and criteria of reasonable criticism of the authorities, should they make any evident mistakes.

Let him rest in peace. A number of his followers shall never give up his scientific heritage, ready to reconstruct, analyse, advance and discuss his work on a new, global scale.

*Prof. Bogusław Śliwerski, PhD.  
Member of the Presidium of Central Commission  
for the Scientific Degrees and Professor Title  
President of the Committee of the Pedagogical  
Sciences of the Polish Academy of Sciences*



*Jan Łaszczyk,  
Stefan M. Kwiatkowski*  
Poland

## **In the Living Memory of Professor Czesław Kupisiewicz**

DOI: 10.15804/tner.2015.42.4.26

There has been a great grief and sorrow over the death of Professor Czesław Kupisiewicz, member of the Polish Academy of Sciences, doctor honoris causa of Maria Grzegorzewska University in Warsaw. The Professor shall remain in our memories as an eminent educationalist, but first of all, as our Teacher and Friend.

Professor Kupisiewicz was the author and scientific editor of more than 30 books, which were frequently reissued and translated into many languages. Those have now found their place in the canon of pedagogical literature. Their topics focus on the issues of problem teaching, programmed teaching, history of education, comparative pedagogy and general didactics. What is noteworthy are also the Professor's accomplishments in the sphere of translation from English, French and German. One could hardly list all the positions held by Professor Kupisiewicz; among his numerous responsibilities were those of the head teacher of the complex of vocational schools, vice-chancellor of the University of Warsaw, chairman of the Expert Committee for National Education and scientific editor of the "Pedagogical Annual."

The interests and passions of Professor Kupisiewicz were never restricted to the educational sciences. Committed to painting, he was involved in the restoration of churches and rural dwellings, rescuing such characteristic landmarks from oblivion. Not many would know that he was an author of fairy tales for children.

He always managed to spare some time for us, here at Maria Grzegorzewska University, to express his criticism of our research proposals, pointing to new directions of scientific investigation and recommending the latest literature. A true scientific authority, he was also a man of great challenge. Never resting on his laurels he continued to set his sights on new objectives. He appeared as an example for our undergraduates as well as doctoral students, who had an opportunity to

meet the author of their handbooks. What we could all learn from the Professor were diligence, perseverance and unwavering work towards his goals.

On behalf of the community of Maria Grzegorzewska University in Warsaw.

*Chancellor*  
*Prof. Jan Łaszczyk*

*Vice-Chancellor*  
*Prof. Stefan M. Kwiatkowski*

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**Varia**



**Reviewers of the Manuscripts sent from Poland  
and from the Whole World  
to “The New Educational Review” in 2015**

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**III INTERNATIONAL  
ASIAN  
CONGRESS**  
18–20 MAY 2016 Toruń

### **The 3<sup>rd</sup> International Asian Congress**

The 3<sup>rd</sup> International Asian Congress is organised by the Asia and Pacific Society in cooperation with the Ministry of Foreign Affairs of Poland, the Marshal's Office of Kuyavian-Pomeranian Voivodeship, the Toruń City Council, the Warsaw University and the Nicolaus Copernicus University in Toruń.

The Congress will take place in Toruń on 18<sup>th</sup>–20<sup>th</sup> May, 2016. It is going to be the most significant scientific event focused on Asian issues in all of Europe. The aim of the Congress is to give an insight into the conditions of the Asian continent. The Asia and Pacific Society has great experience in organising conferences on Asia as the 3<sup>rd</sup> International Asian Congress was preceded by seven scientific conferences and the 1<sup>st</sup> and 2<sup>nd</sup> International Asian Congresses that took place in Toruń in May 2014 and 2015. Apart from scientists and academics we invite representatives of Asian entrepreneurship. Previous Congresses were attended by many diplomats from various states of Asia. This year we expect the participation of even more state officials.

The Congress' website is regularly updated with the newest information, for all the updates please check – [www.kongresazja.pl](http://www.kongresazja.pl). Also, on the website there is a possibility to register online for those willing to participate in the Congress.

Adam Marszałek, PhD  
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