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EDUCATIONAL CRUISES – TOURISM PRODUCTS PROMOTING LEARNING

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Abstract

Due to the intensified competition within the cruise industry, cruise operators offer a wide range of different cruise products. Their products have become more segmented in order to target new market segments and provide experienced cruisers with new specialised products. While the majority of research interest has been devoted to the traditional, mainstream cruising, educational cruising has been a neglected issue in the scholarly tourism literature. This specific niche segment is often regarded as an integral part of the adventure cruise market. However, there is no established classification of the niche market within this industry. This paper focuses on educational cruises as an aspect of educational tourism, i.e. tourism products promoting learning. Consequently, the main aim of the paper is to determine the main characteristics of the educational cruise niche within the adventure cruise market and to provide some further insights on this under-researched subject.

Key words: educational cruises, educational tourism, adventure cruises, educational cruise tourists

1. INTRODUCTION

The broad concept of travel for learning and education is not a new one. Its beginnings were associated with the Grand Tour, undertaken initially by scholars and aristocratic British youth (Brodsky-Porges 1981, Towner 1984, Towner 1985, Gibson 1998, Ritchie, Carr & Cooper 2003). A rapidly growing sector of the tourism industry provides for special interest or activity holidays, ranging from educational, through arts and culture, heritage, to sports and outdoor pursuits (Weiler & Hall 1992). Both education and tourism industry are recognizing the mutual benefits of developing a more cooperative relationship (Cooper & Shepherd 1997).

The world cruise market is one of the most dynamic segments and the fastest-growing sector of the tourism industry. Wild & Dearing (2000) emphasize that cruising does not fall exclusively within the classic framework of maritime economics but draws from both shipping and tourism and leisure. Similarly, Gibson (2008: 43) argues that ‘the cruise business is, in and of itself, an `industry’, because of scale, function and focus, yet it is also reasonable to categorise the cruise business as being related to tourism, leisure, hospitality and/or maritime industries’.

Cruise shipping markets are being rapidly segmented and new cruise products can be developed within the context of marketing other forms of special interest tourism with high growth rates (Dwyer & Forsyth 1996). In that context, cruise tourism caters for common-interest tourism, e.g. theme cruises (Barron & Greenwood 2006). Cruises with special interest (such as sail, education or exploration) refer to purpose-built vessels, specialist crew and a degree of monopoly through differentiation (Bull 1996). Smith & Jenner (1997) outline that educational cruises do not come under the strict definition
of educational tourism, but they straddle the space between leisure and study. Holdnak & Holland (1996) emphasize that other forms of edu-tourism also include theme cruises on board ocean liners.

It seems rather difficult to make some strict distinctions between educational cruises and other niche cruises. One reason behind this lies in the fact that educational cruises are often found under the term ‘niche cruise operations’ and in many cases these ships have overlapping characteristics (G. P. Wild 2011). In addition, it is necessary to make a difference between education-oriented theme cruises on the mainstream cruise ships and educational cruise ships specialized in this niche market. With that in mind, in this paper the term ‘educational cruises’ will be adopted when referring only to a small segment of purpose-built, educational cruise vessels thus making difference from other mainstream vessels offering educational theme cruises.

When analysing niche cruise market segments, one should bear in mind that the majority of the research interest has been focused on the mass cruise market. In that sense, the educational cruise segment has been an under-researched area in the scholarly tourism literature. Therefore, this paper seeks to address this knowledge gap by focusing on the theoretical aspects for the analysis of educational cruises as a specific example of the niche cruise market.

The paper is divided into six main parts. Following this introduction, part two provides some basic elements and classifications of educational tourism. Part three provides an overview of adventure cruise market and the position of educational cruises within the market. Part four looks at the educational cruise tourists, their motivations and experiences of cruise vacations, while part five discusses the potentialities of educational cruises for destination and base ports development. The final part of the paper draws certain conclusions and directions for future research.

2. EDUCATIONAL TOURISM

Educational tourism is not always easily defined and is often associated primarily with school trips. However, this broad area of study covers a number of different segments and a more precise classification must be developed. Following Ritchie, Carr & Cooper (2003:12), educational tourism may consist of:

- General travel for education (or ‘edu-tourism’) and adult or seniors’ educational tourism, where some form of education or learning is an important (and often motivating) part of the tourist experience;
- University/college students’ and schools’ tourism (language schools, school excursions and exchange programmes), whereby tourist experiences may be secondary to the educational aspect or intentions and may be considered ‘education first’ educational tourism experiences or products.

The same authors also emphasize that both of these groups can be considered tourists as they have distinct tourism-related impacts and needs with a number of parameters that influence educational tourism experiences (Figure 1).

As regards the literature on the educational tourism, it can be argued that the majority of research is found in so-called ‘education first’ or purposeful segment of educational tourism. These issues mainly refer to international students (Babin & Kim 2001, Weaver 2003, Townsend & Lee 2004, Huang 2008), student teaching abroad (Cushner & Mahon 2002, Quezada 2004), study abroad programmes (He & Chen 2010), backpacker learning (Loker-Murphy 1997, Pearce & Foster 2007), science-

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<th>Parameters</th>
<th>Minutes</th>
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<td>No Intentions</td>
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<td>Multiple Purposes</td>
<td>Motivation</td>
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<td>Limited Preparation</td>
<td>Preparation</td>
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<td>Informal</td>
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<td>Natural</td>
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Source: adapted from Ritchie, Carr & Cooper (2003), pp.17

On the other hand, the segment related to general travel for education and adult or seniors’ educational tourism is rather neglected with very little research, primarily on senior tourism (Astic & Muller 1999, Dann 2001, Lindqvist & Bjork 2000), educational travel programmes (Weiler & Kalinovski 1990), adult learning in educational tourism (Pitman et al. 2010) and seniors learning (Jarvis 2011).

Although learning is increasingly seen as an important motivation for tourism (Mitchell 1998), language learning is probably the biggest element in educational tourism (Smith & Jenner 1997, Freed 1998, Paige, Cohen & Shively 2004, Segalowitz et al. 2004). However, a distinction should be made between vacations primarily motivated by education and learning (e.g. cruise with Voyages to Antiquity aboard the Aegean Odyssey - educational cruise vessel) and vacations primarily motivated by travel with individual or organized visit to some educational attractions.

The subsequent section deals with the segment of educational cruises. In the cruise tourism literature, educational cruises are regarded as an integral part of adventure cruises. Generally, educational cruises are journeys that bring together tourism and education (Lück 2008). However, when analysing some specific sectors of the cruise industry, one should bear in mind that there is no established agreement between academics or within the industry on different niches within the cruise ship industry (Ellis & Kriwoken 2006). In the context of vacations primarily motivated by education and learning, educational cruising is an area worth further exploration.

3. EDUCATIONAL CRUISES WITHIN ADVENTURE CRUISE MARKET

Looking back to the past, educational cruises were first realized in the 1960s. In that context, Cartwright & Baird (1999: 35) report ‘in the 1960s, British India (a P&O subsidiary) converted some former troopships, first the Dunera and the Devonia and then the larger Uganda and Nevasa into educational cruise vessels, carrying mainly schoolchildren but with some ordinary cruises’. However, Loverseed (2011) emphasizes that educational school cruises originated in the 1930s when a British
A ship was commissioned to carry a group of Scottish schoolboys from Leith to Scandinavia and these cruises continued apace until World War II halted their operations.

Based on a classification developed by World Tourism Organization (2003), educational cruises make part of the adventure cruise market and mainly refer to ships having a strong educational element with regard to their itineraries. The two other sub-divisions of the adventure cruise market consist of expedition/exploration ships and partial or complete sailing ships. On the other hand, Smith (2006) analyzes the adventure cruise niche in terms of its four different types: nostalgia cruises (sailing ships and paddle wheelers), long-haul ferries, yachts and expedition cruises. It is also pointed out that each cruise type involves distinct differences in itinerary and activities, and marketing strategies differ due to considerable variation in cost.

The main feature of adventure cruise vessels refers to their capacity. Namely, in terms of the vessels’ capacity, for the most part this sector consists of relatively small vessels with an average capacity of 117 passengers (G. P. Wild, 2011). As regards rating profile of adventure market fleet, over 70% of capacity is found in standard, economy and non-rated vessels.

According to the nature of their operations, the majority of vessels in the adventure cruise market belong to exploration and coastal cruise vessels (Figure 2). Moreover, these two categories make up more than 60% of the market. Educational cruise vessels make up only a small percentage (5%) of the market.

Another important feature of the adventure cruise market refers to the leading operators in this segment of the cruise market. Overall, an important characteristic of the cruise industry is the process of horizontal concentration and the domination of the so-called "Big Three" (Carnival, Royal Caribbean Cruise and Star Cruises). Contrary to the mass cruise market, the main market leaders in the adventure cruise market are Hapag-Lloyd, Star Clippers and Windstar Cruises. According to the 2010 data, the three market leaders, with capacity ranging from 180,000 to 320,000 pax-nights each, supply 25% of capacity (G. P. Wild 2011). It is interesting to highlight that none of these operators are in the hands of the so-called "Big Three".

Source: adapted from G. P. Wild (International) Ltd, Expedition and Niche Operators, Regional market report, 2011, pp. 4

Figure 2 Adventure market fleet capacity by type, 2010

- Exploration: 36.0%; 36%
- Coastal: 26.5%; 26%
- Sailing: 16.2%; 16%
- Ice: 14.0%; 14%
- Freighter: 1.9%; 2%
- Educational: 5.4%; 5%
- Exploration: 36.0%; 36%
For the purposes of this paper, three educational cruise vessels that specialize in the educational niche market – the Minerva, the Aegean Odyssey and the Explorer will be mentioned. The biggest among them is educational cruise ship the Explorer (836-pax), well-known for its study abroad voyages. Established in 1963, Semester at Sea is the only study abroad program of its kind in the world. It is managed by the Institute for Shipboard Education in Charlottesville, Virginia. Using a ship as a travelling campus, undergraduates, lifelong learners, faculty, and lecturers live and learn together while circumnavigating the globe each fall and spring semester and exploring a world region each May and summer term (http://www.semesteratsea.org).

On the other hand, cruise line Swan Hellenic and its vessel the Minerva have become the symbol of educational cruise travel. Swan Hellenic was acquired by P&O in 1982 and ran its first cruise in 1954 to the Greek Islands. Regarding Swan Hellenic, Smith & Jenner (1997) outlined that each voyage had an educational theme and was accompanied by guest lecturer. Peisley (2006) emphasizes that Swan Hellenic has identified a growing demand for more lectures, classes and courses on board. Swan Hellenic team emphasize their philosophy saying that today ‘the manner in which everything is arranged’ remains the essence of a Swan Hellenic cruise with a panel of eminent guest speakers accompanying each cruise to talk about the destinations and sites visited. They strive to source the finest speakers, be they eminent archaeologists engaged in current research, world-ranking historians, zoologists, geographers, botanists, writers, ambassadors (http://www.swanhellenic.com).

The third vessel making part of the educational cruise segment is a 380-pax Aegean Odyssey. The philosophy of the Aegean Odyssey team is seen through creating a cruise experience that is not only for the amateur or professional historian but also for people who simply want to understand the history, art, myths and culture of the ancient world (http://www.voyagestoantiquity.com).

The strong educational element of the cruises by the Minerva and the Aegean Odyssey can also be found in the titles of their itineraries e.g. The Grand Tour, Italy from designs by Michelangelo, All this begin with Greeks, The light of Greece, The holy city of Byzantium, Grand Mediterranean and Adriatic, Hellenic Highlights, Grand Grecian and Black Sea Odyssey, Grand Ottoman Empire, Treasures of the Near East, Grand Realms of Antiquity, A Byzantine Legacy, Grand Spirit of the Mediterranean etc.

4. EDUCATIONAL CRUISE MOTIVATIONS

As regards cruise industry, it can be argued that cruising provides a variety of options pertaining to durations and itineraries (Marti 2004). It allows cruise operators to broaden the range of their products and develop them in accordance with the needs of their customers. Existing consumers and travel agent studies have demonstrated that, based on the current market trends, the number of potential tourists who will participate in some form of cruising will continue to grow, while itineraries will continue to reflect wide-ranging market preferences (Szarycz 2008).

Products targeting the whole spectrum of the travelling life-cycle ensure that tourists can choose almost a tailor made cruise holidays to suit their needs, budgets and expectations (Douglas & Douglas 2004). Both perceived value and quality are antecedents of cruise passengers’ satisfaction in the prediction of behavioural intentions (Petrick 2004). The results of the research done by Duman & Mattila (2005) suggest that cruise vacationers’ value perceptions are not only dependent on service quality and cost related features but also on affective evaluations. Hung & Petrick (2011) argue that cruise travellers expect to receive a number of benefits from their cruise vacation. With that in mind,
destination ports and base ports in the cruise itinerary are of the utmost importance as they can contribute to cruise travellers’ emotional fulfilment.

Crompton (1979) identified motives of pleasure vacationers which influence the selection of a destination. Among nine motives identified, seven were classified as socio-psychological, while the two remaining motives, novelty and education, formed the alternate cultural category. Tapachai & Waryszak (2000) discussed so-called beneficial image as a framework for the analysis of destination image for decision to visit a country for a vacation. Following the authors, the beneficial image characteristics are conceptualized under five value dimensions—functional, social, emotional, epistemic, and conditional. In that context, educational travel motives, i.e. desire of knowledge make part of the epistemic value dimension.

According to Hosany and Witham (2010) the educational travel experience is active and absorptive and consumers play a vital role in co-determining their experience. Gibson & Yiannakis (2002) argue that the anthropologist, the archaeologist, the high class tourist, the educational tourist and the organized mass tourist are roles that demonstrate a relative increase in preference over the life course and as people age they are more likely to participate in these roles while on vacation.

As regards educational value of cruise vacations, Cartwright and Baird (1999) identified three sources: cultural ‘dipping’, i.e. learning new cultures, then discovering and learning in destinations visited and, finally, on board learning possibilities. In that context, the cultural and natural resources of the destination are very important components for the attraction of cruise passengers (Andriotis & Agiomirgianakis 2010).

Cushner (2004) argues that educators committed to developing and delivering thoughtful curricular experiences designed to achieve certain goals related to travel and intercultural learning must understand the reasons people travel. Therefore, educational cruise travellers’ motivations are of the utmost importance for educators involved in the cruise business, i.e. on board lecturers, experienced guest speakers giving talks on subjects relevant to each itinerary or cruise staff involved in on board educational programmes.

With that in mind, educational cruise travellers can be regarded as a part of adventure travellers who are the direct opposite of cautious travellers. They like to experiment, learn, and explore. They have resisted cruising because they think it’s too regimented and confining, with too much emphasis on entertainment (Mancini 2000). They want to avoid the huge, overpopulated floating resorts, and seek a more intimate and challenging experience (Douglas & Douglas 2005). Additionally, the overall educational level among passengers is very high (Smith 2006) and they prefer to take part in educational cruises that have a scientific focus (Negrijn 2007). In other words, these travellers look for something in addition to the traditional cruise trip experience, i.e. they want a particular type of cruise tourist experience.

5. EDUCATIONAL CRUISES - POTENTIALITIES FOR DESTINATION AND BASE PORTS DEVELOPMENT

As McCalla (1998) states, cruise ports have specific site and situation requirements and exactly what they are will vary according to whether they are home ports, ports of call or hybrid ports. Many ports that abound in rich cultural and historical heritage have their best opportunity to become educational cruise players and a part of itineraries of educational niche cruise operators as well.
In spite of the growing fleet of megaships, there will also be plenty of smaller vessels, such as educational ones, that will take care of the special needs of the passengers who are fed up with the megaships congestion. These smaller cruise vessels are willing to operate from anchorage with a minimum of infrastructure. Thus, meeting the special requirements of these vessels seems to be essential. In particular, this refers to less known ports and island ports.

Each port has to assess its strategic position as a cruise destination. With regard to that, eight categories of ports can be identified, ranging from a “no-go” destination to a cruise tourism hub. The three main features are taken into consideration: (1) tourist attractiveness, (2) accessibility and (3) port facilities.

Table 1 Model for classifying ports into port typologies

<table>
<thead>
<tr>
<th>Port typology</th>
<th>Tourist attractiveness</th>
<th>Accessibility</th>
<th>Port facilities</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>No-go destination</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Low potential destination</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Classic port destination</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Pure turnaround destination</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Underdeveloped destination</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Pure transit destination</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>High potential destination</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Cruise tourism hub</td>
<td>✓</td>
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It is important to outline that, in contrast to the mass market and the Caribbean as the leading cruise region, the adventure cruise sector is dominated by the Mediterranean. It comprises almost one third of the adventure cruise market capacity by region of operation. The Mediterranean offers a high level of historical and cultural heritage and a wide diversity of scenery to cruise tourism. This, together with a pleasant climate makes the area very attractive with a number of very popular destination ports.

When analysing the Mediterranean region with regard to the opportunities for further growth of its ports, activities should be primarily concentrated in several directions:

- expanding and upgrading cruise ports’ facilities – in order to meet the ever-increasing requirements of cruise lines;
- continuous and long term cooperation between cruise lines and cruise ports in the Mediterranean – particular emphasis should be placed upon joint actions and efforts relating to call-scheduling in order to avoid both vessel and passenger congestion;
- launching year round cruise programmes - extending the cruise season by introducing and encouraging reduced rate winter cruises in the extended Mediterranean area and, in that way, reducing repositioning vessels in the Caribbean region during the winter period;

- offering frequent passengers new products, i.e. introducing new destination ports along with the diversification of cruise types, such as educational cruises, coastal cruises, sailing cruises and other specialized products;

- stimulating and promoting the development and progress of the Mediterranean ports by marketing planning and communication inside the local communities and towards the cruise lines and potential clients, and

- establishing a balance between traditional port activities and cruise business with special emphasis on collaboration, particularly at a local level.

In the context of educational cruise market, ports can have potentialities to act as destination ports or base ports, assuming that the prerequisites for such roles are fulfilled. In order to enhance the destination port roles, small and island ports need to turn towards the niche cruise market, including coastal cruise vessels, sail-cruise vessels, exploration and educational vessels. All of these vessels visit destinations that even the finest cruise ships cannot reach and are therefore particularly suitable for further development and establishment of smaller ports, as well as island ports. These vessels might also be less demanding in view of the necessity of specialized cruise passenger terminal and other port facilities.

6. CONCLUSIONS

The coverage of educational cruise tourism in the contemporary scholarly tourism literature is limited. Bearing this in mind, the paper sought to provide a better understanding of the educational cruise market and their main characteristics. Definitions and classifications of the sector provided in the paper may be useful to recognize and understand the importance of this sector within the overall cruise tourism industry. In that sense, it calls for more research in this under-researched area and the article can provide a baseline for further research on the issue.

The diversification of cruise supply in terms of variety of cruise types can help extend the cruise season and offer year round operations in the destination ports. The region that can offer all types of cruises can also benefit from some specific themes such as history, culture, folklore, exploration and education, which may be powerful promotion tools.

As regards educational cruises, the famous lecturers, who accompany cruise passengers and well-known guest speakers giving talks on subjects relevant to each itinerary, add a strong educational element to these cruises.

Due to advantages of their size, such ships are able to enter ports not suitable for larger vessels. Therefore, they are particularly suitable for further development and establishment of smaller, less-known ports as well as island ports.

The port authorities should be proactive and carry out continuous passengers’ surveys. Future research directions should be focused on different elements of educational cruise passengers’ experience in the destinations visited. Results would be beneficial since valuable guidelines for improvements and ensuring quality cruise experience could be obtained. The surveys should also include questions regarding the economic impact of the educational cruise passengers to the local economy.
Finally, analyses of the educational cruise niche and other sectors within the adventure cruise market can help cruise policymakers and product developers in satisfying cruise travellers’ needs and requirements. In that way, they could avoid the danger of cruise operators relocating their vessels to other destination ports that would suit better both their needs and the needs of their customers.

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CRUCIAL OCCUPATIONAL SKILLS FORECASTING: THE EXPERIENCE OF RUSSIA AND EUROPEAN COUNTRIES

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Abstract

The issue of formulation and forecasting of crucial occupational skills list necessary for employees on the labour market in the modern context in Russia and foreign countries is considered. The main element is the interaction of state, education system and employers in terms of national VET systems.

Key words: vocational education and training, occupational skills, forecasting

1. INTRODUCTION

The world economy moves towards a new technological structure and new requirements for all components of the economic systems of different countries appears. It is necessary to identify correctly the direction of the new economic structure and to find appropriate mechanisms for personnel training to ensure the competitiveness of any country in the world in modern terms.

The role of analysis and forecasting of crucial occupational skills as one of the major factors in the development of human capital is particularly important for the Russian society now facing the objective necessity of transition to an innovation economy.

Modern society is distinguished by the rapid obsolescence of information, resulting in the devaluation of special professional competencies. The average rate of time updating applicative, and in many respects the basic and professional knowledge in technologically advanced industries is 3-5 years, during which to one-third of special knowledge of the employee are depreciated some researchers say (Medyankova E.V., 2009). The knowledge gained by the student during course by the time they graduate is out of date by about 50% (Zahkarov P.N., 2007). In addition, in the last decade, the society faced with an enormous paradox - an increase in the number of received education and training process was accompanied by the growth of professional incompetence (such as inadequacy for scientific and technological revolution demand) (Tarakanova E.V., 2010).

The foregoing suggests that under current conditions, all countries should develop a system of forecasting future crucial occupational skills required for workers entering the labor market. This system should complement the quantitative forecasting of the labor market parameters, which is already insufficient for the development of human potential.

2. EUROPEAN COUNTRIES EXPERIENCE

In the context of the OECD Skills Strategy (2011), OECD countries understand the concepts of ‘skill’ and ‘competence’ interchangeably. By skill (or competence) mean: the bundle of knowledge, attributes and capacities that enables an individual to successfully and consistently perform an activity or task, whether broadly or narrowly conceived, and can be built upon and extended through learning.
There are general cultural competence, such as the ability to own a foreign language at a level no lower than conversational and professional skills for different activities: the ability to understand and apply research and application of modern mathematical tools, the ability to collect, process and interpret the data of modern science studies, etc.

In Europe the understanding of the need to develop a list of crucial occupational skills required for employees came in the early 2000s. In recent years, cooperation between state and employers in education and training in Europe played a crucial role in shaping the European society future.

Activities for the vocational education and training development took place in parallel in the framework of the European Union (EU) and Organization for Economic Cooperation and Development (OECD). Council of the European Union for Education, Youth and Culture on the November 12, 2002 adopted resolution on enhanced cooperation in vocational education and training in The Copenhagen Declaration. Cooperation implied forecasting demand of occupational skills of employees and graduates. This process is known as the Copenhagen process and the activities continue up to now days. One of the trends in the development of this program became assisting in developing the crucial occupational skills list and qualifications at industrial level with the interaction of the state, educational institutions and employers.

The development of vocational education and training (VET) system became one of the priorities of education policy at a Meeting of Ministers of Education - OECD in Copenhagen on September 22-23, 2005. The meeting resulted in a program whose aim was the establishment in the OECD countries a direct interaction of VET and the labor market, as vocational education and training are key components of the economic demand for young people in the labor market, as well as ensuring the necessary level of professional qualification.

Since 2007, the OECD is implementing a special research project Vocational Education and Training (VET), focused on the definition, and then the formation of skills and competencies that can be used later in the labor market. VET includes education and training programs developed and determined to a particular work or particular type of work (Chair’s Summary from the Meeting of the Education Chief Executives, 2005).

VET systems are common in many OECD countries. Each level of interaction between government, employers and the education system has its own particular function. An important element of any VET system is forecasting of employment, occupations on demand and competencies.

Forecasting of the professionally trained personnel demand is based on existing national models, which provide short-, medium-and long-term forecasts. Forecasting of occupational skills is realized in the framework of the quantitative forecasting and is an integral part of the VET.

Data on the country’s economic development is pooled together and various scenarios of economic development are projected. The result of forecasting is data on labor demand by sectors, occupations in the state and regional level. It is difficult to predict crucial occupational skills on the labor market but the way out is forecasting within the professional and educational standards development. One way to assess the crucial occupational skills and competencies in the labor market is consulting with employers and trade unions. Many national models in addition to the quantitative forecasting introduce the qualitative characteristics, taking into account the new competencies that will be needed in the labor market in the medium term.

An integral part of any system of VET is the interaction of the three parties: government, employers and the education system. Following table was published in OECD Reviews of Vocational Education
and Training. England and Wales (Hoeckel K., Cully M., Field S., Halász G. and Kis V., 2009) and it shows the degree of involvement of employers in the functioning of the system of vocational education and training in OECD countries.

Table 1. The employers’ engagement in the functioning of the vocational education and training system in OECD countries

<table>
<thead>
<tr>
<th>Tasks and actions</th>
<th>Institutional setting</th>
<th>Country examples</th>
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<tbody>
<tr>
<td><strong>Agenda setting</strong></td>
<td></td>
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<tr>
<td>Analysing evidence</td>
<td>Collectively through employer organisations, associations, chambers</td>
<td>Advisory Council for Initial Vocational Education and Training, Denmark</td>
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<tr>
<td>Recognising problems</td>
<td>Individually, using employer surveys and opinion polls</td>
<td>Employers’ surveys e.g. in the United Kingdom and Australia</td>
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<td>Determining issues for reform</td>
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<td><strong>Policy formulation</strong></td>
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<tr>
<td>Reforming the regulation, structure and funding of the VET system</td>
<td>Collectively through employer organisations, associations, chambers</td>
<td>Advisory Council for Initial Vocational Education and Training, Denmark</td>
</tr>
<tr>
<td>Developing/updating the qualifications framework</td>
<td>School governing bodies which include employers</td>
<td>VET partnership (federal government, cantons and social partners) in Switzerland</td>
</tr>
<tr>
<td>Developing curricula, content and duration of VET courses</td>
<td>Regional or sectoral bodies</td>
<td>Sectoral employer organisations in Australia and the United Kingdom</td>
</tr>
<tr>
<td>Determining number of VET places</td>
<td></td>
<td>Regional VET centres in the Netherlands, Regional development and training committees in Hungary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Policy implementation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Promoting VET e.g. by hosting interns</td>
<td>Individual employers offering workplace training (including sector-wide basic practical training), apprenticeships, or releasing staff to supply VET teachers to providers</td>
<td>Apprenticeships in dualsystem countries</td>
</tr>
<tr>
<td>Delivering on-site training</td>
<td>Individual or collective financing, under voluntary or mandatory arrangements</td>
<td>Industry courses in Switzerland</td>
</tr>
<tr>
<td>Sponsoring training for employees</td>
<td></td>
<td>Training levies in Hungary</td>
</tr>
<tr>
<td>Examining student performance</td>
<td></td>
<td>Final examination in the workplace, e.g. in Germany</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Policy evaluation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assessing the quality of VET outputs</td>
<td>National VET institutions</td>
<td>KRVET, BIBB, NCVER, etc.</td>
</tr>
<tr>
<td>Assessing student outcomes</td>
<td>Collective employer bodies</td>
<td>Surveys of employer satisfaction in Australia and the United Kingdom</td>
</tr>
<tr>
<td></td>
<td>Individual employers (e.g. through surveys)</td>
<td></td>
</tr>
</tbody>
</table>
As can be seen from the table, the degree of employers’ involvement in the functioning of the vocational education and training system in OECD countries is quite high. Employers’ participation is based on the built-in mechanisms in the education system, which allows aligning the interests of all stakeholders in the process. It is important that employers are collectively or individually included in the process of determining the list of crucial occupational skills on the labor market, its realization and evaluation.

3. DEVELOPMENT OF CRUCIAL OCCUPATIONAL SKILLS LIST IN RUSSIA

The work on implementation of skills approach in the education system and the system of forecasting the economy needs in skilled workers in Russia is actively developing. Despite some successes in this area, there are several challenges that lie ahead.

Bachelor and Masters were first introduced in high school in 1993. In 2011 two-level training became fundamental. Meanwhile, in the language of the professional qualifications bachelors and masters are not yet presented to the labor market. The so-called education qualifications - Bachelor and Master - do not have a systematic description of the various economic activities and are not transparent to Russian employers.

Despite the fact that the integral state policy in the development of national qualifications systems is now being formed, some rather serious steps have already been done. This was facilitated by several factors: the Bologna and Copenhagen processes and initiative of employers, an initiative of the Russian Ministry.

Russian Ministry of Education developed a new generation of federal state educational standards. The federal state educational standards have such distinctive features as a distinct character of competence, substantiation requirements for the results of the development of basic educational programs in the form of competencies subdivided into general (universal) and professional (subject-specialized).

In the past few years in the professional community a new paradigm of quality management training, based on professional standards as a more modern form of a formalized description of professional activities, was formed at the level of individual areas of professional activity (Leibovich A., 2008). Professional standards are significantly different from other ways of describing the requirements to a specialist:

- they allow to systematically reveal the professional activities of professionals involved in the overall technological problem (research, production, design, maintenance, etc.), following the structure of a holistic process and respecting the continuity of the activities at different levels of qualification (for example - at the levels of workers, equipment, engineer and manager);

- description structure of the professional standards involves the use of more modern design in the form of combinations of requirements for knowledge, skills and competencies, professional expertise, which ensures the continuity of professional standards, national qualifications framework, on the one hand, and educational standards and programs - on the other.

- in standards it is possible to identify certifiable professional activities in which the employer is particularly interested in the professional, and thus focus the problem of independent evaluation and certification of qualifications in a limited field of essential characteristics.

These and other features of the professional and educational standards, make them much more useful elements of the national system that links the world of work and scope of vocational education.
Professional standards and federal state educational standards are closely related. National system of professional standards is a system of professional qualifications description, aimed at different levels of interaction between the system of vocational education to the labor market (the political level, the level of organizations and individuals). Through this relationship the labor market gives the signal of its generalized demand for human resources, which in turn is a reference to the education system, which should offer citizens effective educational directions for these requirements through a system of forecasting the economy needs for qualified personnel with an emphasis on the acquisition of new competencies (e.g. Kekkonen A., Sigova S. 2012).

At present, the problem of a national system of qualifications and professional standards forming is indicated in the Strategy 2020: A new model of growth - a new social policy. Its aim should be the increase of the workforce competitiveness, creation of a support system for recognition of the employee rights (assessment and assignment), professional development, improving the coordination mechanisms of the market of professional educational services and the labor market.

The Russian problem is the lack of scale and quality of training of skilled workers in demand on the labor market and the ability to solve the problem of an innovative development, necessitates identifying and forecasting crucial occupational skills on short-, medium-and long-term horizon.

4. SKILLS LIST FORECASTING METHODOLOGY

At the present time to solve the problem sought to identify occupational skills in priority areas of science, technology and engineering is implemented large-scale project "Study of long-term demand for staff with competence in the field of technological innovation." Petrozavodsk State University and, Moscow School of Management "Skolkovo" joined their efforts in this direction.

The project assumes that firstly skills the priority areas of science, technology and engineering should be determined for the competence. This approach would allow the implementation of the innovative development strategy of Russian economy, that is based on the preferential development and implementation of technological innovation in key areas of applied research within the priority areas of science and technology. Priority areas are defined by Decrees of the President. In the draft of State Program "Development of Science and Technology for 2012-2020 years" the following seven the priority areas of science and technology are listed: information and telecommunications systems, biotechnology, medicine and health, new materials and nanotechnology, and space transportation systems; environmental management, energy and energy efficiency.

The following methodology is proposed to reveal crucial occupational skills in the priority areas of science and technology.

1. Determination of the main trends of each of the priority directions of science, technology and engineering development in Russia and the identification of key "future tasks" are addressed to employees in the course of their professional activities.

2. Identification of structural levels of the crucial occupational skills development: what tasks and at what level should be solved. This may be the challenge that companies working within the priority areas of science and technology face or facing the priority tasks in general or an employee at a particular workplace.

3. Determining the structure of occupational skills models: which group should fill the competency model.
4. The formation of skills lists in accordance to the developed structure.

Determination of the "challenges of the future" is the first and one of the most important steps in revealing of occupational competence lists (knowledge and skills). “Challenges of the future” reflect basic perspective directions that would be important and up-to-date in the field of technologic innovations. “Challenges of the future” include the fundamental strategic technological developments that would affect the entire scope of technological innovation, determine the development of critical technologies, which would be focus area of innovation and potential discoveries in the field (see Picture 1).

Picture 1. “Challenges of the future” is the key element of crucial occupational skills determination.

Based on the "challenges of the future" it becomes possible to identify specific areas of the key spheres of science, technology and engineering priority areas. The assumptions on the potential specific problems that should to be solved at the level of the industry, company, or individual employee are based on the “challenges of the future”. Given the complexity and novelty of the future tasks, competencies of employees, ie the knowledge, skills and practical skills that are needed to address them are identified.

The next important issue is to determine the structural levels of the competencies development. Why it is so important to address this issue? The matter is that crucial occupational skills are determined by two factors. The first is the nature of professional activity (prevalence of stereotypical or unique (non-recurring, unpredictable, action). The second is specific tasks to be undertaken by employee in the course.

In connection with the above, the following levels of aggregation competences are selected:

1. The level of the firm (competence can be described in in-house standards, which are developed and used in one or more subsidiaries) or the level of the industry (defined in national and international professional standards);
2. The level of jobs / positions - the aggregation of competencies are specific to jobs;
3. The level of the workplace - it is assumed the maximum specification of the required competencies.

This approach demonstrates that at different levels of detail the competence requirements would be different.
Thus, depending on the results, namely, the identified "challenges of the future" and the level identification to which the model of competence should be developed, informative content appears. Currently this approach is being tested across Russia and the obtained results allow establishing the true images of the sought-after professionals. Methodological approach used in the models would allow reflecting the most current and important professional competencies needed to address the various challenges of the future. In addition, the possession of the identified competencies would enable professionals to successfully master the subject field of the future challenges and to achieve productive professional results.

5. CONCLUSION

The formation and forecasting of the crucial occupational skills list for the labor market is now demanded for the successful long-term development. This is a way to effectively control the development of human capital in Russia.

The main factor in the acquisition of crucial occupational skills advocates a balanced policy in the field of education and training. The state, in conjunction with employers and educational institutions should continue to develop and improve professional standards, the requirements for professions and positions, and later synchronize them with the educational standards.

OECD countries have developed a balanced system of interaction between government, employers and the education system to identify and forecast the list of crucial occupational skills for workforce training. The study of foreign experience in this field will allow to use the best practices of developed countries for the formation of the economy needs, taking into account relevant professional competencies. In particular, it is necessary to introduce the most relevant and adapted to for Russia the provisions of OECD Skills Strategy into the education system modernization programs, taking into account long-term development programs of the country. This will allow the executive authorities to plan future directions for regional development and provide appropriate workforce training. It seems promising to establish a uniform terminology and tools to assess the knowledge gained, and the list of demanded in the future skills, the development of mechanisms for efficient allocation of resources to develop relevant skills for the labor market.

Russia is actively developing and implemented competence-based approach to planning the development of human capital. It should be developed further. The problem of the formation of modern occupational skills for professionals should be solved in conjunction with employers' associations, relevant government departments and the education system. The list of crucial occupational skills can be a key transition between the employers demands and training in vocational education system. This list would allow employers to articulate their requirements for employees, to participate in the development of qualification requirements, assess the future needs of sectors of the economy for skilled workers. For the education system, in turn, the list would allow more flexibility to train personnel with professional education.

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MACEDONIAN HIGHER EDUCATION SYSTEM: A DECADE SINCE BOLOGNA
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Abstract
The challenges that faced Macedonian higher education institutions in the process of implementing the Bologna principles and reforms in order to achieve better quality, were not easy or naive. This year Macedonian higher education system celebrates a decade since the acceptance of Bologna Declaration in 2003. A decade of continuous reforms is a particularly long period, after which a review and detailed analysis of plans and accomplishments is an expected and logical step. Based on a survey of 981 students from public and private universities in Macedonia about their opinion for different aspects of the teaching process in Macedonian higher education institutions, we managed to detect the basic problems, challenges, and key areas for further reforms and improvements in Macedonian higher education teaching process, which is one of the key goals of the implementation of Bologna principles.

Key words: Macedonian higher education institutions, Bologna Declaration, reforms, quality of the teaching process.

1. INTRODUCTION
In the last two decades, European higher education institutions have faced many challenges: reduced financial support for higher education, encouraged competition by allowing free entry of foreign universities and establishment of private universities, constant pressures for greater financial autonomy and demands for their restructuring and reforms. In this direction special attention deserve reforms as a result of the adoption of the Bologna Declaration in 1999. Its main goal is building a unified European educational system by introducing similar, comparable and compatible higher education quality standards and harmonization of the duration of the academic cycles in almost all countries in Europe.

The Republic of Macedonia celebrates almost a decade since the acceptance of Bologna Declaration in 2003. Undoubted in its aspirations and future within the European Union, the Republic of Macedonia has undertaken a large number of higher education reforms which are to secure its compatibility with other European education systems and satisfy newly created demands on the labor market as well. Despite the fact that a great part of these reforms was complex, unpleasant and long-term, the country maintained its reform course, taking into consideration the benefits that are result from all actions undertaken.

A decade of continuous reforms is a particularly long period, after which a review and detailed analysis of plans and accomplishments is an anticipated step. Analyses of the Bologna process in the Republic of Macedonia have so far been made, but most often in the form of studies of precise and
specific reform topics, such as the implementation of European Credit Transfer System (ECTS) (Pop-Ivanov and Velkovski, 2010), effects of dispersed studies (Popovski, 2010), academic and student mobility (Pop-Ivanov, Bozinovska, and Bozovik, 2010); or in the form of more complex analyses, which have been carried out long time ago, such as the analysis of good educational management capacity (Popovski et al, 2007) or the process of linking higher education with the labor market (Center for Research and Policy Making, 2009).

Motivated by the aforementioned situation, a decision was reached to execute a rather complex and comprehensive study of higher education in the Republic of Macedonia present situation and results achieved after a decade of reforms. During the research, special efforts were made to acquire an image of the Macedonian higher education system as seen by students, who are the most important stakeholder of every higher education institution (HEI) and a target group of all higher education reforms, thus also a most relevant factor to assess the reform results.

2. RESEARCH METHODOLOGY

The research, titled *Evaluation of the Higher Education System Quality in the Republic of Macedonia*, was carried out with the help of a questionnaire specially designed for this purpose. The experience of eminent experts relevant to this field of research, as well as several similar researches made by neighboring and other European countries, were taken into consideration while creating this questionnaire. Exceptional effort was made to make all questions clear, concise, unambiguous and well connected in order to produce a clear image of the higher education system situation in the Republic of Macedonia, as seen from student perspective. Prior to the study’s official start, the research questionnaire was trial tested on a group of 30 students, who later, by means of direct communication, contributed to this research by providing information on the clarity of each question. Certain technical aspects were also clarified in order to avoid ambiguity.

This research aims to acquire the opinion of state and private university students on the present situation of Macedonian higher education, as well as information on the results of all reforms carried out thus far. The target group comprised of students in their third or fourth (etc) year of studies or recently graduated state or private HEI students (who have graduated not longer than one year prior to this research) in order to ensure that all subjects involved in the research have their own opinion on the higher education system.

The research was carried out in the period of 26th March 2012 and 21st May 2012. The Kwik Surveys free software was used to create, launch, and technically support this research. Students received e-mails asking them to access the link of the questionnaire and complete it. The questionnaire was semi-anonymous. Students were not asked to provide personal information, but in order to ascertain the relevance of the research, each of them was asked for their student’s index number (student’s ID or transcript number) in the end of the questionnaire and the faculty they are/were enrolled in. Provided necessary, this information was of importance to confirm their applicability for this research with the relevant offices for student affairs.

This research is one of the rare ones, if not the only one carried out in the Republic of Macedonia on such a large number of subjects (981 students), that analyzes different aspects of the higher education system. This group of 981 subjects (all of which are seniors or recently graduated students)
encompasses 2.6% of the entire student population that falls into some of these categories, which is a fact that proves this research was made on a representative statistical sample.¹

All criteria for proper and proportional representation of different gender students were met, along with the criteria for different educational profiles, private and state university students, students with various types of study financing, and students with various GPA’s, all of which witness the true percentage of these students within the Macedonian educational system. Taking into consideration the time period that these subjects have spent as students, their opinions, stands and experiences reported in the research present an undoubtedly solid basis for the creation of a rather authentic image of the higher education conditions in the Republic of Macedonia.

Since the research is complex and comprehensive, this article presents only the results relevant to the quality of higher education teaching process in the Republic of Macedonia, which according to the National Education Development Program of the Ministry of Education and Science of the Republic of Macedonia is one of the main anticipated goals of the implementation of Bologna principles (2006, p.265).

3. RESULTS-HIGHER EDUCATION TEACHING PROCESS IN R. MACEDONIA

3.1 Teaching Curriculum and Syllabus of HEI in the Republic of Macedonia

In order to adapt to the Bologna principles and ECTS, as well as modernize and level with the leading universities in Europe and all over the world, Macedonian HEI teaching curricula and syllabi were subjected to repetitive and greater reforms in the period of past several years.

Several years ago, only a small part of the faculties had set concrete goals in their curricula, while the specific competencies or learning outcomes presented through knowledge, skills and attitudes that were expected to gain students were defined in even smaller number of faculties (Center for Research and Policy Making, 2009, p.46). But, this is not the present situation of majority of HEI today. A simple analysis of their teaching curricula and syllabi (available on the majority of HEI’s web pages) points out that a large number of the faculties have marked improvements in this field.

Perhaps, greater part of these curricula and syllabi lacks information on the manners in which the proficiency levels are to be acquired, as well as proficiency assessment manners. This is especially important for the skills that students are to acquire (which are of particular interest to employers), that cannot be measured or evaluated by typical means of electronic grading of student knowledge. Provided the starting point is the fact that “what you are measuring that you can be sure that will get it”, it can be concluded that this is precisely the weakest point of present teaching curricula and syllabi, which requires greater attention and reforms.

Still, to define the goals and learning outcomes of teaching curricula and syllabi does not necessarily mean that they will be achieved. There are many business examples (a field far more efficient and competitive than education, especially state education) where companies defined solid and proper strategies, but failed to execute them. This is the reason why significant part of the research has been

¹ According to the State Statistical Office of RM number of students who are third or higher year of study in the academic 2010/2011 is 28 123 students, and the number of graduates in 2010 was 9 944 students. Therefore the 981 respondents in the research out of 38 067 students and graduates - qualified for the survey represents 2.6%.
dedicated to examine the stand and satisfaction of students by reformed curricula and syllabi and their respective results.

One of the principal questions, which was aimed to confirm the afore mentioned thesis that Macedonian HEI reformed their teaching curricula and syllabi significantly in the past several years, and introduced proper goals and learning outcomes, was whether and to what extent the information that students received on their studies/university departments prior starting their studies (information that students acquired through student guides, most often published on the relevant institution’s web page) was correct or proved to be correct in the course of their studies (Table 1.1). This question was of crucial importance in order to determine whether faculties executed only declarative reforms to curricula and syllabi.

![Table 1.1: To what extent is the information on studies/university department offered to students prior to commencing their studies correct?](image)

Based on the results, one can conclude that a large number of faculties (54%) abide completely or in a greater part by their curricula and syllabi. But, the percentage of faculties (27%) that partially or relatively follow their published information is also high. 12% of the faculties have proven that insufficiently follow their syllabi, while 2.67% do not act in accordance to their published syllabi at all. Partial or relative compliance with the syllabi is not satisfactory of course, thus all faculties should make an extra efforts to adhere to their curricula and syllabi. Perhaps, a well designed strategic system will be of help, such as the Balanced Scorecard system, which will guide and remind the faculty staff on their prescribed duties, and evaluate the extent and success of their realization. The implementation of such a system may instigate a more agile goal realization and percentage correction, i.e. transfer of institutions from weaker (relative, not enough, and not at all groups) to stronger categories (significantly or completely groups).

The question to what extent the study curriculum fulfilled student primary expectation is of similar nature (Table 1.2).
Table 1.2: To what extent has the study curriculum satisfied student expectations?

The results of this question correspond largely to the results of the previous question. 54% of the students are satisfied or highly satisfied, 23.5% have chosen a neutral stand, while 20.5% have declared themselves (highly) dissatisfied, which is a relatively high percentage of dissatisfaction. Nearly the same percent of students (19%) who declared themselves (highly) dissatisfied on the second question mentioned above replied that they would not pursue the same studies again (Chart 1.1).

Chart 1.1: Students who would pursue the same studies again

In order to identify the reason behind student (dis)satisfaction, the research continued studying particular aspects of the curricula and their results.

The quality of syllabi, seen from the aspect of the number, contents, quality, and attractiveness of mandatory and elective subjects is perhaps one of the most important curriculum dimensions, as well as of the studies in general (Table 1.3 and 1.4).
Table 1.3: Degree of satisfaction by the number, contents, quality, and attractiveness of mandatory subjects

Based on the research conveyed on students, there seems to be a high level of satisfaction by the number, contents, quality, and attractiveness of mandatory and elective subjects, with elective having a small advantage over mandatory subjects. Around 59% of students declared themselves (highly) satisfied by these characteristics of mandatory subjects, while nearly 63% of them presented the same stand for elective subjects as well. 16% of the students exhibited a higher degree of dissatisfaction by mandatory subjects, while only 11.5% of them were not satisfied by the aforementioned characteristics of the elective subjects offered by their faculty.

Table 1.4: Degree of satisfaction by the number, contents, quality, and attractiveness of elective subjects

The subjects order, prerequisites and their interconnection in reference to semesters, also known as subject sequence is an important element that influences quality, performance and results of studies on reformed curricula and syllabi (Table 1.5).
Table 1.5: Degree of student satisfaction by the subjects order, prerequisites and interconnection in reference to semesters, also known as subject sequence

There is a relatively high degree of satisfaction in the matter of subject sequence within the curriculum i.e. the order, prerequisites and subject interconnection in reference to semesters and years of study as well. 62% of students displayed (great) satisfaction, while only 16% are dissatisfied or highly unsatisfied from this aspect of their study curriculum.

Student respondents displayed the greatest dissatisfaction by the availability of student internship. This weakness of the Macedonian higher education system was detected a longer period ago, thus on 19th August 2008, the Law on changes and amendments on the Law on Higher Education brought changes that regulate the role and status of clinical teaching on universities, guest lecturers within the teaching process, and introduction of one month mandatory student internship each study year. But, despite these changes in the law, it seems that students nowadays still have difficulties in fulfilling their obligation by law to gain practical experience in their field of studies outside of the faculty facilities. This point of the research meets with fairly the exact percentage of (highly) dissatisfied students (34.5%) and (highly) satisfied students (38%) (Table 1.6).

Table 1.6: Degree of satisfaction from the prospect to participate in practical classes outside of faculty facilities
In addition to the above stated facts, if we take into consideration the absence or insufficient number of lectures held by guest speakers (experts or field professionals) on Macedonian HEIs, it can be concluded that the Macedonian education system lacks a significant study dimension in view of the Bologna principles. The issue grows even stronger with the fact that this part of teaching should enable and contribute to translate theoretical knowledge into practical skills (a very important part of the skills that curricula intend to equip students with) and provide them with practical experience that should increase their employability.

The research confirms that Macedonian higher education system still insists largely on theoretical knowledge, memorizing information, and simple reproduction of learning materials, instead of functional knowledge or aiding students in developing skills to use the knowledge in the real world, use a critical way of thinking or be creative in linking and solving problems, all of which are skills Bologna principles as well as contemporary labor markets insist on. Questioned to which extent they are satisfied by the results of their studies so far in terms of enlarging their knowledge, students expressed a rather large percentage (68%) of (high) satisfaction. 19.5% students remained neutral on the issue, while nearly 11% of them expressed dissatisfaction (Table 1.7).

<table>
<thead>
<tr>
<th>Degree of Satisfaction</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly satisfied</td>
<td>127</td>
<td>13.05%</td>
</tr>
<tr>
<td>Satisfied</td>
<td>535</td>
<td>54.98%</td>
</tr>
<tr>
<td>Neutral</td>
<td>189</td>
<td>19.42%</td>
</tr>
<tr>
<td>Unsatisfied</td>
<td>91</td>
<td>9.35%</td>
</tr>
<tr>
<td>Highly dissatisfied</td>
<td>16</td>
<td>1.64%</td>
</tr>
<tr>
<td>I cannot say</td>
<td>15</td>
<td>1.54%</td>
</tr>
</tbody>
</table>

Table 1.7: Degree of student satisfaction by the results of their studies so far in terms of enlarging their knowledge

But, the succeeding question of “the degree in which the studies have insofar changed students’ perspectives on practical problems and their possible solutions in view of their future occupation”, produced lower results. Its aim was actually to evaluate whether despite their solid theoretical knowledge Macedonian students have developed skills to use the acquired knowledge in the real world, use a critical way of thinking or be creative in linking and solving problems (Table 1.8).

As opposed to the 68% of students who expressed a high degree of satisfaction by the knowledge they have acquired in their studies so far, a smaller number of them, nearly 62% said they were completely or partially capable of using the acquired knowledge in order to solve practical problems. The percentage of students who stated that the curriculum only partially or relatively equipped them in relation to this question also rose (29.5%), while a very slight percentage of about 6% said they were not or not well enough equipped to deal with practical problems.
Table 1.8: Degree in which the studies have insofar changed students’ perspectives on practical problems and their possible solutions in view of students’ future occupation

Table 1.9: Degree in which students have been prepared to work in their field of occupation

Table 1.10: Students’ opinion on reasons why they feel incompetent to start working in the field related to their studies
The degree of satisfaction from the extent in which students have been prepared to work in their field of occupation continues to decrease (Table 1.9). Only 44% of the students feel fully or quite prepared to tackle working tasks, while 35% of them are only relatively prepared to do so. The 18.5% percentage of students who stated they are not enough or not at all equipped to proceed working in their professional field is also worth considering.

The greatest part of students who do not feel prepared to work in their field of study find the reason partially within themselves (40.5%), and partially within the university department. A portion of the students, i.e. 17% are quite self-critical and find themselves responsible for their situation, while 14.5% of them think the university department is to blame for their situation (Table 1.10).

3.2 Teaching and Teaching Manners of HEI in the Republic of Macedonia

Until recently, the traditional teaching manner (ex-cathedra) was the common teaching manner of HEI where professors have the dominant role, as opposed to the passive part of students. Professors usually focused on orderly realization of the teaching and methodical units, but neglected its effects on students in terms of their acquiring necessary skills (knowledge, skills and stands). There were also instances where professors let their assistants do most of the teaching, although these were only isolated cases.

The autocratic manner of working with students domineered, where emphasis was made on memorization instead of learning by comprehension and/or by problem solving; obedience instead of diligence; frontal work instead of interaction; insufficient use of contemporary teaching tools and information technology. The reasons for domineering traditional teaching methods in the past are the following (Ministry of Education and Science, National Education Development Program, 2006, p.287 – 288):

- Large number of students per group (some faculties had groups of up to 300 students);
- Lack of contemporary information and communication technology tools or their insufficient use in the study process;
- Weak didactic skills of some of the professors;
- Professors’ assessment system;
- Failure to use the concept of learning outcomes within the curriculum;
- Students’ poor ability for independent work.

Although a large part of these reasons are still present, it can be confirmed that in the course of past several years there have been significant changes in the part of teaching and teaching manners (Table 1.11).
Table 1.11: Common manner of teaching in Macedonian HEI

According to students, nearly 26% of their professors still use the ex-cathedra teaching method. But, the majority of the rest of professors (27%) instigate discussion with students, about 9% use case study elaboration, nearly 5% seek arguments and counterarguments, almost 4% encourage trial and error, and the largest part of professors, close to 30% use all of the above mentioned methods. One must admit that this is a great step forward towards teaching modernization as compared to the situation several years ago. Professors who still use the classical teaching method state they cannot use interactive teaching methods due to the large number of students in their groups.

What Macedonian HEI lack in teaching, a matter that students almost always react positively to, is clinical teaching i.e. more classes taught by experts.

The results to the question of the percentage of classes taught by professors, confirmed that Macedonian professors are quite conscientious, thus 27% of them teach the classes completely by themselves, nearly 35% lecture around 90% of their classes, and almost 19.5% lecture at least 75% of their classes. Unfortunately, there are cases where professors lecture hardly half of their classes (12.5%), as well as instances where assistants lecture most of the classes as opposed to the professors, i.e. 5% (Table 1.12).

Table 1.12: Percentage of classes taught by professors
3.3 Availability of Teaching Staff Outside of Teaching Hours

The above stated fact that a large amount of professors work conscientiously was also confirmed by the degree of student satisfaction from teaching staff’s kindness, availability, and professionalism outside teaching hours (Table 1.13).

![Table 1.13: Degree of student satisfaction by teaching staff’s kindness, availability, and professionalism outside teaching hours](image)

Nearly 62% of the students feel satisfied or highly satisfied by professors’ kindness, availability and professionalism outside of their teaching hours. Around 21% of students are neutral, and almost 15% of them declared themselves unsatisfied or highly dissatisfied. The latter two percentages should not be neglected and all professors need put additional effort in order to correct these weaknesses.

![Table 1.14: Degree of student satisfaction by quality, clarity, and contemporariness of teaching materials used by professors](image)
3.4 Textbooks and Teaching Tools

Professors usually teach by textbooks that they have published themselves and 50% of students are satisfied or highly satisfied by the quality, clarity, and contemporariness of teaching materials assigned by professors. Around 22% of the students declared themselves neutral, while 27% are unsatisfied or highly dissatisfied, which is also not a percentage to underestimate (Table 1.14).

3.5 Student Assessment

It may be concluded that the Bologna process has significantly influenced student assessment manners and methods, as well as objectivity and professionalism of professors in evaluating student achievements. Greatest part of universities and faculties introduced the ECTS and unified the assessment manner as: 60% knowledge, 20% attendance, 10% diligence in class, i.e. practical work, and 10% papers i.e. projects. Professors have, of course, the right to make slight changes or aberrations from these percentages, which is usually the case with professors who work with large student groups where it is relatively hard to keep attendance or student diligence records. In such instances student assessment comes as a result of the knowledge that students exhibit and/or presentation of papers/projects.

Students’ statements prove that the majority of HEI utilize this manner of student assessment which takes into consideration several different study dimensions not only declaratively, but practically as well. Even 60.5% of students confirmed that their grades in most subjects include attendance, papers, projects, homework assignments and/or research work. A smaller number of them or 33.4% said they were involved in the creation process of their final grade, but only in certain subjects. Unfortunately, there are also faculties, although a rare instance, where student assessment is not as above described in most subjects. Nearly 6% of the students are enrolled in this type of universities (Chart 1.2).

![Chart 1.2: Degree of involvement of student attendance, papers, projects, homework assignment, and research work into the final grade creation process on Macedonian HEI](image-url)
The questionnaire presented a relatively (high) satisfaction from the mid-term exams and exam assessment manners (58%) (Table 1.15), criteria compatibility in student assessment in various subject courses (46%) (Table 1.16), as well as objective and fair student assessment (49%) (Table 1.17).

Table 1.15: Degree of student satisfaction from mid-term and final exam assessment manners

Table 1.16: Degree of student satisfaction from criteria compatibility in student assessment in various subject courses

Results so far point out that implementation of Bologna principles in student assessment influenced and enhanced to a great extent the objectivity and professionalism of teaching staff in student assessment. But, there are certain disadvantages that need to be pointed out, which have been detected by the research itself or in direct communication with students.

Firstly, a large part of student papers i.e. projects, which make for 10% of the final grade, are of questionable quality, i.e. do not possess analytical or research characteristics. Most papers are theoretical, not critical, in some instances even translations or transcriptions of information from other sources or the Internet. While assessing this type of work, the teaching staff either does not pay enough attention to quality or is just focused on carrying out the technical requirements and guidelines for the creation of the paper. The goal of these papers or projects is for students to strengthen their
criticality, i.e. develop research and analytical skills, and the ability to assess source relevance and quality they use in their papers.

![Table 1.17: Degree of student satisfaction from the objective and fair student assessment](image)

The second disadvantage is even greater than the first one. This disadvantage refers to the type of knowledge that is instigated or required by students and the manner in which it is assessed (which makes for 60% of the final grade).

ECTS introduction caused a large number of universities and faculties to transfer from oral to written (mid-term and final exams) student examination. This student assessment manner was to aid the Bologna principles implementation and avoid professor subjectivity in student assessment. But, it seems that this transformation caused most professors to start or continue implementing encyclopaedism as a manner of learning. This means that professors insist on unnecessary quantity of facts, historical data, definitions and listings, and pay little attention to meaning, causality or ways of their practical usage. Theoretical knowledge domineers over critical knowledge. Students are asked to simply reproduce the study material, thus instigating memorization, facts, and encyclopedic knowledge.

A higher form of knowledge is rarely asked for (comprehension, analysis, generalization, principle application), except in the instance of students of technical sciences, who are required to solve problems that ask for comprehension (Center for Research and Policy Making, 2009, p.53).

Thus, subject knowledge is almost exclusively being followed, examined and assessed, with special emphasis to memorization and knowledge reproduction. Other student achievements are left in the background or completely marginalized. This approach does not allow student assessment to focus on student ability to use the acquired knowledge in real life situations.

Students are rational and pragmatic beings, thus it is expected that they will study what is asked of them and in such a manner they will be evaluated in. Hence, they will choose functional knowledge (study for a grade) over studying to enhance their critical knowledge (study in order to enlarge one’s knowledge). Therefore, students focus on developing the ability to simply reproduce knowledge of the study material, not on developing practical usage skills, critical way of thinking or creativity in linking and problem solving that Bologna principles and present labor markets insist on.
The professor and associates performance evaluation system is largely to blame for this situation. Their performance is evaluated based on the curriculum and number of classes held, normatively, regardless if qualitative changes in students have been achieved or the skills that each student acquired and the effects they brought upon them (Popovski et al, 2007, p.41). Teaching staff performance should be evaluated and awarded by student accomplishments. Unfortunately, there is almost no instance where professors have been called for due to their students’ low achievements (evaluated by the number of passed exams or inability to use the knowledge that was to be acquired in class).

The research pointed out that multiple choice tests or true/false tests present a dominant student assessment manner (27%). In 25% of study subjects students are evaluated by written multiple choice exams, true/false tests, and open questions; 23.5% by open question written exams; 20% by a combination of written and oral exam; barely 0.6% by oral exams; and 3% by other student assessment manners (Table 1.18).

Table 1.18: Common mid-term and final exam student assessment manner on Macedonian HEI

Majority of professors agreed that this domineering (electronic) student assessment, which does not include student-professor interaction, failed and did not equip students with the necessary skills. Certain faculties as Justinian I Faculty of Law reinstated oral examination starting from the 2012/2013 study year, while others made a compromise due to the large number of students and chose the combined student assessment system (Atanasoska-Manasieva, 2012)

There is still the need to emphasize that, even under the presumption that current assessment manners are to remain unchanged, the type of knowledge students are required to acquire should be immediately changed.

3.6 Study Efficiency of Macedonian HEI

Increased study efficiency should be one of the advantages of higher education Bologna principles implementation.

This is measured by the number of graduates as opposed to the number of students enrolled in the first year of studies, as well as the percentage of students who graduated on time. An analysis was conducted on available data of these parameters in the period of 2002 – 2010 (Table 1.19).
Based on the acquired data, a conclusion can be drawn that there is a permanent increase of the number of graduates in relation to students enrolled to studies four years prior to the relevant year, which is the average time period necessary to complete studies in accordance to curricula in the particular time period. The percentage of students who graduated on time has also risen from 13.3% in 2002 to 38.8% in the last year of research. Despite the rising numbers of graduates, it is still a fact that study efficiency can further be enhanced.

4. CONCLUSION

In the course of last two decades, Europe carried out a large number of reforms in order to establish and unify its higher education systems and increase their relevance and international attractiveness. Bologna Declaration is one of the most important higher education reforms – a key document that incited all most important changes, such as the compatible and comparable degree system, three educational cycles, the ECTS, mobility, secure quality of higher education and European characteristics and values of higher education. There was a belief that proper implementation of the Bologna Declaration, Lisbon Agenda, as well as its successor, “Europe 2020”, would aid European universities in securing their role in the creation of a most competitive society in the world, based on knowledge.

Reforms were supposed to enable greater availability, massification and efficient studies, greater variety and flexibility, large variety in student specialization studies, and to make universities more open, complementary and competitive in relation to Anglo-Saxon system universities, which dominate the global educational market.

Macedonian higher education institutions (HEI) faced serious challenges while implementing Bologna principles and improving their quality of performance. In order to acquire a real image of the present situation of Macedonian higher education system and results of a decade of reforms, a research was made, which included 981 students from different state and private universities in the country, who present the most important and relevant stakeholder in the quality assessment of higher education institutions. Based on the results of this empirical study on the degree of student satisfaction by the teaching process of the institutions these students were enrolled in, it may be concluded that in the course of last several years Macedonian HEI made quite an improvement and most of them have more or less successfully adjusted to Bologna principles.
As expected, the research pointed out certain problems and challenges of the teaching process, which helped identify future reforms key areas as: continuous stimulation to the usage of new and contemporary teaching methods; more lectures held by eminent experts; better opportunities for student internships, stimulating students to acquire critical knowledge and critical way of thinking instead of assuming only theoretical knowledge and encyclopaedism as a manner of learning and student assessment; better quality and research characteristics of student papers, projects and graduation projects; further enhancement of study efficiency; and introduction of a more stimulating performance measurement and awarding system for academic staff.

Research results conclude that Macedonian HEI have a variety of alternatives to improve their teaching process, but also that the majority of problems and challenges they face with do not significantly differ from the problems and challenges of other European universities.

REFERENCES


ATTENTION WITH GREATER IMMERSION IN CHILDREN

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Abstract.
Attention in children is closely connected with attention styles and arousal. For most children, alternating styles of attention (between narrow and diffuse and between objective and immersed) reflect the brain wave activity. Alternating styles of attention is a key factor for attaining the flexibility for moving freely by degrees among and within attention styles. But how is it possible to stimulate narrowly objective forms of attention in children? The paper supports the possibility to achieve attentional flexibility through open focus attention. The possible way to use mentioned above focus attention in foreign language teaching practice was proposed.

Key words: arousal, attention styles, attentional flexibility, focus attention, language, education.

1. INTRODUCTION.

Human attention can be theoretically divided in four types. Attention is the means by which we relate to experience. Attention styles are defined as those processes that control the proximity, scope, speed, stability and direction of awareness (Fehmi, 1980). Attention style and physiology have reciprocal impact. Emphasis of attentional style can be used as both an unconscious and conscious vehicle or strategy for managing foreign language acquisition in children. For example, we may broaden the scope of our attention in order to diffuse the power of some subset of experience or we may narrow focus on experience in order to enhance the intensity of its impact or we may narrow focus away and so avoid or deny the existence of experience (Fehmi, 1989). All of these and other differing attentional strategies affect children foreign language perception and acquisition.

As a result of habitual overuse, children fall prey to some single attentional style, or a limited range of attention styles, as representing children dominant habitual identity. An example of identity may be reflected by a narrow objective type of awareness. This paper presents a view how children pay attention to what they pay attention to. Awareness of attention and attentional balance, stability and flexibility are fundamental. Children in the times of the explosive growth of the information age, which emphasizes narrowly focussed visualization and intellect and objectification which cuts them off from their other senses may stop losing their natural ability to realize attentional flexibility. They may lose narrow focused objectivity that has become a habitual fixation of modern everyday life.

Attentional flexibility limitations associated with identifying with one or a limited subset of attentional styles. It is only with attention training that emphasizes an awareness of how children pay attention and which emphasizes flexibility of attention that children identity can be liberated from rigidly held attention biases. The implementation of attention skills, and the integration and balancing of attention styles can significantly enhance the quality of life. A specific example of such a transformed attention is presented in this paper. Its initial formation is dependent upon middle levels of arousal or arousal portal. This portal represents the window to the experience of more subtle realities associated with more subtle and balanced ways of paying attention.
Learning to pay attention to how a child pays attention is synonymous with learning to learn. Learning to pay attention in an effortless interested style and learning to attend to and apply such effortless interested attention in every appropriate situation is an example of the process of learning to learn efficiently.

2. ATTENTION STYLES.

Narrow or pointed type of attention, the immersed narrow focus type of attention, diffuse focus-objective attention were proposed for attention type analyses by (Fehmi, 1989). Each of these types of attention represent individual characteristics of attention. The diffuse or broad attention is associated with dimensional, simultaneous and equal attention to all available external and internal stimuli and the space in which they occur. Narrow or pointed attention refers to an awareness of a limited subset of available stimuli to the exclusion of the other stimuli. The extreme of narrow focused attention is one-pointed attention. The extreme of immersed or absorbed attention refers to a way of relating to available experience such that the person paying attention enters into union with or becomes totally absorbed in the experience. The extreme of objective or separate attention occurs when the child is completely remote from the contents of attention. Extremes of objective or separate attention are associated with coldness where as extreme immersed or absorbed attention may be associated with warmth or closeness, full immersion in ongoing single or multisensory experience.

A narrow focus-objective type of attention, the attentional style which is most dominant in our society, a civilization disposed to the overuse of linear-objective information processing skills. While rapid and complete attentional narrowing and objective focus is at times necessary for optimal behavior, there is, in our day, an unfortunate tendency toward overuse and consequent rigidity of narrow-objective attentional processing. The extreme case of temporary attention fixation occurs in conditions of panic where the act of narrow focusing upon and objectifying the feared object may bring rigidity of focus and directional orientation. A less extreme, narrow-objective focus is obsessive worry and preoccupation with recurrent thought. The discussion presented previously describes children predilection to narrow focused-objective attention and their consequent obsession with and fixation upon its use.

The attentional opposite of narrow-objective attention is a diffuse focus-immersed attention. This type of attention represents the release from a narrow and objective attentional focus, a release which is important for attentional effectiveness and flexibility. Normalization of function, healing, and diffusion of accumulated stress are the result of diffuse-immersed attention. Increased unity or immersion leads to the lapse of self-consciously directed attention, and is exemplified in the effortless performance of well-learned or instinctive behavior. Fehmi (1989) demonstrated the effortless, creative performance of an art form or athletic feat in his clinic-laboratory where accomplished artists, athletes demonstrate flexible control over the dimensions of attention. They are uniquely adept at merging with a wide array of sensory experiences simultaneously.

The diffuse focus-objective mode of attention is one in which multisensory experience is simultaneously and objectively present, a potentially vast multidimensional objective awareness. An array of objective sensations hang suspended in the midst of a more general diffuse awareness of space. Playing in a band, appreciating a panoramic sunset, going for a walk or driving a car - these are among the activities for which an appropriate relational strategy may emphasize diffuse focus-objective attention.
The immersed narrow focus type of attention includes absorptive modes such as intellectually interesting or emotionally and physically pleasant and stimulating activities. These are activities which child wishes to amplify with narrow focus and to which one wishes to move experientially closer to, in order to intensify and savor the event. Child may observe the narrow focus absorbed look on the face of an enraptured thinker, fantasizer, concertgoer, game player or someone experiencing deep muscle massage or other sensuous physical activities. Part of the attraction of certain cultural, artistic and athletic or physical events may be to provide an occasion for becoming absorbed and immersed with minimum self-consciousness. This also makes understandable the common example of the inertia and irritation experienced when distracted or interrupted from a task in which you are narrowly and deeply involved. Child is forced to become self-conscious again and to experience the self-other split again. Preconscious performance of a well learned task is a most common example of when child is narrowly immersed in functioning. Csikszentmihalyi (1990) appears to describe this attention as responsible for sustaining of the experience.

3. MIDDLE LEVELS OF AROUSAL.

The potential for an important rearrangement of combinations of attention styles exists in the arousal portal of children attention. The balance of narrow-objective versus diffuse-immersed attention styles shifts back and forth, usually determined by momentary attention biases, external and internal sensory factors impacting arousal. In the arousal portal region, where the narrow and objective attention dimensions are present in approximate equal balance with the diffuse and immersed attention dimensions, there is the potential for a restructuring of attention dimensions that is inherently more integrated and stable in arousal than before. In the restructured form, one may become aware of a narrow-immersed attention in the center of awareness which is simultaneously surrounded and permeated by a diffuse-objective attention.

This transformed attention is effortless and allows the diffusion of stress as it occurs, and, therefore, is self-balancing and stabilizing in physiologic arousal by its nature. This transformed attention structure is not driven out of balance because any stress does not and can not accumulate since narrow-objective attention is not emphasized at the expense of diffuse-immersed attention. Each restructured pair of attention styles, narrow-immersed or diffuse-objective attention, appears to represent the simultaneous functioning of combined processes along with equal activation of left and right brain hemisphere processes. Thus, the transformed version of attention result in more stable mid-range arousal and is associated with more stable and optimum function and performance. It represents greater integration of the activity of both hemispheres in simultaneously reflecting sequential and parallel processing. The transformed combinations of attention supports a wide range of positive effects, from remediation of function to the optimization of function. It also supports an on-going sense of well being, energy and acceptance of experience. The arousal portal represents the window to more subtle and integrated realities which are mediated by the above described transformed attention style combinations.

The four major styles of attention, and their various influences upon the nervous system and arousal level. The center moderate range of the arousal continuum supports attentional balance and open focus attention. A most significant distinction between transformed attention and more ordinary forms is the presence in the former of a conscious over witness of limitless sensory experience existing in space. This broadly grounding and balancing experience supports its own continuance and general mental and autonomic balance. According to given above arousal findings it may be quite natural to realize a personal experience of each of the described attentional styles.
4. FOCUS ATTENTION.

Full or open focus attention, includes diffuse, narrow, objective, and immersed forms of attention occur more or less equally and simultaneously, with an awareness of their presence. The ultimate goal of open focus training is to attain the attentional flexibility adequate for moving freely by degrees among and within attentional styles, including all, at times, simultaneously and equally. From what is known about each of the independent parameters of attention, one is tempted to ascribe narrow and objective attention to left hemisphere organized processes and diffuse and immersed attention to right hemisphere organized processes. In any case, because of the physical and functional independence of each of the mechanisms which give rise to each of the parameters of attention, it is possible for all of them to be present simultaneously (Fehmi, 1982). Thus, children possess the potential to attend to any given content of attention in a variety of styles, individually, in combination, and by degrees. However, with socialization training and by habit, children usually attend to familiar and similar situations in essentially the same way, that is, habitually.

It is quite evident that fixation, rigidity, obsession, repression, depression, resistance, attachment, detachment, loneliness, addiction, inhibition, neurosis, anxiety and other reactions to the contents of attention, which are triggered and supported by biopsychosocial spiritual factors, are not supported in an environment of flexible attention. It should be quite natural to escape fixation, rigidity, obsession, repression, depression, resistance, attachment, detachment, loneliness, addiction, inhibition, neurosis, anxiety to the contents of attention during foreign language classes and stimulate children react positively when teachers let them guide teachers to attend to what they value and in the mode of attention they feel is appropriate.

There is little doubt that all successful learning and optimal performance involves directing appropriate styles of attention toward relevant stimuli in an effectively choreographed sequence (Fehmi, 1982). Styles of attention, fluid and relevant figure and ground processing, and the timing of their occurrence are obviously critical factors for all learning.

5. CONTENT.

In general, content of attention, whether it is a pleasant or unpleasant image or thought or a feeling or an emotion, or a sound or a taste or a smell, or a limited combination of sense experiences, does not inherently produce, or require a change in attention. With appropriate training, it may be possible to bring any of the available attentional styles to relate to or process any content of attention, pleasant or unpleasant. While specific past conditioning or training may have brought into child’s perception specific habitual forms of attention in response to familiar content, child may learn to bring other forms of attention into being. This is an important point. The fact is that even when certain feelings, emotions or other sensory experience tend to be present with the adoption of specific attentional styles, this connection need not be permanent and may be unlearned. A feeling, emotion or other specific content need not necessarily bring about or signify the presence of a specific attentional style, although it may presently do so.

6. THE FLEXIBILITY OF ATTENTION.

The flexibility of attention to individual and combinations of changing content is associated with the alternate stabilization and subsequent destabilization of various degrees of in and out of phase coherence. This mechanism is proposed as the foundation for timely ever changing objective
knowledge, creativity, performance and, in general, life as we know it, along the subject and object interface. In fact, it is inconsistent with common sense to expect flexibility of attention or flexibility of the contents of attention from a system of activity which is permanently wired or phase locked. Similarly, it is difficult to imagine the development of effective attention or appropriate continuity of objects of attention without some ability to briefly fix and maintain coherence for a time.

Learning how to bring these experiences into ever larger fields of present experience is valuable in order to diffuse any associated emotion, tension or other change. Attention training can be used to enhance forms of attention to enhance forms of attention that support the integration and diffusion of any given information.

7. NARROWLY OBJECTIVE FORMS OF ATTENTION STIMULATION.

Recent evidence suggests that more than forty percent of the daily time our planet animals are resting or not engaging in the type of goal-oriented behavior which is associated with narrowly objective forms of attention. However, most children spend almost no time, on a daily basis, in diffuse and immersed forms of attention, just not doing. It is hypothesized that this other process appears to be largely related to the limited ways children pay attention, which support goal related activity.

Any stress accumulation appears to be the result of children overuse of their effortful, objective and narrowly focused concentration. Their habit of exclusive narrow focused objective attention prevents the natural process of normalization of physiological function and release of stress. It is quite important that a balanced attention associated with an ongoing release or diffusion of stress-tension. Attentional rigidity is related to the prevention of physiological and mental homeostasis. Thus attentional rigidity should be taken into account for foreign language teaching and acquisition.

8. CONCLUSION.

By giving attention to this ungrippable space children eventually become aware of the previously unnoticed act of gripping or physical tension, which is associated with children habitual bias toward narrow and objective forms of attention. Awareness of gripping is a precondition for the motivation to intentionally release this same gripping tension. When this habitual attention related tension is released, attentional scope broadens and supports an awareness of also being immersed in a perceived vast and pervasive surround. Bu how can children release? Of course with the help of a diffuse focus-immersed attention. This type of attention represents the release from a narrow and objective attentional focus, a release which is important for attentional effectiveness and flexibility.

After opening attention, while including children already present narrow objective attention to sensations in the center of children’s new open awareness, they experience a surround of immersed attention. The perceived surround, the scope of children attention is not only expanded, but is experienced with greater immersion. Thus, the ground of children experience is realized as a more pronounced sense of presence, a centered and unified awareness, an identity with a vast quality less awareness in which all objects of sensation float, as children themselves.

As teachers continue to experience space more intimately, more simultaneously and equally, they deepen the absorption of children attention in the totality of present experience. All that is necessary to change the balance of these integrated forms of attention is to effort fully apprehend an object, to overfocus upon space as an object or concept. However, teachers can learn to quickly reestablish
balanced forms of attention. Alternating styles of attention is a key factor for attaining the attentional flexibility for moving freely by degrees among and within attentional styles.

REFERENCES


PROCESSING SPEED AND ATTENTIONAL ABILITIES IN SPECIFIC LANGUAGE IMPAIRMENT CHILDREN
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Abstract
Phonological working memory was targeted as a potential mediating variable, because vocabulary development has been consistently associated with the ability to accurately repeat nonwords. The ability to respond quickly (processing speed) with the label for a lexical item requires that the item be stored appropriately in memory, to enable efficient retrieval. Several authors have theorized about the nature of the relationship between processing speed and memory capacity. There is evidence that increases in children’s processing speed over development are associated with growth in working memory capacity. It is quite important for foreign language inquiring that lexical processing requires a degree of selective attention to the task. The paper suggests the possibility that attentional abilities are related to processing speed. The paper strongly supports that phonological working memory and attention have been theoretically linked in models of working memory. But how non traditional conception of working memory may be used if we decide to fasten processing speed taking into consideration attentional abilities? What may happen if attentional abilities is determined by the constraints of endogenous attention effect and incongruent effect? The possible way to use mentioned above effects in teaching practice was proposed.

Key words: processing speed, attentional abilities, phonological working memory, language, education.

1. INTRODUCTION.
Working memory has been defined as the system which actively holds information in the mind to do verbal and nonverbal tasks such as reasoning and comprehension, and to make it available for further information processing. Efficiency with which a person processes and responds to a language-based stimulus, such as a picture or word is considered to be processing speed. The human working memory and its processing speed are considered to be a part of individual human cognition. There is an evidence that phonological working memory, as measured through nonword repetition, is associated with processing speed (Anderson and Wagovich, 2006). Processing speed increases with age, it enables greater short-term memory capacity, which then impacts fluid intelligence (Fry & Hale, 1996).

As lexical processing requires a degree of selective attention to the task, attentional abilities are related to processing speed. Phonological working memory as a part of the human working memory and attention have been theoretically linked in models of working memory (Anderson and Wagovich; 2006).

Attention is the cognitive process of selectively concentrating on one aspect of the environment while ignoring other things. In this situation, more than one representation can be active at the same time (allowing phenomena like that of “divided attention” or attention to a large perceptual space).
2. INFORMATION STRUCTURES.

The information structures are considered to be the part of evolution of human cognitive architecture (Sweller, 1998). Some work has been carried out by Sweller (1994) and Halford, Wilson and Phillips (1998). Sweller (1994) suggested that all information can be placed on a continuum according to the extent to which the elements that constitute the information interact. At one extreme, there is no interaction between the elements that need to be learned. They are independent. Element interactivity is low, or indeed, non-existent, and that means each element can be considered and learned serially without reference to any other element. Because elements at the low element interactivity end of the continuum do not interact with each other, there is no loss of understanding despite each element being learned individually and in isolation. Understanding is defined as the ability to process all elements that necessarily interact, simultaneously in working memory.

At the other extreme of the continuum, there is close interaction between the various elements that need to be learned. Element interactivity is high which means that if the material is to be understood, all of the information with its multiple elements must be processed simultaneously (Sweller, 1998). The underlying skills that enable one to respond quickly to a linguistic prompt are not well understood, however. For instance, theoretically, having a strong vocabulary should aid performance on a naming task, but other factors, including a range of cognitive factors, may play a role as well. The exploration of the extent to which two factors in particular, phonological working memory and attentional skills play a role in linguistic processing speed for children and their typically fluent peers is closely connected with several semantic and phonological processing.

3. CHILDREN COGNITIVE ARCHITECTURE.

The term "cognitive architecture" refers to the manner in which cognitive structures are organized. (Sweller, 1998) This section describes those aspects of children cognitive architecture relevant to visually and auditory perception.

3.1. WORKING MEMORY

Initially designated short-term memory (Miller, 1956) it is now more commonly referred to as working memory (Baddeley & Hitch, 1974) to reflect the change in emphasis from a holding store to the cognitive system's processing engine. Working memory can be equated with consciousness in that the characteristics of our conscious lives are the characteristics of working memory. The most commonly expressed attributes of working memory are its extremely limited capacity, discussed by Miller (1956) and its extremely limited duration, discussed by Peterson and Peterson (1959). In fact, both of these limitations apply only to novel information that needs to be processed in a novel way. Well-learned material, held in long-term memory, suffers from neither of these limitations when brought into working memory (Ericsson & Kintsch, 1995).

While initially conceptualized as a unitary concept, working memory is now more commonly assumed to consist of multiple streams, channels or processors. For example, Baddeley (Baddeley, 1992; Baddeley & Hitch, 1974) divided working memory into a visuo-spatial sketchpad for dealing with 2 dimensional diagrams or 3 dimensional information, a phonological loop for dealing with verbal information and a central executive as a coordinating processor. Mentioned above phonological loop is considered to be a part of working memory (its phonological part).
3.1.1. PHONOLOGICAL WORKING MEMORY AND THE ROLE OF ATTENTIONAL PROCESSES.

Baddeley’s (Baddeley, 2003; Baddeley, 1986; Gathercole & Baddeley, 1993) model of phonological working memory provides a reasonable conceptualization of how incoming phonological information is processed or stored in memory (Baddeley, 2003; Baddeley, 1986; Gathercole & Baddeley, 1993). Specifically, according to Baddeley’s model, the phonological loop enables short-term storage and rehearsal. Indeed, it seems that most studies of nonword repetition focus interpretation of findings on the phonological loop component of the model. However, as Bajaj (2007) pointed out in his recent review of the working memory literature in relation to stuttering, consideration of the central executive component of Baddeley’s model is critical, as well. The central executive is responsible for managing information and regulating attention.

Other models of working memory also describe the role of attention. For example, Cowan (1999) discussed attention-free and attention-focused storage, with attention-focused storage being limited in its capacity. Cowan (2005) emphasizes that the scope of attention is important to consider and measure in working memory studies. Moreover, some have argued that working memory tasks are truly measures of attentional control (Engle & Kane, 2004).

Clearly, an individual’s ability to attend to the target stimulus is critical if processing of the stimulus is to occur. There is an evidence that phonological working memory, as measured through nonword repetition, is associated with processing speed (Anderson and Wagovich, 2006). Processing speed increases with age, it enables greater short-term memory capacity, which then impacts fluid intelligence (Fry & Hale, 1996).

As lexical processing requires a degree of selective attention to the task, attentional abilities are related to processing speed. Phonological working memory as a part of the human working memory and attention have been theoretically linked in models of working memory (Anderson and Wagovich, 2006).

3.1.1. 2. NONWORD REPETITION IN CHILDREN

Interest in the nonword repetition skills of children with Specific language impairment perhaps initially stemmed from findings from typically developing children that nonword repetition corresponded to vocabulary development (Gathercole & Baddeley, 1989; Gathercole, 1992). Indeed, there is a robust literature focusing on nonword repetition in children with Specific language impairment. The is an evidence that the longer nonwords distinguish the best, than short ones (Bishop, North, & Donlan, 1996).

3.1.1. 3. ATTENTION PROCESSES IN CHILDREN.

Theorists and researchers have emphasized attention as an important construct or a part of understanding phonological working memory (Baddeley, 2003; Cowan, 1999; Cowan, 2005; Engle & Kane, 2004; Redick & Engle, 2006). Within the Specific language impairment literature, in particular, there has been a call to look carefully at central executive functioning, which includes aspects of attention, rather than focusing exclusively on phonological working memory. The argument is that, if processing limitations are observed in children with Specific language impairment relative to peers, and these limitations extend beyond verbal tasks to spatial processing as well (Hoffman & Gillam, 2004), perhaps central executive functioning should be examined as a broader construct by which to explain processing differences in children with Specific language impairment.

Montgomery, Evans, and Gillam (2009) contrasted two types of attention tasks employed within the Specific language impairment literature: those that focus on attentional capacity or allocation (Ellis...
Weismer, Evans, & Hesketh, 1999; Hoffman & Gillam, 2004; Marton & Schwartz, 2003; and those that focus on sustained or selective attention (Hanson & Montgomery, 2002; Montgomery, 2009; Spaulding, Plante, & Vance, 2008; Stevens, Sanders, & Neville, 2006). An attentional capacity or allocation task might require that an individual hold a word in memory while processing language in some way. For example, the Competing Language Processing Task (Gaulin & Campbell, 1994), requires individuals to listen to sentences of different lengths and judge whether the sentences are true or false, while holding in memory the last word of each sentence in the block of trials. In general, children with Specific language impairment perform more poorly than their peers on the “memory” component of these tasks, in particular.

In contrast, a sustained selective attention task might involve listening to linguistic stimuli and responding whenever a target word is heard. For example, the Auditory Continuous Performance Test (Keith, 1994) requires participants to listen to a set of 600 words. In studies that employ procedures of this type, there is conflicting evidence of differences between the performance of children with Specific language impairment and their peers. For example, Hanson and Montgomery (2002) found that school-age children with Specific language impairment did not differ in their correct or incorrect response rates compared to age-matched peers. However, Spaulding (2008), who developed visual, nonverbal auditory, and linguistic sustained selective attention tasks, found that with background noise, children with Specific language impairment performed worse on the linguistic and nonverbal auditory stimuli than peers.

Taken as a whole, it seems that children with Specific language impairment do show some differences, relative to peers, in aspects of attention, as well as nonword repetition.

3.1.1.4. NONWORD REPETITION IN CHILDREN.

In contrast to the Specific language impairment literature, studies of phonological working memory in Specific language impairment children are considerably fewer. Only three studies have directly examined phonological working memory, measured through non word repetition with Specific language impairment children (Anderson, 2006; Bakhtiar, 2007; Hakim & Ratner, 2004). Results have been somewhat conflicting. Hakim and Ratner (2004) found that Specific language impairment children produced significantly fewer 3-syllable non words accurately, compared to age-matched and gender-matched peers, and they produced significantly more phoneme errors on 3-syllable stimuli than peers. Nonword stimuli of 2, 4, and 5 syllables resulted in no between-groups differences. Similarly, Anderson and Wagovich (2006) examined non word repetition in a younger group of Specific language impairment children. They found that the Specific language impairment children produced significantly fewer 2-syllable and 3-syllable non words correctly, with significantly more phoneme errors on 3-syllable non words.

In contrast to the above mentioned studies, different results were obtained in a recent study by Bakhtiar (2007). This study examined non word repetition and the phonological skills of Specific language impairment children and their peers. Findings were that the Specific language impairment children did not differ from peers in the number of phonological errors produced in repeating the non words. All three studies were with Specific language impairment children who did not differ from peers in language scores. Thus, there is some methodological similarity across studies. It is possible that the stimuli across studies differed in overall complexity for the children. For example, the Children’s Nonword Repetition Test (Gathercol, 1994), employed by Hakim and Ratner (2004) and Anderson (2006), tended to reveal robust differences among children with language impairments and their peers.
3.1.1.5. ATTENTION IN CHILDREN AND ADULT.

Most of the fluency disorders literature that focuses on attentional processes has been conducted with adults and has used a dual task paradigm (Bosshardt, 2002; Bosshardt, Ballmer, & De Nil, 2002; Caruso, Chodzko-Zajko, Bidinger, & Sommers, 1994; Smits-Bandstra & De Nil; 2009; Vasic & Wijnen, 2005; Bosshardt, 2006; Bajaj, 2007). For example, Bosshardt (2006) asked Specific language impairment adults and typically fluent adults to generate sentences using two target words, while simultaneously making rhyming and category judgments about separate pairs of words. Performance between groups did not differ in the accuracy or speed of rhyme and category decisions. However, Specific language impairment adults generated sentences with significantly fewer propositions in this dual task condition, compared to the single task condition (sentence generation alone). Typically fluent adults did not show this discrepancy. Findings were interpreted to suggest that perhaps Specific language impairment adults, relative to those typically fluent, have greater difficulty directing resources effectively under cognitively demanding conditions. Although this finding does not directly speak to the role of attention, it is clear that attention is one of many resources tapped in cognitively complex, dual task experiments.

There has also been an emphasis on automaticity in Specific language impairment adults (De Nil, Kroll, & Houle, 2001; Smits-Bandstra & De Nil, 2007; Smits-Bandstra, De Nil, & Rochon, 2006). Achieving automaticity involves directing attentional resources to learning a specific motor skill, so these studies inform our understanding of attentional resources in individuals with Specific language impairment adults, as well. For example, Smits-Bandstra, DeNil, and Rochon (2006) employed a single or dual task paradigm with Specific language impairment adults and fluent counterparts. Participants were asked to type sequences of 10 numbers. For the dual task condition, each number sequence changed colors; once the participants typed a number sequence, they were asked whether the same color occurred more than once during the presentation (yes or no). The findings, as pertain to automaticity and attention, were that, while fluent counterparts adults showed a steep learning curve in the single task condition (for example, reducing their reaction time with increased practice), Specific language impairment adults demonstrated a shallow learning curve, although overall reaction time did decrease. Of interest, neither group showed substantial learning under dual task conditions (when attentional skills were taxed) (Smits-Bandstra & De Nil, 2006).

In contrast to the adult literature, it appears that the literature pertaining to children has focused on attentional skills more indirectly. Studies of temperament have referenced aspects of attention. The temperament of Specific language impairment children has most often been assessed through parent-report questionnaires (Anderson, Pellowski, Conture, & Kelly, 2003; Embrechts, Ebben, Franke, & van de Poel, 2000; Karrass, 2006). Anderson used the Behavioral Style Questionnaire (McDevitt & Carey,1978) to examine aspects of temperament in Specific language impairment children and their peers. They found that the group of Specific language impairment children obtained higher scores on the attention or persistence dimension of the questionnaire, suggesting greater persistence and lesser attentional flexibility than peers. Similarly, Karrass (2006), found that the Specific language impairment children were less able to control attention ( less able to shift focus or disengage, as needed).

These findings of reduced attentional flexibility and attentional control in Specific language impairment children are similar to the findings of Embrechts (2000). They used a different temperament questionnaire, the Children’s Behavior Questionnaire (Rothbart, Ahadi, Hershey, & Fisher, 2001), and examined a wider age range from 3 to 8 years. However, despite these differences, they found (as pertains to the present study) that the Specific language impairment children and
Typically fluent children differed significantly in Attentional Focusing, with Specific language impairment children showing a lesser degree of attentional focus than their peers. Thus, these three temperament studies that utilized parent questionnaires seem to present a similar picture, that Specific language impairment children differ from peers in aspects of attention.

In contrast to the above mentioned studies, Schwenk, Conture, and Walden (2007) examined attention directly in Specific language impairment children and their peers, ages 3–5. Findings were interpreted to suggest that Specific language impairment children react to a greater extent to environmental stimuli and that they are perhaps less able to regulate responses to changes within their environment. These findings seem to point to potential differences in selective attention.

Although this finding is not intended to address that need directly, it provides some insight into the potential correspondence between attention and linguistic processing. It is reasonable to hypothesize that attentional characteristics, as well as nonword repetition skills, may be related to linguistic processing tasks.

A major consequence of the limitations of working memory is that when faced with new, high element interactivity material, Specific language impairment children and ordinary children cannot process adequately. They invariably fail to understand new material if it is sufficiently complex. In order to understand such material, other structures and other mechanisms must be used. Sweller (1998) considers that processing high element interactivity material requires the use of long-term memory and learning mechanisms.

3.2. LONG-TERM MEMORY

Humans are not conscious of the contents of long-term memory except when they are brought into working memory, the importance of this store and the extent to which it dominates human cognitive activity tends to be hidden from human eyes. Given this hidden nature of long-term memory, it is not surprising that modern research into long-term memory post-dated research into working memory. It took some time for researchers to realize that long-term memory is not just used to recognize or recall information but rather, is an integral component of all cognitive activity including activities such as high-level problem solving. When solving a problem, it was previously assumed that knowledge stored in long-term memory was of peripheral, rather than central importance. De Groot's (1965) work on chess (first published in 1946) demonstrated the critical importance of long-term memory to higher cognitive functioning. He demonstrated that memory of board configurations taken from real games was critical to the performance of chess masters who were capable of visualising enormous numbers of board configurations. This skill depended on schemas held in long-term memory (Sweller, 1998).

3.3. SCHEMAS

Knowledge is stored in long-term memory in schematic form and schema theory describes a major learning mechanism. Schemas allow elements of information to be categorized according to the manner in which they will be used. Thus, for example, we have a schema for the letter \( a \) that allows us to treat each of the infinite number of hand-written variants of the letter in an identical design. Schemas first became important cognitive constructs following the work of Piaget (1928) and Bartlett (1932). They became central to modern cognitive theory. As well as the work of the Groot (1965) and Chase and Simon (1973), Gick and Holyoak (1980; 1983) demonstrated the importance of schemas during general problem solving and Larkin, McDermott, Simon and Simon (1980) and Chi, Glaser and Rees (1982) demonstrated the critical role of schemas in expert problem solving. As a consequence of this work, most researchers now accept that problem solving expertise in complex areas demands the acquisition of tens of thousands of domain-specific schemas. These schemas allow expert problem
solvers to visually recognize problem states according to the appropriate moves associated with them. Schema theory assumes that skill in any area is dependent on the acquisition of specific schemas stored in long-term memory.

Schemas, stored in long-term memory, permit the processing of element interactivity material in working memory by letting working memory to treat the many interacting elements as a single element. As an example, anyone reading this text has visual schemas for the complex signs that represent a word. Those schemas, stored in long-term memory, allow us to reproduce and manipulate the signs that constitute writing, in working memory, without strain. But, we are only able to do so after some periods of learning.

3.4. AUTOMATION

What humans can learn, with practice, become automated. After practice, specific categories of information can be processed without any conscious effort. As an example, schemas that help humans to read letters and words must initially be processed consciously in working memory. With practice they can be processed without conscious effort until eventually, reading individual letters and words becomes an unconscious activity that does not require working memory capacity. Schneider and Shiffrin (1977) and Shiffrin and Schneider (1977) demonstrated the contrast between conscious and automated processing. Kotovsky, Hayes and Simon (1985) demonstrated the benefits of automated processing to problem solving skill. Complex information incorporated into an automated schema after extensive learning periods could be easily manipulated in working memory to solve problems.

4. SOME INSTRUCTIONAL EFFECTS.

Cognitive load theory (Sweller, 1988; 1994; 1999; Sweller, van Merrienboer, & Paas, 1998) deals with the interaction of information and cognitive structures and the implications of that interaction for instruction. There are many instructional effects that follow from the theory. Those effects that rely on aspects of visualisation were discussed by Sweller (1998). But what effects may be used for attention developing?

4.1. INCONGRUENT EFFECT

There is an evidence of success and failure effects on attentional biases. More direct support for it comes from Derryberry (1988, 1993) and Rothermund (2003) reported incongruent effects of positive and negative performance feedback on the subsequent processing of valent stimuli. Receiving positive feedback after a trial facilitated processing of negative stimuli in the next trial, whereas negative feedback led to a faster processing of positive stimuli. This incongruency effect was most pronounced in a situation involving the reallocation of attention (when the stimuli of the preceding and upcoming trial differed in valence), indicating that the reported incongruency effects reflect changes in automatic attention allocation (Derryberry, 1993; Rothermund, 2003). Similar findings were reported by Ellenbogen, Schwartzman, Stewart, and Walker (2002), who manipulated failure or success. In a first part of their experiment, participants either won or lost repeatedly against a confederate in a competitive computer game. In a second part of the experiment, participants worked on a modified spatial cueing task in which success and failure related words were presented as cues. Following failure, participants were faster to shift attention away from invalid negative compared to positive cues. This finding indicates an incongruent effect of negative feedback on affective attention allocation. If it is easier to disengage attention from affectively congruent cues than from incongruent
cues, this implies that affectively incongruent stimuli have a stronger tendency to capture and hold attention.

Taking into account mentioned above findings it is quite important to use incongruency stimuli to learn new lexical material. Children should be presented with non-corresponding phonemes words (Incongruent stimuli) to capture attention during the classes.

4.2. ENDOGENOUS ATTENTION EFFECT.

In many studies endogenous attention improves performance under conditions of low sensitivity (low contrast, short stimulus duration) has been investigated. Internally represented forms of attention, either explicit (voluntary) or implicit, as aspects of endogenous attention and the behavioral effects of each in turn. In designs that explicitly manipulate attention on a trial-by-trial basis, voluntary spatial attention improves the accuracy and speed with which stimuli are detected (Posner, 1980). Voluntary attention can also be deployed to varying degrees, with associated perceptual sensitivity benefits commensurate with the amount of attention to a given spatial location (Mangun & Hillyard, 1990). Event-related potential studies in humans have shown that voluntary attention improves sensitivity by enhancing the gain of attended as compared with unattended stimulus representations at early levels of visual processing. For example, many studies have found amplitude enhancements of early latency visual evoked responses to stimuli that occur in the location of voluntary attention (Mangun & Hillyard, 1991; Martínez, Di Russo, Anllo-Vento, & Hillyard, 2001; Van Voorhis & Hillyard, 1977). Moreover, behavioral and neurophysiological enhancements occur at the fovea with focused rather than distributed attention (Miniussi, Rao, & Nobre, 2002), demonstrating that directed voluntary attention can enhance processing even when spatial resolution is already high. In light of the benefits of endogenous attention, it is perhaps not surprising that performance on sustained attention tasks suffers, since voluntary attention wanes over time. Indeed, an overall lack of focused, voluntary attention can lead to severe deficits in perceptual processing of fully visible and distinctive objects, a robust phenomenon

that has been referred to as in attentional blindness (Simons & Chabris, 1999). Endogenous attention can also be guided by regularities or patterns that are implicitly learned over time, such as the probability of a target item appearing in a particular spatial location (Chun & Jiang, 1998; Geng & Behrmann, 2005; Hoffmann & Kunde, 1999) or temporal patterns that predict when task-relevant stimuli will occur (Martin, 2005; Olson & Chun, 2001). Like explicit manipulations of attention, implicit manipulations of endogenous attention have been shown to be strong predictors of behavioral improvements. For example, Geng and Behrmann showed spatial probability to robustly influence attention, with behavioral improvements (shorter reaction time, better accuracy) occurring at likely rather than unlikely locations. Moreover, they showed that implicit cuing through spatial probability had just as strong an influence on attention as did explicit endogenous cues and was effective in reducing distraction during task performance.

Consider student attempting to study a conventionally structured worked example such as a new grammar material. Grammar material contains one long block. Structuring new grammar material into short blocks provides voluntary attention to grammar material. Voluntary attention improves the accuracy and speed with which grammar material is detected. The ideal form of instruction depended on the students expertise. The instructional design in this case is very closely tied to our knowledge of human attention activity and cognitive architecture. The designs not only flow from our knowledge of phonological and visual working memory, they can provide additional information concerning its characteristics.
REFERENCES


ABOUT FORMATION OF STRONG-WILLED QUALITIES IN THE CHECHEN FAMILY

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Abstract
The article deals with the formation of strong-willed qualities in the Chechen family. We came to the conclusion that there are some following factors that influence on the Chechen children upbringing: the historical (almost unceasing wars for freedom and independence, regulations of acceptable standards of social life by customs and traditions), the almost impassable woods, mountainous landscape, life severe conditions, hereditary.

Key words: formation, culture, strong-willed qualities, ethnos, individual, customs, traditions, family, upbringing, history.

The new historical period of updating and transformation of the Russian society demands a fast and deep understanding of all of that positive that has been accumulated in family upbringing, and those errors (miscalculations) which have been admitted. There are a lot of miscalculations, but the main one is the infringement of the continuity of generations which is the basis of family pedagogic. It is not a secret that many customs and traditions have being developed by centuries, have been lost or deformed for seventy years of the Soviet power under the pressure of communist ideology. That’s why the searching of tools of updating and transformation of a society, which would help mankind, to all people and each person to find a way to the piece and harmonies, referred us to the primary sources of human values, the popular wisdom and the family pedagogic. Each ethnos have being formed it’s ethno culture for thousands of years.

The ethno pedagogic or the system of rising generation training, in our view, is the part of ethno culture. The ethno culture can't be destroyed by arms, it can't be forbidden by the strong-willed decision. It lives and develops together with the ethnics and it ceases to exist as soon as the ethnics loose it’s culture and language. The ethno culture and ethno pedagogic of any ethnos has a great value. They are the property of humanity. The preservation and the further development of an ethno pedagogical and ethno cultural heritage is a very important and actual world problem demanding in-depth study and urgent solution.

In the given work we attempt to analyze critically an upbringing system in the Chechen society. Thus we pay special attention to the revelation of the general and especial methods of the Chechen ethno pedagogic. As we underlined above, each people have their national features and their national psychology. The analysis of a historical development of the Chechen society and opinions of independent researchers, for example, M.Ju.Lermontov – classics of the Russian literature, D.Baddeli – the researcher of the people of Caucasus, V.F.Rusina has being lived in Checheno-Ingushetiya, let us think that strong-willed qualities are especially expressed in psychology of Chechens. These are such features as a high energy state, the will to leadership, the will to win, the great desire to sacrifice for the sake of goal achievement, the boldness, the courage, the desperateness, the extreme in kindness and in anger, the pride, the ambition, the freedom and etc.
M.Ju.Lermontov characterized Chechens in such way:
«They believe that there is no crime to amaze the enemy
They value friendship but they value vengeance more;
They repay good for good and blood for blood
Their hatred and love are immense».

John Baddely spent many years studying the people of Caucasus. He marked their physical endurance and their love of freedom. He wrote: «In their desire to achieve fame by all means they were extremely brave. Each man was the born rider, the skillful fencer and the excellent gunner. Any Chechen loved his gun most of all and always took care of it. The horse was the main thing after the gun. [1]

The first negative image of the Chechen in the Russian society resulted from the Caucasian war (1817-1864) and was reflected in publicism of hose years, but not all the Russian authors responded negatively about Chechens. I.Berezin, traveling across the Caucasus, mentioned such positive features of Chechens as their courage and firmness in struggle. «I did not see a lot in Caucasus, - he informed the readers. - I came to the conclusion, that our amateur story-tellers and multiexperts are very thoughtless. The mountaineer joins his courage and experience both in an attack and retreat, profound knowledge of the country and indefatigability of campaigns. Who will believe that the mountaineer can stay for a long time among canes without stirring or somewhere behind a stone, expecting the enemy. Meanwhile it is truth. Who will believe that the mortally wounded mountaineer won't scream of appalling suffering and pain in order not to find out his refuge, and meanwhile it is truth too. I am too far from denying mountaineer’s praiseworthy character features: I admit mountaineer’s bravery, furthermore I am ready to admit some other virtues …» [1]

Many travellers and researchers, who have visited Caucasus, underlined generally strong-willed qualities of Chechens: «Chechens are magnanimous and they maintained their dignity in speech and in manner; they can kill, but not offend. Sometimes Chechen pride is fanatic; their hospitality, though at times seemed to be strange, is infinite».

In the context of the analysis of features of Chechens ethno psychology we think that it is highly appropriate to reflect on the opinion of outstanding Russian writer A.Solzhenitsyn of Chechens and the Chechen mentality in his book «The Archipelago a GULAG». As it is the extremely difficult to retell this man of genius, let us quote his statement concerning Chechens: «One can never reproach Chechen people that they ever yielded to oppression…They are tedious for people around them, I mean across Kazakhstan, they are rough, impudent, they hate Russian. But as soon as Kengirs show their independence and courage they immediately gain the Chechens confidence! When it seems to us that someone don’t respect us, we should think hard about our way of life.

But there was one nation which would not give in, would not acquire the mental habits of submission—and not just individual rebels among them, but the whole nation to a man. These were the Chechens. I would say that of all the special settlers, the Chechens alone showed themselves zeks in spirit. They had been treacherously snatched from heir home, and from that day they believed in nothing. They built themselves sakli—low, dark, miserable huts that looked as if you could kick them over. Their husbandry in exile was all of this sort—all just for a day, a month, a year, with nothing put by, no reserves, no thought for the future. They ate and drank, and the young people even dressed up. The years went by—and they owned just as little as they had to begin with. The Chechens never sought to please, to ingratiate themselves with the bosses; their attitude was always haughty and
Indeed openly hostile. They treated the laws on universal education and the state curriculum with contempt, and to save them from corruption would not send their little girls to school, nor indeed all of their boys. They were capable of rustling cattle, robbing a house, or sometimes simply taking what they wanted by force. As far as they were concerned, the local inhabitants, and those exiles who submitted so readily, belonged more or less to the same breed as the bosses. They respected only rebels. And here is an extraordinary thing—everyone was afraid of them. No one could stop them from living as they did. The regime which had ruled the land for thirty years could not force them to respect its laws.

Characterizing the young Chechen man he writes: «He inspired no warm feelings and did not try to do so; he seemed to be afraid of demeaning himself by making himself pleasant, he was always ostentatiously cold, he was very arrogant, and he could be cruel. But you could not help admiring his clear, precise mind». [2] We think comment is superfluous.

It is necessary to underline that according to the most conservative estimates more than half of Chechens were died during 13 years of deportation. Herewith there was no case of begging among starving to death Chechens. That was simply disgraceful for them. Practically there was no case when children have left their parents and conversely.

Sometimes children were given to orphanage after the death of their parents. However as soon as the situation improved, the relatives took them away and brought them up. The next example demonstrates the psychology of Chechens in a way. The well-known Chechen poet and thinker M.C. Gadaev was a storekeeper during the expulsion. A lots of people have started to die every day from hunger and typhus. Under such conditions M.Gadaev had distributed the food among the starving people though he was quite aware of serious consequences. He was arrested and sentenced to 10 years imprisonment for such an act.

For the sake of justice it is necessary to explain one situation described by Alexander Isaevich in his novel. He wrote: «They were capable of rustling cattle, robbing a house, or sometimes simply taking what they wanted by force». A number of such cases had actually occurred, but the fact that everything was distributed among the old men and children stayed unnoticed by A.Solzhenitsyn.

Speaking about the psychological traits of Chechens, we should respond to Vasily Fedorovich Rusin who casted in his lot with the Chechens and the Chechen Republic. Vasily Fedorovich Rusin is Russian, throughout the 87-year-old life he had been ascertained for himself in the exclusive hospitality, sincere friendship, boundless generosity and the openness of the Chechen people. In his reminiscences he told about the years of great famine in Russia and in Ukraine (1929 -1933), when the waves with people from those places arrived to the South Russia, namely to the Chechen Republic and Ingushetia. And it was there thousands Russian, Ukrainians, Poles had found shelter. The mountaineers shared with them a last crust of chureck, though Chechens were not well-off themselves. «We should not forget about it today», - V.F.Rusin wrote in his book «Proud people dignity» which is peculiar a symbol of gratitude and respect to people who were only the safety in his bitter years.

V.F.Rusin often remembers a day when the gifted physicist, the remarkable high school teacher and the talented organizer of the scientific process, the pro-rector of the Chechen State University Abdul-
Khamid Bisliev was killed. It was happened on the 11th of November in 1991. He ended up shielding from a gangster bullet his colleague the rector of the university Victor Abramovich Kan-Kalik. «And nobody speaks about such incidents», - V.Rusin notes. The great critic V.Belinsky wrote: «Every nation is an entity, a special and personal. Every nation has its own life, its spirit, its own character, its view of things, its own manner to understand and to operate. We think that it is better to leave to everyone what they own, and without the loss of dignity we should be able to respect the dignity of others».

A.I.Solzhenitsyn made the similar conclusion watching Chechens in deportation: «We should understand the Chechen people. We should not to humiliate these people, but to understand. We should experience the ache in their hearts, the ache that Chechens had being felt for so many years. Humiliated, disfigured».

So we are convinced once again that "mighty of this world" not always trouble themselves trying to understand the psychology and the mentality of small nations. The analysis of the historic facts, in particular, the behavior of Chechens in 90th years of the last century shows us that the distinctive feature of Chechens is the presence of strong-willed features, namely, the boldness, courage and freedom, to be more exact, the presence of an internal freedom. We can give a great number of examples of the Chechens bravery, boldness and courage. We intentionally don't refer to them. We think that the whole world witnessed the events of the last decades which took place in Chechnya.

Look at the events of 1995 and 1999 when Grozny was the site of an intense battle during some months. Intense fighting and carpet bombing carried out by the Russian Air Force destroyed much of the city. The Chechen upbringing of children aims at the following objectives: an internal personal freedom, self-sufficiency, strong-willed qualities as we’ve already mentioned.

We do not hold the view that all these features are peculiar only to Chechens. These are characteristic features of many peoples and especially Chechens. We should admit that not all of these above-mentioned features are positive. The events of last decades serve as an example of how some of these Chechen national features caused their destruction. If it had not been for the wise and flexible policy followed by the hero of Russia A-X. Kadyrov a few thousand of Chechen guys continue their resistance. No one knows how long the military operations in the Chechen Republic would be continue and how many of Chechen women and children the war takes.

In this work we tried to find answers to some questions. What is the course of peculiar circumstances of the Chechen ethno psychology? Are these hereditary character features or the products of breeding? Then if it is the product of breeding, what is the secret of the Chechen ethno pedagogic? Doubtless the hereditary factors play a great role in the individual formation, or people who are bringing up in the same environment would be identical, but this is not so. The siblings bringing up in the same conditions are remarkably different from each other. Otherwise is it right to convert the ethno psychology into a heredity? We do not think so. It is not a secret that there is a lot of families and even tapes among Chechens who have come to the Chechnya not long ago and became Chechens of their own accord. They are Ukrainians, Russian, Georgians, Daghestanis, Azerbaijanians who were admitted to Chechen families in the famine 30 th. There is a lot of Russians among Chechens who escaped from the feudal oppression during the Caucasian war. However the psychology of these people transformed in a short time. Nowadays they possess a whole range of Chechen qualities we’ve mentioned above.

Now it’s time to take a more detailed look at the training of strong-willed qualities in Chechen families. As we know the Chechens had a variety of special competitions and tests aimed at developing of will, boldness and skill of the young men. The writer Sajd-Khasan Tagaev has told
about two such competitions in his article. One of them looked like this: in order to deserve the right to have a sabre, the young man had to cut a binding of Cornelian switches about his waist thick. Therefore, the more thin a young man was in a waist, it was easier for him to win this right. The competitor had to do it in the presence of witnesses. How sharp the sabre should be! What force, skill and speed the young man should possess to cut apart a binding of Cornelian switches! Those who went through this competition could take part in the other competition. Two young men should race with one another having manual mills on each feet (very heavy stones). The competition could be held both in the afternoon, and at night, and the young men had no right to stop until they visited in three villages. Thus, whatever happened – whether the dog has begun to bark, or the shot was fired, or somebody hailed or called for help – they shouldn't look back as it was considered as cowardice or fear. Those who went through this competition were granted the right to carry an arbalest, and later – a gun.

The maturing young man left his home in order to have the teacher-konah appointed to take care of his education, to teach him enough of duty, manners, the use of weapon, to make him smart much. Some years later the young man came back. He spent all these years with his friends, executing his instructor’s commissions and doing the work at his home. This way of training of youth is described by Umar Gajsultanov in the story «Falling of Bolat-kaly».

Chechens attached great importance to such a quality of the person, as fear overcoming. It was a courage, a psychological trial to overcome fear. Since the early childhood the boy was taught that cowardice is the most shameful personal quality. There is nothing more disgraceful, than cowardice. The moral degradation, cowardice, fright and weeping felt like a nasty comment. Since the old days Chechens had various methods, games, competitions for training courage, patience and boldness (Z. Khasbulatova). So far Chechens have a custom to check boys boldness, and courage.

There are some kinds of competitions: «Kui billar », «Kozham bagor». «Kui billar» - the children take part in this competition. One of the participant should take a cap to a dangerous place in a night-time. It could be a cemetery or any other dangerous place. In order to prove that he was really brave the other participant should find and get a cap back. Some boys are chosen to watch the behavior of examinees. If someone shows cowardice, his fellows didn't play with him. This custom is described in the story written by a Chechen writer M.-S. Gadaev “To kill, and to forgive”. It was one of the Chechen methods of strong-willed qualities training.

The other example showing brightly Chechen methods of strong-willed qualities training is «Kozham bagor». The boys burn a tinder - « kozham » in a dimple on an outstretched arm formed by a thumb raise. The boy who honorably went through the trial was considered having endurance.

There is another, more rigid endurance test. Some boys compete with each other trying to bear smouldering tinder on their palms. Those who could long stay smouldering tinder are winners. As a rule no one surrenders. Thus boys get burns on the arms. There is a lot of men in the age more than 40 with such burns scars on their arms yet. These are examples of peculiar, original methods of Chechen family training when from the earliest infancy they are taught to be brave, firm, endurable – that is to be leaders.

Speaking about formation of strong-willed qualities, it is necessary to note that already in the first half of the XIX century there were special boys training schools in Chechnya. Z.I.Hasbulatova writes about those schools in the book «Chechens upbringing: customs and traditions (XIX - the beginning of the XX century)». Children under the age of 10 were sent to those schools. They had to live at school but had a chance to communicate with their parents. The teacher, as a rule, was 60 or 65. He was very
experienced, wise, healthy, cultivated and respected. The children were taught etiquette, tempering, rules of conduct in different situations, counting, reading the time from the sunset line. Thus, they were brought up to love their country and to serve it.

The well-known Chechen writer Abuzar Aidamirov described in his novel «Long nights» the moment of meeting of fellow villagers who lived in the mountains for some months. There they should learn to survive in an extreme situation being cutted off from communication with the outside world, to find fodder for horses, to be agile and careful when strange hazards lay around them. Chechens need such methods of upbringing for their severe way of life.

These fundamental parts of their character were brightly shown, when Chechens were in the Soviet army. As many researchers noted, the Chechen men are almost always successful, they are leaders in their branches because of their endurance, their will to win and their courage. In this context it is noted that there was no case when the Chechen have been deserted or imprisoned during the years the Afghan war. As we know ten thousand of Chechen boys were at that war, many of them have been wounded, and hundreds were lost in this war. This fact is a good example of the Chechen character given above. When Boris Gromov the head of limited contingent of troops in Afghanistan was asked: «Who were the best during the Afghan War?» he answered: «Chechens!» [1]

On the Caucasus the bravery would scarcely have created surprise. But having regard to their upbringing which is famous for their reduced instinct of the self-preservation the Chechens were always considered as the most desperate men. The Georgian say: «Desperate as the Chechen». The classic Chechen proverb says: «A real man doesn't think of the consequences».

There are some following factors that influence on the Chechen children upbringing: the historical (almost unceasing wars for freedom and independence, regulations of acceptable standards of social life by customs and traditions), the almost impassable woods, mountainous landscape, life severe conditions, hereditary.

Thus the Chechen cultural family upbringing departs widely from the established educational systems. The Chechens attached great importance to the strong-willed qualities training that is a socially-pedagogic phenomenon.

REFERENCE


THE SIGNIFICANCE OF VOLUNTARY ACTIVITY IN THE ORGANISATION OF SELF-STUDIES IN HIGHER EDUCATION: THE CASE OF LOCOMOTION DISORDER

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Abstract

The paper analyzes the advantages and disadvantages of self-sufficient studies of students with locomotion disorders (movement disorder) in higher education. The authors seek to answer the problem question, what difference of self-sufficient studies is between non disabled students and students with locomotion disorders. Phenomenological study revealed that the greater workload of self-sufficient studies have students with movement disorder than their counterparts without disorders. However, the students with locomotion disorders with clear self-realization are planning their self-sufficient studies more purposeful and it helps to compensate the lost opportunities to participate in the study process, together with the other students. The teachers are promoting to find new teaching methods which could include in the training process all students. One of the ways to help students with locomotion (movement) disorders, it is voluntary assistance of teachers, students and other persons based on free will.

Key words: self-sufficient studies, locomotion disorder, the study process, voluntary.

1. INTRODUCTION

The Europe 2020 strategy (European commission), its Flagship Initiatives and the new Integrated Guidelines put knowledge at the heart of the Union’s efforts for achieving smart, sustainable and inclusive growth. Despite a challenging employment climate in the wake of the economic crisis, higher education represents a sound choice. The Republic of Lithuania Law on Science and the study indicates that „A sustainable science and education system is based on the development of the knowledge society > ... < educate> ... < an autonomous and entrepreneurial personality > (2009, p.1). One of the tasks rose for higher education – to develop self-original looking personality. D. Lipinskiene (2002) notes that the destination of higher education is to enable the student to act in future situations, solve problems, with which the students will face in the future and all this is related to the quality of the educational process.

The consequences of the disorder induced by movement (due to carry the physical environment, weather conditions, etc.), students cannot attend all training sessions (at lectures, seminars, debates, etc.), and they have to learn independently, in accordance with the program or course of study provided by the teacher plans – tasks. In this way, students with serious locomotion disorders are
losing an opportunity to not only listen to the lectures, but also discussions with their colleagues. Teachers also face challenges – what methods to apply to the study process that for all students would be created inclusive education that all students should have equal opportunities of learning.

The paper analyzes the problem: How is organized the self-study of people with locomotion disorders in higher education?

The study aim is to reveal the significance of voluntary activity in self-study for students with locomotion disorders.

The objectives of the research:

- After the analysis of the scientific literature, highlight the particularities of the self-study of students with locomotion disorders in higher education;
- Through the phenomenological study, reveal the significance of voluntary activity for persons with locomotion disorders in the self-study.

The study was based on the phenomenological philosophy, which seeks to return to the true-life experience, which is the primary source of wisdom and promotes to seek the sense in experience. The experience and its reflection separated from theoretical considerations allow you to find the unique and real knowledge (Jonkus, 2008). The study was made in 2009 – 2011 years. To reach the study aim was chosen case study method based on the phenomenological theory using: individual interview and written works of student with locomotion disorders. Data analysis during the phenomenological study is of qualitative nature. According the W. L. Neuman (2000) work on a qualitative study may consist of three stages: 1) data collection – by listening, observing, interviewing; 2) laconic notes, comments, tagging memories, performance of audio or video; 3) data analysis, which consist of sorting of data, classification, interpretation and detailed layout. The results of empirical research are summarized using content analysis.

2. THE CONCEPTION OF SELF-STUDIES AND VOLUNTARY ACTIVITY

The education is recognised as one of the most important factors in strengthening the ability of the person potentiality to successfully integrate into society. Young people with disabilities to study encourages the desire to act, entering into public life and to achieve their goals of self-actualization. However, in the process of the study disabled people incur difficulties of environmental accessibility and their representation. The Lithuanian Department of Statistics presents that in 2010-2011 over 500 disabled students were studying at universities and about 400 students at colleges (see Fig. 1). The disabled students with movement disorders incur difficulties of environmental accessibility, so they have a greater workload in self-studies.

R. Tidikis (2001) claims that an independent work of students and student autonomy education depends from the organisation of study process and from implementation of innovation to the studies. D. Euler and others (2005) distinguishes the main characteristic features of self learning: the students are freely planning and control their learning, searching for information, a high level of motivation.

Dutch scientists (Henk and others, 2009) summarised the results of research (the research was made from 1989 to 1998), which the essence was to reveal the influence of the self-learning time-for study results and study time. The research results revealed the following characteristics of the study methods: when more time is given for lectures and less for self work then the time of studies is longer and the results of studies are lower. On the basis of this Dutch scientists study, it can be said that the
time of the self-study is a key factor in determining the results of the study and its duration. In this way, it can be said that students who can not to participate together with all students in the study process of the movement disorder, develop independence and successfully learn how to plan the time of learning. In this situation, the students with locomotion disorders may be assisted by teachers and voluntary-students helping to participate in the discussions and seminars.

![Fig. 1. Students with disabilities in higher education (Lithuanian Department of Statistics, 2012).](image)

In voluntary activities a person can develop as a personality, to acquire new knowledge, to improve existing skills, develop their individual abilities, self-confidence and responsibility, learning how to help others solve problems, solidarity and citizenship. According to the European economic and Social Committee, solidarity, a sense of responsibility for others and the desire to feel useful is the essential motivation of the voluntary activity. I. Jonutyte (2007) identifies the main groups of motives:

1) To meet the requirements of personal needs, it is - the consolidation of personal value, the attainment new skills, personality development, the guarantee of the future prospects, the knowledge of loneliness;

2) To meet the requirements of others needs, it is the concern of community, help for someone else.

Voluntary service gives the opportunity to communicate, allows participating in public life and providing the educational experience. The European Voluntary Service Association (2012) identifies three main criteria which distinguishes the voluntary activity from other:

1. Voluntary activity does not create material benefit. However, any man who is employed on a voluntary basis must be reimbursed the costs associated with voluntary activities.
2. Based on free will. Free will is the basis of voluntary. This criterion helps to identify true voluntary activities from other activities.

3. Brings benefits not only for the volunteers, but also to a third part. This criterion helps to distinguish voluntary activity from leisure activities.

There are many reasons why people work in voluntary work. Some do it because believe in the purposes of the organization and believe that can contribute to solving various problems. Other volunteers work, because they want actively participate in community life, change it and help to people.

However, it should be noted that the help of non-governmental organizations is not very good developed. If the help of non-governmental organizations could be better developed then the education and self expression of the students with locomotion disorders will be more successful.

3. THE POPULATION OF PERSONS WITH LOCOMOTION DISORDERS IN EUROPEAN COUNTRIES

Coordination disorder, inability to perform certain movements while changing body position is typical to people who have gross or minor disorders. Such disorders are referred to as locomotion disorders. They are subdivided into: insignificant degree, medium degree, large degree, very large degree and complete inability to move (Baužienė, 2010). Data, collected by the European Commission Eurostat, was used to estimate the extent of the population of people who have locomotion disorders (2009). These disorders might be caused by brain or medulla violation because paralysis or paresis evolves when normal innervations is disconcerted. Health troubles of 16-24 year old people related to rheumatism, arthritis and leg or feet problems were most common in Hungary (18%) and Austria (16.3%) and rare in Ireland (7.8%). Disability resulting from leg or feet problems was most often diagnosed in Denmark (15.5%) and France (14.4%). Disability resulting from illness of nervous system was most often diagnosed in Hungary(32.2%). It is noticable that illnesses and disarrays which cause disability of 16-24 year old people are usually associated with locomotion disorders. In Lithuania the locomtion disorders mostly can cause congenital malformations, deformations and chromosomal abnormalities illness, because of this illness the children till 18 years old first time were adjudicated as disabled people (see Fig. 2).

Furthermore, the situation of children who have locomotion disorders is special because their state cannot be compared neither to the state of an invalid, nor to that of an absolutely healthy person. Besides, disabled people cannot participate in many spheres of social life even though they are not isolated from the society. However, the flexible organisation of studies and the voluntary of teachers can help students with locomotion disorders to seek better results of their studies.

4. THE OVERVIEW OF THE RESULTS OF RESEARCH.

4.1. THE DISCUSSION OF SITUATION OF THE PERSON WITH LOCOMOTION DISORDERS

The study focused on interaction of students with locomotion disorders and the university Community (teachers, students, and service personnel), on the nature of communication and collaboration with family members and other persons. By the phenomenological case study when were analized written sources (poems, letters) and made individual interviews, were acquainted with unique person world in this case with person with locomotion disorders world.
The case study consist of three stages: 1) the data obtained through individual interviews, which was twenty-three, and written documents analysis; 2) capture the short stories notes of the participants of study, the comments which allowed accurately encode information about the investigation and observation of their sentiment; 3) made data analysis of the research, grouping data according questions and categories and its interpretation. The case study is focused on interaction of three persons with locomotion disorders with family members, contemporary, strangers, teachers, the members of the University community and other specialists. The phenomenological research allows exposing the latent obstacles of young people with locomotion disorders. The latent obstacles are related with the internal personal characteristics and the opinion of family and society. The case study have helped highlight the genuine world of person”s with locomotion disorders, highlight his value, opportunities and the importance of education in family for psychosocial expression, describe the importance of the activities of the volunteers.

The meetings with the informants took place in advance of combining time. Before the meeting with the informants the conversation topic has not been matched because it could affect responses. In the interview with the informants was important to know the cooperation properties of young person with locomotion disorders to family members, teachers and peers and to assess the voluntary activity to help for this young people. The conversation with each informant was made individually. The code was given for each participant of interview. In the conversation participated three young people (Evelina, Donatas and Karolis [name change – authors note]) with severe locomotion disorders, family members, nurses, doctor, nannies, teachers. It should be noted that the activities of teachers, trainers, can be identified as volunteers because four professors from the University were coming to home to make lectures and three teachers, who communicated and helped for children without any payment.
During the study in order to describe the picture of the family of person with locomotion disorders were analized the informant answers about their families. If the answers of the informants were similar then it were formulated in the most general expression. In this way are receiving the diversification data of the family of the person with locomotion.

The informants of the study Evelina”s family describes as patience, paying a lot of attention to the complex care daughter (lying in a bed, artificial lung ventilation is applying for seven years: “...how difficult is for parents to see such daughter, especially for mother...”. Can not go anywhere...; but how love her father, calls her his little bean, ...stokes her...“. The family takes care of Evelinas”s education this is confirmed by the family doctor: „she is studying, reads a lot, many books are in the family home. <...>she has the opportunity to study, because all conditions is adapted for her study, even she learned to control the computer by her voice...“. This family learned to live with a disability, because both parents are helping to each other to take care of daughter and have clear their own self-actualization objectives. Evelina about her family speaks: „... everybody takes care of me, my mum, grandfather, brother“. I see how my mum, grandfather are tired, but what I can do, I would like, I would like very much that everything would be differently...I would like to walk very much ... (crying – autors note).

Donatas also has severe locomotion disorders and artificial lung ventilation is applying for five years. Nursing care of him takes grandmother, who, according informant, often: „,...dissatisfied and from our medical, requires more than we would have done...“, „,...sometimes complaines of each the little things or sight, but we understand because all the time she is with the child <...> had tired“. Therefore Donatas almost smile: according to Donatas doctor: „when you come to his room you do not know what to say because if you miss, he will look at you with angry yes... but sometimes I just want to say something fun...“.

Karolis (walk only with aids) family by the informants answers can be described as unhappy and difficulty surviving son’s disease the informants. His parents divorced but lives in the same apartment. According to the other children from the family the takes care of son: “the mother all the time is with son”; “tired and angry”. At the time of the conversation, it appeared that only the mother takes care of the child with locomotion disorders, the father did not helps to family: “when father returns from the mission, he never ask of a child only often scold why the child is like this...”; often complains that son is guilty for his collapsed life”.

The study results revealed that both Evelina and Donatas were taught at home. Karolis was educated in general scool education for four years, but from the fifth to the twelfth classes he was learning at home, although like his mom: “he was able to go to school but of the problem of his his physical condition he was unable to attend to all the games with class friends, and sometimes children were laughing from him, several times he returned crying and he did not want to go to school...“. Now Evelina is studying at university. Donatas ir Karolis do not studying anywhere and say, that they do not learn because „,...do not see the sense and objective...“, „,...and what will be from that...“; „,...what sense of study if I fell that I am not nesecarry to anyone“.

The interwiev reveal that the children who are studying at home have not many friends and have problems in communication with contemporary. The school community do not know very much about the needs, problems or gains of childrens with locomotion disorders. To teach children with various disabilities often are seting older, retired persons, teachers who con not to cope with the class, young teachers who do not have experience hor to learn this children.
The study results revealed that Evelina's parents give big attention for her education. When Evelina was studying at school she often was asking her family members: "why what I will do, when I will finish the school" and "if I can study at university". Donatas and Karolis family members were speaking negative about the benefit of study to children and it confirms words: "why he needs to study"; "when teacher come to home is good because I can be free for my own time"; "he does not need to study".

When was discussed about the locomotion disorders problems became clear that people need more help to take care and nursing children. In all analyzed case the all care of children take mother or grandmother who take care of them all the time even at night and nobody help them. Nursing care consists of complex medical care (Evelinos and Donatos cases), as well as the maintenance of hygiene, which carry out it to the one person is difficult.

From three families, which one of the family member has a severe locomotion disorders have a negative characteristic, it is: "praised for each attempt"; "is good when teachers are writing good marks because if I will be at school it would be different"; "we want that son can be jollier we praised him". The child feels pain and is frustrated that his results of activity shall be assessed in an objective way, and the evaluation process is significantly lower than expected. So is very important to see the child results but assessed it in objective way.

The content analysis of the individual conversation and written documents were highlight notion units, revealing the child and other people's attitude towards the situation of locomotion disorder.

Discussion of child with a locomotion disorder, and other people's position were analyzed the reasons of perception in connection with the subjective values, i.e. with the sense of looking in science, culture, activities, and relations with other people.

The reasons of category illustrate the subcategories (notional units), distinguished in the described study: the positive/negative emotions; good/negative interpersonal relations in the family; the lack of aid/support; interaction with peers; the experience of communication between persons with disabilities and others (see table 1).

<table>
<thead>
<tr>
<th>The reasons</th>
<th>The interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Positive emotions (learning to live with tragedy; asked a question to others what I will do')</td>
<td>Promote the security and solidity is felt in the self and together and to their success in search of opportunities.</td>
</tr>
<tr>
<td>2. The negative emotions (the feeling unhappy; health problems; the reason that the family cannot travel because I am trouble; affliction; fear of the disease; sadness)</td>
<td>Develops the shoddy and inferiority complex. Efforts are being made to look inwards in other words is putting on the self-protection mask and can be self isolation. At negative emotions, young people often do not have their own objectives and this leads the poor motivation. These persons did not trust to themselves; harder communicate with peers and other people.</td>
</tr>
<tr>
<td>3. Good interpersonal relations in the family (caring; perseverance; openness; both parents care of)</td>
<td>The family becomes stronger, the sooner find out the possibility come out from self isolation. Sometimes, children/young people hide their negative emotions</td>
</tr>
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</table>
their child; my house with is goog to me) from the relatives and their activity may be fictitious. If in the family is good microclimate the study of young people with locomotion disorders can be more successful.

<table>
<thead>
<tr>
<th>4. Negative interpersonal relations in the family (mother’s constant attention to ill child; child's complaint; anger; bad mood; hatred of health brother)</th>
<th>When in the family is negative microclimate the family survive big intension, which could be the reason of parent’s divorce. In this situation becomes worse psychological health of the child with locomotion disorder and material of well being. The child feels guilty for all family problems and thinks that she is not needful in the family and nobody do not love him.</th>
</tr>
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<tbody>
<tr>
<td>5. The lack of aid/support (Lack of support; the need of psychological support; the need of nursing care)</td>
<td>All responsible to nurse the child is on mothers or guardian. If the carer all time cares of the child he can overwork and can be possible health disorders. This condition worse the child situation and he feels guilty. When parents and carers are tired they become passive observers and calls for help in situations where they can help to family successfully by their own.</td>
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<tr>
<td>6. The interaction with peers (peers friends visit; having friends; parents/elders permission to communicate)</td>
<td>For childrens/young people with locomotion disorders the communication with their peers is big opportunity to get know each other. In this way is renovated the natural interaction, which determines the child maturity and facilitate the spiritual independence.</td>
</tr>
<tr>
<td>7. The experience of communication between persons with disabilities and others (usually a negative attitude towards communication with other disabled persons; and I see myself, it's still horrible to me how I look)</td>
<td>If the person with locomotion disorders has not had the communication experience with other disabled people, he does not want to communicate with them. He thinks that when he communicates with other disabled people his situations becomes worse. This happens because of a lack of experience in the communication.</td>
</tr>
<tr>
<td>8. Assesment (the inadequate assesment; not telling the truth; assentation)</td>
<td>Inadequate assessment of the child's opportunities makes the condition for the child to create a vision which does not fulfil its potential. The perception of real opportunities may lead to disappointing, the belief in ourselves and their loved one loss.</td>
</tr>
<tr>
<td>9. Dignity (the surprise of surrounding– how she looks; how it crooked; meat hill; again stairs and will have to bring me up)</td>
<td>Bad adaption of environment the highlight the abuse and exclusivity of persons with locomotion disorders. In such situation the person outlive for his dependence.</td>
</tr>
<tr>
<td>10. Identity Hurry to live; I want everything much; the same as others; self-confidence; feeling of lonelines)</td>
<td>Teigiamas savęs vertinimas galimas, jei vaikas skatinamas būti savarankišku, siekia savo tikslų, jei udoma vaiko valia, diegiamas suvokimas, kad jis tokos pats kaip ir kitų bendraamžiai, o jo skirtumai nėra menkavertiškumo požymis.</td>
</tr>
<tr>
<td>11. Values</td>
<td>The family is very important for children with</td>
</tr>
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locomotion disorders because it gives security, self-confidence. Such values as love, strong family are guarantee for self-expression.

12. The possibility of success
(faith in ourselves; the holding of objective)

Successful socialization can be, if the child with locomotion disorders can learn in general education school; Successful socialization can be, if the child with locomotion disorders is growing in the complete family, which dominates a good microclimate. If the child has big health problems his education should be at home. But some of lectures should be with teacher and class friends at come to through cooperation approach.

<table>
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<tr>
<th>The results of data analysis highlighted the assumptions of successful self-expression:</th>
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<tbody>
<tr>
<td>1) Very important is the family approach, which reveals the relationship of the family members. For the child with a locomotion disorder very important is that family members have confidence in one another, have confidence in the powers of the child, recognised having him equal rights in decision-making relating to the his life and problems.</td>
</tr>
<tr>
<td>2) Significant approach of strange people to the person with locomotion disorders and its activities. Positive attitude promotes to create the atmosphere of communication and collaboration in which the persons trust in one another and interacting as equivalent participants, listening to the opinion of all members and take into account the needs of all. Therefore, should be created equal access environment to all, mould the positive approach of public towards people with any disorders, and strive to provide the necessary aid/support.</td>
</tr>
<tr>
<td>3. Significant approach of person with locomotion disorders to their power, their assessment and perception, because it promotes the emergence of social competences, paving the way to self-expression.</td>
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4.2. THE EXPERIENCE OF PEOPLE WITH LOCOMOTION DISORDERS IN HIGHER EDUCATION

The data of stdy revealed the essential motives of disabled for study in higher education: the internal incentive supported by members of his family, friends, and the ambition to look opportunities to participate in social life. The case study confirmed that the students with severe disabilities, in particular with locomotion disorders is not high percentage at universities. In such cases is expecting the individual and personal attention from high school, what ultimately would be created a successful precedents of humanism of study process.

From the individuals interviews was proved that to people of the severe movement disorders is important: social-educational support; high school, the urban and public transport environment accessibility; assessment of disabled needs; the flexibility of study process; teachers’ competence and experience to work with people with disabilities.

Analysis of study data revealed that the financial support of State and the information about social services is assessed enough (“...I had to pay the full cost of studies, but later the administration of university let to pay only half cost; ”... always informed about the possibilities to get adjective funding for the needs of study... ”).
Students with locomotion disorders the fitting of the physical environment of city and high school and public transport is assessed as a problem, because “... often the disabled rides by stairs from third floor of high school”; “... The drivers of urban transport do not always notice that have to drive a closer that I could to get in into the vehicle...”; “... in the rain or cold time is impossible to go by the wheelchair because the streets are slippery”.

Mostly the assistants of people with disabilities become their relatives: parents, brothers, grandparents sometimes students or teachers. The case study helped to in identify three teachers from school and four teachers from the university, which can be seen as volunteers.

After the finishing general education school the communication between the teachers and Evelina is the same, the teachers are coming to home and helping her to learn or to do some exercise (Evelina by the movement disorder may not write with computer – authors note), the teachers do not get any payment. One of teachers claim that “our communication degenerated into friendship based on mutual trust, the same interests (music, literature, Theatre), the creative pursuits and discoveries. As Evelina grew up as creator ther was need to publish her book, which I helped to edit and present. Creative pursuits constantly expanding; now she is trying herself in novel genre so sometimes she needs the advice, encourage in creative way”.

On the basis of the results of the study the teachers from the university could be divided into five groups: 1) teachers who only notes the literature list, the dates of homework, submit the exam task and indicate performance time “... but is disinterest if the time will be enough for me because I or am I dictate to another person who must record everything”; 2) „teachers who is forgotten my situation because I have to write them many times for getting the tasks and its hurt when they are writing that the seminar will be in the... place and note the time when you have to come, and you once again have to write the your situation and explain why you can not come to lectures”; “or one day before the exam are sending the all material”; “or sometimes are writing that they did not know how to teach me”. 3) „teachers are sending the material on time and are asking how long I have to have time to make the task and kindly offers to help me. 4) “the teachers not not only provide e-mail tasks, refer to the literature sources, but comes into the home when I need to write the exam and then I am glad, because I really show that I know; when I am doing the tasks and teacher do not see me it is possible that teacher thinks that someone else is doing it”; 5) teachers are coming to home and reads lectures, I am very happy for this because I can meet new people and alive word is more important for learning”.

Fourth and fifth group of teachers’ activities can be identified as a voluntary, because they arrive to the home to help to student to learn, finally, to communicate and to convey the message about the world. The teachers says that at firs visit to home was leaded by desire to meet the student, assessed his abilities, in order to choose the appropriate teaching methods, and second it was leaded by big wishes of student to learn.

Summary it can be seen that arise a challenge to develop and improve the competencies of teachers to work with disabled students, and for the students to be more active in expression the needs of themselves. In the case study was highlight that students with disability are seeking to develop equal learning opportunities as well as they seek to demonstrate that they do not need to lower requirements than all the students.
5. CONCLUSION

Part of the disabled students the studies at higher education handle as a challenge to themselves, as one of the fundamental measures seeking to entering into public life and achieving the objectives of self-actualization. Due to a severe disorder of movement the big load is falled to self-independent studies, because of the unadaptable of environment the students may not attend to lectures, seminars. But such situation enables students successfully freely to plan and to control their learning.

The person with locomotion disorders to study motivate: the positive microclimat of family, the inducement of family members, and their belief in the powers of themselves. The case study revealed that enabling the student to learn by the psychological aspect of condition, it is important to ensure an equal and equitable cooperation between teachers and students. Selected methods of teaching and learning which enable the student with locomotion disorder to study, must to suit with the objectives and contents of the studies, the students’ needs, interests and abilities. Teacher’s flexibility and work experience with people with disabilities is not problematic. It confirms the voluntary activities of teachers. The case study results showed that is needed to improve and develop the teachers’ competences of work with the disabled and the students with locomotion disorders have to be more active in solving their own problems.

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CONCEPT OF STRATEGIC ACCOUNTING IN THE MANAGEMENT OF NON-STATE HIGHER EDUCATION INSTITUTIONS
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Abstract
Currently, the approaches used in finance management of higher education institutions are largely scattered and thus do not represent a well-established, unified system of interrelated provisions and principles, methods and norms. The main obstacle to the establishment of such a system is the lack of a complex approach to the solution of financial problems in higher education. In the case of a complex approach, a higher education institution must be considered not as a common but as a socially significant subject of management that contributes to the development of the quality of education. The directions of accounting and analysis should be developed in accord with the main strategy of the development of a higher education institution, the strategy pertaining to raising the quality of education. The reorientation of objectives and strengthening of connections between the current state of development and the developmental strategy of a higher education institution require that new approaches to finance management and the tools for its implementation be developed.

Key words: higher education, finance management, strategic accounting, system of balanced indicators, assessment of quality

1. INTRODUCTION
Despite the continuous expansion of private education in the world, the pace of its development has recently been noticed to slow down. At the same time, the demand for private higher education has stabilized and governments are beginning to tighten private higher education policies. D. Lewy, professor of the State University of New York in Albany, director of the Program for Research on Private Higher Education, PROPHE, specializing in the development of private higher education, identifies the following reasons for recent slower developments in the sector of private higher education (Леви, 2011, p.118-119).

According to Lewy, the development of private higher education has been recently in decline due to the loss of social grounds that are required for its development. This loss is the result of the current financial crisis which has led to increasing unemployment due to shrinking employment markets, inflation and reductions in people’s incomes. These and other factors have affected economic conditions of people, which has inevitably influenced people’s decisions in the education market.

Another significant factor that has contributed to the declining demand for private higher education in many countries of the world is the changing demographics. The aging population is especially characteristic of the countries of Western Europe.

Yet another significant factor is the government policy on private higher education. Although most governments have sympathetic attitudes to the development of private higher education, some governmental policies in some states have had a negative impact on the development of this sector. In
most cases, governments do not introduce a direct ban on private higher education; they implement
tighter regulating procedures for private higher education. Consequently, introduction of stricter
licensing standards, compulsory accreditation and limiting measures often lead to the establishment of
more favorable conditions for state higher education establishments.

Local tendencies in private higher education in the Republic of Latvia reflect on both global and
regional tendencies (Никифоров, Никифоров, 2012, p.196). The most significant of these are the
following ones:

- **Demographic tendencies.** Sharp reduction in childbirth in the 1990s has resulted in the so-called
  “demographic hole” twenty years later, which has inevitably led to reduced numbers of students at
  higher education institutions.

- **Economic tendencies.** The decline in economic development has had a negative impact not only
  on education, but also on other human activities and has led to unemployment, inflation and
  reduced income of people. These factors do not contribute to intellectual development since
  priority is assigned to physical survival.

- **Migration tendencies.** These tendencies might be viewed as the consequences of the economic
  factor. That is, implausibility of finding a well-paid job forces potential students to immigrate to
  other countries.

- **Impact of the global education system.** Latvia’s joining the European Union and signing Bologna
  Declaration has had a positive impact on the development of the higher education market.

Currently, there are 55 accredited higher education institutions in Latvia of which 36 are state schools
and 19 are non-state schools. These figures point to higher supply than demand in the higher education
sector and this leads to serious competition between schools. In future, this competition will primarily
intensify due to the demographic factor. This situation is worsened by economic conditions in the
state, specifically, implausibility of finding a well-paid job forces potential students to immigrate to
other countries and those who continue to live in the country do not have sufficient financial resources
to pay for their education. Higher education institutions have been facing the survival challenge - how
could they survive in such tough competitive environment, how could they sustain the good quality of
education and effective functioning?

Having been affected by the need to adapt to the existing market reality and similarly to other
enterprises, striving for leading positions in the market of goods and services, higher education
institutions have been compelled to continuously enhance their management practices in an attempt to
find more effective solutions.

One of major internal factors of uncertainty that interferes with successful management of a higher
education institution is incomplete information on the current state of development and prospects for
future development. This paper suggests that one of the major issues in this domain is the existing split
between the assessment of financial activities of a higher education institution and its education
activities, which is asserted by accreditation standards; according to these standards, financial and
education activities are autonomous entities, hardly interconnected (Зайцева, 2006, p.34-35). This
approach requires identification of new integral indicators that would combine the outcomes of
financial-management and education activities. The most famous tools, sustaining the good-quality
development and implementation of a strategy within the framework of optimal deployment of
available resources, are the methods of analysis of external and internal environment (SWOT
analysis), system of the balanced scorecard (BSC) etc.
2. STRATEGIC ACCOUNTING AND THE SYSTEM OF BALANCED SCORECARD

The concept of strategic management accounting emerged at the end of 1980s, when critical comments on traditional approaches to management accounting were made and new approaches appropriate to contemporary competitive environment of business management were advanced. Traditionally, management accounting has been used for control of enterprise management using financial indicators. Therefore, already in 1980s the inclusion of non-financial indicators, sustaining the feedback on all key variables required for successful development in competitive environment, into the accounting system has been emphasized (Друри, 2003).

The necessity to connect financial and non-financial indicators and identification of main indicators led to the establishment of a system of the balanced scorecard (BSC) by Kaplan and Norton in 1992. BSC is the system of strategic management of a company based on the measurement and assessment of the company’s efficiency, performed on a set of indicators that pertain to all significant strategic aspects of the company’s activities (financial, manufacturing, marketing, innovative etc). The so-called key indicators of efficiency, or key performance indicators (KPI), are at the core of the BSC system. The main difference between the BSC key indicators of efficiency and a random set of indicators is BSC KPI's primary orientation towards strategic goals of a company and their interconnectivity and grouping according to certain features.

The BSC system of efficiency indicators must include all important areas of the company’s activities. The classical version of the BSC system identifies 4 such areas - finances, customer services, internal business processes and staff management (Horvath & Partners, 2004, ɪ.19). The key concept in this approach relates to consideration of business activities from a variety of perspectives and provision of answers to the following 4 key questions:

1) What is the customers’ attitude to us (customers’ perspective)?
2) In what area should we excel our competitors, which business processes should be enhanced (internal business processes perspective)?
3) What resources can be used to enhance business activities and efficiency (staff perspective)?
4) How are we assessed by investors and shareholders (financial perspective)?

However, depending on a specific company and changing conditions of external environment, the definition and number of areas that can be considered using the BSC indicators might alter. In order to minimize the informational burden, the number of indicators in each of 4 blocks should be limited and thus typically ranges from 3 to 5 indicators. Each organization must decide for itself which indicators are critical and therefore must be measured. A set of these indicators might change over time because it must suit the needs of a particular strategy that an enterprise is implementing at a particular point in time.

The development and implementation of the BSC indicators have their own algorithm, consisting of the following stages:

- Development of goals, achievement of which will contribute to implementation of the company’s mission and strategy (equilibrium)
- Development of indicators, which can be used to measure the degree of achievement of each goal. Development of events which should sustain the desired level of achievement within an indicator (cascading).
- Implementation of the BSC indicators in operational activities.
Identification of strategic goals in each perspective of the BSC indicators is the starting point for further development of the system in a company. The quality of identified strategic goals determines the quality of the entire system of indicators and significantly affects strategic management of a company, and these are precisely these strategic goals, and not indicators that measure them, which are at the core of the BSC system of indicators.

3. IDENTIFICATION OF STRATEGIC GOALS IN HIGHER EDUCATION

The theory of classical management has long viewed a strategy as a sequence of thoroughly considered management activities that guarantee quality results obtained from systemic activities. In application to education, strategic management can be viewed as a process that sets and identifies goals for education and develops efficient activities and ways to achieve these goals. As for the non-state education, to be able to set goals, the “double-nature” of education should be considered. On the one hand, non-state education institutions are commercial enterprises the activities of which in Latvia are regulated by the Commercial Law. On the other hand, these are education institutions whose activities are regulated by the Higher Education Law.

The objective of the financial strategy of a higher education institution is to provide and sustain stability of the institution’s financial system, adapt it to changing market conditions and organize good quality training of specialists in accord with the requirements of international programs. In order to sustain effective functioning and stable development of a higher education institution under market and tough competition conditions, the development strategies of a higher education institution should be oriented towards long-term prospects, which means that cash flows should be continuously and operatively regulated in order to stabilize financial outcomes and establish a potential for future development (Cyupa, 2001, p.16).

The main strategic goal of an education institution today is the provision of conditions for quality training of specialists. This aspect is particularly topical for the Baltic States which since joining the European Union and signing Bologna Declaration have been implementing the system of European criteria and standards for sustaining good quality of higher education.

In Latvia, to achieve this goal, the Assessment Center for the Quality of Higher Education (Augstāķas izglītības kvalitātes novērtēšanas centrs, AIKNC) has been established. It cooperates with the European network of quality guarantee (ENQA). (Суровицкая, 2011, p.83-83). Being one of the main components of the European approach to guarantee of the good quality in higher education, one of the main tasks of AIKNC has become conducing accreditation of higher education institutions and of new higher education programs (Dzelme J., Linde I., 2012, p.44). The accreditation of a higher education institution or new higher education program implies receiving a permit to open a new higher education institution or higher education program. Accreditation officially confirms compliance of a higher education institution or program with the education standards, adopted in the country. Having signed the Bologna Declaration, Latvia is now obliged to observe main principles and provisions of the Declaration, ranging from the structure and status of higher education institutions, programs and teaching methods to student exchange and financing.
4. APPLICATION OF BSC INDICATORS IN ASSESSMENT OF ACTIVITIES OF A HIGHER EDUCATION INSTITUTION ON THE SAMPLE OF THE BALTIC INTERNATIONAL ACADEMY

As was indicated above, the goal of the establishment of a system of the BSC indicators was to construct a generalized database that could be necessary for converting strategic goals of a company into a set of interconnected indicators of functioning. The establishment of such a system of indicators should be based on the selection of informative indicators. Although systems of indicators have long been in existence, their efficiency as a higher education institution management tool is not easily assessed.

This paper is an attempt to analyze and combine indicators used during accreditation and specialist training quality assessment with financial indicators. This paper also offers a new classification for implementation of these indicators into the accounting system of higher education institutions on the sample of the Baltic International Academy (see Table 2).

The Baltic International Academy (BIA) was opened in 1992 and today is the largest private higher education institution in Latvia with 4500 students of which more than 450 are foreign students from 22 countries. This diversity of students creates a multicultural environment in the Academy. Classes are delivered by 200 members of staff of whom 100 hold doctorates and professorships. Education activities proceed not only in the Riga branch of the Baltic International Academy but also in 7 regional branches across Latvia, specifically, in such cities as Daugavpils, Jekabpils, Rezekne, Liepaja, Ventspils, Smiltene and Jelgava.

The strategy of the BIA development is predetermined by Latvia’s signing the Bologna Declaration, internationalization of higher education and establishment of a common labor market in Europe. The BIA mission is to enhance quality of offered education services, contribute to the enhancement of competitiveness of graduates on the international market and strengthen the status of the school. The Baltic International Academy holds reorganization of education process which is aimed at provision of higher academic and professional education services according to the standards of the European Union. BIA has been positively assessed by international experts and has received permanent accreditation.

At the same time, over the recent years “thanks” to the economic crisis and demographic consequences, the sharp decline in numbers of students has been observed, which has a significant impact on incomes of non-state higher education institutions, which, in contrast to state-financed higher education institutions, are financed by proceeds from education services and other activities of the schools. Under the condition of increasing competition between higher education institutions, only schools that provide high quality education can count on success. The quality of education is affected by qualifications of staff members, state of the material-technical base, scientific, research and innovative activities of higher education institutions and other factors that require significant investment.

On such grounds, the contemporary system of finance management of a higher education institution must address the following issues:

1. development of the financial-economic strategy of the higher education institution that provides for and sustains the stable development of this higher education institution;
2. mechanisms of financial-economic management of decisions (prevention of negative and crisis tendencies in activities of this higher education institution);
3. identification of resources and volume of material and financial resources of the higher education institution in order to attain set objectives and complete planned tasks;

4. control and correction of financial-management activities of the higher education institution and its divisions.

The main strategic goals of the Academy include the maintenance of the stable financial position under the conditions of market management and maintenance of high quality education in accord with the requirements of the labor market. In order to attain these goals, the Academy must consider and assess available resources and capacities. A sample of such assessment is represented as the results of the SWOT analysis (see Table 1), which can be used to develop the system of the BSC indicators that would consider specifics of the education sector.

Table 1. Results of the SWOT Analysis of the Baltic International Academy (part 1)

<table>
<thead>
<tr>
<th>Area of Analysis</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education services and scientific products</td>
<td>Wide spectrum of areas and specialty training offers (29). Programs of joint diplomas. Short-term education programs. Education in 3 languages: Russian, Latvian and English. Opportunities for continuous education: Bachelor’s, Master’s Doctoral programs, qualification raising courses. Agreements and grants-related scientific-research activities.</td>
<td>Small number of short-term qualification raising courses. Cuts in access to EU financial resources due to the current economic crisis and increasing competition for external funding with state higher education institutions.</td>
<td>Increase in the number of short-term courses in demand, including those in non-Riga branches. Development of consulting services for local authorities and enterprises.</td>
<td>Political and economic instability in the region, which might contribute to the formation of futility-of-education opinion and reduction in incomes. Demographic crisis.</td>
</tr>
<tr>
<td>Resources and education technologies</td>
<td>Teaching and learning supported by well-equipped computer rooms, information resources, library funds. Teaching supported by active methods – business</td>
<td>Lack of updates for contemporary IT software. Insufficient number of scientific publications in peer-reviewed volumes, monographs,</td>
<td>Development of the distance learning system. Encouragement of the teaching staff. Raising qualifications of instructors by their attendance</td>
<td>Lack of the sufficient amount of financial resources. Cuts in the EU funding. The current legislative framework does not encourage long-</td>
</tr>
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<td></td>
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<td></td>
</tr>
</tbody>
</table>
### Table 1. Results of the SWOT Analysis of the Baltic International Academy (part 2)

<table>
<thead>
<tr>
<th>Area of Analysis</th>
<th>Strengths</th>
<th>Weaknesses</th>
<th>Opportunities</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of education</td>
<td>International accreditation of programs of the Academy.</td>
<td>Lack of the system of quality management.</td>
<td>Establishment of the system of quality management.</td>
<td>Lack of commonly accepted approaches to quality assessment, used internationally and regionally.</td>
</tr>
<tr>
<td>Marketing</td>
<td>Positive image of the Academy in the region and international market.</td>
<td>Lack of a separate marketing division the result of which is the lack of monitoring of labor market.</td>
<td>Establishment of marketing and recruiting divisions to stimulate the expansion of foreign student intake.</td>
<td>Lack of information on the competitive environment.</td>
</tr>
</tbody>
</table>

Based on the results of the conducted SWOT analysis of the Baltic International Academy main strategic objectives as well as indicators on such parameters as *Finances, Clients, Processes* and *Staff* (see Table 2) have been identified.
### Table 2. Strategic objectives and the system of BSC indicators of BIA (part 1)

<table>
<thead>
<tr>
<th>PERSPECTIVE</th>
<th>FINANCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRATEGIC OBJECTIVES</td>
<td>INDICATORS</td>
</tr>
<tr>
<td>Stabilizing volumes of sales</td>
<td>Income from sales</td>
</tr>
<tr>
<td></td>
<td>Return on sales</td>
</tr>
<tr>
<td></td>
<td>Diversification of income</td>
</tr>
<tr>
<td>Reduction of the volume of accounts receivables</td>
<td>Dynamics of accounts and uncollectible accounts receivables</td>
</tr>
<tr>
<td>Optimization of expenditures, costs</td>
<td>Expenditures on articles</td>
</tr>
<tr>
<td></td>
<td>Expenditures on each one student</td>
</tr>
<tr>
<td></td>
<td>Program costs</td>
</tr>
<tr>
<td>Financial stability</td>
<td>Indicators of liquidity and solvency</td>
</tr>
<tr>
<td>Increase in profits</td>
<td>Gross profit</td>
</tr>
<tr>
<td></td>
<td>Net profit</td>
</tr>
</tbody>
</table>

### Table 2. Strategic objectives and the system of BSC indicators of BIA (part 2)

<table>
<thead>
<tr>
<th>PERSPECTIVE</th>
<th>CLIENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRATEGIC OBJECTIVES</td>
<td>INDICATORS</td>
</tr>
<tr>
<td>Sustain the position in the internal and external market</td>
<td>Number of admitted students</td>
</tr>
<tr>
<td></td>
<td>Number of foreign students</td>
</tr>
<tr>
<td></td>
<td>Number of countries whose citizens have been admitted as students</td>
</tr>
<tr>
<td></td>
<td>Total expenses on advertising</td>
</tr>
<tr>
<td>Increase students’ satisfaction with teaching</td>
<td>Results of students’ questionnaires</td>
</tr>
<tr>
<td></td>
<td>Number of complaints</td>
</tr>
<tr>
<td></td>
<td>Number of admitted prospective students based on positive comments of current students and graduates</td>
</tr>
<tr>
<td></td>
<td>Number of students, continuing their education in Master’s and doctoral programs</td>
</tr>
<tr>
<td>Mobility of students</td>
<td>Participation in the SOCRATES, ERASMUS and other programs.</td>
</tr>
</tbody>
</table>
Table 2. Strategic objectives and the system of BSC indicators of BIA (part 3)

<table>
<thead>
<tr>
<th>PERSPECTIVE</th>
<th>PROCESSES</th>
<th>STRATEGIC OBJECTIVES</th>
<th>INDICATORS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>The content and organization of training</td>
<td>Correspondence of training plans and programs to the requirements of the approved standards for the development of distance learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Quality of training</td>
<td>Availability of the school internal system for quality control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Informational and methodological support for training</td>
<td>State of library funds by type</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Library expenses on each one student or program</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Access to electronic databases</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Computerization of the Academy</td>
<td>Availability of computer equipment for each one student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Material-technical base</td>
<td>Amount of spaces for one student (rented and owned)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Capital expenditures on each one student</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social support of students</td>
<td>Financing the students’ governing body</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Discounts and benefits for students</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Accessibility of student accommodation for foreign students</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scientific research</td>
<td>Volume of funding</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sciences within which framework scientific research is conducted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Scientific and methodological activities</td>
<td>Published monographs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Published textbooks and training aids</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Publication of journals</td>
</tr>
</tbody>
</table>
Table 2. Strategic objectives and the system of BSC indicators of BIA (part 4)

<table>
<thead>
<tr>
<th>PERSPECTIVE</th>
<th>STAFF</th>
</tr>
</thead>
<tbody>
<tr>
<td>STRATEGIC OBJECTIVES</td>
<td>INDICATORS</td>
</tr>
<tr>
<td>Qualitative composition of research and teaching staff</td>
<td>Number of teaching staff members and adjunct instructors</td>
</tr>
<tr>
<td></td>
<td>Number of instructors holding doctorates</td>
</tr>
<tr>
<td>Raising qualifications of staff</td>
<td>Participation in conferences</td>
</tr>
<tr>
<td></td>
<td>Number of publications in cited journals, volumes (SCOPUS,EBSCO,ERIH etc)</td>
</tr>
<tr>
<td></td>
<td>Number of publications in other international editions</td>
</tr>
<tr>
<td></td>
<td>Publication of monographs and training aids</td>
</tr>
<tr>
<td></td>
<td>Number of defended doctoral theses</td>
</tr>
<tr>
<td></td>
<td>Participation in international projects and programs</td>
</tr>
<tr>
<td>Mobility of the teaching staff</td>
<td>Participation in the SOCRATES, ERASMUS and other programs</td>
</tr>
<tr>
<td>Social policy</td>
<td>Staff insurance</td>
</tr>
<tr>
<td></td>
<td>Discounts for low-income students</td>
</tr>
</tbody>
</table>

5. CONCLUSIONS
In the current environment, scientific approach to organization of effective management of school financial resources is becoming more and more important in the domain of education. Particular emphases are made on the accounting-analytic component of this management, which sustains the validity and efficiency of relevant financial decisions. The methodology and organization of accounting is viewed as determined rather by management issues that higher education institutions are compelled to handle than any other factor. Traditional approaches do not provide sufficient information that higher education institutions need. Therefore, this paper justifies the need to implement strategic accounting into the system of finance management of a higher education institution. While supporting the implementation of a strategy, application of the system of BSC indicators also provides the grounds for new development. Specifically, formulated strategic goals and objectives that have considered all aspects of future development can now be transformed into specific activities. At the same time, an adequately developed system of indicators provides the foundation for objective assessment of the overall activities of a higher education institution.

Implementation of the system of the BSC indicators at a higher education institution is a complicated task whose accomplishment proceeds at various stages. The approach that has been offered for implementation at the Baltic International Academy is based on combining the financial strategy with the strategy of enhancing specialist training. Therefore, not only data of internal accounting, but also indicators and criteria of quality assessment, set by accreditation procedures in Latvia and other countries, have been used in the development of relevant BSC indicators. Obviously, the system of
accounting at different higher education institutions significantly differs, which is linked to specifics of financing, the organizational structure, implemented strategies of education and development of other activities. The analysis and selection of the BSC indicators, thus, might differ and might depend on the approved strategy of development at each specific higher education institution.

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ASSESSMENT OF ACADEMIC PROGRESS IN TERMS OF QALIFIED APPROACH
(IN TERMS OF GRAPHICAL DISCIPLINES)

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Abstract

There will be a description of the results of learning graphical disciplines on the basis of taxonomy of Bloom. Relying on the description is built an estimation system of students’ academic progress: a knowing rate is determined by questionnaire ways, testing and etc.; understanding is determined mainly at final control; skill to apply an obtained knowledge will be determined while doing tasks for out extracurricular independent work by the portfolio way.

Key words: Kazakhstan, a model of education, orientated on the result, students’ academic progress, qualified approach, graphical disciplines.

1. INTRODUCTION

The qualified approach for learning, being realized now in the education system of our country, supposes an assessment of students’ academic progress on the achieved results both when leaving university and while learning on separate disciplines. Keywords is here notion “results of learning” which point at individual progress, knowledge and practical skills, obtained and showed by a person after successful leaving the school (for instance, a separate module or educational program in whole, informal learning). That is say, in the very results of learning there was put criteria, as a result of which there will be it’s official recognition. Orientation on the results of learning will result changing of content and nature, also assessment tools, since complete progress of students is estimated, in connection with it tools are more oriented on certain general criteria, also on formation of single logics when estimating the results of people entering into learning, and its results, achieved on leaving the school.

Such way, the results of learning will allow:

• forming a set of requirements for students’ progress;
• raising transparency and comparability of qualifications;
• providing for a single form of designing programs for different kinds of learning (for instance, remote learning, learning in work site, informal learning and etc.);
• providing for transparency interaction between requirements of work field, a content of programs and assessment (Oleinikova O.N., Muraveva A.A.).

Accordingly, the results of learning have to be put for the purpose of learning, in which is determined what a student must know and able to do. The tasks of learning answer a question how to step to the
end. The questions of determination, measurement and assessment of the level of conformity of the results of learning with the mentioned ends now are ones of centrals in theory and practice of learning.

The graphics play an important role in human activity. First, this is an industrial work. However it is needed in the art, furnishing, advertisement, design, when modeling and analyzing the processes and etc. In connection with it at the high schools’ student it is required to form space, figurative and creative thinking. This is achieved by studying graphical disciplines, among which in technical schools is marked out the discipline “descriptive geometry and engineering graphics”.

2. TAXONOMY OF PEDAGOGICAL AIMS

In our opinion, the purpose of the learning one should form not only in general kind, as for example were formed national purposes of education, but on steps of cognition and the fields of educational work. In connection with is actualized the problem of taxonomy of pedagogical aims.

Within B. Bloom’s educational technology there was created the first taxonomy of pedagogical aims (Bloom, 1956). At the same time B. Bloom and D. Kratvol divided the purposes of education into three fields: cognitive (requirements for mastering a content of subject), psychomotor (development of motional, nerve-muscle function) and affective (emotional-estimation fields, regard to learning).

The first taxonomy, covering the cognitive field, concludes six categories of aims with internal more subdivision of them: knowledge (a concrete material, terminology, facts, determinations, criteria and etc.); understanding (explanation, interpretation, extrapolation); appliance; analysis (interlinks, principles of building); - synthesis (working out a plan and possible system of actions, obtaining a system of abstract relations); assessment (judgment on the basis of current data, judgment on the basis of external criteria).

In the year 1999 Loren Anderson and his colleagues published a renewed version of taxonomy of Bloom, which takes into account more wider set of factors, having an influence on teaching and learning. In it were given some differences between a content of thinking, and knowledge of procedures, used in solving problems.

A knowledge is divided into four categories: actual, conceptual, procedural and meta-cognitive. The actual knowledge includes isolated fragments of information, such as dictionary descriptions and knowledge of specific details. The conceptual knowledge consists of the systems of information, such as classifications and categories. The procedural knowledge includes algorithms, heuristics, empiric methods, techniques and methods, also knowledge of that when one should apply these procedures. Meta-cognitive knowledge relates to the knowledge of processes of thinking and information of that how to manage effectively these processes.

Measurement of cognitive processes of Bloom are six habits. Name them in order – from simple to more complex ones: to remember (acknowledge), to understand, to apply, to analyze, to estimate and to create.

The mind consists from knowing and remembering relevant information from long-term memory. The understanding is an ability to form its own meaning from educational material, such as read text or explaining by a teacher. The skills, included in this process, includes interpretation, explaining in terms of examples, classification, generalization, conclusion, comparison and explaining.

The third process - application – relates to the use of procedure, mastered in learning in familiar or new situation. The next process – analysis – consists of parting of knowledge into components and
thinking a relation of parts to general structure. Students will learn to analyze during differentiation, organization and explaining. The assessment, that is in the top in original taxonomy, is the fifth of six processes in accurate version. It concludes a checking and critics.

The creative work is a high component, and suppose a connection of known already for creation of some new thing. For doing the creative tasks the students generate, plan and make them.

In correspondence with this taxonomy every level of knowledge can be related with every level of the cognitive process, so a learner can remember an actual and procedural knowledge, understand the conceptual or meta-cognitive knowledge or analyze meta-cognitive or actual knowledge. As Anderson and his colleagues hold, thinking learning provide learners knowledge and access to the cognitive processes which will be needed to them for successful solving problems (Anderson, 2001).

3. DESCRIPTION OF THE RESULTS OF LEARNING GRAPHICAL DISCIPLINES

Having based on the above said material, we have made up a description of the results of learning graphical disciplines (table 1). The description is the first attempt in Kazakhstan to give a description of the results of learning in accordance with the general structure of qualifications for European zone of higher education (Bolon structure) in one of directions of preparation, particularly in graphical preparation of students – future bachelors.

<table>
<thead>
<tr>
<th>Table 1. Description of the results of learning graphical disciplines</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>a) in the cognitive field</strong></td>
</tr>
<tr>
<td><em>Remarks</em></td>
</tr>
<tr>
<td>Remember the main elements of the spaces which you learnt in school geometry subject. Remember the theorem for school geometry subject, used in graphical disciplines.</td>
</tr>
<tr>
<td>Describe the types of projections of elements of the space on a plane surface</td>
</tr>
<tr>
<td>Name projection and metrical tasks</td>
</tr>
<tr>
<td>Name the ways of pre-building projections</td>
</tr>
<tr>
<td>Determine on a design position of the elements of the space relating to planes of the projections or relating to each other</td>
</tr>
<tr>
<td>Remember the general rules of doing designs</td>
</tr>
<tr>
<td>Name the types of connections and mechanical transmissions and the rules of doing their imagines</td>
</tr>
<tr>
<td>Name the stages of reading and detailing a design of general kind</td>
</tr>
<tr>
<td>Show in a design a correct reply from some givens for reply to question</td>
</tr>
</tbody>
</table>

*Application*                                                            | *Analysis*                                                            |

Publishing by Info Invest, Bulgaria, www.sciencebg.net
### Solve non-typical tasks of descriptive geometry
- Solve tasks for building of imagines of items
- Use the knowledge for building assembly drawing of bolt and steeple connection
- Work out some details of drawing of general kind
- Construct items by description
- Work out the construction of the item by taking into account its disadvantages
- Prepare massage of differences between assembly drawing and a drawing of general kind

### Determine advantages and disadvantages of different kind of the projections of the elements of the space on plane
- Analyze a work content of salvation of the same tasks by different ways of the projections
- Classify the plane by different signs
- Find out similarity and differences between the types of imagines of the detail
- Compare the drawing of general kind and a assembly one

### Estimation
- Explain the meaning of graphic disciplines for mastering a specialty
- Estimate a role of geometric mediators for solving tasks of descriptive geometry
- Choice more rational method of solving tasks

### Creative work
- Use the obtained competence for solving creative tasks
- Plan the process of development of facilities of a construction
- Make up a task having got some solvencies as a result of non-providing reversibility of the imagine
- Work out a construction of facilities by its description

### b) in the affective field

<table>
<thead>
<tr>
<th>Perception</th>
<th>Response</th>
<th>Mastering value orientations</th>
<th>Organization of value orientations</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Realize a need for studying graphic disciplines for mastering a specialty</td>
<td>Be interested in studying graphic disciplines</td>
<td>Value readiness for working on their own</td>
<td>Be ready to work on your own</td>
<td>Demonstrate your ability to independent work</td>
</tr>
</tbody>
</table>

### c) in psychomotor field

<table>
<thead>
<tr>
<th>Imitation</th>
<th>Manipulation</th>
<th>Accuracy</th>
<th>Articulation</th>
<th>Naturality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe how a teacher uses drawing tools</td>
<td>Do motions of a teacher, who uses drawing tools</td>
<td>Use of drawing tools when a teacher is absent</td>
<td>Coordinate series of actions with drawing tools by joining two or more habits (skills)</td>
<td>Demonstrate a high level of use of drawing tools</td>
</tr>
</tbody>
</table>

At making up the description we leant on current typical educational programs (TEP) of graphical disciplines. As an example in the table 2 there are some abstracts from TEP for specialty 5B0808 “Agricultural machinery and technologies”.
Table 2. Abstracts of TEP

<table>
<thead>
<tr>
<th>The purpose of the course:</th>
<th>substantiation and statement of the methods for making up imagines and formation of habits of doing and reading drawings</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>The tasks of the course:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development of space imagines by students;</td>
</tr>
<tr>
<td>Formation of knowledge and skills, required for students for mastering other disciplines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>As a result of studying of the course a student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Must know:</td>
</tr>
<tr>
<td>The methods of imaging elements of the space on plane</td>
</tr>
<tr>
<td>General rules of uniform system of construction documentation</td>
</tr>
<tr>
<td>A content of assembly drawing and a drawing of general kind</td>
</tr>
<tr>
<td>Must to be able:</td>
</tr>
<tr>
<td>To solve the tasks by imagines, obtained in the way of parallel projections;</td>
</tr>
<tr>
<td>To apply the rules of the Uniform system of construction documentation;</td>
</tr>
<tr>
<td>To make up an assembly drawing, fill in specification;</td>
</tr>
<tr>
<td>To read and detail the drawing of general kind</td>
</tr>
<tr>
<td>Must have some skills:</td>
</tr>
<tr>
<td>Space imagines;</td>
</tr>
<tr>
<td>Use of drawing tools for doing drawings</td>
</tr>
</tbody>
</table>

INTRODUCTION

Descriptive geometry is a theoretical base of drawing. The meaning of drawing for mastering engineering disciplines is great, since by means of it one can realize a construction of complex machineries, describe mechanism of the projected process, to show a shape and sizes of any item and etc.

The methods of descriptive geometry are used in different branches of industry, in architecture, when designing surfaces during construction, also in such sciences as physics, chemistry, mechanics, crystallography and etc.

Engineering graphics is one of disciplines, setting foundation of general engineering preparation. As a result of studying of engineering graphics a student must get some skills to fulfill and read drawings. These abilities are obtained as a result of fulfilling a lot of drawing work.

In a such way, the course “descriptive geometry and engineering graphics” occupies a special place in the system of special education; from each engineer it is required to master it well.

The main method of studying of the discipline is doing drawings.

Short content of the course: The uniform system of design documentation. The types of items and design documentations. Furnishing drawings. Geometric buildings. Imagines – types, cutest, sections. Connections. Assembly drawing and a drawing of general kind. Reading and detailing the drawing of general kind.

In order to pass from the data of table to describing the results, there was made up by us a scheme of interaction of elements of the table with spheres, accepted in taxonomy (fig 1). All the preliminary
Figure 1. A scheme of interlink of the elements of the table 2 with fields, accepted in taxonomy of Blum

Work will give us some confidence in that a description of the results was made up correctly and correspondences to the current position in the part of the content.

4 KINDS AND METHODS OF ASSESSMENT OF LEARNERS’ ACADEMIC PROGRESS

In a model of education, orientated on a result, kinds and methods of estimation of learners’ academic progress are to be taken by taking into account of the purposes of education. An estimation system is to provide generality and transparency of monitoring, to be a mechanism of preparation of learners for the procedure of independent determination of their educational progress. We will consider the assessment system of students’ academic progress on graphical disciplines.

Public obligatory standards for education of the Republic of Kazakhstan set forth minimum requirements for a level of mastering educational program. Having mastered this level, a learner has got the right to raise it in accordance with its needs and opportunities. Taking into account of it, we will offer to measure cognitive processes by three skills: knowing, understanding and application. For measuring different methods can be used, and their combination usually is applied both in academic classes and during extracurricular work on their own.
The level of knowing we will determine by questionnaire, testing and etc., at the same time we will apply tests with optional and constructed replies. In the figures 2 and 3 there are their examples: in the first case is chosen a reply of four possible ones, in the second case – a reply is constructed from

<table>
<thead>
<tr>
<th>Card 1.3</th>
<th>Question: in which drawing</th>
<th>a dot is expressed, situated in the II quarter</th>
<th>traces of the right a are built rightly?</th>
<th>dot A is not lying on the right a?</th>
<th>has been found rightly</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A₁, A₂</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A₁,x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A₁,a₁</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A₂,a₂</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>F₁α</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>F₁α</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>F₁α</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td>A₁, A₂</td>
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<td>A₁,x</td>
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<td></td>
<td>A₁,a₁</td>
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<tr>
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<td>A₂,a₂</td>
<td></td>
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<td></td>
<td>F₂α</td>
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<td>F₂α</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>F₂α</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>x</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A₁, A₂</td>
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<td>A₁,x</td>
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<td>A₁,a₁</td>
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<td>A₂,a₂</td>
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<tr>
<td></td>
<td></td>
<td>F₂α</td>
<td></td>
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</tbody>
</table>

**Figure 2.** Fragment of the test with optional replies
fragments, for the example, the reply for the 15th question is “Right angle is projected to the plane as right, if ….. one of it’s sides would be parallel to this plane”, i.e. consists of expressions # 1 and 2.

15. The right angle projects as rightly, if ……of this plane.
1) One of it’s side
2) As a result of turning
3) Parallel
4) Perpendicular

Figure 3. Example of the test with replies constructed

Understanding is determined mainly at a final control. In the figure 4 there is an example of examination card. The tasks, included in the card, will give some opportunities of determining a level of space imagines, skills to solve typical tasks of descriptive geometry, the task for reading the drawing.

EXAMINATION CARD #25

<table>
<thead>
<tr>
<th>1) Find out natural size ΔABC</th>
<th>2) Built evolvent of the surface of the cone</th>
<th>3) Build a required quantity of types and sections of the subject</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
<td><img src="image3" alt="Diagram" /></td>
</tr>
<tr>
<td>4) By the drawing of general kind built a drawing of detail (a drawing is attached)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 4. Example for the examination card

Skills to apply an obtained knowledge will be determined when doing the tasks for extracurricular work on one’s own.
In the interpretation of notion “independent work of students” so far has not been worked out an uniform approach. The independent work is understood by some investigators to be an active creative work of a student, on the basis of which is lying his/her ability to think independently, ability to be orientated on a new situation, to see the problem him/herself, to put new tasks and find some approaches for their solving, at the same time a teacher’s work practically is null (Rubanik, A., Bolshakova G., Telnykh N., 2005; Senashenko V., Zhalnin N., 2006). On opinion of other scientists the independent work is different types of educational, industrial and research tasks, done under management of a teacher for the purpose of mastering various knowledge, acquisition of skills, experience of creative work and working out a system of behavior (Abasov Z., 2007). P. I. Pidkasistiy considers the independent work as a means of training, which will form at learner necessary volume and level of knowledge, skills for solving cognitive tasks, and will serve accordingly to progress from low to a high levels of thinking works and etc. (Pidkasistiy P.I., 2004).

As the above said, now in education we noted a tendency, an importance of which is that educational process is leant on the principles of adequate approach to learning, when a student is a subject of educational work, who put a task of self-determination, self-realization, self-control in educational work. In connection with it one can’t over estimate the role of independent work.

The independent work on graphical disciplines has got some importance for achieving planned results of education. The business is that for mastering disciplines one should do a big volume of graphical work, and taking into account of limit of academic time the large part of it a student does independently. Even a simple drawing for understanding requires enough much time for it’s doing in connection a necessary of careful and thinking fulfillment of graphical buildings, but correspondence furnishing.

Understanding an importance of graphical disciplines as disciplines, putting foundations of general technical preparation of future specialists, in higher schools in Kazakhstan correspondence sub-departments will pay due attention to organization and control over independent work. In the Kazakh National Technical University named after K.Satpayev, and the Kazakh National Agricultural University has been used a method of self-control of quality of graphical work a long time. The importance of the method is that done and accepted work by a teacher comes back to a student, thus the last has got analysis of done mistakes with that, in order not to repeat them beforehand, and also comparison of their work with work of other students. Now the method could be named as a “portfolio” method.

The methods of innovation, alternative to traditional one, by estimating the results of learning began being worked out and widely used in countries of Europe and the USA in the middle of the XX century. One of them is assessment by means of portfolio.

As E.V.Igonina (Igonina E.V., 2011) says, development of an idea of portfolio in before said countries took place, though in single line of solving problems of imaging wide data of progress of a concrete pupil, but on the background of appearance and strengthening differences in the interpretation of the meaning of this tool. The important is this development is that a leading direction of investigation of portfolio, namely it’s consideration as a diagnostic means, has resulted formation in the pedagogy of the west European countries and the USA of a specific method of assessment – assessment by means of portfolio («portfolio assessment» or «performance portfolio»).

On the basis of the detailed analysis by the author was made a conclusion of that to the number of functions of student portfolio one should relate first those which linked with determination by means of it of certain qualities of personality of a learner or individual characteristics of work done by them...
by giving the last a full assessment within a system of worked out criteria. Being more mentioned, the functions are linked with owning portfolio a status of:

— a means of control;
— an instrument of assessment work of a teacher;
— multifunctional tool both of assessment and of self-assessment of own achievements;
— a means of monitoring of individual achievements or forms of alternative examination;
— a tool of determination of general rating assessment of learners when distribution of them by educational portfolio;
— an alternative tool or technology of tracing the results of education;
— a tool of assessment of educational progress and addition of the results of other traditional control-estimation means;
— alternative relating to traditional types by assessment (self-analysis of occupational knowledge, skills and personal qualities of a student, tracing a dynamics of his occupational formation and etc.).

In our opinion, in student portfolio on graphical disciplines is realized a main part of the shown functions: accumulating evidence of a growth of graphical knowledge and skills, a student will see a course of mastering the content of discipline; this method will give a teacher some opportunities to see a growth of graphical knowledge and skills, and along with it keep records of these achievements.

In the course of fulfillment of the tasks a student will show his/her abilities to independent work, a high level of use of drawing tools that is a sign of the progress of the results of education in the affective and psychomotor fields.

5. CONCLUSIONS

1) description of the results of teaching graphical disciplines in accordance with taxonomy of Bloom can be a main building of assessment system of students’ academic progress;

2) a continuous control of the course of fulfillment of tasks for independent work by means of portfolio is a means of diagnostics of success or weakness for mastering disciplines, a level of mastering an individual theme or a part of discipline, in other words, by means of a diagnostics of correspondence of the results of education to the aims and the tasks.

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QUALITY ASSURANCE SYSTEM OF EDUCATION IN KAZAKHSTAN:
CONDITION AND PERSPECTIVES

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Abstract

Is being described an experience of quality assurance of education in Kazakhstan both at the level of state and at the level of higher schools. Description is given of internal higher school systems of quality assurance on the basis of ISO 9001:2001 standards and the next versions. Have been described the purposes, methods, types of assessment of education quality, involvement in this process of administrative, educational auxiliary and professor-teacher staff, students and graduates, the interested teams. By taking into account of the tendencies of development of the quality assurance system in European educational space in the future there will be offered using an EFQM model.

Key words: Kazakhstan, quality assurance system of higher education, systems of quality management, an EFQM model.

1. INTRODUCTION

Education is a purposeful process of education and teaching for interests of a man, society, state, and is accompanied by affirmation of citizen (a leaner) of fixed by the state educational levels. A quality of education is considered as an integrated nature of education system, representing a level of correspondence of real reached educational results by normative requirements, social and personal expectations.

Quality assurance of education was and remains in the center of attention of the state and society. As noted in the Massage of the President of the Republic of Kazakhstan, quality growth of human capital in Kazakhstan is above all is education and health (the Massage of the President, 2012). Guarantee of education quality is one of most important conditions of acknowledgement of a higher school in academic environment and in the labor market. The society in whole and teams existing in it, interested in a high quality of education, in terms of promotion of rivalry in the labor market of educational services need innovational mechanisms of it’s assurance. Quality assurance of higher education is understood by us as processes of assessment of educational programs and higher schools (program and institutional assessment and accreditation), also building and functioning of internal higher school systems of quality guarantee. Now problems of education quality assurance, education quality management and education quality assurance need complete considering by making out key elements of a system of education quality assurance.

The purpose of the article is to analyze a condition of education quality assurance in Kazakhstan and substantiation of perspectives of it’s development.
2. CONDITION OF EDUCATION QUALITY ASSURANCE IN KAZAKHSTAN

Now is existing a need for improving the mechanisms of education quality guaranteeing, provided for by the very educational establishments: internal and external assessment of educational progress and conditions of teaching each learner, assessment of efficiency of occupational work of pedagogical staffs and educational establishments. Thus there was created a service for education quality assessment by the Ministry for Education – a National Center for education quality assessment of the Ministry for Education and Science of the Republic of Kazakhstan (a National Center for education quality assessment, 2012).

The Center is a head establishment carrying out a coordination of actions of subjects in the infrastructure of the National system for education quality assessment in educational monitoring, the main tasks of which are formation of total imagine:

- of a condition of education system of the Republic of Kazakhstan;
- of qualitative and quantitative changes in the education system of the RK;
- of tendencies in development of all the system of education in a context of international comparison;

also working out offers and recommendations:

- by raising education qualitative;
- by improvement of the mechanism of education field management.

The purpose of the Center’s activity is to take part in creation and providing for functioning of the assessment system of education quality, promoting competitive ability both of education system in international educational space and specialists on the labor market.

In the Republic of Kazakhstan “Education Law” the term “quality of education” is found in the following two combinations:

- public control over education quality (four times: article 1, paragraph 6 “Public obligatory norms of education” and three times in the article 35 “Public control over education quality”);
- A quality of preparation of graduates and (article 1 paragraph 35 “Public control over education quality”).

In a new version there is a notion “education quality monitoring” (article 6), “quality of training” (article 45), “quality of educational service” (article 52) (A law of the Republic of Kazakhstan, 2010).

The educational monitoring is held by the methods of internal and external assessment of education quality.

2.1. External assessment of education quality

The external assessment of education quality concludes the procedures of licensing, state attestation of educational establishments, accreditation of educational establishments, uniform national testing, external assessment of learners’ academic progress and etc.

Licensing and a state attesting for educational establishment are held by the Committee for supervision in the education and science field, and accreditation is done by the National Accreditation Center “NAC” and nonpublic accreditation agencies. A mission of the NAC is to assist to raise a quality of higher education for maximum satisfaction of educational need of a personality, preparation of higher
qualified staffs for various branches of economy and life activity of community, raising competitive ability of national system of higher education (The National Accreditation Center, 2008).

The main purpose of the Center’s activity is to create and develop the national system of quality assurance of higher education, to assist to render educational service of high quality to different categories of people via introduction of a model and norms of accreditation of higher schools and educational programs, harmonized with international criteria and standards, to obtain acknowledgment of high quality standards of higher education and to strength the image of the Republic of Kazakhstan through membership for international nets of education quality assurance and participation in their activities.

Accreditation is understood as a special kind of quality assurance, distinguished by acceptance at the end of formal decision, leading to official approval by legal body of establishment or a program, satisfying beforehand fixed and agreed standards. Accreditation is called to provide:

- correspondence with quality standards;
- confirm the correspondence of programs and levels with general accepted main descriptors of quality, promoting them to international recognition;
- to deep activities on quality assurance, giving them a great independent, by leaning on absolute and grounded standards on external criteria, and by favoring development of more clear conclusions;
- introduction of uniform international standards and criteria for the programs and levels for supporting students’ mobility, by introduction of a system of re-test and accumulation of credits, by introducing the courses read by foreign teachers;
- to provide an access of informational resources for students and all the world community of activities on quality assurance in order to show responsibility of higher educational establishments before the community;
- to add a control over the quality with other kinds of regulation, including financing, finance assist to students, recognition of higher schools, programs and qualifications, taking a position

2.2 Internal assessment of education quality

Internal assessment of education quality includes quality management system, different procedures of self-assessment of all kind of educational establishment’s activity, current control of progress, estimation of learners’ educational progress. Internal higher school systems of quality assurance are a necessary internal part of the activity of modern higher educational establishment, wanting to gain international recognition of its’ academic programs or international accreditation.

Internal higher school systems of management are built in accordance with the following principles, which conform to the standards ISO 9001:2001.

- Policy and procedures of quality assurance.
- A regular control over the activity of educational establishment on the basis of the periodic analysis of it’s activity results.
- A quality of students.
- A quality of academic staff.
- Conditions of support for students and resources.
Development of quality management system in higher schools are bases on the system of monitoring, allowing coordinating and improving the activity of the higher school in a way of achievement by them of purposes. The system of monitoring is being worked out by the higher school by taking into account of all the respects of it’s activity, including a monitoring of processes realization, the results of teaching and scientific investigations.

The requirements, lodged for functioning of quality management system, are brought to each worker in the higher schools and clear for them. The system in whole is directed at the needs of all the categories of consumers.

The main aim of founding a regular developing system of quality management in the higher school is the need for application in modern terms of effective methods of management for raising the quality of educational services, the quality of scientific researches.

2.2.1 Types of assessment

A notion “quality assurance” means a peculiar kind of assessment, pointing at the processes and schemes, the aim of which is monitoring, assurance, support and improvement of teaching quality. In the higher schools in Kazakhstan were introduced the systems of management on the basis ISO standards 9000:2001 series and their next versions. Building the system of quality management in higher schools is bases on the principles of General quality management or their interpretation in ISO 9001:2001 standards, also on regular self-assessment of all the directions of a higher school activity.

2.2.2 The methods of quality assessment

As is was shown before, there is a variety of types of quality assessment. Accordingly the methods of assessment are various.

There are three main methods of quality assessment:

- Valuation method of quality management of a higher school activity (SWOT-analysis);
- The conception, bases on the principles of total quality management (TQM);

In the practice is used a combination of methods: collection of statistic data on papers of the university administrations, faculties, sub-faculties; revelation of strong and weak sides of the higher school activity, also positive and negative factors of it’s development, definition, revelation of the requirements of interested sides in a quality of product, visual survey and oversight, questionnaire, interviewing, conversations.

2.2.3. Involvement of administrative, educational-auxiliary and professor-academic staff

The rector will fix real purposes and promote, work out the strategy of the higher school development, be responsible for functioning of the whole system of quality assurance.

Pro-rectors are responsible for development of directions, within which they interact and have an influence on development of the processes.
Deans of the faculties carry out a monitoring of students’ academic progress, organize a survey of students’ opinions on a quality of courses, interact with graduates and employers in questions of the content of education, respond to changing of demand from students and other interested sides.

Head of chairs manage the processes of change of knowledge and practices, measure classes quality, create conditions for creative growth of employees.

Teachers provide educational and bringing up process in accordance with educational standards and rules, accepted in the university, change a content of the course in accordance with wishes of students and other interested people, introduce innovation into it’s activity, develop teaching skills, on the occupational basis assess a level of students’ knowledge.

During questionnaire of professor-academic staff there will be determined the following data:

- a teacher attitude to his/her occupation (whether he/she likes or not, what she/he likes or not in it);
- self-assessment of occupational level on teams of competences: occupational competence in the field of teaching discipline, know the methods and ways of teaching and bringing up, communicative competence, ability to assest a competence in the field of motives, abilities, special features of students, ability of reflection (self-assessment of dignity and lacks of own activity and personality) and etc.

Besides it, teachers speak about efficiency of high school system of assessment of competency of the teachers by the administration of a higher school.

2.2.4 Involvement of students and graduates

Students are to imagine the requirements for their future occupations, systematic fill in their knowledge and have competences in the field of future occupational activity, have got some skills of self-learning and self-improvement, esteem the tradition of the university and take care of it’s image, speak their opinion of the quality of the courses and the quality of teaching.

When attracting to expertise of educational programs of students are used the following types of inquiry forms:

- on estimate of the studied courses (disciplines) by the students of the team
- by the results of having occupational practice
- a trainee – with eyes of a tutor.

Besides it, for finding out an attitude of students to teachers are used questionnaire forms as “A teacher – with eyes of a student”.

Questionnaire on estimate of the courses (disciplines) studied by students of the team is held at the end of the term before beginning of examinations. The results are given only after ending of the session, so that there wouldn’t be interdependency of a teacher and a student.

The questionnaire forms can include some questions of

- causes of choice of higher schools,
- prestigiousness to study in the higher school,
- a quality of resource base, particularly is found out satisfaction by scientific and reading literature in a library, by a quantity of number of computers, used in teaching process, by a quantity of places in reading hall, accessories of classes and laboratories and etc.

It is important that students should estimate moral atmosphere in the higher school.

2.2.5 Involvement of interested teams

For qualitative and effective job placement of graduates is done work on studying the market of graduates and assessment of satisfaction opportunities of it’s requirements on the basis and forecast of the state of the market.

For the purpose of this, annually are held:

- monitoring of labor market, analysis and forecast of social economical situation, including marketing research of enterprises, administrations for the purpose of finding out the need for graduates;
- establishment of links with enterprises, organizations and firms of different kind of ownership, being potential customers of university graduates;
- fairs of graduates with inviting employers, promoting job placement of graduates and raising their competitive ability in the labor market.

For estimation of satisfaction by a quality of preparation of graduates is held questionnaire. When holding a questionnaire is found out opinions of employers about preparation quality both in general kind and teams of occupational meaningful skills and competences: computer skills, mastering modern technologies, ability to foresee a problem, sociability, occupational and ethics responsibility, wish for occupational improvement, knowledge of branch-wise features, knowing foreign languages and etc.

3. OUTLOOK OF QUALITY ASSURANCE OF EDUCATION IN KAZAKHSTAN

We consider that in terms of introduction of the requirements of Bolon declaration into the education system of the country, must be accepted the following principles of choice of indexes for assessment of education quality:

- complete record keeping of the needs of education system, society and state;
- conformity of the system of indexes with European standards;
- manufacturability of the used indexes;
- validity of the used indexes (possibility of their many time use);
- hierarchical pattern of the system of indexes.

A model ISO series 9001:2001 is built on “what the organization must do”, and the main method in standards ISO is an audit, thus the results of this method – is statement of the fact of conformity or non-conformity with a list of non-conformities which one must delete (Quality management systems. Requirements ISO, 2008). The use of these standards will allow obtaining a qualitative estimation only, at the same time one has to fill in a lot of documents, in our opinion, the use of these standards only, will make educational establishments to be oriented on the results of check and timely remove found out lacks. This fact is a some brake in improvement of educational activity. In accordance with the State program of education development in the Republic of Kazakhstan for the years 2011-2020 (The State program, 2011) in the future there will be realized the principles of autonomous of higher
schools in academic, finance and managerial activity of higher schools, thus now the higher schools need to work out on their own innovational mechanisms of education quality assurance. One of such mechanisms, in our opinion, is introduction of a Model of Improvement – the model EFQM (European Foundation for Quality Management). The role of the model EFQM is to find out fields for improvement, which realization will raise competitive ability of enterprise, thus a result of introduction of the model is assessment of the level of maturity as a level of approaching to perfect action within accepted model with a list of branches for improving, in which one can make changes. The model joins two groups of criteria – “Opportunities” and “Results”. By means of criteria of the group “Opportunities” one can understand and estimate in what way results are obtained. In the group of criteria “Results” are joined main indexes and results of the activity of companies, i.e. what reached the organization by using current opportunities. The model will allow assessing in terms of quantity a level of obtained results, tracing the dynamics of changing of criteria during work.

4. CONCLUSIONS

1) The purpose of the modernization of education system of the country is to reach a high level of quality of higher education, satisfying the needs of labor market, the tasks of industrial and innovational development of the country;

2) The systems of quality management on the basis of ISO standards in the future are to be replaced by other models, since higher schools will be given autonomous in academic, finance and managerial activity;

3) The model EFQM is a mode of self-assessment and improvement system of management, research and measurement of a power of managerial potential of the organization, estimations of efficiency of management in the future can be a main model of quality assurance of higher education.

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SEMANTIC RETRIEVAL OF INFORMATION IN THE KAZAKH LANGUAGE IN E-LIBRARIES
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Abstract
At present time Kazakhstan libraries extensively convert their collections in the Kazakh language to electronic format. E-catalogues and e-libraries are created. There appeared the problem of Kazakh-language text information retrieval in the e-library. The existing retrieval systems are not suitable for resultant retrieval of texts in the Kazakh language subject to their semantics.
Therefore in this article the work on creation of Kazakh word forms dictionary to be used for establishment of intellectual systems of Kazakh-language text information indexing and retrieval in e-libraries is proposed. In the nearest future such system will provide the solution of a wide range of problems related to information retrieval of Kazakh-language texts for educational purposes.

Key words: information retrieval, information languages, grammar, semantic neural network, semantic features, word forms dictionary

1. INTRODUCTION
As noted in the work [1], the information retrieval consists in unstructured information retrieval. This related to information retrieval in documents, retrieval of documents themselves, extraction of metadata from documents, retrieval of texts, images, video and sounds in local relational and hypertext databases.

To wide extent the information retrieval is a sequence of operations aimed at providing information to interested parties, process of finding among some multitude of texts (documents) all such documents devoted to the subject indicated in a request or containing facts and data necessary for the consumer.

During the last decades the volume of text information presented in e-format is intensively increasing. In this way the development of Kazakh-language text information retrieval models and algorithms that would provide solution of a wide range of problems related to Kazakh-language text information retrieval becomes more and more urgent. At that the requirements to both documents finding process efficiency and created software integration with various information sources (e.g.: Internet resources, local network or corporate database files, individual computers hard disks, etc.) are constantly enhanced.

For solution of the problems mentioned above the work on Kazakh word forms database creation, as well as their automatic formation by means of formal rules is proposed in this article. The word forms dictionary will be used for development of Kazakh-language data indexing and retrieval models and algorithms in e-libraries.
2. INFORMATION LANGUAGES

In the retrieval process three information languages: source $L_s$, internal $L_i$ and target $L_m$ are used. The source language is meant for the user’s interaction with information system. By means of this language he formulates information retrieval requests. The alphabet of this language includes natural language symbols, figures, separation symbols. The internal language is used for description of text documents main contents or subject (by means of indexing), retrieval of a multitude of documents among a multitude of other documents. The target language often coincides with the source language and serves for reflecting information retrieval results [2].

For the purpose of formal definition of information languages listed above the formal generative grammar is considered:

$$G = \langle V, N, I, R \rangle,$$

where $V$ is the main dictionary of grammar $G$, $N$ is an auxiliary dictionary, $I$ is an initial symbol, $R$ is a multitude of inference rules described by means of Backus-Naur metasyntactic structures [3]. In the process of texts indexing and retrieval the following dictionaries and databases [4] are used:

- text corpuses database by various subject areas;
- frequency word forms dictionary;
- inflectional paradigms dictionary;
- dictionary of synonyms;
- dictionary of wordstops.

Within this article we will discuss the construction of initial word forms semantic base and the creation of word forms dictionary by means of semantic neural network.

3. CONSTRUCTION OF INITIAL WORD FORMS SEMANTIC BASE

In the Kazakh language the word forms are created by concatenation of the root and affixes (suffixes and endings). At that each affix is associated with sets of semantic features, and the order of affixes addition is strictly defined. For example, with regard to nouns a word stem is supplemented by suffix and then plural ending, then by possessive ending, then by case ending and in the end by conjugation form ending (added only to animate nouns) [5].

For formalization of the rules of suffixes and endings addition the semantic networks where tops represent morphological units and arcs set relations between them are used. For formation of the Kazakh-language word forms dictionary with all semantic features the database of initial word forms is used.

New word forms are formed subject to morphological and semantic features of initial forms as follows: first the initial word form is supplemented by suffixes. Then, moving from the left to the right, the category (deaf, sonorous, etc.) of the last letter (last sound) of the initial word form for this or that ending addition [6] is defined.

As semantic features of initial word forms such categories as a part of speech, animateness and inanimateness for nouns, comparative and superlative degrees formation for adjectives, collective and ordinal numerals formation for numerals, combination in complex forms with such auxiliary verbs as
4. FORMALIZATION OF KAZAKH LANGUAGE RULES

The example of formalization of rules of endings addition to stems is presented below. For formalization of the rules of endings and suffixes addition the semantic neural network presented in [7] is proposed for use. By means of such network Kazakh-language word forms are generated and the structure of initial forms dictionary in the form of synchronized linear tree is produced.

For representation of the word form and its features the following metasymbols will be used:

# - words separator,
( - word beginning,
) - word end,
! - word form feature beginning (case, etc.),
* - word form feature end.

Let us consider an example for word “бала – child” (word stem) and its two word forms “балам - my child”, “балан - your child” (in the Kazakh language animate nouns change by persons by means of personal endings). The receptor is raised at word beginning symbol “(“. Then it passes to “)” state, at supply of “)” symbol, then sequentially “(б)”, “(бал)”, “(бал)”, and then simultaneously two substrates “(балам)” and “(балан)” (See Figure 2).

### Table 1: Kazakh-Language Initial Word Forms Database Type

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**Fig.1.** Kazakh-Language Initial Word Forms Database Type
Figure 2 shows an example of the structure of lemma connections defining the following features: noun (лат есім) – “!*е*”, animate – “!*жа*”, possessive ending (тәуелдік жағы) of the first person – “!*1*” (бірінші жақ), possessive ending (тәуелдік жағы) of the second person – “!*2*” (екінші жақ). At word “(балам)” supply to the lemma it passes to raised substates: “(балам)”, “!*е*”, “!*жа*”, “!*1*” and at word “балан” supply it passes to raised substates: “(балан)”, “!*е*”, “!*жа*”, “!*2*”.

Figure 3. Synchronized Linear Tree for Word Forms with Endings Addition and their Morphological Information
Figure 4 presents an example of the structure of lemma connections defining the following features: noun (зат есім) – “!Ze*”, animate – “!жа*”, suffix forming noun (құрық) - “!ші*”. At word “(әрінд)” (sowing) supply to the lemma it passes to raised substates: “(әрінд)” (agriculturist), “!Ze*”, “!ші*”, and at word “әрінділік” supply it passes to raised substates: “(((әрінд)ші)лік)”, “!Ze*”, “!ші*”, “!лік*”.

Fig. 4. Synchronized Linear Tree for Word Forms with Suffixes Addition and their Morphological Information

Neurons-receptors distinguish separate symbols of input symbolical sequence. At the output the receptor generates a signal meaning either presence or absence of corresponding symbol in the analyzed text. Neurons-effectors provide the result of input symbolical sequence separate fragments recognition. In the synchronized linear tree we replace the signal from the receptor by the signal from the effector of the same tree. There will appear the opportunity of using symbolical sequences fragments as input symbols.

For indication of such fragments in the input symbolical sequence we will apply metasymbols of brackets: (“” and “”). Then the example presented will be rewritten in this form: ((бала)m), ((бала)n), (((бала)m)ның), (((бала)n)да) [8].
In this way all parts of speech of the Kazakh language are formalized, the total number of formal rules has made about 22,000 records, for example, only for the verb this number amounted to 14,500 formal rules.

The fragment of formal inflexion rules by example of the noun subject to vowel harmony law conditioning soft or hard endings addition depending on the stem softness or hardness is presented below. The example shows a fragment of rules where “ж” is noun (зат есім), “жа” is animateness (жанды), “01” ends by hard vowels а, о, ұ, “))” between closing brackets endings of nouns are placed, after “!” there is morphological information.

### Fragment of formal inflexion rules of the noun

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Fragment of formal rules of word formation of nouns from other parts of speech by means of suffixes addition

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Fragment of formal rules of word formation of verbs from nouns with suffixes addition

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</table>
5. CONCLUSION

During the last decades more and more people start using e-books. In this respect many libraries in the world have started creating e-versions of books stored in their collections.

In the present article the methods of formation of Kazakh-language word forms database and word forms dictionary are proposed. In the future they will be used for development of Kazakh-language data indexing and retrieval models and algorithms in e-libraries. The progress in the Kazakh-language texts indexing and retrieval will provide direct and immediate results. The retrieval of text information in the Kazakh language in e-libraries will be efficient.

As a whole the results of researches proposed will expand the area of Kazakh language application in various intellectual activity areas, will significantly enhance and raise its role and importance.

ACKNOWLEDGEMENTS

The presented work is supported by “Automation of Recognition and Generation of the Kazakh Language Written and Oral Speech” Project implemented under the budget program 120 “Grant Financing of Scientific Researches”, specificity 149 “Other Services and Works”, by Priority 3. Information and Telecommunication Technologies;

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A FRAMEWORK FOR THE TRAINING AND DEVELOPMENT OF ACADEMIC MANAGERS IN HIGHER EDUCATION

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Mofet Institute, Israel

Abstract

Higher education institutions face technological, economic, social and political changes that force them to make drastic adjustments in order to survive. These adjustments require professionalism not only in the higher levels of management but also in the middle and lower levels. Research on higher education institutions shows that most of those who hold management positions are academics with no professional training in management. Many of them report the need to be aware of wider organizational perspectives, to learn management strategies and to acquire management tools. There is an urgent need for adopting a professional approach towards management of institutions of higher education. The framework presented in this paper aims to ensure that managers in the universities and colleges are provided adequate opportunities for training and development in generic and specific areas of management, relevant to their work.

Key words: Academic Management, Training and Management Development in Academia

1. BACKGROUND

1.1 The higher education system has expanded rapidly over the last two decades. A large numbers of private institutions have also been established. Private institutions both aided by the government and the self-financing institutions now outnumber government institutions. This has created intense competitive pressures. There are increased expectations of different stakeholders. Though the system still comprises predominantly of universities and colleges affiliated to it, however, new forms of institutions have also significantly increased in numbers. These are deemed to be universities (in many cases with multiple campuses), private colleges and extensions of foreign universities.

Higher education institutions face technological, economic, social and political changes that force them to make drastic adjustments in order to survive. These adjustments require professionalism not only in the higher levels of management but also in the middle and lower levels (Kezar & Eckel, 2002; Ramsden, 1998). Research on higher education institutions shows that most of those who hold management positions are academics with no professional training in management (Kezar, 2000; Maltz, 2000). Many of them report the need to be aware of wider organizational perspectives and to learn management strategies and to acquire managing tools (Marshall, Adams, Cameron & Sullivan, 2000; Middlehurst, 1991).

1.2 Higher education institutions not only cater to the local body of students but are also seeking students from abroad. They are increasingly competing for talented students and competent faculty. They are expected to partner with industry and the research institutions in order to capitalize on their intellectual resources and also enhance employability of their graduates.
1.3 The changes above are putting pressures on the management of these institutions. The higher education institutions are no longer insulated from the socio-economic environment where they exist. They are expected to play a meaningful role in the socio-economic development of the region. They are becoming key stakeholders in development of their respective regions.

1.4 Higher education institutions are presently managed either by academic staff who have taken managerial responsibilities in addition or even to the exclusion of their primary responsibility for teaching and research or by personnel who have risen through ranks from the administrative cadre. This arrangement appears to be inadequate in the face of changing realities. There is an urgent need for adopting a professional approach towards management of institutions of higher education. The literature is quite lacking in management development programs for academia. Marshall et.al. (2000) provided some insight for the development of the curriculum for the program.

The basic model used to develop the program was therefore based on needs analysis of academic management and refining the use of business management development programs.

2. INTRODUCTION

2.1 These guidelines give a framework to ensure that academic managers in the universities and colleges are provided adequate opportunities for training and development in generic and specific areas of relevance to their work. The framework addresses the following key issues:

- Identification of groups of functionaries that should be covered and their training & development needs.
- Defining the framework for the implementation of the training & development programs.
- Map training needs to training modules and training programs.
- Suggest pedagogy and instructional strategy for each kind of training.
- Specify systems and processes for reviewing training programs so that periodically training programs can be- Updated; Refined or Modified.
- Provide guidelines for systems and processes for overall coordination and management.

2.2 In the background above, these guidelines have been evolved for putting in place a structured system for providing training and development opportunities for academic managers in universities and colleges.

3. OBJECTIVE

3.1 The broad objective is to build capabilities of the existing and prospective academic managers to enable them to fulfill their functions in a more professional manner. Through structured activities to be planned and taken up under this scheme, they will be made aware of the changing realities of their internal and external environment. Their competence shall be built by imparting them generic and specific skills and through their attitude transformation. These activities would create a sense of commitment and ensure that they work towards promoting excellence. Finally, this would help in creating a system of accountability through outcome focused monitoring. The thrust will be to achieve efficiency and effectiveness in planning and use of human, physical and financial facilities endowed...
with the institutions. This is to be achieved by ensuring that the delicate balance between the academic and managerial vision of the institution, is maintained.

3.2 The program objectives can be summarized as:
- Improving the level of academic management.
- Enhancing the knowledge necessary to effectively manage in academia
- Developing managerial skills and insights
- Providing a framework for meeting and discussing managerial issues among various colleges.

4. ELIGIBILITY

Academic Manager

4.1 In these guidelines, the term 'academic manager' is used in a broad sense for all personnel concerned with the administration and management of universities. It includes academic staff who are performing managerial functions (such as heads of departments.) and administrators of campus activities.

Grouping

4.2 Four major groups of the various functionaries in the institutions of higher education were created to facilitate planning and implementation of training and development activities:

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Functionaries in the Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Institutional Heads</td>
<td>• Presidents, Vice Chancellors, Pro-Vice Chancellors, Rectors,</td>
</tr>
<tr>
<td></td>
<td>• Heads of Colleges</td>
</tr>
<tr>
<td>2. Heads of the Units/Departments/Centers</td>
<td>• Deans</td>
</tr>
<tr>
<td></td>
<td>• Directors of Centers and Schools</td>
</tr>
<tr>
<td></td>
<td>• Heads of Department Registrars</td>
</tr>
<tr>
<td></td>
<td>• Dean of Students</td>
</tr>
<tr>
<td></td>
<td>• Heads of Libraries</td>
</tr>
<tr>
<td>3. Administrative and Technical Staff</td>
<td>• Administrative officers</td>
</tr>
<tr>
<td></td>
<td>• Deputy/Assistant Registrars</td>
</tr>
<tr>
<td></td>
<td>• Accounts officers</td>
</tr>
<tr>
<td></td>
<td>• Programmers/System Analysts</td>
</tr>
<tr>
<td>4. Functional Staff</td>
<td>• Administrative Assistants Secretaries, Any other</td>
</tr>
</tbody>
</table>
4.3 Dividing the functionaries into four groups may not be treated as ‘water-tight compartments’. In case a need is felt, then members of a lower group could be nominated for a training which has been identified for a higher group. Additionally, if a functionary is being groomed for a higher responsibility then the trainings of the senior group would be essential for him.

5. TRAINING NEEDS

5.1 Training needs may differ from person to person depending on his present skill profile and the requirement of the job. However, it is seen that functionaries in different groups are expected to have certain skills depending on job profile(s) of a particular group of functionaries. While, a detailed training need analysis may be necessary, a beginning could be made by addressing key training needs that have been identified for each group of functionaries. Its fine tuning can be done as we gain experience and through continued feedback that may be part of the implementation strategy.

5.2 The key training needs of different groups of functionaries previously identified, broadly indicates as follows:

Table 2: Key Training Needs (Illustrative)

<table>
<thead>
<tr>
<th>Group Name</th>
<th>Functionaries in the Groups</th>
<th>Key Training Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Heads</td>
<td>Presidents, Vice Chancellors, Principals, Rectors, etc.</td>
<td>• Leadership Development</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Management of Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Application of IT in Education and Academic Institutions</td>
</tr>
<tr>
<td>Academic Heads</td>
<td>Deans, Directors of Centers, Heads of Department, Registrars etc.</td>
<td>• General Management, Management of Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Finance &amp; Accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Project Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Team Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• IT in Administration – MIS</td>
</tr>
<tr>
<td>Supervisory Staff</td>
<td>Deputy / Assistant Registrars, Accounts officers, Administrative officers, Systems Analysts, Section officers etc.</td>
<td>• Functional Proficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Accounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Legal issues</td>
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<tr>
<td></td>
<td></td>
<td>• Logistics Management</td>
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<tr>
<td></td>
<td></td>
<td>• Hands on IT Skills</td>
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<tr>
<td></td>
<td></td>
<td>• Select Soft Skills like</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Communication Skills, Team Building, Attitude</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change, etc.</td>
</tr>
<tr>
<td>Staff</td>
<td>Functional Staff - Assistants, Secretaries, etc.</td>
<td>• Functional &amp; Attitude Skills</td>
</tr>
</tbody>
</table>

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### 6. TRAINING MODULES

6.1 With a view to initiate activities under the scheme, key training needs identified in Table 2 above have been mapped to training modules (suggestive) as provided in Table below.

<table>
<thead>
<tr>
<th>Group</th>
<th>Areas of Training</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Institutional Heads</strong></td>
<td><strong>Institutional Leadership</strong>&lt;br&gt;Strategic Leadership Workshop for Institutional Heads&lt;br&gt;Management of Change</td>
</tr>
<tr>
<td></td>
<td><strong>Personal Quality and Administration</strong>&lt;br&gt;Creativity, Problem Solving and Decision Making</td>
</tr>
<tr>
<td><strong>Section Heads</strong></td>
<td><strong>Attitudinal Transformation for better Change Management</strong>&lt;br&gt;Conflict Management and Team Building&lt;br&gt;Effective People Development Skills</td>
</tr>
<tr>
<td></td>
<td><strong>Disciplinary Procedures</strong>&lt;br&gt;Cost Benefit Analysis&lt;br&gt;Project Management</td>
</tr>
<tr>
<td><strong>Supervisory Staff</strong></td>
<td><strong>Team Building Workshop</strong>&lt;br&gt;Supervisory Skills for Effective Management</td>
</tr>
<tr>
<td></td>
<td><strong>Logistics Management</strong>&lt;br&gt;Tender/Procurement Procedures&lt;br&gt;Accounts Procedures&lt;br&gt;Cash and Accounts&lt;br&gt;Legal System Records Management</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>3 5 11 9 8</td>
</tr>
</tbody>
</table>
7. TRAINING PROGRAM (S)

7.1 Training programs could be in the nature of orientation programs that are imparted to new appointees or prospective academic managers. Orientation programs are expected to prepare them to meet the challenges of the new job. Training and development programs could also be in the form of refresher courses. This provides them the opportunity to reflect on their functioning and learn from each other to undertake midcourse correction. The training programs could either be stand alone training module or a combination of the training modules. This would obviously depend on the training needs of the group and also whether it is an orientation or a refresher program.

7.2 An initial set of courses could be updated at the end of one year based on the feedback collected from the participants and comments of sponsors. Based on these inputs, new courses could be added, refined or modified. Training methodology itself could be altered. After the update exercise at the end of the first year, similar exercises would be carried out once in three years.

8. TRAINING METHODOLOGY

8.1 Training methodology would depend on the objective and the content of training programs and the target group. Adoption of appropriate training methodology is critical to the success of the training programs. With a view to facilitate proper design of training programs, a suggested list of training methodologies that may suit different areas of training have been listed below.

8.2 The unique framework for developing this program consists of formal lectures on management and organizational theories combined with small team discussions on implementation dilemmas in the different colleges.

The lectures provide the methodical presentation of the state of the art knowledge of management and leadership. The team discussions serve as a means of transforming general principles to implementation issues and problem solving.

The reasoning behind this structure, can be found in literature dealing with adult learning and motivators and deals with the use of personal experience in adult learning. The learning process is effective if connected to past experience.

Adult learning is based on problem solving situations and practical relevance and related to social interaction during the learning process.

Effective management development courses use experienced coaches and facilitators to assist in the learning process, enabling participants to learn from each other and from other organizations, as well as from facilitator’s personal experience.

The small group facilitators in the program serve as coaches and team leaders for effective learning and dissemination of the material.

The theory supporting the structure of the program is also based on Kolb’s circle of adult learning (Kolb, 1983), whereby the personal-practical use of the knowledge is essential and takes place in four stages:

Stage 1- Concrete Experience
Stage 2-Reflective Observation
Stage 3- Abstract Conceptualization
Stage 4- Active Experimentation

<table>
<thead>
<tr>
<th>Area of Training</th>
<th>Suggested Methodology</th>
</tr>
</thead>
</table>
| Institutional Leadership       | • Workshop mode  
                              | • Panel discussion  
                              | • Experience sharing sessions |
| People Management              | • Workshop mode  
                              | • Case Studies  
                              | • Outdoor exercises  
                              | • Lecture and discussions  
                              | • Group work and presentations  
                              | • Experience sharing |
| Personal Quality and Management| • Workshop mode  
                              | • Case studies  
                              | • Role Plays  
                              | • Lecture and discussions  
                              | • Group work and presentations |
| Functional Proficiency         | • Classroom mode  
                              | • Case Studies  
                              | • Lecture and discussion  
                              | • Assignments  
                              | • Distance learning including e-learning |
| IT Skills                      | • Instructor Led Training  
                              | • Hands on computer sessions  
                              | • Group & individual assignments |

REFERENCES


SPECIFICS OF SUSTAINABLE DEVELOPMENT OF THE FEDERAL UNIVERSITIES

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Abstract

Culture and level of education in society are the main factors of advantage of a sustainable development in society. The global task of higher educational development is increase a contribution of universities in development of local territories. An indicator of development of higher education and definition of its place in society is the third role of universities - social role. The active social position of universities in relation to the territory is formed with creation of a network of federal universities in Russia. Eight federal universities are created by now, creation of the ninth university is expected to the end of 2012. The strategic direction of federal universities is aimed as the solution of geopolitical tasks and social and economic development in federal districts. Federal universities directed to integration of education with a science and business, adaptation of professional education to inquiries of economy of regions of Russia. 48 billion rubles from the state budget is planned to spend in 2011-2013 for this development of federal universities. Features of federal universities development, modern forms of interaction with business community are analyzed in article.

Key words: federal universities, regional development, sustainable development, partnership engagement with, federal districts.

INTRODUCTION

Strategy of modern society sustainable development cannot be formed just from the basis of the traditional patterns of thinking and values. It requires the development of new scientific and philosophical approaches that are appropriate not only to modern realities, but also anticipated the prospects for development in the third millennium.

Sustainable Development - a comprehensive harmonization of production and social sphere, population and environment. The main factors affecting the promotion of sustainable development of society are the culture and level of society education.

Increasing the contribution of universities to the development of cities and territories is one of the main objectives of higher education in a global context. One of the key indicators of higher education and its place in society is the third role of universities - a social role, which is characterized by: involvement in the life of local communities (community engagement); social responsibility; social engagement; social participation. An active social position of the universities in relation to its territory is formed by creating a network of federal universities in Russia.

The project of modernize the system of higher education, aimed to form a network of federal universities in realized in the Russian Federation on the initiative of the President of Russia from 2005. The decision to establish one federal university in every region of Russia was made from 2011 year.
Eight federal universities were created by now; the Ninth Federal University is expected to create to the end of 2012.

As amended in the Federal Law 125-FZ from January 3, 2011 states that "federal university" is a special type of high school, which is created in the form of an autonomous institution with the aim of socio-economic development of the territory (as a rule, the Federal District). Federal University as a special type of high school has all the capabilities of conventional universities and also has the right to develop their own educational standards, which gives access to the international accreditation of educational programs and enhances the export of educational services.

The strategic mission of the Federal University is the formation and development of competitive human capital in the federal districts by creating and implementing innovative services and developments. Federal University realises this mission by organizing and coordinating the work of the District to ensure a balanced program of major socio-economic development of territories and regions in its structure by qualified personnel, as well as scientific, technical and technological solutions, including by bringing the results of intellectual activities to the practical application. Therefore, the main directions of development of the federal universities are: preparing modern specialists, bachelors and masters on the basis of real integration of scientific and educational processes and the use of all methods of modern higher education, including distance (on-line) training for the areas of management, economics, education, science, culture those technological areas that fall within the scope of national interests, creating conditions for academic mobility of students, teachers and researchers, university integration into the global educational environment and to achieve international recognition of its ongoing educational programs in order to export educational services and technologies, fundamental and applied research on priority areas of research, effective communication with the Russian Academy of Sciences, the development of international cooperation with universities in Europe, Asia and America, participation in international educational and scientific programs....

Federal University is entitled to implement the state program of development for 10 years, the federal budget funded development of program within the first 5 years in sum until 1.0 billion rubles per year. The program is approved by the Federal Government. The program involves development of the Federal University implies massive investments in infrastructure, staff training, equipping laboratories and classrooms, improving management of the educational complex.

**SPECIFICS OF FINANCING**

The main items of expenditure of budgetary funds for the Program are: modernization of the educational process, modernization of the research process, strengthening the material-technical base, the development of human resources, and modernization of the structure of the control system. The amount of funding and forms of government support programs for the development of federal universities are predetermined by the fact that the creation of a federal university is seen as a major investment project - a costly and lengthy, requiring careful planning and calculation, which is realized on the principles of consolidation and co-financing, which requires an efficient and professional management, and should take into account real economic opportunities of the state.

Multi-channel financing of Federal University is expected. Federal funds will be allocated to finance the implementation of the state university federal job as a stand-alone agency in accordance with applicable law.
State support for development programs of the Federal University approved by the Government of the Russian Federation may take various forms, which are established for this type of educational institutions as a whole and individually.

The second channel is the budgets of other levels which is coming into the Federal University in the manner of payment of services, activities and products manufactured within the socio-economic development of territories and regions in the Federal District.

The third channel is raised funds from the totality of its own activities which are permitted by law, including cooperation with business, participate in various programs, income from endowment and created for the practical application of results of intellectual activities of business entities. It is assumed that the share of federal university on the second and third channels should be up to 30-40% in its consolidated budget.[1]

SPECIFICS OF PRIORITIES IN DEVELOPMENT OF UNIVERSITIES

Federal universities, created as part of the formation of a new type of higher education institutions are responsible not only for the positioning of the Russian higher education on a global scale, but are designed to provide the current level of human and scientific potential of the regions.

The strategic direction of the federal universities aimed at solving geopolitical problems and the socio-economic development in the federal districts, to promote innovative transformation of the federal districts. Federal universities should become the leading think tanks regions. To become such a center is necessary to first determine priority areas for development and to develop a program that says the Russian government.

Federal universities are the main basis for new approaches for the effective integration of education, science and business to adapt vocational education to the needs of regional economies.

Building a network of federal universities has begun in 2006 when it was decided to establish on the basis of existing universities and academic centers in Rostov-on-Don - Southern Federal University Siberian Federal University in Krasnoyarsk. Presidential Decree of October 21, 2009 N1172 were created by five federal universities: the Northern (Arctic) Federal University (C (A) FU), Kazan (Volga) Federal University (K (R) FS), Southern Federal University First President of Russia Boris Yeltsin (Urfa), the Far Eastern Federal University (FEFU), North-Eastern Federal University Ammosov (SVFU). Order of the Government of the Russian Federation of December 30, 2010 N 2483-r created Baltic Federal University of Immanuel Kant (BFU).

A network of eight federal universities is formed by now. A unified system of monitoring of federal universities, which focused on assessing the socio-economic effects of implementing the adopted development programs is formed throughout 2011.

The first monitoring results showed that all federal universities are actively developing, carrying out their tasks in accordance with needs of the country and its region.

The research of the situation in the south of Russia determined the choice of the five priority areas for research and educational activities in the development of the Southern Federal University: nanomaterials, nanotechnology devices and systems based on them, biotechnology, technology, living systems, environmental security, information and telecommunication technologies, devices and systems; marine, aviation and space-rocket engineering, radio engineering, automation and control, design and product design, architectural environment, land management and cadastre, technology and
human models of human capital and tolerant socio-economic communities in the multi-ethnic region of Russia.

Siberian Federal University (SFU) was founded by the Krasnoyarsk State University Krasnoyarsk State by joining Architecture and Building Academy, Krasnoyarsk State Technical University and State University of Nonferrous Metals and Gold. Siberian Federal University have identified six priority areas for research and educational activities: engineering physics, chemistry and materials science of new materials, biophysical ecology and biotechnology, space and information and communication technology, geotechnology, regional economics and management of human capital, 13 aggregated groups of professions and areas of training frame, which provides scientific support and staffing the main directions of socio-economic development of Siberia. Educational, scientific and socio-economic priorities identified SFU portfolio strategy, built on the principle of matrix management, full-scale launch of industrial park SFU, a business incubator, the Center for Strategic Studies of the Shanghai Cooperation Organization, the Research Center for Human Problems

The geopolitical and security interests of Russia in the Arctic areas of North-West Federal District, scientific and educational potential of the university and its strategic partners, as well as the needs of the state in the development of certain areas of the economy, science and technology take into account while choosing the priority areas for development of the Northern Arctic Federal University. All this determined the choice of the following priority directions of development of the university: a high-tech knowledge-intensive industries and production related to the Arctic, the development of infrastructure of the European North of Russia and the Arctic, integrated use of biological resources, the development of the northern (polar), medicine and health, protection and preservation of the environment, social and humanitarian scope of the European North of Russia and the Arctic. N(Ar)FU has become one of the largest centers of space monitoring in the Arctic during two years. N(Ar)FU has been actively developing connections with universities in the whole world, it is currently involved in 10 joint international educational programs, most of which the master's level, with universities in Norway, Sweden and Finland. Another characteristic feature of N(Ar)FU is training of specialists under the order. There are the strategic plans of the region - "Northern Sea Route", "Belkomur" deep-water port, the construction of icebreakers which are tied to graduates of the Northern (Arctic) Federal University. It is expected that all graduates of N(Ar)FU will be employed at the enterprises in which they had practice. In general, the business community of the Northwest region cooperates with N(Ar)FU with a large initiative, it shows the region's emergency demand for skills and innovation. Implemented in the 2012 project of N(Ar)FU "Floating University" has become a hallmark of the Federal University of competitive advantage globally.

The main activities of Kazan (Volga) Federal University (K (R) FS) include: modernization of the educational process, research process and innovation, human resources development and the formation of high-quality contingent of students, upgrading infrastructure, improving the organizational structure of the university and improve management, the inclusion of the university in the global education and research and innovation networks and facilitating the formation of regional and federal levels. Development Program K (R) FS is aimed at implementing the seven priority areas, including new materials and nanotechnology, information and communication technologies, biological and medical technologies, technologies of living systems, environmental management, humanitarian and educational technology, intercultural communication, Oriental, regional and international relations, technology forecasting and control.

Southern Federal University of the First President of Russia Boris Yeltsin (Urfa) as priority areas identified: bio-and chemical technology, natural sciences, information technology, mathematics,
mechanical engineering, metallurgy, new materials and materials science, socio-political and humanitarian studies and technology, construction, economics and management; energy.

North-Eastern Federal University Ammosov (SVFU) declared as priorities: achieving a new quality of the university, ensuring environmental safety and technologically efficient reproduction of mineral resources, environmental management, the use of high technologies and industries in the North, raising quality of life in the North, to preserve and develop culture of Arctic peoples, analytical and personnel support innovative socio-economic development of North-East of Russia.

The Far Eastern Federal University (FEFU) was created by combining the four high schools, it distinguishes priorities: the resources of the world ocean energy and energy-saving technologies, Industry nanosystems and nanomaterials, transport and logistics center, economic, technological and cultural cooperation with countries in the Asia-Pacific region and the bio-medical technologies. Along these lines will be formed distinctive clusters, combining the three directions. This are educational program that will maximize benefit to the employer, a world-class research centers within each cluster and the structure of the commercialization of research and development. Developing of international relationships with neighboring states will be offered to graduate from the Far Eastern Federal University. The university is prepared professionals in Chinese, Japanese and Korean languages for this aims.

Baltic Federal University of Immanuel Kant (BFU) was created by the order of the Government of the Russian Federation of December 30, 2010 N 2483-r.

The University trains specialists in more than 200 educational programs for secondary, higher, further and then higher education.

The university has over 13,000 students and trainees. University has partnerships with more than 50 universities from 16 countries worldwide. The university developed scientific schools of kantovedeniye, Research of Russian philosophy, the study of language modality, spatial and landscape planning, a comprehensive study of the Baltic region, studies of the oceans, the physics of the ionosphere, the quadruple and nuclear magnetic resonance, geomagnetic processes and propagation of radio waves.

FEATURES OF INFLUENCE ON REGIONAL DEVELOPMENT

All federal universities aspire to use more actively the academic potential for the solution of regional problems, however there is a problem of low efficiency of interaction of federal universities with regional authorities. But even in the presence of barriers, interaction between both parties, in a broad sense, occurred, occurs and will be to occur.

Restrictions and the barriers disturbing to interaction between regional business community and federal universities should decrease, over it there is a permanent job the partnership at all levels – federal so is built, regional and level of city, representatives of the power in the Boards of trustees of federal universities are involved, Federal universities actively participate in target programs and grants, professors and specialists of universities are included advisers and experts into regional projects, and civil servants and businessmen are involved in preparation and certification of students. Establishment of communications should be more flexible and steady process, but with a wide range of action.
On the basis of Orders of the Government of the Russian Federation the purpose of creation of new universities is development of system of higher education on the basis of optimization of regional educational structures and strengthening of ties of educational institutions of the higher education with economy and the social sphere of federal districts.

The role of higher education institutions in innovative development of the region as federal universities will study these regional requirements becomes more active. Besides, the conditions which were created by the state for development of researches and innovations, demand accurate formation of area of interaction of higher education institutions, the power and the productions strengthening mutual use and transfer of knowledge.

The role of federal universities in development of regional labor markets in the direction training, vocational training, continuous education, including, the organization of educational process at regional level, further employment of students and a regional labor market, training development during the life, new forms of providing educational services, and as a result, strengthening of regional system of training as a whole raises.

In a sphere of influence of federal higher education institutions the solution of problems of welfare development, and as a sustainable development of environment of the region.

Therefore it is required to trace accurately social and economic effects from activity of higher education institutions and to do these results by property of the public.

It is necessary to trace more attentively the relation of the population for university as to the active participant of social development. For this purpose it is possible to create information and analysis centers for timely informing of the public and possible partners about university work with regional community.

The main expected results from creation of federal universities in regions, implementation of their programs of development is: adequate personnel and scientific ensuring social and economic development of strategically important territories of Russia; creation of additional preconditions for development of economy of territories, regions as a part of federal districts and activity of federal universities; higher availability of quality of professional education and possibility of occupations by a high science in federal districts; the fulfilled mechanisms of ensuring economic stability of establishments of higher education on the basis of updating of their activity and closer and responsible participation in social and economic development of territories, regions as a part of federal districts; real formation of group of establishments of higher education of qualitatively new level.

Thus, the Federal university is characterized by that realizes the innovative educational programs integrated into the international educational space; provides formation of personnel and scientific potential of complex social and economic development of the region; provides system education modernization; carries out basic and applied scientific researches on a wide range of sciences; provides integration of a science, education and production, including results of intellectual activity to practical application.

The state intends to support innovative activity of producers, including joint financing expenses of the companies of research development, and also to subsidize interest rates of the credits for production modernization. Last year for these purposes it was allocated more than 70 billion rubles from the federal budget.

Such model of state-private partnership, as the technological platforms, urged to unite effort of the state, of a science, of a business around creation of new technologies and productions can become the
effective decision. And, of course, basic becomes return increase out work of special economic zones and science and technology parks. In their development the state already enclosed about 60 billion rubles. This year the government will direct 17 billion more.

Now in Russia 24 special economic zones operate. In 12 regions science and techno parks in the sphere of high technologies develop. In such innovative industrial clusters about 670 resident companies are registered already. The range of projects is very wide - from molecular medicine to household appliances, from nanotechnologies to construction materials. The planned volumes of investments are about 300 billion rubles for all territory of Russia.

In all federal higher education institutions the state finance the centers of collective using for educational process by carrying out researches, the center of high-speed calculations on the basis of a supercomputer are formed, the resource centers and specialized educational and scientific laboratories are created.

It is necessary each federal university to have a such innovative project or direction, the which would have world value or competitive difference in which the federal university at once would be known. The expedition project «Floating university» became such project in SAFU of a name of M.V.Lomonosov, huge "Nanograd" on 155 thousand people will be to build in Kazan, etc. Thus, federal universities promote not only to a development of education and sciences in the region, but also to technical progress, infrastructure and business development.

According to the government’s designs, it will help to increase quality of the higher education and to deduce the Russian federal universities on world level.

DIRECTIONS OF INCREASE OF LEADERSHIP OF FEDERAL UNIVERSITIES

All states want to get world-class university, to become leaders in innovation and social development, putting in the service of science and to determine the future progress. The problem of the formation of university leaders is becoming international. According to international ratings, the success of the best universities in the world is provided by three main factors: the high concentration of talent among the students and teachers (competition is increasing in this area), a flexible control system, fully resourced for teaching and research. Russia is also actively involved in this process by building a network of national and federal universities.

The university is considered university of world level if it possesses the following key characteristics:

has outstanding researchers of world level;
possesses the international reputation in the field of researches and teaching;
it is recognized not only other universities of world level, but also community from other spheres;
possesses several faculties of world level; represents the advanced research works recognized by experts and awards (for example, the Nobel Prize);
forms innovative ideas and carries out the general and applied researches in considerable volume;
involves the most capable students and highly skilled experts;
university involves and hold the best employees; university can involve teachers and students from the international markets;
involves a considerable share of graduates, both for teaching, and for researches;
involves a considerable share of students from abroad; functions within the global market and it is international in all fields of activity;
possesses reliable financial base;
receives considerable capital investments and the income; possesses various sources of the income (for example, the government, the private companies, the income of researches, the income of training of foreign students);
provides high-quality and favorable conditions for training and carrying out researches, both for employees, and for students (modern buildings and the equipment, the university territory);
possesses modern system of the management, including strategic vision and the plan of measures;
lets out experts who hold important and influential posts (for example, such as prime ministers and presidents);
possesses the considerable list of outstanding achievements (for example, Universities of Oxford and Cambridge in Great Britain and the Harvard university in the USA);
makes the significant contribution to society development;
constantly compares itself with world famous universities and faculties.

The long and active job for a sustainable development and for transition of federal universities to leading world positions is necessary. However modernization of the higher education in Russia began, goes and process of return won't be. The Schools of the personnel reserve is a guarantee. They were to open at federal universities, that to start new generation of specialists of the Russian higher school, not only professors and teachers, but also managers and the administrators who are actively cooperating not only with students, but also with the power, business and society.

REFERENCES

COMPUTER-BASED SUPPORT FOR BASIC EDUCATION IN READING

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Abstract

In the information age, the traditional teaching methods (classroom, mainly auditory oriented) are not sufficiently effective and the acquired results are not satisfactory. Teachers need modern technical means to compose, present and validate the lessons. Computers enable teaching by involving several senses simultaneously (multi-sensory approach), thus the students' attention and motivation are positively influenced and allow customization of teaching, depending on the preferences of the child's entry to new knowledge. Information technologies provide the means for multimodal presentation of the subject matter, which allows the teaching to be adapted to the individual characteristics of each student. Hence a personalized approach to children with special educational needs such as dyslexia, dyscalculia and etc. is realized. This study shows computer-based tools and resources which support teachers in creating and presenting learning materials in the education. It proposes templates of learning units that correspond to different didactic goals at the initial stage of primary education.

Key words: special educational needs, dyslexia, computer-based resources

1. SPECIFIC READING DISABILITIES

Science has made a great progress in understanding specific reading disabilities in the last 20-30 years. The cognitive processes involved in reading acquiring are thoroughly studied, as well as specific cognitive functioning in reading disabilities. Recently science has focused on cognitive functions involved in reading acquisition in typical and atypical ways. There is a consensus on many questions which have been discussed for many years as terminological biases, definitions, subtypes of reading disabilities. It is recognized also that internal and external factors could contribute to reading disabilities.

Dyslexia (as a type of reading disability) is biologically based but it can be positively influenced and compensated by external factors such as systematic learning strategies and methods. In July 2002 The Dyslexia Institute revises the definition of dyslexia as follows: a developmental disorder which results in difficulties in learning to read, write and spell; it could be accompanied by deficits in: short-term memory, mathematics, concentration, work organization and sequencing; disorder is biological based, but external factors also contribute to its development; it could be manifested in all degrees of normal
intellectual functioning (Turner, 2005; Stanovich et al., 1984). When diagnosing dyslexia intellectual deficits, sensor deficits, emotional disorders and motor dysfunctions should be excluded.

2. POSSIBLE REASONS OF READING DISABILITIES

Aetiological theories could be systematized in:

- Sensor theories (include visual or auditory dysfunction);
- Neurobiological theories (include hemispheric dominance, cerebral deficit, heredity), and

These theories distinguish different reading disabilities.

The most popular classification model differentiates three types of dyslexia: visual, auditory and visual-auditory (Evans, 2005). According to Griffitts the main interest in contemporary researches is shifted away from classification because of the fact that some individual cases can not adjust to any classification system (Snowling, 2005). More effective approach is to consider individual characteristics assessed through phonological functions tests (phonological awareness and phonological memory) and perceptual abilities tests.

2.1. Phonological functions

The most accepted concept from the 80s of the XX century considers dyslexia as a disorder from the language disorder continuum with a main deficit in phonological processing skills (Snowling, 2005). There is great number of empirical proofs regarding the connection between phonological functions (coding and awareness) and reading (Olson, 2005).

Phonological abilities refer to the awareness of speech sound structure of words (Muter, 2005). The most consistently demonstrated by empirical researches deficits in dyslexia are deficits in short-term memory and phonological awareness (Snowling, 2005). Empirical indicators of phonological awareness are: word segmentation; phoneme manipulation (deleting, adding, substituting); phoneme blending; rhyming (Muter, 2005).

Despite large quantity of empirical data which give evidence of deficits of short-term memory in dyslexics, the nature of these deficits is not clear enough. Is still short-term memory a valid predictor of reading difficulties when phonological awareness is controlled remains an unanswered question (Muter, 2005). Phonological skills could be the base of the demonstrated short-term deficits.

On the other hand, phonological awareness deficits are demonstrated repeatedly and consistently mainly in researches in English. As Snowling (2005) mentions, deficits in phonological awareness are not a universal phenomenon, but they are specific for the children reading in English and other languages which lack strong letter-phoneme correspondence.

2.2. Auditory perception

Adherents to the theory of audio-perceptual deficit explain the disability in word sound differentiation and word sound segmentation (with no damage in hearing) with language deficits and reading disabilities (Clark, Uhry, 1995; Zelinkova, 1994).
2.3. Verbal memory

Despite the large amount of literature which reveal interdependency between short-term memory and reading disabilities, the nature of this connection is not clear enough. Badelly’s working memory model illuminates this issue. On the one hand, working memory predicts reading abilities; on the other hand reading achievement predicts performance of memory tasks (Pickering, 2005). Pickering explains the phenomenon in two ways: 1) reading supports development of phonological coding in memory or 2) a third factor as phonological awareness influences reading and short-term memory.

2.4. Visual perception

In the beginning of science interest in dyslexia researchers have focused on perceptual function. They had been investigating functions as visual perception, visual memory, cross-modal correspondence (Snowling, 2005).

Methodological problems have imposed revising investigation data in the visual abilities domain: input stimulus is not valid differentiation between verbal and visual coding. Digit span, for example, could be transferred in working memory as visual and/or verbal code (Snowling, 2005). Dyslexics demonstrate visual-space deficits in language tasks (verbal coding) (Pickering, 2005), but not in memory tasks with graphical stimulus (visual coding). Vellutino concludes (on the base of data showing that there is no difference between dyslexics and control subjects in retaining unknown pictures) that the main deficit in dyslexia is verbal, but not perceptual (Snowling, 2005). Detailed investigations reveal that only small part of dyslexic group demonstrates visual-space deficits (Pickering, 2005). Investigations of dyslexics’ working memory in non-English languages should be conducted to illuminate the issue. (Pickering, 2005; Snowling, 2005).

Specific manifestations of dyslexia in languages with strong sound-letter correspondence as Bulgarian should be explored deeper. The original research of Matanova (Maranova, 2001) investigates the visual-spatial perception of linguistic stimulus without taking the meaning of the word in mind. This is achieved by unperceived meaning (with scanty rate performance of stimulus) in different reading disabilities (dyslexia, hyperlexia, unspecific reading disabilities) and without difficulties in reading (the norm, typical). Dyslexic group demonstrates the most pure visual-spatial perceptual decoding. The main question regards to cognitive processes accountable for deficit decoding of linguistic stimulus (are they rooted in language processing or in perceptual processing). As Matanova (Maranova, 2001) claims, because of dysfunction in visual-spatial perceptual processing, the sensor register received distorted information which interfere with subsequent memory processing.

3. TEACHING METHODS IN READING DIFFICULTIES

Investigation data (Olson, 2005) of researches conducted in several laboratories in USA, UK, Australia and Norway shows the importance of genetic factors in development of reading disabilities. But, at the same time, environmental factors have great importance to the prognosis of disabilities. Early interventions and correction programs influence development of reading abilities.

3.1. Phonological awareness training

Effectiveness of training in phonological awareness is well evidenced in studies conducted in recent years (Olson, 2005; Muter, 2005; Reid, 2009; Nation, 2005). Preventive training of phonological awareness for preschool children is implemented in educational practice in Scandinavian countries. The training takes 15-20 minutes every day (Muter, 2005). Phonological awareness training
considerably improve reading abilities especially when the training is combined with learning of sound-letter correspondence and when it is not detached from everyday reading and writing activities (Johnston & Watson, 2005).

3.2. Multi-sensor approach

The multi-sensor approach proposed by Orton and colleagues in the beginning of the last century is at the core of contemporary approaches aimed to reading correction (Snowling, 2005). Multi-sensor techniques are very useful in teaching reading because of the possibility to overcome ineffective aspects of memory and cognitive systems (Pickering, 2005). For example, children could code in semantic and visual way, when phonological coding is imperfect.

3.3. Training of visual-perceptual abilities

Although recent research focuses predominantly on phonological and language aspects, many authors (Lovegrove, Stein, Wilkins, Irlen) sustain that visual training is still important (Reid, 2009; Матанова, 2001).

4. COMPUTER ENVIRONMENT TO SUPPORT LEARNING DIFFICULTIES IN READING

Intensive individualized training can significantly improve reading skills. Numerous studies clearly support the effectiveness of this training, but it is too expensive. Computer based training is promising – can greatly expand accessibility and reduce costs. Olson (2005) cites studies conducted since 1986, assessing the effectiveness of computer programs aimed at teaching reading.


Computer environment can be extremely motivating, stimulating, supportive and interesting for children. Computer training is recommended for children who are at risk to develop a negative attitude towards reading because of difficulties in this area. It enables them to keep the interest and willingness to learn and to learn while having fun.

Smythe (2009) identifies the following advantages of educational software in favour of people with dyslexia:

- Opportunity to enhance learning through multiple iterations;
- Incentive and motivational effects;
- Training that does not rely on sanctions;
- Ability to adapt to individual needs.

In addition we can mention also the following benefits:

- The learning matters are attained through pupils’ strong skills and abilities;
- The individual weak points are strengthened appropriately;
- The alternative learning process predisposes the pupils to employ their full abilities and absorb the learning matter without stress;
5. ADAPTABLE COMPUTER ENVIRONMENT SUPPORTING TEACHING IN READING

For most of the dyslexics, the multisensory approach is indicated. Because these children get tired rapidly and often lose interest in the matter, the learning must be made attractive and catch their attention. ICT can help to employ diverse senses supporting the learning process – visual and audio effects, interactive tasks, attractive clips, comics, games etc. (Kademova-Katzarova et al., 2010).

The computer environment provides easily manageable alternative to the background colour, to the font colour, font type, font size, spacing, so that the sensory preferences of people with dyslexia is met (Smythe, 2009).

The computer-based learning environment can support adaptable multisensory learning activities. An e-learning system that ensures them has to serve as environment, which provides e-learning resources to learners. That is why it is necessary to design an adaptable e-learning environment that ensures computer-supported development of personalized e-learning resources and learning activities (Andreev et al., 2009). A description of such adaptable e-learning environment is presented on Fig. 1.

The main components of this model ensure realization of teacher’s and student’s activities. Since the objects of teacher’s activity are students, their cognitive abilities are the base for developing suitable e-learning activities and resources and supporting them in achieving learning goals. Therefore, the personalization of e-learning resources according to learner’s characteristics is the main task of adaptable e-learning environment.

Fig. 1. Model of Adaptable Multisensory Learning Environment
The teaching in this adaptable multisensory learning environment is goal-oriented. The Model of Subject is formal representation of subject’s knowledge intended for learning. It is a basis for construction of a goal-oriented Model of Teaching. The learning goals concern the main concepts (knowledge) that have to be acquired. A general Model of learning Subject – Reading is a base for determination of objectives that are achieved by means of multisensory learning resources (Terzieva et al., 2011). The essential skills and competences mentioned in section 2, which are necessary for acquiring Reading ability, form the basis for modelling the subject. The Model of Teaching represents the Reading onto applied methodology. The latter determines pedagogical rules and tools that guide implementation of learning resources and activities in the teaching process. These rules are in accordance with psychological characteristics and Cognitive Abilities in the Model of Learner. The mapping of learning subject description on the domain of human cognitive abilities results in the model of cognitive abilities of the learner. In that way a cognitive type (learning characteristics) adequate to this subject (Reading) is represented. Those abilities are described in details in section 2. Except Cognitive Abilities, the Model of Learner includes his / her knowledge background and psychological characteristics relevant to the educational process. The personal data describes the individual’s behaviour in the learning process: preferred learning style, concentration capability, attention capabilities, etc. They serve for adaptation of Learning Resources to a student, i.e. personalization. Further they influence the Presentation Context and implementation of learning resources. It enables the choice of colour / size of the displayed objects and background according to visual learners’ preferences. The pupils can also arrange the sequence of performed game-tasks. Another parameter which can vary is the pronunciation (loudness, timbre, tune etc.). Each Learning Resource is intended to help achieving Sub-goals derived from the main goal (in our case Reading). Sub-goals depend on specific learning abilities (difficulties) of the student in Reading and determine learning tasks and activities, which result in accomplishing this goal. The next section presents concrete sub-goals in learning of the subject Reading.

The Authoring Tools describe necessary authority activities for design and development of e-learning resources. They support teacher’s actions in the process of development. The psychological characteristics and Cognitive Abilities in the Model of Learner affect choice of teaching methodology, determination of Sub-goals and production and presentation of Learning Resources.

The Reuse is very important for supporting efficient development of learning resources. Reuse provides tools for storage, search and retrieval of developed learning tasks and resources. It also maintains connections with external databases containing educational materials. In the process of developing new resources some components could be acquired from already existing sources with similar purpose. The Learning Subject (Reading), teaching Methodology and learning Sub-goals assist in finding and selecting appropriate materials for the student from the available resources. In case of lack of such resources, new ones have to be created through the Authoring Tools and to be saved for reuse.

6. SOME EXAMPLES OF COMPUTER-BASED LEARNING TASKS

6.1. Learning Sub-goals for acquiring Reading

Readiness for literacy requires a certain level of development of visual and auditory perception, visual and auditory memory, attention, spatial and temporal gnosis and language skills. Deficits in these skills in non-verbal level can lead to language delays and / or to problems in acquiring reading and writing.
Particular abilities are required for each stage of the process of acquiring reading skills. A training targeted at those abilities is necessary in order to prevent reading difficulties. Established deficiencies in those abilities indicate a direction for the therapeutic work. For example at letter level the requirements are:

- Acquiring the shape of the letter;
- Building the sound-letter relation;
- Attention;
- Visual and auditory memory for letters / sounds;
- Visual and auditory differentiation of similar letters / sounds;
- Phonemic competence of sounds in syllables and words.

Development and automation of these skills, following the multi-sensory approach using the capabilities of computer technology can be applied the following games:

1. Development of auditory attention, auditory recognition of sound:
   - Motor response of the child every time after hearing a particular sound among a series of sounds or series of words.

2. Construction of sound-letter relation:
   - Motor response of the child after hearing a particular sound among a series of sounds or series of words, through display of the pronounced sounds and words;
   - Many different games displayed binding letter with its sound – for example, beginning with the letters, bake balloons with letters and more;
   - Sound memory with letters.

3. Phonemic separation of the sound in the word: Selection of pictures which names begin, end or contain certain sounds.

4. Mastering the shape of the letters:
   - Colouring the letters;
   - Connect the dots, tracing the letter;
   - Assembling a letter from elements;
   - Finding and selecting a letter among other letters, with or without model;
   - Incorporation of the letter in different images or pictures;
   - Conversion of one letter to another letter.
6.2. Training games

Children of preschool and elementary school age should begin with smooth recognition of letters and their proper correspondence with the sounds. As we have already mentioned in Terzieva, Kademova-Katzarova (Терзиева, Кадимова-Кацарова, 2012), training, especially at this age, is better done through multi-sensor approach and through entertaining games.

One very common game that supports short-term memory and is suitable for all ages is MEMORY. It also exercises relationship letter–sound and visual / auditory memory. Each card must contain a letter with an appropriate image (Fig. 2). The letter must be clearly written and as it is in most books – black print on white background. The image can be object, animal or plant starting with this letter and is displayed on the card as an aid. It is appropriate to begin with capital letters (especially for preschoolers) then add the small letters, later letters written in a different font and the manuscript letters. The game allows flexible use – the teacher determines the size of the matrix and the letters to be included in the exercise according to the circumstances (number of characters studied, age, skills, etc.). The game can start with small matrices (e.g. 2x2 or 2x3) when studying the first two letters and gradually expand to reach larger sizes with more alphabetic characters (Fig. 3). Matrix covering all the letters in the alphabet would have been too big – 60 tiles for Bulgarian alphabet and thereabout for others – and perhaps is not suitable for learning purposes. But as mentioned above the teacher can define the number of tiles in the game and the alphabetic characters included for the ongoing exercise. If the teacher considers that the "standard" picture is not appropriate for a child, he can choose another one.

The letter appears in the outline of the memory card, taking all its space. The child can pronounce the corresponding sound and then the matching sound from the computer tones in. The child can compare her / his pronunciation with the computer's one. Then the letter shrinks, reaching its final size (about ¼ of the space) and the illustrating picture appears. Thus two senses are engaged – sight and hearing, and interactivity are prompted. Subsequently, the audio may be dropped. And at last the picture can be dropped too, when the learning process has reached higher level.

At a very beginning of mastering the shape of the letters the game “Find-and-Colour-Letters” is useful. The easiest variant is just colouring a given letter then you hear a corresponding sound (Fig. 4 c). Next level is to find and colour only one letter, among the others, which model is given and/or sound is pronounced. The game can be elaborated by introducing small and capital letters or different fonts.
A game about constructing letters concerns training abilities targeted at acquiring the shape of the letter. It could be named "Construct-a-Letter" so that it provides a simple, engaging way for pupils to compose different letters by combining the given elements (Fig. 4 a, b). The child have to “drag and drop” each letter’s component on the right position on the outline. It is good to show that one set of elements could be used to construct more than one letter (Fig. 4 c, d). This game-task develops spatial orientation and visual / auditory memory and differentiation of similar letters’ shapes. After assembling the letter is finished, its sound is played.

More sophisticated variant of this game is to compose different letters (the model will be shown) by choosing elements from the set of elements (for example sticks – vertical, horizontal, or sloping; short or long, arcs, circles, etc.). Another level of difficulty is when the elements of set are in different colours. The right way is learner to use parts in the same colour in order to form the letter. When a correct letter is created, by clicking on it the sound of the letter will be pronounced. Each game level starts with animation that show what is expected to do.

All results of the performed tasks are stored in learner’s personal folder in order to keep track. Furthermore teachers and parents could use this information for the sake of evaluation and recommendation of learning resources.
7. CONCLUSION

In conclusion, we can say that the education of children with SEN should pay attention to:

1. The learning goal and sub-goals must be clearly defined.
2. The individual characteristics of each student must be identified.
3. The appropriate methodology, tools and resources required for effectively achieving the defined goal must be determined.

A multisensory approach is usually recommended for most of the dyslexics. They often get tired and quickly lose interest in classes; the learning process must be appealing to them. Computer-based resources can help to employ diverse senses enhancing the training by game-tasks, attractive clips, entertaining comics etc.

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THE SYSTEM OF VALUES IN THE DIALOGUE OF CULTURES

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“If people only talked about what they understand, the great silence would take over the world.”
Albert Einstein

Abstract
The dynamics and extent of changes in all spheres of the modern world designate multi complex tasks and challenges for the dialogue of cultures. Addressing these broad and complex issues from the axiological perspective directs our attention to modern man, who places himself within these changes and actually is their initiator and perpetrator. Acting at the crossroads of civilizations, cultures and religions, modern man faces difficult issues of recognition, acceptance, completion, as well as strengthening and enriching the world of values - those that are common to all mankind and those elements of the anthropospheric universe which to a varying degree and extent are characterized by cultural differences and for this reason they particularly call for meditation, reflection and permanent dialogue. Generally speaking, in the modern pluralized world, participation in the dialogue of cultures creates for a human being multiple opportunities to experience the value of oneself and acquire an ability to experience other values of the universe of the axiological anthroposphere.

Key words: dialogue of cultures, system of values, universe of the axiological anthroposphere, transformations of the modern world

INTRODUCTION
The key concepts of dialogue, culture and values included in the title of these considerations have their ancient lineage. After all, in the course of the long history of human thought in its development, they have evolved in many ways, taking the most complex contemporary form. Nevertheless, from their very beginnings, these notions have determined facts, states of things, phenomena, and heterogeneous processes so complex that to this day they cannot be encapsulated in satisfactory definitions that would encompass all aspects of each of the indicated terms. Thus, it is not surprising that dialogue, culture and values are seen as extremely important and inspirational categories, and have also been recognized, as never before in the history, as a highly complex object of reflection of modern man.

Dialogue has accompanied mankind since the beginning of his rational existence, right up to the end of life, and so it is stated that man is a dialogical being and dialogue is a phenomenon nearly ubiquitous in the world. A significant hallmark of modernity is the the impenetrable richness of diverse reality of the universe of the axiological anthroposphere surrounding man. That rich diversity undoubtedly tends to make us enter into a dialogue with it to the extent that it is stated that modern people live in an era of dialogue. In the course of the long history of human thought, dialogue - before
it reached its current stage - had gone through various vicissitudes of fate and acquired a variety of interpretations, until one of contemporary philosophical currents was distinguished, namely dialogics, a trend also referred to as the philosophy of dialogue, philosophy of the meeting, or community philosophy.

Culture has ever since been a subject of reflection enriching the knowledge of this sphere of human life which is assigned a special importance. It is so for this particular reason that, regardless of the period of history, culture constitutes a basis of awareness of human communities and also decisively influences the shaping of the personality of man, who is part of the natural world and the participant/creator of the world culture. Thus, getting to know culture significantly determines the cognition and understanding of man functioning in a world of many cultures.

Value is the basic axiological category meaning everything that man particularly values, what he considers desirable and a goal of human endeavour.

These key categories significantly mark the course of searching for the answer to the question who man is and who he becomes. This question belongs to the priority ones and those constantly open. In its essence, it is a fundamental question concerning the place occupied by man in the universe of the axiological anthroposphere, and more precisely, a question of what man values, what he aspires to and aims at in particular, as well as what he depreciates and firmly rejects.

In connection with this state of affairs a question of principle arises, namely, to what extent and scope modern man is prepared for competent and responsible participation in these transformations. Is man capable of rational acceptance of by all means positive elements of the processes taking place in reality, in which he is immersed, and can he reasonably oppose harmful tendencies, eliminate or strongly reject undesirable elements (I considered the issue of contemporary socio-cultural changes also from a wider axiological perspective and in a different approach to the problem, cf. Ostrowska, U., 2011, pp. 17-32).

A fundamental role in the dialogue of cultures is attributed to the timeless triad of values, namely truth, good, beauty, and constitutive values which, conditio sine qua non, precondition that dialogue, namely openness to otherness, tolerance, freedom and responsibility, mutual respect, kindness, sensitivity, recognition of the equality of all cultures, partner relations, peaceful resolution of problems and fair negotiations, respect for human dignity, a sense of inter-human solidarity. Certainly, the nature, diversity and extent of the issues tackled in the dialogue of cultures can extend this catalogue of values or modify it, so it is impossible to exhaust en bloc the issue of a system of values in the dialogue of cultures.

Nonetheless, in today's pluralized world dialogue of cultures is not only a legitimate need, but necessity, in order to get to know the elements of the anthropospheric universe carefully and thoroughly, understand them properly, without distortions, prejudices, stereotypes, or would-be logical errors, so that they do not divide people, but enrich and lead them to mutual acceptance, communication and understanding, especially with regard to the priority issues, including the favoured search for the most appropriate place for themselves and their own as well as other cultures in a diverse and dynamically evolving reality.
THE DIALOGUE OF CULTURES FROM THE AXIOLOGICAL PERSPECTIVE

1. Native culture in a world of many cultures

Beyond a reasonable doubt, among the numerous tasks and challenges of the contemporary world the issue of the dialogue of cultures in many ways belongs to the priority issues, placing themselves within dynamic and extensive transformations of the surrounding reality. That complexity has a significant dimension also for this reason that it encompasses the issue of the role and place of one's own, native culture in a world of many different cultures. First of all, it is so for the reason that the rhetoric of the term one's own, native culture has a special significance, as it places itself not only within people's intellectual sphere but also, specifically, the emotional one. Thus, it is not surprising that the essence of these words draws our attention to everything that man wants to get to know, understand and experience, or what he attributes the appellation of importance, necessity, proximity to the human mind and heart/feelings.

It should be noted, however, that the problem of one's own, native culture and its place in the world of many cultures/the general human culture did not emerge together with the processes of integration or globalization sweeping through the contemporary world but it is rooted in the distant ancient times. Ancient people often addressed the issues in the problematic area of their own, native culture and also looked at them from the perspective of the dialogue of cultures in a world scale. For example, Socrates, who was born, worked and died in Athens, attested to this state of affairs when he was asked which country he belonged to. He replied: Not to Athens, not to Greece but to the world. Another known philosopher, Diogenes of Sinope (413-323 BC), when asked where his home country was, responded: I am a citizen of the world. While the ancient playwright, Aristophanes (446-385 BC), included the following verse in the socio-political satire "Plutos, or how to equitably share the national wealth" (1970): A man's homeland is wherever he prospers. This phrase was popularized by Cicero (who was the first man in history to use the term culture and over time expanded its meaning, moving it from the agrarian sphere - cultura agri to the humanities - cultura intellectus, cultura animi in "Tusculan Disputations" as follows: Patria est, ubicumque est bene (V, 37, 108) - Homeland is where it is good (1963).

Also, the Roman philosopher and educator of humanity, Seneca, placed in the centre of his attention almost all the key problems which humanity struggled with in his day, and somehow it still does today. In his "Moral Letters to Lucilius" (each of which is a short and concise philosophical treatise addressing a separate issue) he advised those sentenced to banishment as follows: "Though you may be driven to the uttermost ends of the earth, in whatever corner of a savage land you may find yourself, that place, however forbidding, will be to you a hospitable abode. The person you are matters more than the place to which you go. For that reason we should not make the mind a bondsman to any one place. Live in this belief: I am not born for any one corner of the universe; this whole world is my country." [III 28* 4] (Seneca 1987, s. 409, translated by Richard M. Gummere). In another letter, however, he exhibited a significant role of his homeland when he wrote: "Nemo enim patriam quia magna est amat, sed quia sua. - No one loves his country because it is great, but because it is his." [VII 66 * 26] (p. 463).

However, our contemporaries may look at the problem of their own, native culture and foreign cultures enriched with the ancient learning, and that of succeeding generations, and benefitting from our experience. The increasing complexity of modern times, which generations have been made to live in on the stage of history, participating in extensive and intensive processes of change, unfortunately, is not always conducive to accuracy of observations and reflections or decision-making undertakings with regard to both their own, native culture, as well as the dialogue of cultures from the axiological
perspective. In fact, the complexity and diversity of cultures on the globe is astounding. Each culture has its specific origins and special history. Indeed, we can distinguish between characteristics common to all cultures and different for each of them, characteristics that determine its specificity, originality and uniqueness. All people live in a particular culture, and each culture is a product of man. In other words, people not only create / shape culture, but they are also created / shaped by it.

Fig. 1. Constitutive determinants of human participation in the dialogue of cultures

Source: my own idea
2. Determinants of participation in the dialogue of cultures

In addition to items such as tangible and intangible products of man, language systems, technological systems, systems of beliefs, systems of norms (habits, customs, laws), and knowledge resources, systems of values are integral parts of culture (cf. Ostrowska, U., 2008, pp. 13-27). Thus, culture shapes the values and norms that determine the ethics of behaviour in the dialogue of cultures. Constitutive determinants of human participation in the dialogue of cultures are presented in Figure 1.

That man's participation in the dialogue of cultures defines a network of mutual relationships between the problems and challenges of surrounding reality and the dynamics of change of the world on the one hand, and a system of values and different kinds of cultural configurations on the other (I shall refer to these issues in the further discussion). As a rule, however, the culture which man lives in is not just a matter of his choice but, most of all, an encountered order of things which he is born in, grows and develops, to a varying degree and extent attesting to the abilities to adapt to binding cultural requirements on the one hand, but at the same time not sacrificing the creative openness to new possibilities on the other. Being rooted in his own, native culture and experiencing the presence of other cultures, man does not always cope with that cultural complexity in a competent manner. Having the guaranteed freedom to make choices, people do not have any guarantee that the decisions made in this respect are the best possible at a given moment and portend well for the future. Hence the paramount role played by education and self-education in this area, especially the process of acquiring specific cultural competences, as a condition sine qua non of genuine participation in the dialogue of cultures and the rational and humanistic-oriented functioning in the world of cultural diversity.

3. Cultural Competences

I developed a hierarchical structure of acquiring cultural competences conditioning the participation in the dialogue of cultures to be used in other considerations (see Ostrowska, U., 1998 / a /, p. 197 et seq.). I made appropriate modifications to the image and some elements of the whole in these considerations (see Fig. 2).
The issue of competences usually revolves around the triad knowledge-attitudes and values-skills relating to three dimensions of man, intellectual, moral and practical ones. In the case of the complex matter of cultural competences I considered the hierarchical system of acquiring them as well grounded. The rhetoric of each of the elements is related to the level attributed to them in the adopted hierarchy. The first one concerns *conditio sine qua non* getting to know one's own, native culture, regional, local, the place of origin and often the whole human life. It also concerns the culture which to a large extent and scope extends to the entire human life, even when that place, for a variety of reasons, is exchanged for another one for a shorter or longer period of time. The next level refers to getting to know other cultures and also broadening one's own cultural horizons. Climbing to a higher (third) level requires the achievement of understanding, acceptance and recognition of the richness of cultural diversity of the modern world. Gaining the resources of the first three levels allows placing oneself on the next (fourth) one, which attests to the implementation of the constitutive elements of the universe of the axiological anthroposphere, i.e. the world of values. Being placed at this level in a particular way determines the quality of the dialogue between cultures and competent functioning in
the richness of cultural diversity of the world particularly for this reason, that it concerns the by all means desired state of not only declaring values, but implementing and attesting to them in one's own life. The element located at the top of the figure refers to responsible creative participation in various cultural dimensions of the world.

4. Dimensions of cultural relations

It is almost since the beginning of time that people have been involved in the rapidly evolving, generally emerging at the same time, dimensions of cultural relationships such as, namely:

- monocultural, dominated by the homogeneous criterion of racial, ethnic and often religious affiliation or status;
- bicultural, if they belong to two different cultural and social systems at the same time;
- multicultural, characterized by coexistence within the space defined by the state-territorial boundaries and / or directly, territorially adjacent to groups with distinct languages and religious faiths, customs, traditions and systems of social organization.

People moving from one cultural area to another typically experience to a greater or lesser extent the sense of the complexity of their own situation, especially their otherness, dissimilarity and cultural distinctiveness, not excluding the painfully experienced phenomenon of alienation. It also happens that sometimes due to their cultural dissimilarity they have a sense of being lost, are isolated, excluded and even persecuted or harassed.

For various reasons, people sometimes happen to leave their native land, their home country. They are sometimes deprived of such a place against their will, for example, for political reasons. They sometimes take a voluntary decision to leave for somewhere else, for educational, commercial, tourist, or personal reasons, and either come back or stay there for a longer period of time or forever, more or less consciously entering the orbit of multiculturalism. Staying far away from their homeland, they experience various conditions and develop a variety of attitudes to their native culture, from remaining faithful to the native values, through defying their native cultural heritage, to getting rid of or renouncing (almost / entirely fully) their native culture. Unfortunately, they are not always able to defy the thoughtless immersion in a plurality of cultural trends located outside authentic values (cf. Ostrowska, U., 2008 / a /, pp. 188 - 199).

Meanwhile, in the contemporary pluralized reality one needs to go to great lengths over and over again to get to know different cultures of the world. Not only do other cultures have to be learnt again and again, but also one's own, native culture, irrespective of where one lives, in order not to lose one's cultural identity or heritage, as well as not to get mindlessly immersed in the "abyss" of the world's multiculturalism. The point here is a real sense of awareness of who one is, who one becomes, and what one strives for, from the cultural perspective. The important thing, however, is a reflection preventing the ideologically overemphasized "excessive" construction of the ethnic-cultural identity accompanying that feeling, often triggering off social conflicts in the orientation of opposition to another person.

5. The concept of transculturality

Against the background of this part of the discussion, however, arises the problem of cultural boundaries, the meeting between different cultures and especially the issue of not falling into the trap of uncritical acceptance of everything that is offered by other cultures and blending in / dispersing / getting lost in the multiplicity of the pluralized world of one's own cultural identity and, on the other
hand, cutting off from everything that is different from one's own, shutting oneself away from
otherness, turning one's back on what places itself beyond the borders of one's own, native culture.
Having relevant cultural competences is a *conditio sine qua non* of addressing those tasks and
challenges. The essence of the proposed hierarchical structure of acquisition of cultural competences
(Fig. 2) is getting to strengthening / deepening one's own, native cultural identity through the dialogue
of cultures, in the context of multiculturalism, in such a way that each of the cultures can be
understood by other cultures and won in order to jointly solve problems of the world. It is not
surprising then that the issue of identity arouses keen interest of the representatives of various
academic disciplines, philosophers, sociologists, cultural theorists, psychologists and representatives
of other fields. I shall refer here to one of the examples in this area, namely W. Welsch's concept of

I am convinced that this very issue constitutes a very important frame of reference for the dialogue of
cultures. Looking for appropriate categories to describe the condition of culture W. Welsch, a
contemporary German philosopher and art historian, stated that two terms are most commonly used to
serve this purpose, namely multiculturalism (which states the fact that many cultures occur in a given
area) and interculturalism (which promises dialogue and exchange between cultures). According to
Welsch, the two terms represent specific concepts of culture as a closed and internally homogeneous
construct. Meanwhile, throughout history no culture has ever been and to the present day has not been
"homogeneous or pure". Therefore Welsch, cutting himself off from the separatist understanding of
cultures, proposes the concept of transculturality, a network model of culture, in which a hybrid form
of cultural identity has found its place. The originator of this concept claims that there are no relations
between cultural wholes, but the individual elements of the network interpenetrate each other. As a
result of this situation, in no way is it possible to determine the boundaries between what belongs to
one's own culture, and what is alien to it; hence, the feeling of closeness of different cultures,
irrespective of their origin or affiliation (see Welsch 1998).

Leaving the just only mentioned issue of transculturality *ad deliberandum* for the dialogue of cultures,
in my opinion it is worth, at this point, to pay attention to challenging F. Trompenaars and Ch.
Hampden-Turner's theory (2007), which states that the process of economic globalization will lead to
the emergence of a single culture, common to the whole world. According to the authors of the book
entitled „Riding The Waves of Culture: Understanding Diversity in Global Business”,
globalization is a partial unification of certain external manifestations of culture, while the diversity of values, norms
and attitudes does not disappear at all. An "ideal organization" promoted these days, performing well
in all cultural conditions, is a theoretical illusion. Following this, the authors substantiate that,
although all cultures face the same problems, they solve them in different ways. Therefore, they
express a conviction that the key to success is to understand one's own culture and expectations
concerning how other people in certain situations should think and act. In their opinion, the theory of
seven dimensions of culture serves the purpose of justifying this point of view. And they go on to
substantiate that each of the expressed dimensions of culture creates a wide spectrum of possible
attitudes that manifest themselves in:

1) the attitude to ethical and legal principles, as well as those arising from interpersonal obligations
(universalism vs. particularism);

2) the attitude towards the individual and the group (individualism vs. collectivism);

3) the ways of behaving (restraint vs. emotionality);

4) the ways of perceiving the world (fragmentarity vs. totality);
5) the ways of determining the social status (achieving vs. assigning a status);
6) the attitude to time;
7) the attitude to the environment.

6. Creating the dialogue of cultures

The dialogue of cultures may take various forms, so, obviously, it is not limited to meetings and discussions, or negotiations, but also assumes taking action in response to the results of participation in the dialogue. Nonetheless, the dialogue of cultures does not have, in each case, to take the interpersonal form, since it is sometimes equaled to an intrapersonal dialogue, internal in the form of thought (thinking as dialogue, a person's endowed with self-awareness dialogue with oneself). In addition, a direct form is not always preferred in the dialogue of cultures. Sometimes the interlocutor's role is attributed to various forms of cultural transmission, such as film, music, art, academic treatise, literary work, etc. However, what is the most desirable for the dialogue of cultures is a face to face meeting (cf. U. Ostrowska 2007, pp. 5 - 19) and its characteristic features such as authenticity, integrity and truthfulness, as opposed to a simulated and "fake", "artificial" dialogue - a quasi-dialogue (more on this subject - see. Ostrowska, U., 2000, 59 et seq.).

Described as a "teacher of dialogue", M. Buber considers the exit of the individual beyond the limits of himself to the other and, at the same time, something universal, to be the main function of dialogue, whilst pointing at the transition from the subjective to the interpersonal and absolute. He also clearly emphasizes the creative function of dialogue and argues that in a true dialogue „each of the participants really has in mind the other or others in their present and particular being and turns to them with the intention of establishing a living mutual relation between himself and them” (Buber, 1992, pp. 226 - 227).

In order to create the dialogue of cultures, an important message has been included in the following quote from one of the greatest philosophers of the last century, K.R. Popper, namely: "I think I am right, but I may be wrong and you may be right, and in any case let us discuss it, for in this way we are likely to get nearer to a true understanding than if we each merely insist that we are right" (quoted in Berlin, I., 1991, p 356).

Following this line of discussion, it is worth to refer to H.G. Gadamer recommending in any dialogue to "rise to a higher universality that overcomes not only our own particularity but also that of the other" (Gadamer, 1993, p 289).

According to A. Nowicki, the developer of incontrology, "Participation in dialogue is a factor of polycentring one’s personality [...]. This does not mean disintegration, but transition from a lower type of monocentric integration to a higher, polycentric one" (Nowicki, 1991, p. 226). The category of a polycentric personality corresponds in a sense with the concept of a polylogical subject, a heteronomous, multiplied subject of a polylogue as multiplied dialogue, a subject immersed in polylogical reality, caught up in numerous dialogues with each other, introduced by Julia Kristeva (see Rewers, E., 1996, p. 163).

7. Values in the dialogue of cultures

In no case is the dialogue of cultures neutral, as it always fluctuates around the world of values of the universe of the axiological anthroposphere. The inscrutable richness of the surrounding reality enables people to experience the world of values in accordance with the adopted preferences. Since the beginnings of his existence and development man has needed many different values. Their number as
well as significance and importance keep changing over man's life many times. People almost always hierarchize values according to their importance, highlighting what is most important, most valuable, particularly desirable to them (cf. Ostrowska, U., 2006, pp. 391 - 415).

Such values as the timeless triad of core values (truth, good, beauty), also known as universal ones, having their roots in the days of Plato, who listed them as the basic issues of philosophy, play an extremely important role in this dialogue of cultures. For it is all about seeking common and lasting values in a dialogue between different cultures. Although the history of mankind shows that man has always craved for good, truth and beauty, he has understood, realized and experienced them in many different ways. And this state of affairs no doubt inspires to enter into a dialogue not only about core values, but also constitutive ones, condition that dialogue, especially ones such as openness to otherness, tolerance, freedom and responsibility, mutual respect, kindness, sensitivity, recognition of equality of all cultures, peaceful resolution of problems and fair negotiations, respect for human dignity, a sense of human solidarity. Although the catalogue of constitutive values is not a list closed once and for all, in their essence all of the constitutive values of the dialogue of cultures listed here are in varying degrees and scope focusing around the triad of truth, good, beauty. However, depending on the subject of the dialogue of cultures, its defined goals, composition of participants in the dialogue, etc. both the catalogue of constitutive values and their hierarchy, as well as the possibility of their realization, are the basis to make any potential modifications in this regard. The values referred to here construct the fundamental system of values for the dialogue of cultures that in any case cannot be satisfied outside the axiological sphere.

In the literature on the subject, a reliable dialogue is attributed a significant role in discovering the truth as follows: “A reliable dialogue grows out of an assumption that must be explicitly or implicitly adopted by both sides: neither I nor you are able to learn the truth about each other, if we remain at a distance from each other, closed in the dark walls of our fears, but we must look at each other as it were from the outside, I with your eyes, and you with my eyes, we need to compare our views in a conversation and only in this way are we able to find an answer to the question of how it really is with us” (J. Tischner 2000, pp. 18).

The fundamental importance of cultural diversity in the modern world as a constitutive feature of mankind, essential to peace and security at the local, national and international scale, has been emphasized in UNESCO conventions, recommendations and declarations, as well as legal acts of the European Union (these organizations encourage Member States to take account of these recommendations in national legislation). There are several UNESCO conventions concerning the protection of cultural heritage, including among others the following: Convention for the Protection of Cultural Property in the Event of Armed Conflict (The Hague, 1954) together with 1st (1954) and 2nd Protocol (1999) – Poland ratified the Hague Convention and 1st Protocol in 1956; Convention on the Measures of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (Paris, 1970); Convention on World Cultural and Natural Heritage (Paris, 1972); Convention on Underwater Cultural Heritage/Convention sur le patrimoine culturel subaquatique (Paryż, 2001); Convention on Intangible Cultural Heritage/Convention sur le patrimoine culturel immatériel (Paris, 2003); The Universal Declaration on Cultural Diversity adopted unanimously at the 31st Session of the General Conference on 2 November 2001 preceded the adoption of UNESCO Convention on the Protection and Promotion of the Diversity of Cultural Expressions on 20 October 2005. It is worth noting at this point that the United Nations General Assembly proclaimed the year 2010 the International Year for the Rapprochement of Cultures.
The legal acts developed are an expression of the tendency towards the normative regulation of the area of cultural activity on an international, world and European scale. The UNESCO Convention of 20 October 2005 defined the main principles and concepts relating to cultural diversity. Due to limited space, it is impossible to comment in this text on all the legal principles in this area. Thus, out of necessity, I shall refer only to some of them, beginning from the UNESCO Universal Declaration on Cultural Diversity, adopted unanimously at 31st Session of UNESCO's General Conference in Paris, on 2nd November, 2001. It was assumed in this convention that cultural diversity constitutes a common heritage of mankind. It was also highlighted that as a source of exchange, innovation and creativity, cultural diversity is as necessary for humankind as biodiversity for the natural world. Additionally, it was observed that cultural diversity is inseparably connected with the democratic context, promoting cultural exchange and development of creative talents, which enrich social life. The issue of defending cultural diversity as an ethical imperative, inextricably linked with the respect for human dignity, was also emphasized. It implies the obligation to respect human rights and fundamental freedoms, international solidarity and cooperation.

At the end of this part of the discussion I shall also refer to the UNESCO Convention on the Protection of Cultural Diversity, whose aim is to promote and protect diverse cultural contents and artistic expressions - Convention on the Protection and Promotion of the Diversity of Cultural Expressions. Generally speaking, the purpose of this regulation is to promote and protect the dialogue of cultures and to cultivate international cooperation aimed at the preservation and development of the subject of the Convention. What is important for the issues being the subject of these considerations, constitutive values in the dialogue of cultures such as, especially, peace and security in the local, national and international scales, respect for human rights and fundamental freedoms, as well as equal dignity of all cultures, were referred to in the Convention. The protection and promotion of cultural diversity have become an inherent part of the European Union legal acts (Article 151, paragraph 4, Treaty on European Union).

CONCLUSION

Diverse richness of the modern world creates for people inexhaustible opportunities of cultural contacts. On the one hand, the dynamics and extent of changes sweeping through the world in all spheres of life is conducive to cultural contacts of individuals and various human communities, while on the other hand, it formulates challenges and generates a variety of existential issues, attesting to the increasing complexity. Broadly speaking, cultural contacts, can take not only the form of negotiation, dialogue, integration, cooperation or collaboration. They sometimes come down to a mere fleeting contact, or the so-called "neutral co-presence" which does not leave behind any permanent traces in the lives of people experiencing this state of affairs. Meanwhile, history shows that often the differences between cultures not only became a reason for the hostile perception and treatment of “otherness”, for isolating oneself from it, but often were and still are a source of confusion, rivalry, isolation, domination, conflicts, manipulation, hatred and even hostility and wars or frantic attempts (the 32-year-old Norwegian, Anders Breivik, in protest against, as he confessed before the court, multiculturalism, killed 77 people on 22nd July last year, and pleaded not guilty of this, in his view, legitimate act).

Cultural diversity is sometimes seen by some people as a huge threat. It is assumed that through the acquisition of cultural competences and participation in the dialogue of cultures based on mutual respect, this cultural diversity takes the value of enriching man, with dignity participating in the cultural heritage and contributing to the construction of human reciprocity. The dialogue of cultures
that meets these criteria can be attributed significant results such as not only leaving behind permanent traces in the personality of those involved in the dialogue, but also leading to existentially significant positive changes, to reorienting the hierarchy of values recognized by people, to changing (sometimes radically) man's attitude to the world around him, etc.

It appears from the performed considerations that the dialogue of cultures is not obviously an aim in itself. It pursues the fundamental objectives aimed at building human relations based on mutual respect for human dignity, constructing a wide area of participation in it as well as guaranteeing that man will make responsible choices in life, inspiring creative processes and promoting creative people representing different cultures.

The history of mankind shows that although artistic work draws on the roots of cultural tradition, it is especially developed in contacts with other cultures. Works of many outstanding and creative people all derive from the cultural frontier, so it is worth to perceive the multiplicity of cultures above all as a potentially creative phenomenon, variously inspiring to think unconventionally, enrichingly synthesizing, improvingly deepening the awareness of one's own, native culture and encouraging the creative use of resources of other cultures.

The dialogue of cultures is an invaluable source of information about values preferred and implemented by representatives of their own cultures, traditions and people who are members of other cultures. However, the essence of the dialogue of cultures, especially in the axiological perspective adopted in these considerations, is not to win someone round or "drag" the interlocutor onto your side, as well as "blur" his or her identity, but to try looking at the key issues from a different, broader perspective so as to be able to see more distinctly what was previously not very distinctive, or slipped out of sight altogether. That process of perception significantly conditions the understanding of issues being the subject of dialogue and a basis for implementing the values of one's own culture and values common to other cultures, as well as recognizing and respecting those elements of the universe of the axiological anthroposphere that are culturally different. In any case, the dialogue of cultures is not about leading to the achievement of advantage of one of the parties in the dialogue, but about developing the awareness of causes of any differences and understanding them as a possibility of cultural enrichment or an opportunity to inquire into the genesis and nature of that diversity. In other words, the dialogue of cultures is "breaking down walls" and "building bridges" linking differences and diversity and enabling the identification of what is situated "between" cultures, that, which is common and enrichingly different. According to Fr. J. Tischner "Dialogue means that people have come out of their hideouts, they have approached each other, and began an exchange. [...] No one shuts oneself away in a hideout voluntarily, apparently he or she has a reason. This reason must be accepted. The first word of dialogue conceals a declaration ... you certainly have a point. This goes hand in hand with another one, no less important: ... I am certainly not quite right. With these declarations both parties rise as if above themselves, striving for the community of one and the same point of view on matters and things [...]. Dialogue means building reciprocity" (Tischner, J., 2000, p. 28).

Moving on along the marked trail of considerations leading to the conclusion, it is worth to complete the threads contained in them with a reflection in a significant way exposing the axiological dimension of the dialogue of cultures, which was included in the foreword to H.G. Gadamer's The Heritage of Europe by J. Przyłębski, the translator of the work, who stated that dialogue is a process of "not only reaching a consensus, but also getting at the truth" (Gadamer, H.G., 1992, p.6).

Looking from the perspective delineated by these considerations, one can see in a very diversified reality a huge potential for the dialogue of cultures, on a world scale, in the field of ways of addressing
and solving priority problems, which perhaps in the most obvious way meets halfway C.K. Norwid's prophetic dreams concerning the creation of „a land common to all”, endless and reviving over and over again.

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EXPANDING AQUATIC VETERINARY MEDICAL EDUCATION TO MEET THE NEEDS OF AQUATIC ANIMAL INDUSTRIES IN EASTERN EUROPE

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Abstract

With rapid expansion of farmed fisheries (i.e. aquaculture) throughout the world, and the increasing number of pathogens and diseases that affect this industry, there is a desperate need to address education programmes that focus on aquatic animal health and welfare, public health and seafood safety. A well trained aquatic veterinary workforce is needed to support the growing needs of animal owners, industries and growing legislative and regulatory initiatives. Unfortunately, relatively little attention has been given to formalized education within veterinary academic programs that provide new veterinarian graduates with “day-one” aquatic veterinary skills and competency essential to provide services to aquaculture clients. However, some examples in higher education curricula, (both in veterinary and non-veterinary undergraduate and postgraduate programmes), and options for extracurricular aquatic veterinary continuing education and professional development exist for veterinarians already in practice, and may serve as examples or models for similar programmes in Eastern Europe.

Key words: aquatic animal health, professional education, veterinary medicine

1. INTRODUCTION

Aquaculture (i.e. farmed fisheries) is currently one of the fastest growing food producing sectors within the global agriculture (FAO/NACEE, 2007) and, coupled with production from traditional capture or harvest fisheries (which is progressively declining from overfishing), seafood dominates animal protein production in many parts of the world. Global aquaculture production, particularly for finfish, crustaceans and molluscs, has grown at a continual rate of 9-14% per year over the last 30-40 years, and has already exceeded most livestock and poultry industries (DeHaven & Scarfe, 2012),(Figure 1). This trend is expected to continue. Clearly, many countries around the world, including Eastern European countries (Varadi, et al, 2001; FAO 2007), are becoming more reliant on the aquaculture industry for food and economic development.

There are a multitude of reasons supporting aquaculture expansion, including adequate food security to feed a growing global population, that is currently estimated at 7 billion, and is expected to reach between 9 billion by 2035 or 2050 (UN 2004, 2007). The demand for food will increase and aquaculture is viewed as a major expanding source of animal protein, but also very important to
support employment and economic development (FAO, 2009; Narrod, et al 2011; Purchase et al, 1993).

Figure 1. Current global production of animal protein from primary livestock and fisheries sources (in millions of metric tonnes), (DeHaven & Scarfe, 2012); The data are estimated from FAO production statistics (www.fao.org/corp/statistics/en)

As with the growth and intensive production seen in other agriculture industries, existing and new diseases (OIE, 2012) have become a major stumbling block for aquaculture development. As a result, numerous countries have responded by introducing legislation, regulations and policies for the prevention, control and eradication of aquatic animal diseases (Scarfe, 2003). For countries that seek to trade in live aquatic animals and their products, adhering to international veterinary animal health standards developed by the World Organisation for Animal Health (OIE, 2009; OIE, 2011), and ratified by member countries, is of particular importance. There is therefore an urgent need to address aquatic animal health and well-being, public health, and seafood safety – but to do so, an adequate and well trained aquatic veterinary workforce is needed.

Traditionally, veterinary education is structured to ensure all veterinarians have sufficient information on graduation in order to deal with all animal species, but in reality much of the focus has been on the dominant companion animal and food-producing species (e.g. cats, dogs, equids, livestock, etc.), with little attention given to what have been considered minor species – including aquatic species. In recent years however, in response to changing demographics and societal needs, and the need to incorporate increasing amounts of information techniques and technologies primarily in Europe (Fernandez, 2004) and North America (AAVMC, 2007), increasing attention has been given to restructuring veterinary education programs to equip new graduates with new approaches and sufficient knowledge, skills and
experience required to practice veterinary medicine in today’s changing world. A recent report of much of this deliberation (NAVMEC, 2011) offered recommendations that describe core competencies in three main areas: 1) multispecies knowledge plus clinical competence in one or more species or disciplines; 2) “one health” competency related to the intersection of animal, human and environmental health; and, 3) the development of professional competencies. Professional competencies include: communication; collaboration; management; lifelong learning related to scholarship and research; leadership; diversity and multicultural awareness; and the ability to adapt to changing environments.

Due to the importance of aquaculture to many countries, and because of the need for an adequate aquatic veterinary workforce necessary for supporting these industries, an investment is required in aquatic veterinary education, at both a generalized and specialized level – within veterinary school curricular and in continuing education and professional development for veterinarians already in practice. However, some educational efforts have been initiated to assist an estimated 7,000-10,000 veterinarians and veterinary students interested or involved in different aspects of aquatic veterinary medicine throughout the world (DeHaven & Scarfe, 2012).

2. CURRENT HIGHER EDUCATION AND TRAINING IN AQUATIC ANIMAL HEALTH

There are multiple challenges that universities are facing globally, and they will be unable to function effectively if they choose to stay isolated (Fernandes, 2004). Fortunately, by comparison to other type of schools, veterinary schools have developed a stable cooperation in the form of a network, which should enable durable cooperation on a global scale involving both developing and developed countries. Still, whereas in developed countries there are incentives to start preparing specialized workforce for the field of aquatic animal care and public health, in most of the developing countries there is still a delay in understanding the need of ensuring an adequate number of well-trained and skilled aquatic veterinarian professionals to tackle properly the biosecurity issues that arise within their territories.

The outcome of a project known as “VET2020”, which is a market study conducted in 22 European countries on the future profile of a veterinarian based on society demands, was that there are specific reasons that veterinary education needs reforming in Europe (Fernandes, 2005). Agriculture, and more precisely animal industry, is growing in importance in developing countries, since population size and the demands of animal owners increase. Secondly, society in general, and gender profile of the profession in particular, is changing, as well as the role of the veterinarian in the society, in relation to diseases of animal origin with human implications (Fernandes 2004, 2005). There is a dire need to address in the veterinary curricula the food supply, through Food Science disciplines, the food security, through Animal & Public Health disciplines, and the environment and natural resources, through Environmental Protection disciplines.

Today, curricula reform is taking place in most schools, it putting more emphasis on self-learning, multidisciplinary approaches and case-solving based on clinical evidence rather than formal and theoretical teaching periods. This leads to developing a good foundation for a flexible career of a future veterinarian (Fernandes 2004, 2005). In certain schools, modular courses have been introduced, so that a student can prepare in a wide array of specialties that have evolved in animal sciences in recent years (Fernandes, 2004).

Some data (AVMA-COE, 1997) suggested that most US veterinary schools had a sufficient number of credit hours of aquatic veterinary medicine, although the degree, nature and specific details of their
Relevance were not identified (Weber et al, 2009). In Europe, only 43 out of the 74 institutions surveyed by the Federation of Veterinarians in Europe [FVE] provide training in aquaculture (Weber et al, 2009). The general problem with the actual veterinary curricula in schools is that the programmes with relevance to aquatic animal medicine may not receive the same financial developmental or administrative support as the programmes on mammalian and avian species (Weber et al, 2009). Moreover, educational programmes in the aquatic health are not included in the general veterinary curricula; they are often elective courses, sometimes identified as “exotic” or “wild” veterinary medicine. Where veterinary curricula do not include courses on aquatic medicine, extracurricular continuing education and professional development [CEPD] programmes are frequently the primary source of aquatic veterinary medical education (DeHaven and Scarfe, 2012 – imprint). The total number of hours of formal teaching, the methods and the quality of teaching, as well as the methods of student evaluation, are additional issues of concern, but they are not to be discussed here.

There are major morpho-functional differences between terrestrial and aquatic animals, linked to the specific habitats they live in. The specific environment dictates anatomo-physiological as well as other types of species peculiarities. It is critical to recognize and appreciate that such differences between mammals, birds and fish exist, as they fundamentally determine the approach to fish health when it comes to veterinary education in fish medicine.

Students have to develop a basic understanding of aquatic veterinary medicine, and this can only be achieved by introducing fish disciplines in the basic science courses. The basic knowledge needed in aquatic veterinary medicine may include: ichthiology, physiology, husbandry systems, environmental quality [e.g. water and air quality], ethology, nutrition, reproduction, genetics, pathology, epidemiology, welfare and bioethics, public health, pharmacology, immunology and eco-system health [i.e. fish as indicators for monitoring the health of the environment]. Refinements and thus, further specialization on aquatic veterinary medicine, are possible through post-graduate studies, in practices and through CEPD or self-study programmes.

Actually, such educational programmes exist, unevenly scattered, all over the world (DeHaven and Scarfe, 2012 – imprint, Weber et al, 2009). There are underway several national and international initiatives to assess the veterinary establishments through the training programmes they provide, in order to give the necessary credit for veterinary medical education. Maybe the most relevant associations and organisations in this respect are EAEVE with its “List of Evaluated and Approved Establishments”, RCVS’s evaluation system for national and international [i.e. Australian, New Zealand, Canadian and South African] veterinary schools, and AVMA’s evaluation system for European veterinary schools [i.e. Utrecht, Glasgow, London, Edinburgh and Dublin], (AVMA, 2012, Fernandes, 2004).

Most educationalists presently accept “…there is no way that a single veterinary college can adequately cover all of veterinary medicine or even a large part of it” (Fernandes 2004, 2005, DeHaven and Scarfe, 2012 – imprint, Weber et al, 2009). Thus, the omni-competent day-one graduate required by the legislation of 1978 (European Directives, EEC 1027/78, 1028/78) is no longer feasible. A more viable approach to develop a framework of qualified entry-level aquatic veterinarians might be to ensure that current veterinary courses adequately address unique aspects of major aquatic species (DeHaven and Scarfe, 2012 – imprint). As an option, veterinary schools could introduce courses focused on species of main interest for the region, allowing students from veterinary schools in other regions to attend and receive their veterinary degrees (DeHaven and Scarfe, 2012 – imprint; Council Directive, 2006/88).
3. THE ROLE OF EUROPEAN ORGANISATIONS IN FOSTERING GLOBAL COOPERATION BETWEEN SCHOOLS ENGAGED IN VETERINARY EDUCATION

As a result of the Bologna Declaration, the higher education system in most European countries is now going through a process of reforming, with the aim of integrating the system in Europe against the background of the European economic area (Fernandes, 2004). Among the reasons for the system reforming need, there can be mentioned the 1978 European Directives and the system creditation. The Directives point out that veterinary schools must produce omnicompetent graduates, legally permitted to work in any area of veterinary science. There has been noticed though, expanding responsibilities in the field of veterinary science, which makes it unrealistic to expect omnicompetence from a day-one graduate, and training for all professional activities encountered in the field, as there is too much material to be covered satisfactorily in a veterinary curricula (DeHaven and Scarfe, 2012 – imprint, Fernandes, 2004). On the other hand, credits, as a way to make the educational process transparent, comparable and competitive, are no longer seen as sufficient indication of achievement (Fernandes, 2004).

In line with the reforming process, apart from the objectives set by each university, changes in curricula must take into account also the academic and professional profiles required by the society (Fernandes, 2004, 2005). Moreover, the ever increasing mobility of students would require accurate and objective information about their potential qualifications. Therefore, there is a need for compatibility and comparability within the higher education system in Europe, as well as at national level.

A model veterinary curricula structure was up-dated by the European Association of Establishments for Veterinary Education (EAEVE) in 2002 (www.eaeve.org). However, it is very difficult to identify a model that could be used by other schools in this process of reforming, as changes are always influenced by local and societal needs. On the other hand, educational structures should not aim at unifying curricula, nor restrict the autonomy of universities. Nonetheless, the reforming process of higher educational systems should not decrease the rich diversity of educational systems.

Many have asked lately for an agreed curriculum to target at specific types of veterinarians prepared to meet the public expectations (Fernandes, 2004). The VET2020 project provided evidence of the need to reform veterinary education. Additionally, through the cooperation of the European Commission with the European Association of Establishments for Veterinary Education [EAEVE] and the Federation of Veterinarians in Europe [FVE], there has been established a European dimension for a voluntary Evaluation System (Fernandes, 2004, 2005). Also the evaluation system and its guidelines have helped identifying the need to change education in veterinary schools (Fernandes, 2004, 2005).

Currently, there is available the European Evaluation System, considered to comply with the rules of any international organization of Educational Quality Assurance (Fernandes, 2004). Apart from the European system of evaluation and accreditation, there are national systems as well [e.g. in UK, Portugal, Spain, Slovenia], (Fernandes, 2004), which rather base their national criteria on the European Directives and the European Evaluation System, so that to be present on the EAEVE list of “Evaluated and Approved Establishments”.

4. FUTURE DIRECTIONS FOR AQUATIC VETERINARY EDUCATION

Due to the rapid growth of aquaculture, the early contribution of veterinary and para-veterinary professionals has been mainly in research. This enabled development of vaccines and medicines, as
well as the establishment of laboratory protocols and tests to be used in aquatic veterinary medicine (Scarfe et al., 2008). The end users, namely food and non-food aquatic commercialists and producers, may therefore be able to use the products that are made available as research outcomes. But due to the lack of specialized veterinary practitioners as graduates from veterinary schools accredited, approved and recognized for their training in the field of aquatic medicine, veterinary services are now less reliant than desired or required. This brings about a limited or ineffectual control of disease spread, which in turn reflects on the industry and economy at the national and international levels. On short, interpreting and implementing research findings into the field requires a proper infrastructure, as well as skilled and knowledgeable aquatic veterinarians. Thus, the current challenge in aquaculture (Scarfe et al., 2008) is to determine what skills and services are required in the aquatic veterinary workforce, what education is necessary to ensure the workforce, what educational and training programmes currently exist and how they can be expanded and/or rendered suited to the actual needs for the present and future aquaculture.

There are many voices saying that the European legislation concerning veterinary education must change, so that the major weakness in the 1978 Directives referring to omnicompetence at the graduate level to be re-thought, as a greater flexibility should be needed on the issue of omnicompetent training. Furthermore, mutual recognition of the veterinary degrees, as well as a legal and professional framework would be also required (Fernandes, 2004). With respect to mutual recognition of veterinary schools, transparency, common criteria and exchange of good practice would be required on one hand, whereas on the other hand, preservation of diversity and competition should be taken account of.

However, EC made it clear that the current basis for recognition of veterinary schools and free movement is that set out in the veterinary directives and that any changes to the current system would require a change of the EU law, which can be operated only with the political will of the member States (Fernandes, 2004). Further debates by the profession and other interested parties are to follow.

5. CONCLUSIONS

Lately, global discussions on the future of veterinary medicine have recognized the importance of aquatic veterinary medicine. A growing number of veterinarians, aquatic animal health specialists and others have encouraged greater involvement in aquaculture of the stakeholders, acknowledging the great potential for the veterinary profession in the industry.

Clinical science and training, as well as a basic understanding of the foundation knowledge in aquatic species health, are critical for designing fish health management programmes for specific industries. Additionally, as more is understood about aquatic animal pathogens, the more important it proves for veterinarians to become more involved with matters of public health (Weber et al., 2009).

The message is that traditional educational systems must embark on transforming to become more flexible, more adapted to the current and future social needs and trends. On the other hand, people have to consider more the values of learning as a lifelong process, as an essential step towards economic and social development (Fernandes, 2004).

Although there is a need for global organized approaches of academic curricula to focus on specific needs for an expanding and increasingly global aquatic veterinary workforce to include aquatic professionals (DeHaven and Scarfe, 2012 – imprint), the solutions have to be local, regularly updated, and fulfilling the minimum requirements set up by specific directives and guidelines (Fernandes, 2004). There are currently incentives only for developed countries to pay some attention to preparing
such a workforce. As for developing countries, those that would lag behind will end up by being neglected, with dire economic and social consequences.

The implementation of the change requires appropriate institutional management, leadership, committed teamworks, a clear definition of goals and objectives, avoidance of “isolation and provincialism”, and a better quality control (Fernandes, 2004).

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THE MODERNIZATION OF EDUCATION IN CONDITIONS OF TRANSFORMATION OF THE KAZAKHSTAN SOCIETY

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Abstract
At the threshold of the 21st century Kazakh society has to go beyond the search for more technologically advanced solutions in the sphere of the modernization of education. One of the most significant current circumstances of human existence is our presence in the future. The biggest surprise of the 21st century is just a majority of its continuity with the processes and problems of the 20th century. Today we come to the conclusion that the vast majority of modern educational problems inherited by us from the last century, but the methods of solving them by the same means in unacceptable at present. Today's education, saving a lot of features and characteristics of the past, has changed its nature. Thus, we cannot change the educational situation, changing only the quantitative parameters of the educational system. Notable processes taking place in there valuation of educational values as universality and accessibility of education depends on the status and income of the parents, the openness of humanity depends on how much information on the level of social equality of students. And the most important, much more important, was the problem of rehabilitation and reconstruction, "modernization" of the spiritual, intellectual, socio-cultural environment in which education takes place. We can write, but cannot issue an adequate concept (program, strategy model) of upgrade as long as we did not find a set of basic conditions that this upgrade could provide and would be like resources and stimulus in the process of modernization. Analysis of the processes of education reform in Kazakhstan has demanded the development of appropriate methodology, which allows not only to identify the main problems of modernization and to assess their impact on the educational process itself, but also to identify possible strategic priorities of reform in the future.

In our view, the modernization of education, above all, determined by two factors: how to solve a philosophical question about the nature-the source of education and the way of determined the necessity of its modernization. There are different answers are given in the world practice of humanitarian thought to these questions.

Key words: succession processes, modernization of education, the overestimation of the values of education, socio-cultural space, the concept of education, educational processes, the paradigm of education

1. INTRODUCTION
Analysis of the processes of education reform in Kazakhstan demanded the development of appropriate methodology, which allows not only to identify the main problems of modernization and to assess their impact on the educational process itself, but also to identify possible strategic priorities
of reforms in the future. In our view, the modernization of education, above all, determined by two factors: how to solve a philosophical question about the nature-the source of education and the way of determination the necessity of its modernization [1].

There are different answers are given in the world practice of humanitarian thought to these questions. Modernization of the national model of multi-level continuous education based on priorities of Strategic Plan of Development of the Republic of Kazakhstan till 2020 for integration in the global educational space and satisfaction of the needs of individuals and knowledge-based society[2].

Through introduction of quality management systems in universities, institutional assessment and accreditation of vocational educational institutions at the level of leading foreign accreditation agencies, implementation of key principles of Bologna declaration and compliance with requirements of WTO will be secured. Implementation of the National Program on Development of Education in the Republic of Kazakhstan till 2020 will result in effectively functioning Kazakhstani model of education, and qualitatively high level of education and staff training, allowing Kazakhstan to occupy worthy place in modern world. As we mentioned further, the state of education in the Republic of Kazakhstan and its development trends in interregional and international comparative aspects presented annually to the National report[3].

The tasks of the report are the following:

- improvement of regulatory framework for operation of national model of education based on further democratization of education administration;
- development of education, taking into consideration historical, national, demographic, geographical, economic and cultural features of Kazakhstan;
- update of content and structure of education on the basis of local traditions and international experience;
- integration in the global educational space;
- establishment of national system for education quality assessment;
- creation of single educational information environment in the Republic of Kazakhstan;
- improvement of training-methodological and scientific support to educational process;
- strengthening of material-technical base of educational system;
- integration of education, science and industry;
- creation of mechanisms for involvement of real economy sector for improved quality of vocational education and training;
- improvement of financial and staff support of educational system, improvement of the social status of teachers;
- ensuring balance of state, public and personal interests in the system of multilevel continuous education.

The education system unique institution designed to develop personality, build its social importance of quality, ideals, and to meet society's need for highly qualified personnel. Due to the stability and economic development of Kazakhstan's increasing spending on education[4].
Modernization of the national model of multilevel continuous education based on priorities of Strategic Plan of Development of the Republic of Kazakhstan till 2020 for integration in the global educational space and satisfaction of the needs of individuals and knowledge-based society. The Republic of Kazakhstan was recognized by the international community as a market economy state. During the short term of independence the country achieved significant economic growth, integrating in the global community.

2. EDUCATION IS A MAJOR PRIORITY AND A KEY FACTOR DETERMINING THE DEVELOPMENT OF THE REPUBLIC OF KAZAKHSTAN.

With the Republic gaining independence we've got the opportunity to organize our life independently, to determine our future. The country links its greatest hopes with the generation of Kazakhstani people that have grown up during the first decade of independence and have been educated on the values of open and democratic society. A contemporary young citizen of Kazakhstan must be well educated and open to world innovations. The President of the Republic of Kazakhstan N.A.Nazarbaev in his speeches repeatedly underlines it that Kazakhstan aspires to the creation of a quality education, at the level of the world standards, which is the pledge of competitiveness of the state, its economy and the nation. Certain aspects of educational policy are concretized and supplemented in the Messages of the President to the people of Kazakhstan. Specifically, in the Message of the President to the people "Kazakhstan on its way of accelerated economic, social and political modernization", February 2005, it is emphasized: "A country unable to gain knowledge, in the XXI century is doomed to failure. ... Without a modern system of education and up-to-date managers who conceive widely, broadly, in a new way, we cannot create innovative economy"[5]. The model of the national system of education defined by the Law is focused, first of all, on ensuring a high quality of training and education, development of highly professional personnel with a new way of thinking and a higher level of civic consciousness which adequately meets changing social and economic conditions of the country. Today very important changes take place in education; favorable conditions are created for the effective development of national education model that ensures wide access to quality education at all the levels and stages of education. In this context, role and importance of contemporary educational system and human resources as indicators of the level of social development increases, being the critical factors and basis of economic power and national security of the country. In their turn, changes in the system of social relations have an impact on education, which requires its mobility, adequate response to the realities of the new historical stage and compliance with the need of economic development. At the same time Kazakhstani system of education keeps on developing under conditions of out-of-date methodological base, structure and content that do not allow it to take a worthy place in the global educational space[6]. A new generation of state standards for specialities, unifying curricula of junior courses has been established. A new model of student enrollments has been introduced, allowing admitting the most talented youth. Higher educational institutions have been given some academic freedom to take into account labor market demand; scientific research activities have become more active and are applied in training; contacts are being established with leading foreign universities. About 5,500 citizens of the Republic of Kazakhstan are studying in more than 35 countries. Presidential program "Bolashak" has been implemented[7]. Over 400 scholarship holders have successfully completed education abroad under this program. At the same time most problems of integration remain unresolved, because the basis of Kazakhstani educational system is formed of such methodology, structure and content, which hamper its integration in global educational space. Knowledge level of students has sharply decreased. Thus, the average score at complex testing of senior students of colleges and higher educational institutions haven't been more than 3.1 for the last 3
years. Decreased requirements of some universities and their numerous branches to entrants and lack of appropriate intellectual, staff, and material-technical capacity caused excessive growth of the number of specialists, and saturation of labor market with staff in no demand. Such situation was also caused by mass training in highly specialized professions (over 400 items) oriented only at stable sectors and consumers. Social partnership and targeted staff training did not expanded, particularly at regional level. No mechanisms are developed for mutual acceptance and recognition of Kazakhstani and foreign curricula, and certificates, which restrains academic mobility of students and teachers. Today very important changes take place in education; favorable conditions are created for the effective development of national education model that ensures wide access to quality education at all the levels and stages of education [8].

3. ABOUT THE PHYSISOPHY OF MODERNISATION AND ITS TECHNOLOGY

How to solve a philosophical question about the nature-the source of education?

Philosophical and methodological aspect of the analysis of the conditions of modernization of education today is not only the need to create a new philosophy of education, but also is associated with the possibility of thinking about education as a relatively autonomous phenomenon of human society and culture. The problem of the current upgrade is that the trend is turning away from traditional, classical philosophy of education, associated with the names of J.A. Comenius, Descartes, Francis Bacon, Diderot, J.J. Rousseau, I. Kant, Hegel.

During the years of sovereignty in search of education, we knew methodology flatly rejected such notions of the Soviet school, as a "conscious discipline, democratic centralism, collectivism, the principle of the leading role of theoretical knowledge."On the one hand, in search of a new thesaurus of educational theory, we have replaced the concept of the student - the personality, training, education, educational activities for the organization of pedagogical interaction in the hope of changing the situation. But at the same time continue to use category, purpose and content of education, require updating methods and forms of education, develop properties and subjective needs of the individual, thereby restoring a situation similar to the old Soviet school of pedagogy[9].

We are located at the junction of two roads, one side fully preserving all categorical apparatus of Science Education in the loss of basic values of this world - science, universality, unity and rationality. On the other hand, re construction of the entire philosophy of education infrastructure, acquiring a new language about the way of thinking, abandoning the great heritage, expressed in habitual for us the terms and concepts as subjectivity, relevance, organization, and reflection.

As we noted above, in summary, the global humanitarian response to the thought gives the modernization of education through the common definitions of the three paradigms: classical, non-classical, non-classical post[10].

The classical paradigm is based on the formation of rootedness in the culture. In this paradigm, education is seen as a special way of man's ascent to a particular historical and cultural tradition. The problem of the classical paradigm is that if the tradition were "broken", then the upgrade is perceived as a "return to basics." Restoring tradition allows the individual to find answers to pressing questions of our time. .

Non-classical paradigm of education is based on the situation "here and now" and is defined by the concepts of existence, pragmatism, communication and hermeneutics. Thus, education is related to a single experience, which in turn arises in life situations. In this aspect of modernization is seen as a
problem of overcoming the isolation of man, to go beyond, hampering his social and cultural conventions.

Post non classical paradigm is the prototype of the design paradigm and is expressed in the form of spontaneous human action, as the foundation of all things. As part of the modernization paradigm is seen as "open future", "willingness to fight for a new world", which is the essence of the project. As part of post non classical, design paradigms, we intend to consider the imperious, the political infrastructure of modern construction and educational impact of government decisions on the modernization of education in Kazakhstan[11].

Modernization as an object of scientific knowledge has been considered in the works (Krasilschikova VA, 1999, p 93., Toffler, A., 1997, p 10-11., Black, S., 1973, 181-187), considered the historical model of modernization in the works (R. Bendix, S. Black, B. Tsopf), the transition from traditional society to an industrial (C Vago), instrumental model of technological modernization as a change in the way of productive human activity, in the works (M. Levy, R. Ward, R. Makridis, D.Rastou, L. Pai, D. Epter, R. Bendiks), the process of modernization as a process of transformation of the traditional culture, and change its "code" in the works (D. Lerner, G. Therborn, S. Eyzenshtal ), modernization theory in the modern sense of the word addressed in the works (Myrdal, G., 1972 S. Huntington, 1997).

Paradigmatic for the contemporary processes of modernization is recognized predominantly organic nature of systemic change, as opposed to a mechanical optimization and modernization of the traditional concept of Veber.

The general logic of systemic transformations in the context of modernization is the transition from mechanical systems (not capable of internal self-organization) to adaptive (adapt to changing external conditions) and, finally, to organic, capable of purposeful change its internal organization and to influence the environment[12].

Also, in our opinion, the problem of the relation between modernization and Westernization is a key, for all model of education in Kazakhstan apparently been borrowed from the West and for the internal content in our view, not yet fully developed.

There is a real alternative: modernization as a set of measures aimed at improving the efficiency of the existing institutions of different cultures or westernization as adoption of western values and western lifestyle.

Well-known alternative is the modernization without westernization characteristic of South-East Asia (Japan, South Korea and China). The essence of this process was the preservation of basic cultural values and behaviors in the gradual adaptation of the entire production structure to the needs of today. Another way of modernization - modernization without westernization, external borrowing of Western experience, which ends with the destruction of their own cultural traditions A more radical critique of the two versions of the theory of institutional modernization due to the fact that the problem emerges not as a function from domestic systems of resource allocation, but the more fundamental political and economic inequality in the world community of states, expressed in non-equivalent exchange between nations. In the second cycle of a sovereign state, the last decade, as we know, Kazakhstan is a process of "post modernization" by the "release" of social institutions of the local social contexts, forming long-ranged interaction and interdependence. An important tool in this process have been all sorts of international organizations that monitor and control the political, economic, social processes, taking place in Kazakhstan. For a short historical period of Kazakhstan community development,
international cooperation in the field of education has undergone significant changes in its essence, objectives, goals and organizational and legal norms[13,14].

We may point out three key stages of external cooperation development in the field of education, quite different in their content:

- Late 70s - early 90s - pre-independence period;
- First half of 90s - formation period;
- Second half of 90s - optimization period.

The first Kazakhstan experience in the field of external cooperation development in the field of education in 70s-80s was strictly regulated by Soviet normative acts, aimed to achieve ideological and political goals of former super-power[ 15].

The overall context external cooperation development in the field of education at that period would meet requirements of Communist ideological expansion and application of the Russian language worldwide. The system of education for foreign citizens provided for one-year learning of the Russian language as a foreign one at preparatory faculties.

On the whole, summarizing description of the "pre-independence" Kazakhstan experience of external cooperation in the field of education, we should point out the following:
- this cooperation was fragmented and made an insignificant part of the entire system of international cooperation in humanitarian sector of ex-USSR;
- external cooperation was strictly regulated;
- activities, aimed to develop external cooperation in the field of education, enhanced development;
- of international cooperation in humanitarian sector, but contradicted declared objectives, providing for expansion of Communist ideas.

External cooperation developments in the field of education, development of cooperation with foreign partners have become possible after Kazakhstan gained independence. In the first half of the 90s, Kazakhstan signed the first Agreements on Educational Cooperation. Mainly, they related to cooperation in the field of higher education.

In early 90s it became obvious that governmental objectives in the field of political, social and economic reforms could not be achieved by available specialists and staff. In his Decree of 3 November 1993, President of the Republic of Kazakhstan introduced «Bolashak» international scholarships to train specialists abroad. For the first time in the history of CIS countries talented young people have been provided with an opportunity to acquire education in leading countries of the world at the country expense. It should be noted that in the subsequent years this practice was introduced by Presidents of other CIS countries.

Establishment of a new (for the young country) type of international relations in the field of education was a pre-requisite to ensure Republic's equal joining the global community. Therefore, by mid-90s, over 40 intergovernmental and interdepartmental Agreements have been signed. In addition, learning institutions of Kazakhstan signed over 70 direct Cooperation Agreements with foreign partners.

The third stage of external cooperation development in the field of education starts from comprehension of the importance and place of international cooperation in the field of reform of Kazakhstan
system of education, its goals and objectives. At present, we may state that in the field of international cooperation in the field of education we have achieved such a degree of freedom of choice and activities of learning institutions that allows expanding external links in compliance with the initiative.

Lessons learnt in the first half of the 90s (both positive and negative) allowed in the future to more thoroughly address the issues of cooperation establishment and development, including that in the field of education. Currently, the key objective of international cooperation is to optimize organizational and technical activities, to study capacity of foreign partners and ensure practical fusion of internal needs with real external opportunities of the European Union (EU).

In cooperation with Ministry of Education and Science of the Republic of Kazakhstan, over the period from 28 April 2003 through 28 April 2005, a project "Vocational education and training linked to small and medium business development in Kazakhstan" has been implemented in six experimental vocational schools (lyceums) and colleges of Akmola and Aktyube oblasts. The Project objective is to assist in the development of quality of vocational training, professional development and retraining in some regions and sectors to enhance competitiveness and, as a result, to reduce social risks.

According to Agreement, signed between the Government of the Republic of Kazakhstan and European Union, a TACIS Framework Project "Methodology and capacity to develop vocational curriculum, based on competency-approach in Kazakhstan" is being implemented since May 2006 by the IFES. The IFES is a non-governmental, non-profit and independent organization, operating in Kazakhstan under the support of US Agency for International Development (USAID) since 1994. Since 1998, IFES has been implementing programmes, assisting in the development of a civil society. IFES optional course is a key link of the Project. It was for the first time developed by IFES in 1999 as a textbook "Introduction to civil education" for High School students. In 2001, IFES launched a programme, aimed to establish a Student Action Committees (SAC) network to help Middle School students, in cooperation with teachers and partners from local community associations, tackle issues of their communities. IFES has for the first time in Kazakhstan developed and implemented the programme of "Day of schoolchildren involvement in activities of local state governance bodies". As well, as the British Council pays particular attention to education of English teachers. To this goal, it hosts seminars, establishes cooperation with learning institutions. Regional contacts are actively maintained through British Council Association ELTCS (English Language Teaching Contacts Scheme) and local English teachers associations^ 10 workshop programmes have been developed for over 200 teachers - from modern methods of English language studies to educational literature adjustment techniques. The most popular of them are Practical Tips on Teaching Communication, English for Specialists and Teaching Grammar. International cooperation in the field of education

Cooperation with USA in the field of secondary education Bilateral Kazakhstan-American cooperation in the field of education is maintained in the framework of American Councils for International Education (ACTR/ACCELS), Peace Corps in Kazakhstan. ACCELS activities in Kazakhstan are regulated by Cooperation Agreement, signed between Ministry of Education of the Republic of Kazakhstan and ACCELS on 11.04.1996. ACCELS Programmes are financed by the US Government and administered by ACCELS under the support of Ministry of Education and Science of the Republic of Kazakhstan. ACTR/ACCELS is implementing a number of educational programmes in Kazakhstan.

Since 1997, schools of Kazakhstan have been hosting an open American-Kazakhstan Contest of English Teachers and USA country studies, with the first prize going to 244 regional prize-winners and 70 national prize-winners. They had an opportunity to take part in a seven-week professional development workshop in the USA. In the framework of this programme, over the period from 1997
till present, 292 secondary schools of Kazakhstan have been provided with school equipment and educational materials for the amount of more than USD600,000.

In 2006, the content of this programme has been expanded and modified into the Teaching Excellence and Achievement Program, which, in addition to English teachers, will be participated by Social Sciences teachers.

American Councils for International Education ACTR/ACCELS are an international non-profit organization, aimed to improve education and scientific research. They launched their activities in Kazakhstan in 1992.

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- Consultations for students, when they apply to higher institutions of the USA;
- Information on training and research opportunities abroad.

International Research and Exchange Council (IREX) is an international non-governmental organization (registration in Ministry of Justice of Kazakhstan № 612-1900 Representative Office (IU) of 23.10.96), a leading non-profit organization in the USA, developing and implementing programmes in the field of higher education and Internet development, provides support to independent mass media and legal civil society in USA, Europe, post-Soviet countries, Near East and Asia. Based on the Agreement, signed between Ministry of Education and Science of the Republic of Kazakhstan and US Peace Corps, since 1993, Peace Corps volunteers have been working at schools of the Republic. Over the last three years, volunteering native-speakers teach English in rural secondary schools of Kazakhstan in the framework of Ayl mektebi State Programme. In academic year 2005-2006, 72 American volunteers have been teaching English to over 8,000 students of rural schools, (6,500 - students of rural schools), 1,500 students of colleges and Universities. Volunteers organized school English Clubs for over 1,000 students, arranged computer English classes for 814 students of rural schools, providing computer, e-mail and Internet skills. In summer they work in language camps, carry out environmental (Environmental Clubs) and health activities (AIDS preventive trainings), regularly visit elderly houses, provide charitable aid to libraries (over 500 books in the English language have been supplied), work extra hours in Centres for children with limited abilities.

Kazakhstan has been cooperating with the Turkish Republic in the field of education since 1992. To ensure more efficient interaction, a representative office of Ministry of National Education of the Turkish Republic (hereinafter referred to as the MNE) has been established in Almaty, a representative of MSE RK Bolat Atybay is working in Ankara.

There are 24 Kazakh-Turkish lyceums with a capacity of over 5,000 students are operating in Kazakhstan, as well as two joint Kazakh-Turkish Universities - International Kazakh-Turkish University after Yassavi (IKTU) with a capacity of over 20,000 students, non-state-owned University after Dimerel, Zhambyl accounting-credit-economic college, Dostyk educational centre, Shahlan primary school. This Primary School provides education to children of citizens of Turkey, living and working in Kazakhstan.

In 1997, a Protocol was signed between the Ministry of Education of the Republic of Kazakhstan and Ministry of National Education of the Turkish Republic of 4 March 1997 (Ankara), approved by the
Decree of the Government of the Republic of Kazakhstan # 974 of 16 June 1997. In compliance with this Agreement, annually 150 of Kazakhstan citizens are enrolled to higher institutions of Turkey. Since 1992 over 2.5 thousand citizens of Kazakhstan were sent to study in Turkey. 1,284 students graduated from Turkish learning institutions, as of 2006, 668 Kazakhstan citizens studied in 27 Universities of Turkey. Challenges of globalization naturally bring many countries to the need to introduce profound reforms within their educational systems - this takes place in such countries as USA and China, Pacific countries and UK, Eastern European and South American countries. In a contemporary world education becomes one of the crucial factors of establishment of a new quality of economy. Its role is constantly growing along with the growing impact of human resources. In a social life of market economies education restricts class stratification of the society, ensuring "an equal start" for groups of population with different incomes and locations. A national policy in the field of education development is able to consolidate different social groups.

Universal trends in creation of conditions for life-long education stand for the need to modernize the system of education both for children, teenagers, young people and adults.

Kazakhstan stays involved in global trends. In the framework of governmental strategies and educational policy, steps are taken to ensure equal opportunities for access of children and young people to full-fledged education, irrelevant of financial situation of the family, location, nationality and health, to use opportunities for social protection of children and teenagers, left without proper parental care. As important attention is paid to discovery and target support of the most gifted, talented children and young people.

Given limited financial possibilities of the government, steps are taken to ensure more efficient consumption of human, information, material, financial resources of private businesses.

To ensure further implementation of EFA Goals, to create conditions for life-long education, to increase the economic and social role of the system of education, it is needed to continue programme activities, aimed to:

- ensure up-to-date quality of education: education should be targeted not only and not as much at mastering of a certain amount of knowledge by students, but at the development of independence, personal responsibility, creative capabilities and properties of a personality, including the skill and aspiration to study, act, learn; to improve the quality of learning process, based on application of modern technologies, including through expanded inclusion of learning institutions into modern information networks;

- tackle the issue of insufficient access to pre-school education: capacity of KGs is five-fold less than the number of pre-school children in the country. It is required to take steps in the field of stage-by-stage increase of funding of pre-school education by 2010 more than 10-fold compared to 2007 and make it 1% of GDP, which will allow ensuring accessible pre-school education;

- expand accessibility of education, ensure equal opportunities for acquisition of full-fledged education, establish a sustainable education system through integration of sectors of formal and non-formal education;

- ensure expanded accessibility of technical and vocational education for young people and adults, in particular, for teenagers with special needs in education and graduates of children's asylums, as well as those residing in rural areas;

- take steps, aimed at preservation and enhancement of students' health, including through monitoring of health of children and young people, improved quality of nutrition in learning institutions;
improve public and state status of an educator;

enhance interaction between learning institutions with labour markets, employers and business circles, enterprises and organizations of various forms of ownership.

Associations of citizens, employers, parents, authorities and local self-governance bodies, specific agencies (of defense, healthcare, labour, etc.), all those interested in further education development should be actively involved in educational policy.

Kazakhstan officially joined the Bologna Declaration. This happened at the session of the Second European Forum of Education Ministers held in Budapest on March 11, 2010. The country’s accession to the Bologna Process was supported by representatives of 46 countries - signatories of the Bologna Declaration. This implies integration of Kazakhstan in the European Higher Education Area.

In contrast to the modernization of the second track "post modernization" also focuses on the growing role of formal hierarchical management structures, characteristic of the community, "the association of professionals" involved as experts and specialists in the ongoing processes, public associations, connecting with the power of social institutions of society.

In our view, to analyze the modernization of the education system of Kazakhstan applicable areas such as wave approach, which requires substantial conceptual work.

In our study we consider the cycles of modernization in the following areas:

- The nature of decisions taken by the authorities;
- Resource allocation;
- On quantitative indicators of participation of stakeholders in the process of modernization;
- Analysis of interim results for 20 years[16].

4. HOW TO SOLVE THE WAY OF DETERMINATION THE NECESSITY OF MODERNIZATION OF EDUCATIONAL SYSTEM?

Today we come to the conclusion that the vast majority of modern educational problems inherited by us from the last century, but the methods of solving them by the same means in unacceptable at present. Today's education, saving a lot of features and characteristics of the past, has changed its nature. On education about financing of learning institutions specifies that the basis of state guarantees for citizens of the Republic of Kazakhstan of: 1) secondary general and primary vocational training is budgetary financing of state-owned learning institutions; 2) secondary vocational training - budgetary financing per one student for the period of training under the general educational programme of 10-11 (12) years; 3) secondary vocational, higher and post-higher education - the state educational order.

The government annually allocates budgetary funds for education in view of priority.

Financing of the state-owned learning institutions is carried out from budgetary funds with observance of the requirements established by the state mandatory standards of educational levels, and in view of monetary and natural norms, and payment norms defined by the legislation of the Republic of Kazakhstan. Financing of multi-grade schools should account for expenses that are not dependent on the number of students.
Other financial and material intakes, including foreign currency, are used by official educational bodies in accordance with the procedures established by the Government of the Republic of Kazakhstan.

Financing of private learning institutions is carried out via rendering (sale) of educational services, finances of their founders and other sources not forbidden by the legislation of the Republic of Kazakhstan. Private organizations of the primary vocational, secondary vocational and higher education having passed the state certification, can participate in fulfillment of the state educational order through training students who received on a competitive basis state educational credits and grants.

5.ACKNOWLEDGEMENTS:

Education budget in 2009 increased compared to 2008 by 9.5%, and it was 4.4% of GDP.

Enrolment in primary school education has increased to 100%, coverage of secondary education was 99.9%, and the literacy rate is 99.6%.[17].

An increasing number of preschool institutions approved by the special program "Balapan" Government of the Republic of Kazakhstan dated 28.05.2010. The last years the country has built 254 schools, the network of the contingent of technical and vocational education, whose number has increased over the three years (2008 - 2010. was) to 52 units more than 15%, and a contingent of 9%. Strengthened material-technical base of 30% of public school vocational education by 5.2 billion KZT.

Pays special attention to the development of advanced learning technologies, over 50% of schools in the republic have interactive classrooms. Availability of computers in schools is 18 students per 1 computer.

Kazakhstan is actively positioning itself in the international educational space.

For the first time in 2009 human development index of Kazakhstan joined the group of countries with high human development.

Kazakhstan to UNESCO's Education index the second time in the top four, at seven positions on the results of international comparative studies TIMSS - 2007. An increasing number of awards won by our students in international intellectual competitions.

In the Epistle breed "New Decade - New Economic Growth - new opportunities in Kazakhstan," the Head of State Nursultan Nazarbayev has put the education system for the quality of education to international requirements. To compete in the global market of educational services operated institution of higher education world-class - Nazarbayev University, a network of schools, "Nazarbayev smart schools" that will be open until 2013 in all regions. There are now three schools in the cities of Astana, Semey and Kokshetau[18].

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**National Documents**


**Laws of the Republic of Kazakhstan**


**State Programmes**

Abstract

Considering the method of control over IT services in e-Learning system on the basis of a process approach. Examples of use of methodology of ITSM for quality management of providing IT services are given. Formation of system of metrics and indicators of IT services are described.

Key words: e-Learning, IT services, management of IT services, ITSM.

1. INTRODUCTION

Transition in Russia to educational standards of the higher vocational training of the third generation, where concepts and principles of the Bolonsky declaration are considered, demands application of new approaches including the area of organization and management of the e-Learning systems.

Nowadays the increasing number of higher education institutions utilizes the e-Learning systems by means of various portal appendices, from function-oriented, educational portals including the institutional main frame portals. E-Learning systems appear to be portal decisions as well.

The following can be considered as reasons for such approaches:

- Utilization of the entire spectrum of the various automated systems connected with support and administration of the basic processes of educational institution;

- Accumulation of a great volume of the distributed electronic educational resources, which are various in their form of representation of the information, means of the organization and access methods;

- Necessity of maintenance of new quality of higher education based on the utilization of modern information and communication technologies;

- Increased requirements to efficiency of information access and its actuality, to the media of information exchange among participants of working groups and coordination of actions of their participants;

- Increased requirements to personification of the information, which is connected not only with the necessity of distribution of access rights of users to information resources and authorization of their actions, but also in the interest of the user for the minimum number of references to receive the information focused on its "profile", etc.

One of important factors of the successful resolution of the above listed issues is the utilization of the modern information-communication technologies, control systems of educational process and control...
systems of electronic training.

In the last few years, in the area of development of information systems, including systems of e-Learning, there is growing interest in using the service-oriented architecture (SOA), appearance of which is appreciably caused by the wide use of process model of management by educational activity and a tendency to strengthening of interrelation IT and business processes [7].

2. METHODOLOGICAL ASPECTS OF UTILIZING THE SERVICE APPROACH TO E-LEARNING SYSTEMS

Introduction of the competency approach to training brings new requirements to electronic control systems of educational process as well. Systems LMS should not only carry out support of educational process and carry out monitoring of educational activity, but should also provide various IT Services, which are necessary for maintenance of the required quality of forming common cultural and professional competencies of the learners. Systems LMS should be integrated with corporate information systems ERP, HRM, the systems of planning of learning process, methods of planning of educational process, systems of the account of a contingent of pupils, etc. The task of conformity of methods, forms and tutorials to constantly changing requirements of labor market and business becomes very actual.

There are two basic approaches to creation of the automated control systems by educational institution from IT point of view. The first one is the introduction of the uniform systematic resolution from one vendor, which completely or sufficiently satisfies all requirements of the organization. The second approach – application of composed architecture in which functional systems are formed by means of diverse IT Appendices.

Nowadays the increasing quantity of software developers begin considering the composed architecture as the one meeting modern requirements. The concept of a service-oriented architecture (SOA), which has appeared a few years ago, has designated a new stage in development of the composed approach.

The following defines the novelty of SOA[5, 6, 8]:

- The new approach to integration of appendices on the basis of standards;
- The new approach to updating and development of the functionality of information systems on the basis of use higher-level component – services;
- Opens opportunity to create new business processes and to modernize the existing ones on the basis of IT Services;
- Possibility to realize interrelation SOA and technologies BPM.

Difference between services and program components is shown in following aspects:

- Each service is always associated with a particular business-function, while components relate to a technological category of the software architecture.
- Services can be realized in the form of rather complicated program complexes, i.e. service doesn't reflect a way of its program realization, but only a way of its use;
- Formation of services is conducted according to business requirements, and allocation of program components was a problem exclusively for software developers.
So, it is possible to consider SOA as an approach to integration of business processes and the IT Infrastructure supporting them in the form of the safe and standardized components (services) which can be used repeatedly and combined for adaptation to a changeable business priorities [5]. Active use of the service approach is caused nowadays by transition from functional to process management.

Use of the service approach to system e-Learning gives new possibilities both for IT, and for the organizations that is shown in the following:

- Reduction of time for system engineering;
- Reduction of time for adaptation to labor market and business changes;
- Reduction of cost and expenses for integration of IT Appendices;
- Conformity of maintenance of the business purposes information resources and technologies;
- Increase of independence of the IT Infrastructure from changes of organizational structure;
- Growth of outsourcing of various processes in sphere e-Learning;
- Realization of more effective processes at the expense of standards and a reuse of IT Means;
- Maintenance of flexibility of interaction at realization of internal and external business processes.

Application of the service approach allows to present system of electronic training as set of services realized by system, and architecture of system – as the interconnected set of IT Services.

Various approaches to IT Service definition are used. As a rule, in the field of information technology which one structure renders another it is accepted to name any service IT Service, and irrespective of to whom there is a service – to the external or internal consumer.

IT Service is understood as a complex of processes, actives and the resources directed on satisfaction of requirement of divisions of the organization in information technology, arising in the course of activity. The result of granting of service has obviously expressed value for business and is formulated in terms of the business user [2].

From the positions of IT Service management in documentation ITIL is defined as «the IT Service provided to one or multiple customers by the IT Servicer. IT Service is based on use of information technology and supports business processes of the customer. IT Service includes people, processes, technologies» [1].

Service architecture of IS from the positions of technical representation [4] can be presented by the following layers from the consumer (ending user) to the provider of services (fig. 1):

- Appendices (IT Services) with which the user directly cooperates at work with information system (front-end appendices);

- Services as elements of service architecture, encapsulates a defined function of a business process, thus service as the element is hidden from the consumer, and for the developer of appendices well description of the interface of service;

- A platform, as a complex of the hardware-software means necessary for functioning of service architecture; the platform is hidden from the consumer and is entirely served by the provider.
The services necessary for the consumer, can be presented in the form of the business services, the request for which is carried out through functional front-end appendices. Business service realization represents sequence of a requests for accessible services according to logic of business process.

The platform includes the infrastructural software, hardware, communication means, a life-support system (the monitoring system of a temperature mode and humidity, fire-prevention system, safety system and so forth), a place of direct placing of physical objects.

Providing components are responsible for realization of the services which are not including business functionality (services of management, safety, control).

Within the limits of designing of architecture of information system on the basis of SOA consider level of typified service (fig. 2).

Levels of uniformity of IT Services include: top level services – services of level of appendices, average level services – services of level of the automated functions or problems, services of the bottom level – services of level of the automated operation in which frameworks a certain result can be achieved.

Top level service is understood as the IT Service delivered to the consumer, at appendix level (for example, an information control system of educational process).

For allocation of IT Services of the average level it is necessary to construct the functional model for each IT Appendix, allowing to allocate functional subsystems of the appendix. Then a method of decomposition of functional model, which realizes the functional modules realizing sets of business functions and sub-functions (problems), each of which is defined by some business process. Process of realization of business function is represented in the form of logic sequence of works (operations) – the automated operations which have accurately certain entrance-target data, resources, organizational units and results at completing the process.
Service of the lower level is understood as the automated operation in which frameworks the certain result (for example, data acquisition about results of testing of the student from the automated system) can be received.

3. SYSTEM E-LEARNING FROM A POSITION OF THE SERVICE APPROACH

Utilization of the service approach allows to present system of electronic training as hierarchy of services realized by system and processes (fig. 3).

1. Level of business services. At the given level we allocate the kinds of activity realized by educational institution. Under the pretext of activity we understand the set of the processes, realizing concrete educational service for the consumer (business service). Rendering of educational services, which are provided through the realization of educational, scientific research, organizational-economic and industrial-economic activities, is one of the main business services of the higher education institution.

2. Level of business processes. Activity kinds are realized by means of combining the basic and auxiliary processes. Processes of electronic training (e-Learning) is a combination of cooperating according to certain logic of process of the services, which functioning leads to creation of electronic educational service.

3. Level of services. Processes of electronic training is realized by means of requesting a certain combination of the services based on information technology. Services have the non-uniformed structure with the following sets of services:

- System-services of e-Learning provide the basic functions of system of electronic training (remote training, management of training, management of users, management of technical and methodical support, maintenance of interaction of listeners of remote training, etc.);
- Didactic services provide didactic aspect of realization of services of system e-Learning;
IT-services provide programming-technical realization of services of system e-Learning.

Considering system e-Learning as set of the interconnected services [7], consider the following aspects:

- Didactic services should be invariants in relation to technical services, i.e. can be realized through any combination of methods;
- IT services should be invariants in relation to particular hardware-software means.
- Services e-Learning should be invariants in relation to IT Services and didactic services.

The structure of e-Learning services includes: electronic training courses; testing; monitoring; the reporting; formation of a competences; ratings; discussions; formation and access to media resources; surveys, polls; voting; an electronic content; communities; forums; blogs; a portfolio; a virtual educational room; news; announcements, etc.

Didactic services include: didactics of carrying out of lectures, control of knowledge, online of seminars and practical works, the organizations of design activity of pupils; e-portfolio conducting; carrying out of employment in a virtual room; the organizations of electronic communities; carrying out webinars, etc.

IT services include a wide spectrum of program systems: LMS, LCMS, LDAP, VirtualRoom, system of developing electronic courses; system of developing tests; exchange system of instant messages; system of carrying out of audio- and videoconferences; system of translation of a desktop; system of conducting electronic communities; system of conducting an e-portfolio; a control system of information security; a control system of catalogs of media resources, a portal, etc.
4. UTILIZATION OF METHODOLOGY ITSM FOR MANAGEMENT OF E-LEARNING SERVICES

When considering system e-Learning as a set of services for management of such system it is expedient to use the process approach based on recommendations ITIL.

Management of IT Services (IT Service Management, ITSM) is a set of the specialized organizational possibilities presented in the form of functions and processes, directed on management of services during their life cycle, with specialization in areas of strategy, designing, transfer, operation and constant improvement [2, 9].

According to ITIL, the purpose ITSM is providing and maintaining of IT Services according to business requirements of the organizations. ITIL includes a set of the best practices in the field of IT Service Management. Standard ISO/IEC is applied to an estimation of conformity of activity of any IT Division to substantive provisions ITSM 20000-1:2005.

The basic processes ITSM according ITIL V3 and ISO/IEC 20000-1:2005 appear the following ones [1, 2, 3, 9]:

- Strategy of the Development (strategy of the IT development; the analysis of requirements of business IT; management of the finance of IT Services; management of a portfolio of IT Services; constant improvement of IT Services);
- Designing of services (management of the catalog of services; management of level of services, SLA; management of information security; management of a continuity of services; management of availability, capacities, suppliers);
- Transfer of services (management of changes; management of actives and configurations, CMDB; management of releases and expansion; management of knowledge);
- Operation of services (management of inquiries, access, incidents, events, problems, operation IT).

One of the key elements of ITSM system is the catalog of the IT Services, which purpose is the maintenance with the full, authentic and actual information on all given and planned to introduction of IT Services.

During the formation of the catalog of IT Services of system e-Learning the following set of the metadata of service is used:

- IT Service name;
- The IT Service identifier;
- The description of appointment of IT Service;
- Category (in working out; in operation; in archive);
- The version (IT Service release);
- Classification (the IT Appendix: applied services; interaction services; information services; access services; infrastructural services; working out services; management services);
- Criticality (the low; the moderated; the high; an indicator of importance of IT Service);
- Appendices (the name of appendices);
Use of the service approach to the organization and management of systems e-Learning allows to create composed systems of electronic training on the basis of the standardized IT Services which can be given both internal, and external suppliers of IT Services.

5. CONCLUSION
In the last few years the concept of «the software as service» (SaaS) has become widely spread. The analysis of the market of IT Services shows that the area of electronic training is one of those areas where use of IT Appendices, the IT Services given by external service providers, is claimed enough.

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PSYCHOLOGICAL FACTORS OF SELF-ORGANIZATION
ACADEMIC ACTIVITY OF STUDENTS
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Abstract
The object of the research was revealing interdependence between the motivation in achievement of success/ avoidance of failure and the characteristics showing the students’ ability of self-organization in their activity.

The correlation of parameter «motivation of success/fear of failure» with such self-organization parameters as: «programming», «modelling», «flexibility», «planning» «assessment of results» were investigated. Valid differences for all listed parameters between the students orientated at avoidance of failure and the students orientated at success were obtained. The students aimed at success had these characteristics formed at a higher level. They are much more able to think out the ways towards achievement of goal, to achieve it, to solve the set task efficiently.

Key words: self-organization, academic activity, motivation of success/fear of failure, learning strategy

1. INTRODUCTION
Self-organization is a unique psychological phenomenon. It integrates a whole complex of characteristics essential for modern people: autonomy, independence, initiatiivity, creativity and the ability to regulate one’s physical and psychic state.

Of most importance is the fact that a person having a high level of self-organization is able to mobilize his/her capabilities for fulfillment of directive and planned activities. It is worth mentioning that the effect of such a mobilization is determined not only by the activity of a subject but also by the ability to restructure his/her personality resource for the successful accomplishment of relevant tasks.

2. METHODOLOGICAL BASE OF RASERACH
At present there are several existing approaches to defining the concept of self-organization. All of them are based on a common methodological basis:

- theory and principles of self-organization of complex systems in cybernetics and synergetics (N. Viner, S. P. Kurdjumov, I. Prigozhin, I. Stangers, U. Ashby and others);
- system approach (I. V. Blauberg, E. G. Judin);
- probabilistic theory (E. V. Trifonov, 1978);
philosophy provisions about man as a subject of relations who is capable of self-organization (A. Maslow, K. Rogers, V. D. Shadrikov and others).

In the course of analyzing each of these approaches it is possible to single out and describe the parameters of self-organization which permits a person to control his/her own activity on operational and personal levels.

The first approach is connected with understanding self-organization as a “process” (S. N. Braines, A. V. Napalkov, B. G. Judin and others). In this case we are dealing with the progressive development of personality, in the course of which the responsibility is taken by the individual. He/she chooses the means and methods to work independently, making maximum use of his/her own capabilities and consciously ruling the course of their life (V. V. Nurenberg, L. D. Filioglo). In mastering the new skills the individual accumulates and consolidates his/her human capital.

According to the second approach, self-organization can be considered as a “property” which is possessed by all living and social systems. This property is expressed in coordination (coherence) of system’s components interaction. On the basis of such coordinated interaction the personality gains the ability to purposefully restructure the functions and/or structure, to modify the old and/or to organize the new bonds between the elements of the structure.

Finally, the third variant defines self-organization as a “result”. To be exact, as a certain characteristic of potential abilities to structure and modify all the components of the complex open system (N. P. Kopeina, E. V. Marusova, O. N. Pervushina, P. E. Ryzhenkov, N. K. Tutyshkin and others). The phenomenon in question becomes apparent in the person’s ability to rationally construct the actions to achieve a set goal. In this connection one cannot but recall the ideas of A. Adler about every person’s realization of the life line determined by the goal, because without having a goal we are not able to think, feel, wish or act.

In our opinion, the ideas of A. Adler offer the optimal explanation of the psychological sense of the concept ‘self-organization’. According to these ideas, self-organization can be defined as:

1) the inner condition of personal growth;

2) a mechanism for mastering the content of the performed activity (academic, study, professional, etc.);

3) the psychological foundation for forming the individual’s style of creative activity;

4) the way of structuring of his/her own personal academic developing space, in which a person himself/herself is responsible for their personality and professional development.

From the above definition it follows that a person capable of self-organization possesses a certain psychological resource to achieve it. We believe the self-processes reflecting the specific features of the functioning of personality in different situations to be the basis of this resource. In the figure 1 presents the structural functional model of the activity self-organization which reflects the self-processes that ensure the gradual phased progress of a person from goal to result. Every self-process implies concrete self-organizational skills based on the ability of a person to be independent (Fig. 1) and to regulate his/her behavior.
Fig. 1. Model of self-organization possesses

<table>
<thead>
<tr>
<th>Stages</th>
<th>Self-processes</th>
<th>Functions</th>
<th>Structural components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problematization</td>
<td>Self-diagnose</td>
<td>Extension of information space, determination of disagreement between conditions, needs and abilities</td>
<td>Problem and goal-oriented (gnostic)</td>
</tr>
<tr>
<td>Goal-setting</td>
<td>Self-modeling</td>
<td>Goals awareness and concretion, objectivation of the image of the expected result</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>Self-projecting</td>
<td>Construction of perspective, algorithm and technique of intention realization</td>
<td>Program and goal-oriented</td>
</tr>
<tr>
<td></td>
<td>Self-budgeting</td>
<td>Defining the optimal conditions for actions realization, resources distribution in time and stages</td>
<td></td>
</tr>
<tr>
<td>Realization of planned activities</td>
<td>Self-activity: attention and realization</td>
<td>Realization and extension of technical skills</td>
<td>Operational - technological</td>
</tr>
<tr>
<td>Control</td>
<td>Self-control Self-analysis</td>
<td>Testing correspondence of goal to result; revealing of errors and miscalculations, correction</td>
<td>Reflexive-evaluative</td>
</tr>
<tr>
<td>Assessment</td>
<td>Self-assessment and Self attitude</td>
<td>Getting feedback and satisfaction with result obtained</td>
<td></td>
</tr>
<tr>
<td>Correction</td>
<td>Self-improvement</td>
<td>Updating, perspective determination</td>
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</table>

For example, in the stage of goal-setting the most important skills are those of formulating the goal of the activity and modeling the future result. In the stage of planning, the skills of resource allocation (self-budgeting) and phased design become important.

Obviously, the aspects of self-organization are directly connected with a concrete type of activity. The activity which a person is mastering will influence the actualization on the subject level of the characteristics (skills) which, in the optimal way, assure control, regulation and effective achievement of the goal of the activity. Speaking of studying, these are the skills which make a student the author of his/her study activity. Among these are the skills of accepting the study task, of planning the study activities, controlling and assessing its results, etc.

This brings up a logical question: Which of the psychological characteristics of a person – characteristics of cognitive sphere, motivational, emotional and behavioral characteristics, individuum
and characterology properties – are able to contribute to or hinder the organization by the subject of his/her activity, including the study activity?

In our opinion, the motivation of the student will be one of the leading determinants. This is caused, firstly, by the relevance of self-organization of any activity to inducement motives initiating this activity (cognitive, professional, creative, status rise motive, self-realization motive, material motives). Secondly, by the relevance to the specific character of the study situation itself, for the study situation implies many possibilities for achievement. It can be assumed that students having a high need for achievements are expected to be more capable of self-organization, oriented at greater ordering and regulation of their actions on the way to their goal.

3. RESEARCH OF CORRELATION OF STUDY MOTIVATION AND STUDENT’ SELF – ORGANIZATION CHARACTERISTICS IN FCADEMIC ACTIVITY

In our research the task was set to reveal the interrelation between the motivation for success achievement/failure avoidance and characteristics reflecting the students’ ability to self-organization of their activity.

The object of the research was the students’ personality characteristics and operational characteristics.

The following diagnostic techniques were used in the research:

1) for diagnostics of motivation for success and fear of failure the test of T. Ehlers modified by A. A. Rean for Russian sampling was used.

2) for investigation of specific features of personality self-actualization the “Self-actualization test” of E. Shostrom was used. The questionnaire contains 10 scales: a) including orientation in time, b) consideration of human nature, c) cognition need, d) creativity, e) autonomy, f) spontaneity, g) self-comprehension, h) autosympathy, i) rapport and it assesses the possibilities of a person to develop one’s own resources

3) for diagnostics of self-organization level two questionnaires were used:
   - the first one – the questionnaire “Style of self-regulation of behavior – 98” (V. I. Morosanova) – was intended to study the ability to rule one’s own activity and to control oneself. On the basis of this questionnaire the following characteristics were being studied: a) planning, b) patterning, c) programming, d) results assessment, e) flexibility, f) independence, g) general level of self-regulation.
   - the second one – the original questionnaire “Study Strategies” (T. A. Dvornikova, S. N. Kostromina) – was used to investigate the characteristic aspects of managing the study activities on the basis of cognitive and metacognitive strategies. The questionnaire allows to measure the degree of intensity of the main ways of organizing the study material acquisition and academic activity (here we refer to revision, elaboration, organization of study material) and metacognitive strategies (planning, reflection of activity, regulation).

On the basis of the data obtained, the correlation analysis and the analysis of significance of differences in mean values was carried out with the help of Student’s criterion (test?).

Research base. The research was conducted at 4 faculties of Saint-Petersburg State University: Mathematics and Mechanics, Applied Mathematics and Control Processes, Philosophy, and Philology.
162 students (both male and female) participated in the research. Ages ranged from 18 years to 20 years.

**Results.** First of all, it is worth mentioning that no valid differences in any parameters were established between the students of Humanities faculties and Science faculties. In this connection the results stated below are to be considered as common for all students irrespective of the specific character and the area of professional training at University.

In the figure 2 presents the correlation of the motive for success achievement with other parameters of the research. All correlations are positive.

**Fig. 2.** Structure of interrelations between personal characteristics and parameters of study activity motivation
As it is seen from the diagram, the motivation for success is positively related to such psychological characteristics as “value” and “results assessment”. Therefore, the students oriented at success assess their activity more adequately \((r=0.291; p \leq 0.015)\), and more readily share the values of self-actualizing personality \((p \leq 0.003)\). To these values A. Maslow attributed truth, kindness, purposefulness, absence of dualism, vitality, uniqueness, order, self-sufficiency. Preference for these values indicates the aspiration to harmonious being and good relations with people.

Other correlations demonstrate interrelation of the parameter “motivation for success/fear of failure” with the parameters revealing the ability to ruling: «programming» \((r=0.291; p \leq 0.015)\), «modelling» \((r=0.405; p \leq 0.001)\), «flexibility» \((r=0.397; p \leq 0.001)\). The data obtained allow to believe that the more consciously the programming of the actions is accomplished by a student, the higher the degree of consciousness of ideas about external and internal relevant conditions. The higher the level of formation of the ability to restructure the self-regulation system due to the change of internal and external conditions, the more the orientation for success achievement is expressed. Students having marked motivation for success achievement are able to choose the relevant conditions for achievement of goal both in current situation and in perspective future. With the change of conditions such students are capable of flexible restructuring of their plans, activities programme, behaviour programme, of fast assessment of relevant conditions change, of correction the regulation and successful task accomplishment.

In addition, correlation interdependence between the parameters “flexibility” and “orientation in time” \((r=0.321; p \leq 0.007)\) and study strategy “regulation” \((r=0.262; p \leq 0.030)\) indicates that the more developed the ability to restructure self-regulation system in view of changing conditions, the more the aspiration to live the “present”, to value the time “here and now” and to control oneself is exposed.

Correlation interdependence between the parameter “programming” and study strategy “organisation of study material” \((r=0.299; p \leq 0.013)\) indicates that the more developed the ability to analyse the work methods for achievement of goal, the more often the transformation of study content into various forms (schemes, tables, graphs) is used in study activity. Such ordering provides accuracy and systematization in mastering of study content.

Interrelation of the parameter “motivation for success/fear of failure” and study strategy “planning” \((r=0.289; p \leq 0.016)\) shows the students oriented at avoidance of failure as inclined to less degree of analysing the work methods for achievement of goal, refusal from detalization and specification of developed programmes, low level of independence in the course of their formulation.

Interrelation of the parameters “motivation for success achievement /fear of failure” and “general level of self-regulation” \((r=0.328; p \leq 0.006)\) indicates a higher general level of formation of individual self-control system for success-oriented students. They are characterized by flexibility, conation, and adequacy of reactions in the changed conditions, conscious setting and achievement of goal.

The tendencies discussed are also confirmed when comparing the mean values (tabl.1). In the course of the research 2 groups of students were distinguished: students oriented at avoidance of failure and students oriented at success. As illustrated in Table 1, success-oriented students and students oriented at avoidance of failure definitely differ in all parameters listed above, including the characteristics reflecting the person’s ability to self-organization of his/her activity. The success-oriented students have the main self-organization processes (tabl.2) formed at a higher level, the processes including programming, self-control and results assessment, flexibility, cognition need, modelling as well as operational characteristics of study activity control (regulation, planning).
### Table 1. Results of research of study activity motivation and SPbGU students’ personal orientation (oriented at success and avoidance of failure)

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Group</th>
<th>Mean values</th>
<th>Standard deviation</th>
<th>Standard error</th>
<th>Level of statistical significance (Student-t)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General level of self-actualization</td>
<td>avoidance of failure</td>
<td>47.45</td>
<td>9.2</td>
<td>1.97</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>60.39</td>
<td>8.35</td>
<td>1.39</td>
<td></td>
</tr>
<tr>
<td>Time orientation</td>
<td>avoidance of failure</td>
<td>48.64</td>
<td>18.59</td>
<td>3.96</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>70.00</td>
<td>12.19</td>
<td>2.03</td>
<td></td>
</tr>
<tr>
<td>Values</td>
<td>avoidance of failure</td>
<td>59.00</td>
<td>11.60</td>
<td>2.47</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>69.44</td>
<td>13.88</td>
<td>2.31</td>
<td></td>
</tr>
<tr>
<td>Cognizance need</td>
<td>avoidance of failure</td>
<td>52.27</td>
<td>12.70</td>
<td>2.71</td>
<td>0.01</td>
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<tr>
<td></td>
<td>achievement of success</td>
<td>62.78</td>
<td>14.46</td>
<td>2.41</td>
<td></td>
</tr>
<tr>
<td>Autonomy</td>
<td>avoidance of failure</td>
<td>46.95</td>
<td>18.91</td>
<td>4.03</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>59.72</td>
<td>15.61</td>
<td>2.60</td>
<td></td>
</tr>
<tr>
<td>Spontainety</td>
<td>avoidance of failure</td>
<td>45.18</td>
<td>16.87</td>
<td>3.60</td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>58.81</td>
<td>17.48</td>
<td>2.91</td>
<td></td>
</tr>
<tr>
<td>Auto-sympathy</td>
<td>avoidance of failure</td>
<td>49.50</td>
<td>21.46</td>
<td>4.58</td>
<td>0.02</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>61.28</td>
<td>15.56</td>
<td>2.59</td>
<td></td>
</tr>
</tbody>
</table>
### Table 2. Results of research of study activity motivation and SPbGU students’ study strategies

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Group</th>
<th>Mean values</th>
<th>Standard deviation</th>
<th>Standard error</th>
<th>Level of statistical significance (Student-t)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Planning</strong></td>
<td>avoidance of failure</td>
<td>4.23</td>
<td>2.11</td>
<td>0.45</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>5.75</td>
<td>1.75</td>
<td>0.29</td>
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</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Modeling</strong></td>
<td>avoidance of failure</td>
<td>4.50</td>
<td>1.44</td>
<td>0.31</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>6.03</td>
<td>1.44</td>
<td>0.24</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Programming</strong></td>
<td>avoidance of failure</td>
<td>4.95</td>
<td>1.25</td>
<td>0.27</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>6.89</td>
<td>1.60</td>
<td>0.27</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Results evaluation</strong></td>
<td>avoidance of failure</td>
<td>4.59</td>
<td>1.50</td>
<td>0.32</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td>6.39</td>
<td>1.52</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Flexibility</strong></td>
<td>avoidance of failure</td>
<td>5.41</td>
<td>1.74</td>
<td>0.37</td>
<td>0.00</td>
</tr>
<tr>
<td></td>
<td>achievement of success</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
4. CONCLUSION

The current research results suggest the following conclusions:

Firstly, motivation for success achievement is closely related to students’ self-organization of study activity, which allows students to control their cognitive, emotional and personality resources.

Secondly, students motivated for failure avoidance have their personality characteristics, reflecting the abilities to self-organization, developed to a less degree. In personality structure of such students the system of activity self-organization is poorly activated.

Thirdly, motivation for success achievement and personal characteristics reflecting the students’ ability to self-organization are interdependent. On the one hand, motivation for success achievement is a key element “triggering” the system of activity self-organization when necessary. On the other hand, personality characteristics which determine the students’ ability to activity self-organization appear to be the base for achieving the successful result.

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DISTANCE EDUCATION - A NEW PERSPECTIVE FOR UNIVERSITIES
WITH ARTISTIC PROFILE

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Abstract

In this article, we intend to conduct an analysis of the evolution of distance learning in the Gheorghe Dima Music Academy of Cluj-Napoca, starting from the individual and societal benefits offered by this type of education. Distance learning system has dressed various forms, which gradually developed by integrating information, software and communication including multi-media technologies. Music teaching at university level adopted custom solutions for distance learning, in the form of blending learning. In this study we aim to study this type of distance learning for music education by detailing three organizational levels: the evolution of this form of education in relation to ICT development, distinct elements that this form of education has brought in music education and the different educational technologies that have been implemented in the Gheorghe Dima Music Academy of Cluj-Napoca. We found that activities related to distance learning programs have led teachers and students to continue to adapt to changes in IT. The benefits are not only economic but also qualitative: availability and diversity of programs, the possibility to learn at one’s own pace and to progress in parallel with other activities. The number of students who applied for this type of distance learning programs is constant allowing universities to manage to self finance these programs. Through our distance education systems, AMGD is able to provide other training courses and students can call for support and consult existing content platform in use for distance education.

Key words: higher education, blending learning, music, platform, online

1. INTRODUCTION

Distance learning is a method of learning and development of knowledge via PC that has seen a large development in the arts. This was influenced mostly by the advancement of newer technology, web-based processes and open new opportunities for learning via computer networks and Internet, intranet / extranet, the multimedia, which allows transmission of text, image, animation, streaming video and audio. E-learning is seen in various programs called Integrated Education: CBT (Computer-Based Training), IBT (Internet-Based Training) and WBT (Web Based Training). In these systems, the Internet is considered an electronic market, where there are programs that involve the transmission of media training, new opportunities to exploit (Cohen 2001). New technologies are considered to be a
vital engine for development of the organizations (Geoffrion et al. 2001) including universities, knowing today's society digitalization of all areas of human activity (e-business era, e-commerce, e-business project, e-business applications, e-business software), a fact which allowed the emergence of new business opportunities in the educational field.

The evolution of e-learning has led the transition from computer-based programs (Based Learning / Training) which involve the transfer of knowledge through computers to the newer systems developed to allow computer-supported collaborative learning (CSCL). Thus, universities have developed programs that encourage joint development of knowledge through various connectivity options (Internet, intranet, extranet), sharing of knowledge (which can then be distributed through various multimedia), and last but not at least the changing role professor and replacing it with the facilitator of knowledge.

It is considered that the pioneers who allowed the e-learning are those who created and developed online courses early, such as those developed by Murray Turoff and Starr Roxanne Hiltz, in 1970 and 1980. At the New Jersey Institute of Technology (Hiltz, 1990), University of Guelph in Canada and the British Open University (Mason et al., 1989), University of British Columbia (Bates, 2005), teachers have always used online discussion between students.

Also there were a number of practitioners, such as: Graziadei (Graziadei et al. 1993), Harasim (Harasim et al. 1995) which emphasized the use of learning networks for knowledge construction. They described the possibility of delivery by electronic mail of online courses, along with tutorials and project evaluation. Evolution of e-learning was influenced by ICT development in three distinct phases in Table 1 [36-40]:

<table>
<thead>
<tr>
<th>Steps</th>
<th>Features elements</th>
<th>User role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web 1.0</td>
<td>Using the Internet for publishing and distribution of information (books, news, music, etc.) by dragging them to digital format;</td>
<td>Consumer</td>
</tr>
<tr>
<td>Web 2.0</td>
<td>Trend to shift the World Wide Web technology and web design that aims to enhance creativity and ensure safe information exchange and better functionality.</td>
<td>Creator</td>
</tr>
<tr>
<td>Web 3.0</td>
<td>Requires an enormous data integration and use in an innovative way, by using the Internet as a data platform, fast and accessible for every day.</td>
<td>Integrator</td>
</tr>
</tbody>
</table>

1.1. Communication technologies used in E-learning

In universities, e-learning is considered to be an educational method through which an individualized knowledge exchange between the mentor (professor) and the apprentice (student) is achieved by the on-line feedbacks and interactions. Later on, this concept was named e-education which include e-teaching and e-learning. E-learning developed firstly in universities from United States, United Kingdom and Canada and spread over rapidly as it supposed to go over the geographical and historical borders.

It was particularly welcomed by universities because of its capacity to adapt to individual issues, to respond to personal challenges of students and to use in a highly efficient manner a problem-solving
process. E-learning can be used successfully in every dynamic organization in a variety of domains: acquiring high qualifications, specializations or retraining courses.

The university of the future is intimately linked to the development of e-learning and for that both an active support from the university staff to professors and an investment in newer technologies that allow to develop such activities (Cambre and Hawkes, 2001). Kaye (1989) in his work, suggested four predictive markers for successful computer-based activities using e-learning: 1). Knowledge of the technology used: how to stock, save, access, manipulate and send the data and; 2). Use of computer-mediated communications; 3). Establish a hierarchy of rules and values of the working group, scheduling a plan of activities and monitor the progress; 4). Learning is successful if a part of the process is dedicated to individual work and if it is not entirely based on the on-line access.

It is considered that the most demanding universities will be those in whom an important part is invested in these new multi-media technologies because they will able to offer a variety of opportunities of learning systems including e-learning and will adapt easily to societal and environmental changes (Roswik, 2010; Laurillard, 2010).

Investing in these technologies means not only the possibility to acquire them but also the possibility to develop internally personalized technologies that could handle structured materials and made possible to stock and retrieve the information in a optimal way for e-learning (by subject, by type, by educational paradigm, by use, by impulses to learn), by developing software for different purposes (design, development, evaluation, educational innovation) (Hinostroza et al, 2000).

Hence, the e-learning should not be regarded as an other system trying to mimic what is happening in classrooms but as an "alternative" to produce an interactive environment which facilitate the learning process (through the development of an appropriate context, by transmitting the knowledge through a spiral by using modular, flexible programs) (Spektor-Levy et al, 2006).

An e-learning coordinator will use the potential offered by the new technologies introducing and using those media that are the most appropriate to the need of the students and their object of study. (Spektor-Levy et al, 2006; Bates, 2005; Friedman et al., 2003; Cambre, 2001; Hinostroza et al, 2000).

ICT was rapidly included in the music education because faculty staff was very receptive to adopt it and to include it in the curriculum aiming both to stimulate a creative part of music process by producing electronic sonorities (electronic music) and to facilitate the music teaching and education. Research has been done by the synergic action of musicians, technicians, and engineers working as a unique team to produce and to implement different educational supports (software, multi-media applications, and educational platforms). This has been done in order to satisfy the requirements for: on-line materials for different music domain, theoretical or applicative domains, and training programs to achieve the required artistic competency for the bachelor arts certificate.

1.2. Challenges resulting from e-learning

Many opinion leaders (Goodwin and all, 1993, Hirschbuhl, 1994 și Wolcott, 1997) advocate the use of e-learning to some extent in all university. However, researchers outline a new phenomenon occurred in parallel with the implementation of the e-learning process: the fear of the faculty staff and professors who do not wish to assume a part of risk (Hirschbuhl, 1994), the discomfort regarding a perceived lack of ability of teaching by using new methods and technology (Clay et al., 1995, Munson, Poage, Conners și Evavold, 1994). New things and changes provoke anxiety and fear to face any possible expected or unexpected difficulty induced by using ICT, as highlighted by Rutherford and Grana in 1995.
Economic pressures related to a relative high cost for users and buyers of the new technologies’ platforms as well as political strategies that not include the e-learning in the agenda might impede the implementation. E-learning combine the multi-media methods and internet and offer a variety of solution in order to increase the level of knowledge and the level of future performance (Rosenberg 2001).

Faculty staff and providers of IT have a major role as they should provide support to professors and to facilitate the context needed to develop their abilities for e-teaching and e-learning (Lankshear şi Snyder, 2000).

Following the evolution of the teaching / learning specific distance learning can delineate several distinct stages:

- Predominant use some form of asynchronous forms of communication, i.e. a text-based approach that is still frequently encountered (Feenberg 1999). This view was shared by Palloff and Pratt (2001), who reported that student evaluations of the e-learning systems have demonstrated their ability to engage with their peers on various topics of discussion asynchronously. Layton (2000) describe a new generation of students who are more independent, with more open mind, more tolerant, and more adventurous than most of the twentieth century generation and therefore the most attractive solutions for e-teaching have to be found. He describes that these students through e-learning should: be able to find information, understand the information they find, to assess the reliability of information, and to see how to apply it in order to answer any pressing questions. They also must be able to communicate their ideas through new technologies, to be able to understand others' ideas and concepts, to discern between their concepts and those of their peers, to solve problems and create new concepts. Friedman (2003) believes that technology transfer activities are a source of economic development, contributing to the development of universities.

- The interactions between components of a university (Teachers-Students-Infrastructure), caused by the transition from old systems to the new education (Web-based system, assessment and learning trough artificial intelligence mainframe systems) can contribute to competitiveness and performance (Peacock 2008; Jäntschi at al, 2007 and 2008). In studies by Stronge (2007), we are talking of characteristics and behaviors of effective teachers, who can produce large gains in learning and Finlay (1995) describes the management systems to support learning.

The increasing importance of education through distance learning in music in Romania and in particularly at the Gheorghe Dima Music Academy of Cluj-Napoca is highlighted: the population participating in this form of education is interested to acquire qualified specialization or to achieve professional conversions (Nedelcut, 2012).

2. MATERIAL AND METHODS

This article aims to provide an analysis of the dynamic development of distance education learning (in different specialty programs) at the Gheorghe Dima Music Academy (A.M.G.D.), because of the experience achieved through this type of education started 12 years ago and its uniqueness in the Romanian context as it is the only distance education program developed in an institution of higher education with artistic profile in Romania.
To achieve this we established the following strategies:

- Analysis of the distribution of the number of enrolled students in the AMGD and mode of evolution, i.e. the statistical comparison of the evolution of number of students enrolled in the full attendance programs vs. partial attendance (with tax and without tax) vs. distance education learning systems (with tax);

- Analysis of the dynamic evolution of different specializations that were or became organized as distance learning and to describe their particular setting (to distinguish between the teaching elements between full attendance programs (classical) and distance learning programs);

- Description of electronic educational resources employed in distance learning programs.

Distance learning from A.M.G.D. developed only on one level of certified program–licensure program and represents a significant share in the work of education on average between 30-40% of total (Figure 1).

![Evolution of the forms of education students](image)

Figure 1. Evolution of the number of students from A.M.G.D. - Undergraduate education [33]

It is necessary to specify that in previous decades in Romania there were a small number of institutions which provided music education to licensure degree level (3 institutions) which led to a particular situation where a relatively large number of music teachers worked in non-academic education with a status of unskilled employers. Therefore, the first organized programs of distance education was intended to provide distance learning to those less-qualified teachers who are in this situation. The mean age of participants in these distance learning courses are depicted in Figure 2.

According to Romanian legislation, distance learning programs in university should be self-financing programs: students are enrolling in courses curricula components by paying fees related to their studies. Following the evolution of tax education in institution, we see that it share a significant part in the education license, during the 5-year period studied (2008-2012).

In the category of students paying taxes (Figure 3) were included both students enrolled in the full-attendee programs and in the distance learning programs: the largest part is that of students not paying tax followed at a distance of approximately 20-25 % of students paying tax.
Comparing the number of students paying tax, enrolled in the same full-attendance programs and those paying tax, enrolled in the distance–learning programs, we found that the distance learning programs dominate with the largest proportion of students enrolled (Figure 4). This situation highlights the interest shared in distance learning programs and the need to justify it to policy makers and to provide such form of learning to the community.
In the second part of the present work, we compare the characteristics of the full-attendance program (conventional learning) and those of the distance learning programs from the AMGD. The main elements that differentiate between these two educational programs are presented in Table 2.

Table 2. Comparison of conventional learning/ distance learning

<table>
<thead>
<tr>
<th>Conventional learning</th>
<th>Distance learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Students physically attend classes;</td>
<td>- Students participate in a variety of locations and can &quot;attend&quot; courses offered simultaneously at several educational institutions;</td>
</tr>
<tr>
<td>- Groups are determined according to a program (hours / schedules);</td>
<td>- Participation is achieved by accessing courses, online discussion group and then by participating in a low-frequency regime to study teacher-assisted;</td>
</tr>
<tr>
<td>- Students are encouraged to work both individually and in groups;</td>
<td>- Students can choose to work individually or in collaboration with people who may or may not be present in the normal way;</td>
</tr>
<tr>
<td>- Courses are synchronous and teachers and students interact in real time;</td>
<td>- Students can follow a nonlinear path and pace that meets their individual needs;</td>
</tr>
<tr>
<td>- The learning is determined by the teacher and the institution.</td>
<td>- The teacher has the role of facilitator;</td>
</tr>
<tr>
<td>- Students follow a linear pattern influenced by the needs of the community and the planning done by each teacher;</td>
<td>- Teachers can work in several programs, which contribute to significant reduction of wage costs and consequently the final cost incurred by the student.</td>
</tr>
<tr>
<td>- Students develop skills, within the curriculum;</td>
<td></td>
</tr>
</tbody>
</table>

One of the challenges of distance learning system was the level of skills of teachers involved in the program, the use and implementation of ICT in music education. Assisting training programs for the
use of IT and training sessions for the professors involved in the e-learning activities were constantly provided by the university.

Currently, according to statistics made at the end of training courses, we have competent teachers on three distinct levels: high, medium and low (Figure 5):

![Figure 5. Percentage of professors involved in e-learning programs by different levels of competency in the usage of I.C.T.](image)

Analyzing how evolved teaching strategies of teachers who have been involved in distance learning we found that they facing the need for change, they moved from their original role as a leader-teacher employing methods as attributes (share knowledge, skills instructor, give examples, result driven, sandwich method, soft skills and hard skills taught separately; absolute solutions, answers) to the role of facilitator (Figure 6).

![Figure 6. The teacher as a facilitator in e-learning](image)
The role of facilitator is provided through a teaching method based on incitement to experience and practice, critical thinking and self-searching for answers, all of those being centered by Motivation, Concentration, Self Judgment, Appreciation, sharing and evoking emotions and expectations, which is different from the old style of teaching.

Studying the work of these teachers shows that they performed several types of activities: theorizing the transmission of basic audio video tracking of scores from various artistic creations, training and acquiring of knowledge through practice. These activities include: orientation (pre-knowledge, pre-conceptions), planning (setting goals, targets formulating small), process control (asking questions, comparing way of controlling your learning process), testing (developing test questions), diagnose (analyzing your problems, difficulties with the subject matter), coaching (discussing with fellow students study the solution of your problems) evaluating (developing test questions), reflecting (compare your way of studying with fellow students way of studying), self control (doing tissue activities your self), external control (teacher has to stimulate you to do tissue activities).

In the music education the distance learning program adopted is “bleanding” learning whom standards ad organization of this type of training is rigorously defined nationally. Under the law, is required to organize face-to-face meetings, in which according to a predetermined algorithm the number of hours stipulated in the curricula of the same specializations is quantified.

Three distance learning specializations, each with a different evolution in the number of students (table 3) have been have been developed and approved in AMGD.

Table 3. Distribution of university students per year depending on specialization

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Education (Pedagogy)</td>
<td>36.41%</td>
<td>28.92%</td>
<td>29.86%</td>
<td>29.25%</td>
<td>28.76%</td>
</tr>
<tr>
<td>The singing (Musical theatre)</td>
<td>36.91%</td>
<td>43.39%</td>
<td>32.46%</td>
<td>32.39%</td>
<td>32.44%</td>
</tr>
<tr>
<td>Instrumental Performance</td>
<td>26.68%</td>
<td>27.69%</td>
<td>37.68%</td>
<td>38.36%</td>
<td>38.80%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

The analysis of table 3 show that pedagogical music and scenic art has declined while the number of students in specialized instruments has been increased; this is partially due to the interest of students in the full-attendance programs that allow them to develop competence in the field of interpretations as they are in fact former graduates or students from theoretical specializations.

The next premise of the study was the analysis of the implementation distance learning that involves teaching style governed by the following principles: involvement in planning and implementation, climates based off respect, collaborative modes of learning, learn build with use to experiences, critical reflective thinking, and participatory medium, self directed learning. Emerged as an effective tool for university, online education has replaced the original classic distance learning methodology, written material being transcribed onto CDs. Subsequently, the possibility of the internet connection
has opened opportunities for the development of collaborative environments to effectively replace classrooms into educational platforms.

The systematic organization of the electronic platforms for distance learning is presented in Table 4.

<table>
<thead>
<tr>
<th>Options</th>
<th>Subjects and / or related multimedia</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Education (Pedagogy)</td>
<td>- Disciplines can be found according to year of study, according to the curriculum*;</td>
<td>Each discipline includes a breakdown of the modules and then the unit, there are and how to assess its level of assimilation of knowledge;</td>
</tr>
<tr>
<td>The singing (Musical theatre)</td>
<td>- No separate annex multimedia (for specialization Singing) and video tutorials (for specialization Instrumental Performance).</td>
<td></td>
</tr>
<tr>
<td>Instrumental Performance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>User Guide</td>
<td>- Guidance on use of electronic platform, Study guide for developing resources in ID technology, Ethics guide, Composition courses and teaching aids in multimedia form;</td>
<td>Useful information to facilitate process</td>
</tr>
<tr>
<td>System Assessment Questionnaire**</td>
<td>- Includes multiple-choice questions using a scale of importance and requiring the subject answered questions both closed (with the possible response options) and the open (open-response);</td>
<td>Needed to analyze the degree to which distance education system needs students</td>
</tr>
<tr>
<td>Other</td>
<td>- Includes optional courses of study possible.</td>
<td>Provides information about these courses, modules, units of learning</td>
</tr>
</tbody>
</table>

*subjects after each student is required to evaluate both the presentation and development of assisted activities (face to face) and student-tutor relationship of collaboration, course coordinator;

**another evaluation is related to the administrative system, how information processing and transmission of materials.

For example, in Figure 7, the folder for Canto specialization was taken from the distance learning platform in order to show the subjects of study for that year and at the end of the first window is a window that allows you to add or change their courses.

Other opportunities for study and information for students is facilitated by educational platforms music created through the efforts of European consortia, through projects in which AMGD was partner: Vemus (http://www.vemus.org), Prelude (http://www.prelude.ea.gr), E-learning voice (http://www.operasvoice.com). Designed and developed by a research contract with National funding (through exploratory research project ideas, financed by NURC, Exploring online educational resources to adapt to musical education) platform DIMA (Direct Impact Multimedia Application) has opened new opportunities for music education in AMGD, being an electronic database that was created by the whole professional staff of the institution. The main fields of study developed by DIMA platform and can be used by students in distance learning are presented in Table 5.
Table 5. Classification of study material as D.I.M.A. platform [34]

<table>
<thead>
<tr>
<th>Areas of study</th>
<th>Subfields of study</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUSICAL INSTRUMENTS AND CANTO</td>
<td>Accompaniment; Canto; Piano; Guitar; Trombone; The Orchestra; Percussion; Piano;</td>
</tr>
<tr>
<td></td>
<td>Tuba; Oboe; Organ; Cello; Violin; The Viola.</td>
</tr>
<tr>
<td>COMPOSERS AND STYLES</td>
<td>Transition of Music from Renaissance to Baroque; Renaissance; Baroque; Classicism;</td>
</tr>
<tr>
<td></td>
<td>Transition of Music from Classicism to Romanticism; Romanticism; Polystylism in</td>
</tr>
<tr>
<td></td>
<td>20th Century Music; National Schools; Postromanticism; Verism; Atonalism; Dodeca-</td>
</tr>
<tr>
<td></td>
<td>fonism, Serialism; The stochastic concrete electronic music; Aleatorism; Neo-</td>
</tr>
<tr>
<td></td>
<td>classicism; Minimalism; Postmodernism; Composers; The Evolution of the Opera</td>
</tr>
<tr>
<td></td>
<td>until Puccini; Romanian music; JAZZ; Melotherapy; Music and Medicine.</td>
</tr>
<tr>
<td>MUSIC THEORIES AND APPLICATIONS</td>
<td>Semigraphic aspects in romanian pianistic works of the 20th century; Harmony;</td>
</tr>
<tr>
<td></td>
<td>Musical forms; Musical notation; Folk music; Ornaments; Tonal systems; Rhythm;</td>
</tr>
<tr>
<td></td>
<td>Aesthetics; Dramaturgy; Lied; Music therapy; Figured bass.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>I.C.T. = Information and Communication</td>
<td></td>
</tr>
</tbody>
</table>

Thus through this systematization, students can browse and access information, may acquire or improve knowledge because there are many educational materials online as audio, video, music,
stylistic analysis. For example, in Figure 8, we show in detail what is proposed to study for the specialization "Piano" in the field of study "Musical Instruments".

These courses dedicated to music within AMGD allow students to access the computer database according to their interest. The common characteristics are shown in Table 6:

**Table 6: Features used in distance learning courses**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Allow the formation of skills, skills and education via the computer</td>
<td>(for teaching to facilitate learning);</td>
</tr>
<tr>
<td>- Facilitates interpretation through media (CD or web browser)</td>
<td>and the acquisition of visual benefits during learning (negative, interactive exercises, examples of video / audio);</td>
</tr>
<tr>
<td>- Using training methods based on the concept of collaboration,</td>
<td>encouraging teamwork, establishing specifications and work instructions;</td>
</tr>
<tr>
<td>- Instructions are given to structure content for the development of</td>
<td></td>
</tr>
<tr>
<td>- Formative learning is stimulated by the explanations given by the</td>
<td>written or recorded on CD;</td>
</tr>
<tr>
<td>- Ensure personal performance improvement and acquisition of skills</td>
<td></td>
</tr>
<tr>
<td>- Provide educational elements: information, tips, experiences;</td>
<td></td>
</tr>
</tbody>
</table>

**Figure 8. Piano study materials in the "Musical instruments and singing" [34]**

**Aspects of playing the piano**

- 1 Means of musical articulation
  - 1.1 Different types of touch
    - 1.1.1 Staccato
    - 1.1.2 Non legato
    - 1.1.3 Portato
  - 2 Particularities of Haydn's notation regarding the articulation
    - 2.1 Wedge and staccato-point
    - 2.2 Staccato and portato
    - 2.3 Detailed notation of articulations in Haydn's works
      - 2.3.1 Articulation signs from the beginning to 1766
      - 2.3.2 Diversity in articulation
3. DISCUSSIONS AND CONCLUSIONS

The accessibility and availability offered by distance learning systems in the AMGD explain a continuing demand for this type of education because of the multiple benefits it provides to students: flexibility, access online self-paced learning. There are numerous advantages at institutional level: lower training costs, opportunities for continuous development and continuous improvement of the supply of courses, teaching materials etc..

Distance learning programs show that students were able to access information, to develop their own level of musical training and to enter into various communities through which it develops and acquires knowledge ("learning about"). An institution may provide students the opportunity to practice / practice by their own experiences (there is a rich archival audio, video, because rich experience and internal and external collaboration on issues of artistic creation). This allows and encourages communication, debate, discussion, exchange of views ("learning to use"), to develop skills, abilities and skills, teacher acting as mediator and facilitator of knowledge.

Benefits brought by the introduction of distance education in AMGD are not only economical but also qualitative regarding the training of teachers by using increasing levels and requirements of teaching methods and using technologies that enable continued development of teaching skills. Another direct benefit is for students (benefiting from a diverse teaching skills and to allow growth personal skills) and not at least at the university level by introducing modern technologies in the teaching system increasing the number of students through teaching opportunities offered.

Through distance education system developed in the department of distance education, AMGD is able to provide other training courses and students can call for support and consult existing content platform in use for distance education.

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ORGANIZATIONAL CREATIVITY AND IDEA GENERATION THROUGH INVESTING IN ALUMNI POTENTIALS CAPITALIZATION

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73 Dorobantilor Str., Cluj-Napoca, Romania

Abstract

The university – alumni relationship creation, maintenance, development and proper capitalization, to the university’s benefit, is a continuous source of creativity and innovation infusion. Based on five-year documentary research, proof has been gathered of the importance of involving the alumni community in supporting and investing in the university, in both its curricula improvement and research activities, as well as in further expanding its services and partnering within different activity sectors of the society. This paper shall reveal how these infusions from the alumni are linked to the competitive advantage of the university, in the area of constantly improving its self-defining and sustainable evolution, through continuous learning, progressing and growth.

Key words: alumni creativity, university sustainability, curricula up-grading

1. INTRODUCTION

Both creativity and innovation, as concepts, have many definitions, including with respect to several areas of activity (business, technology, art, science, politics, education, social, psychology, economics, etc.). Basically, however, the difference between them is summarized in the famous definition of Theodore Levitt: "Creativity is thinking up new things. Innovation is doing new things" [Levitt, 1963]. In 2009, Mark McGuinness developed this quintessence by noting that while creativity is about new ideas, innovation brings the latter into action and gives them added value, by putting them into practice [McGuinness, 2009]. In other words, while creators are "dreamers", innovators are "producers". To an organization, however, it is important to capitalize on both forms of novelty, i.e. ideas and their materialization. In this regard, Teresa Amabile suggests three key aspects: expertise, creative competence and motivation [Amabile, 1997]. Furthermore, as far as the materialization of creativity and innovation is concerned, three categories are generally accepted: scientific [Moles, 1957], artistic and conceptual.

Based on these benchmarks, education and training are areas where creativity and innovation in preparing of new-generation professionals are not just stimulated and fostered, but they are even used as working "tools" in specific activities: teaching-learning and research. Basically, formation and development of human capacity cannot exist without these "ingredients". Therefore, universities, that are the institutions that grow experts for society, are also organizations that must constantly create, innovate and learn. They mould both specialists and leaders for the future society, but also shape the society-to-be, through the input scientific research can provide.

Therefore, any human creativity and innovation source and resource, especially in the academic environment, should be identified, stimulated, drawn in, capitalized upon, developed and rewarded.
Thus, in our view, alumni are both a source and a resource for universities, [Stefanescu, Candea and Candea, 2009], with multiple innovative valences, which should be treasured, maintained and capitalized [Stefanescu and Manolache, 2011].

2. ALUMNI VALENCES OF CREATIVITY AND INNOVATION FOR THE UNIVERSITY

The experience of prestigious universities worldwide, which capitalize on their relationship with alumni since set-up – more than 200 years ago, in some cases –, shows that maintaining communication with them can bring great institutional benefits, for competitive advantage and sustainability [Stefanescu, Candea and Candea, 2010 a & b].

First and foremost, alumni are a community available to university management since their student stages. Therefore, the extent to which this community – ever growing with every passing year and every new generation of graduates – remains faithful, dedicated, and supportive of the university largely depends on how the alumni are trained and educated by the university management. One should not forget that throughout their lives, these alumni perform in various professions and positions, but also in different places in the world. Therefore, all this wealth of knowledge, experience and coverage may also benefit the university, provided the latter knows how to attract it properly [Stefanescu, Candea and Candea, 2011]. It is therefore important for the academic management to be aware of the perennial value of the alumni community as an inexhaustible and invaluable source of resources.

As education and research are the major activities universities develop, here are some key aspects as regards the areas and ways in which alumni can bring their creativity input to the university – to come up with ideas and innovation, to suggest actions and have a say in their development:

1. **Adapting curriculum to market requirements:**

Alumni are direct messengers of the university in socio-professional context. Most times, the labor market absorption rate of graduates measures the quality and relevance of academic education. The rate of graduates’ absorption by and integration in the labor market, in the fields they were trained for, is in fact one of the criteria for assessing the services of a university for the latter to rank in the Top 500 universities in the world <http://ed.sjtu.edu.cn/rank/2004/2004Main.htm>. Even in Romania, in 2009, this became one of the criteria considered in the universities national accreditation system (ARACIS <www.aracis.ro>) assessments, and it also represents the objective of a national programme for monitoring graduates employment in the labor market [APM, 2009], programme that includes half of the higher education institutions in the country.

Practice at the workplace – measuring the extent to which knowledge can recommend a graduate for a job and allowing the alumni to prove that such knowledge and skills acquired in the university are useful and relevant for the proper practice of a profession – gives the right measure of the value of the academic curriculum. Moreover, once employed in an organization and integrated in society as professional service providers, alumni are also those who can send universities feedback on the needs of human resources training and specialization, from the reality of their environment and its development trends. Therefore, keeping in touch with alumni and consulting them on the impact of the knowledge acquired in the – standard and/or continuous – academic training represent the easiest and also the most valuable means by which universities may constantly adapt their educational offer to real labor market requirements. The concerns, experience and practice of worldwide universities such as
those of The Netherlands [Saunders-Smits and De Graaff, 2012] or the UK [PITAR, 2002-2004] come in support of those mentioned herein before.

Mention should be also made of the "Teaching Excellence Project" of Fu Jen Catholic University, New Taipei City/ Taiwan <http://140.136.240.107/english_fju/>, by which, through the "Counseling and Learning Resources System", alumni surveys are made to collect data and information, suggestions and proposals for programmatical curriculum review and career planning. Mention should be also made of the "International Corner", which aims to collect data and information from alumni considering their international experience, as contribution in terms of cross-cultural learning. Similarly, heed is also given to cross-disciplines integration and cooperation, through opinion polls and encouraging experience sharing, as essential elements in building graduates’ capacity to adapt and work in a world of globalization.

2. Modernization of teaching techniques:

Concerns for improving and modernizing educational curricula target not only their content, but also teaching methods. In this respect, besides studying and applying methods proper to universities – mainly activities developed by the Department for (Continuous) Training of Teachers and Trainers and activities developed by the letter for their own continuous training, specialization and development – alumni intervention in this process can also provide useful inputs of novelty. This is the case of Texas A & M University/ USA, through the activities of the "Center for Teaching Excellence" <http://cte.tamu.edu/content/projects>, where the contribution of alumni through three projects dedicated to the enhancement of teaching and student learning is widely acknowledged.

Mention should be also made of the synthetic vision on asking alumni’s opinion in evaluating the improvement of teaching methods and educational programme portfolio at Winston-Salem University, North Carolina/ United States <www.WSSU-CELT.edu>, made by the "Center for Excellence in Teaching and Learning" [Zubizarreta, 2008].

3. Course manuals diversification, publications (books, magazines, scientific papers):

Along with and deriving from the two already mentioned advisory activities, the impact of the latter on improving academic education can most evidently materialize also in the diversification of the thematic content and coverage areas of the course manuals, or even of other publications. Conducting studies and surveys in this respect among alumni is also useful. Specifically, however, alumni can have a great say in developing course manuals for continuous education for adults – as a special category of "students".

Most universities support the idea of continuous training, specialization, development and diversification of knowledge and skills of adults (as higher education graduates), through postgraduate courses, master degrees and Ph.D.’s. Few are those who include in their educational services those addressing adults, by intensive courses, certificates of qualification in a particular trade. Yet, the Ecological University of Bucharest/ Romania <www.ueb.ro> provides an Environmental Officer certification course, accredited both in the national and the European Union education and labor system <www.cnfpa.ro>, held over a short period of time. This very exercise of working with adults in intensive sessions allows course support materials, as well as the thematic portfolio and teaching methods to be enhanced, improved, diversified and modernized by alumni contributions, as "students". Interacting with the latter both during the courses and through evaluation questionnaires may have a significant impact on enhancing the quality of academic education, based on direct information.
4. Developing practice and research means and domains:

With certain companies, recruiting future young employees by monitoring and selecting them since the university years is a system already well known and relatively widely spread. The more so as such recruiting can be made by former graduates, willing even to invest in universities to support the educational process. Thus, many educational activities can be conducted with alumni support, be it donations of books, facilitation of practice programs, graduation papers, granting of scholarships, participation in scientific events, or research. Moreover, the needs of expertise and specialized assistance that alumni can meet with at their workplace may become subjects of research or partnership agreements between the relevant institution and the university. Furthermore, the very elaboration of programmes for students’ practical stages and of a thematic portfolio for graduation papers or for teaching research can be made in consultation and together with alumni. Launching such an initiative and opening organized access thereto is enough. A contest of ideas could be in itself such a challenge, as is the case with many universities in the world, and the research system in general. The Kathryn Sandahl Philp Award for Creativity and Innovation is such an example. Established by the daughter of the respective relevant alumna of the Faculty of medicine of University of Nebraska/ US <http://www.unmc.edu/nursing/Kathryn_Sandahl_Philp_Award_for_Creativity_and_Innovation.htm>, the award aims to support innovative contributions in academic activities in such areas as teaching, research, or practice and services.

5. Summer schools, creation camps, award contests, thematic clubs, fellowships:

It takes only one step from involvement in education, practice and research, to expanding alumni opportunities to bring their contribution to the university, through creativity and innovation, during related events, such as programmes on campus, or even outside campus.

At the Emory University <http://www.emory.edu/home/index.html>, in Georgia, Atlanta/ US, for example, several programmes, options and facilities to stimulate creativity have been developed besides the compulsory curriculum, especially in the field of arts <http://creativity.emory.edu/student-alumni-resources.shtml/>. Here are some of them: extracurricular creation workshops in campus, bringing together both students and alumni, in order to encourage them to apply for grants, scholarships, practice programmes, specialization, contests, awards in any field – music, theatre, visual arts, film, dance, cultural events.

To this effect, the volunteer activities that alumni usually perform, especially after retirement, can be themselves sources of training, innovation and creativity. Thus, at the Rochester Institute of Technology, New York/ US, for example, the Board of Directors of the Alumni Association itself has established an "Innovation and Creativity Prize" – incentives and involvement rewards for volunteer alumni <https://www.rit.edu/alumni/volunteers/board/prize.php>.

6. Communication and relationships:

The alumni network, including the contact data and professional references that all the graduate students have received along the years, can even be organized as a social network – a forum for discussions, exchange of ideas and experience, collaboration between partners, etc. At Kennesaw State University, Atlanta/ US <http://www.kennesaw.edu/>, this principle has driven the creation of the “Coles Innovation Forum” <http://colesinnovation.org> as a global network of professionals, but also that of a “Centre for Business Innovation and Creativity”, both being especially dedicated to the alumni, to the exchange of ideas and experience they can share in any area of interest and concern – both from their professional and their private life. For example, there are shared: case studies, good practice, lessons learned, success stories, methodological guidelines, etc.
7. Community collaboration and involvement:

The links between the alumni and their connections within each life and interest community they belong to can provide the university with an extremely valuable infusion of relationships, support and social capital. As we have underlined before, the more this aspect refers to the international dimension of such connections, the more important it becomes. One example is the Tilburg University from The Netherlands, where these aspects are analyzed as having a strategic impact in the management of its human resources <http://www.tilburguniversity.edu/nl/over-tilburg-university/profiel/redes/05-duynschouten.pdf>.

Another example comes from the Manual Arts High School from the 7th District of Los Angeles/US, a school that proposes a project for the teachers, alumni and parents to take over the initiative of establishing the public schooling plan of their community [Gomez, 2012]. By organizing a number of consultative meetings with the representatives of each activity in the community (students, local police officers, parents, business owners, social service workers, university affiliates and educators), the project initiators are following the goal of creating, together, a vision for this school <http://schoolsforcommunityaction.org>. This is also an example of social responsibility in education.

Let’s not forget that the alumni are former students, pupils and children who have become professionals, leaders and/or simply members of the civil society, parents and future pensioners who, in turn, are forming generations while transmitting to them the values that will shape the future society. Therefore, they shall also be treated as human resource of the university, both as its internal (while students) and external (as graduates) stakeholders [Stefanescu and Candea, 2012].

8. Attracting students, teaching staff, and researchers:

The alumni’s resources and creativity can also be used for recruiting university staff from the very same community, as well as for attracting new students. This is the example of the Purdue University/US, where voluntary alumni went to 160 high schools in 1995, trying to attract students to their university through a programme called “PART – Purdue Alumni Recruiting for Tomorrow”, a programme whose foundations they had laid during the same year – <https://www.purduealum.org/Services/Services/StudentRecruitmentPART/tabid/101/Default.aspx>.

Using the resources of the alumni, especially of those who are well known in society and who can empathize with the families of the potential future students, is also recommended by studies on attracting students from South Africa, for example <http://www.gmac.com/why-gmac/gmac-news/gmnews/2009/july/family-matters-when-recruiting-in-middle-east-africa?Page=3>.

Resorting to voluntaries from alumni networks in order to promote the image and services of a university and to increase the chances of motivating the “passive clients” is a well recognized method <http://www.experience.com/corp/press_release?id=press_release_1148561935466&tab=en1&channel_id=about_us&page_id=media_coverage_news>.

And the examples can continue.

9. Continuous learning:

Although we have already made a few comments along this line, we consider it appropriate to underline that, as far as the interest in continuous training and learning is concerned, a particular example is the programme of the “Centre for Creative Leadership” (CCL), with campuses in North Carolina, Colorado and San Diego/US, in Belgium/Europe and in Singapore/Asia. This institution is particularly important precisely because it addresses the global community, with an exclusive focus on
leadership education and research and unparalleled expertise in solving the leadership challenges of individuals and organizations everywhere. More than in any other university, its graduates become international leaders. For this reason, it is a centre where any alumni can acquire the necessary skills for leading the training of other people as leaders, and for prefiguring the society we want to build, one that would meet our expectations and those of many future generations to come


10. Academic management, organizational culture and branding:

Last but not least, the alumni can contribute to the university’s image; they can bring ideas for organizational efficiency and valences of creativity regarding its strategy and management. It is not by chance that the alumni are the object of a special academic management strategy, aimed at networking with them and capitalizing on their valences. Nevertheless, from our point of view, it would be more appropriate for the university strategy and management to include the alumni in their entire sustainability policy [Stafanescu, Candea and Candea, 2011].

Regarding the valuation of the alumni’s resources, especially with respect to creativity and innovation, an example of strategic approach to capitalizing on the alumni’s valences is the management’s attitude at the McCombs School of Business from the University of Texas, Austin/ US <http://www.mccombs.utexas.edu/About/Our-Vision/Strategic-Plan-2009.aspx>. If, as we stated in the introduction, innovation and creativity mean blending ideas and practices in order to support the development of science, technology and social policy, arts and entrepreneurial initiative, to the support of well-being and competitiveness, each faculty of the above university is combining all these concepts. Moreover, the holistic approach of integrating them all in each curriculum and in the society at large means promoting an innovative and stimulating environment throughout the community. From 2002-2007, Austin’s patent activity outpaced the national rate and, in 2006, the Wall Street Journal ranked Austin third among the American nation’s most inventive cities. This preoccupation has also driven the creation of a “Centre on Innovation and Creativity”, whose mission is to generate and disseminate knowledge about the role and processes of innovation and creativity in a modern economy. It is at this level that the alumni become an essential factor in supporting and disseminating this mission, as well as in implementing its results within the society.

3. INVESTING IN THE ALUMNI - MOTIVATION

Everything mentioned above, as well as the examples provided, are but a few illustrations of the resources and valence potential of the alumni that can be placed at the service of the university, in order to support the requirements and displays of creativity and innovation, in order to evolve. For all these capitals to be put to good use, all that is needed is for the alumni to be targeted by the university management, to be claimed, attracted, involved, motivated, maintained, cultivated and stimulated.

The same worldwide experience of prestigious universities, but not solely, demonstrates that there are many ways in which the university can capitalize on the alumni and stimulate them to contribute to a mutual evolution.

If we are to be guided by Robert Franken’s statements, three are the reasons that can motivate the human being to create, to innovate:

- The need for novel, varied, and complex stimulation;
- The need to communicate ideas and values;
The need to solve problems [Franken, 2006].

If these are fundamental coordinates, it would appear that, beyond establishing a strategy and a plan to this purpose, the most important aspect in motivating the alumni to contribute to supporting, developing and promoting the alma mater is their recognition.

More than being an example for the very meaning of alumni management and capitalization, at the MIT – Massachusetts Institute of Technology/ US – the dimension of recognition as a stimulus for creativity and innovation is well represented by the creation of the Cornerstone Award, as part of the “Leading the Way” programme. According to its presentation, this honor will reward those who “have demonstrated a willingness to go beyond what is required and will have exhibited a commitment to the values and dedication to the goals and missions of the Alumni Association, Resource Development, and MIT”.

The example of MIT in building an organizational culture which prizes alumni, should be a good lesson to follow.

4. CONCLUSION

There are three relevant aspects that we wanted to highlight in this paper:

- The alumni represent an inexhaustible source of resources, especially as regards creativity and innovation, in all the university activities and interests both on the organizational level and on specific areas or punctual elements;
- The capitalization of the alumni’s values depends solely on the university management and on its degree of awareness and interest in attracting, maintaining and stimulating the alumni by motivating them;
- Both the power of the educational system and the evolution of human society depend on the degree in which the university invests in its alumni.

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METHODOLOGICAL FOUNDATIONS OF EDUCATIONAL FIELD PRACTICES OF STUDENTS AND ITS PLACE IN THE FORMATION OF SCIENTIFIC SKILLS

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Abstract

Summer educational practices allow students - ecologists to see and analyze in natural conditions the basic patterns of interaction between the components of natural ecological systems and their mutual conditioning. The main provision to guide while holding the educational practices is an integrated approach. Main attention during practices is given to studying biotic and abiotic components of natural ecosystems. Along with the comprehensive and complex study of the natural ecological systems, field practice lays the foundation of scientific activity of ecologist.

Key words: ecology, ecological education, field practice, natural ecosystems

1. INTRODUCTION

Modern ecological education is one of the most actual, and will become more popular with the development of our society. Environmental problems are shared and do not have national and state borders.

Faculty of Ecology was created at the Russian Peoples' Friendship University 20 years ago. It is the first and the only interdisciplinary faculty of this kind among the classic Universities of Russia. During the entire existence of the faculty a lot of attention in the learning process is given to educational practices.

2. MAIN PART

At the Faculty of Ecology a summer educational field practice "Natural ecological systems" was prepared and held for first-year students that is the base for further educational process. Field practices deals with the study of natural ecological systems, its duration is six weeks.

Summer educational practices allow students - ecologists to see and analyze in natural conditions the basic patterns of interaction between the components of natural ecological systems and their mutual conditioning (Stanis, Karpukhina et al 1998, 2004, 2007). The program and methods of practices were worked through and improved for 19 years. Field practices are carried out in different areas of central Russia.

2.1. The main methodological justification for the practices: students - ecologists need to understand the fundamentals of the functioning of natural ecosystems that have arisen as a result of long-term co-evolution of its member components. Natural ecosystems are characterized by considerable stability, the ability to renewal and recovery. In the future, a basic knowledge of the functioning and understanding of the relationship of components of natural ecosystems will help the students at senior
courses in the study of anthropogenically modified ecosystems, determining the causes of instability and possible ways to improve them.

2.2. The objectives of the practices.

1. Deepening and consolidation of the knowledge gained in studying subjects “Ecology ”,” Soil Science ”,” Geography ”,” Biology” (Basics of Zoology and Botany), ” Geology ”as well as acquiring skills in mapping field observations, collection of natural materials and data and interpretation of the resulting material.

2. Acquisition of the first independent scientific experience in studying the environment.

3. Socialization of the individual.

The main provision to guide while holding the educational practices is an integrated approach. It is the mutual using of knowledge in Geology, Geography and Biology in studying specific ecological systems. This approach can best be realized only in field conditions.

Main attention during practices is given to studying biotic and abiotic components of natural ecosystems, and their interrelations, studying of interconnections of populations in ecosystems and biological diversity.

2.3. The organization of educational process during the field practices.

Field observations and investigations are carried out by groups that are divided into teams of 5 - 7 members, led by the teacher. In each ecosystem individual components and interconnection of components that make up the system are to be studied.

The study of the biotic component includes:

- The study of vegetation cover: acquaintance with flora (every student should know not less than 100 species of higher vascular plants), acquaintance with main types of Central Russia vegetation (conifer and broadleaved forests, birch and asp forests, meadows, marshes, agricultural lands), preparing geobotanical descriptions according to standard procedure (selection of dominant species, description of layering, mosaicity in the distribution of plants, determining projective cover, height, phenological phase, vital status for each species). Herbarium collection according to individual tasks. Studying life-forms and biological types of higher vascular species.

- Studying the fauna of Central Russia natural ecosystems: acquaintance with the typical and rare species of vertebrate animals, typical and rare species of invertebrates, observations of the behavior of animals, work on the counts (registrations) of animals according to individual tasks the teacher, the study of species diversity on the example of insects as the most numerous class. Gathering educational collections.

- Studying and description of the consorts connection of populations: trophic and topical interrelations.

The study of abiotic components includes:

- Study of the geological structure: acquaintance with different types of rock of the territory; acquaintance with the history of geological development, selection of rock samples, preparation of thematic collections, acquaintance with modern geological processes and phenomena.
- The study of landscapes and geomorphological features of the territory: the relief and its features, the main relief-forming factors, the history of the formation of the modern relief, landscapes and their main characteristics, acquaintance with different types of landscapes and their features.
- Study of hydrological and hydrogeological characteristics of ecosystems: acquaintance with various types of surface waters and their characteristics; hydrological network and its functions, the definition of basic hydrological parameters, acquaintance with underground waters of the territory; the relationship of surface and groundwater.
- Study of climatic parameters of ecosystems: the macro-, meso- and micro-climatic characteristics of various ecosystems.
- The structure and characteristics of soils: soil-forming rocks and soil, the description of soils and soil profiles in the different biocenoses; sampling of soils and the creation of a thematic collection.
- Methods of abiotic components of the environment protection.

Elements of cartography are also included into the field part of the practices (the study of methods of preparing of topographic maps and plans using GPS; mapping of the actual material).

The practices are finished with writing a detailed report by teams of students. Such report describes and summarizes all the learned during the practices data. The final score for the practice takes into account both individual work and collective report. Assessment of practice is set in points, as the Faculty of Ecology was the first in our country to implement the ECTS grading within the framework of the Bologna agreement.

Along with the comprehensive and complex study of the natural ecological systems, field practice lays the foundation of scientific activity of ecologist. During practices students, under the direction of teachers in studying each ecological system use specific scientific methods such as: observation, description of objects, experiment, finding the relationships between the components and creating integral image of the ecosystem; prognosis of possible changes to ecosystem when changing this or that component, visualization of results, organization of scientific work in a collective (group, team), writing a conclusive report summarizing all the results, the presentation of the results of collective scientific work (Skaryatin V.D., Stanis E.V., Makarova M.G, 2011).

Thus, the field practices gives the student opportunity to acquire the first independent scientific experience.

Another problem which can be solved during the field practices is training of tolerance, interpersonal skills and ability to social adaptation, ability to deal with various difficulties that inevitably arise in field of practices. From our point of view in the age of rapid individualization, higher education must impart such skills because individualism leads to the breakdown of public relations and lack of social motivation in gaining scientific knowledge and in progressive development of society.
3. SOME EXAMPLES OF STUDENT'S ACTIVITY

Every day during field practice students go on pedestrian hikes, where they are shown a variety of environmental objects. Students have to walk a lot, sometimes ten or more kilometers per day.

Fig. 1. The teacher conducts students about a far route. Russia, Tver region.

Weather, road and other conditions are not always favorable. During field practices students learn not just the environment, but also learn to help each other in different situations.

During field practices students have different types of activity. Here you can see how the students study the various components of ecological systems under the guidance of teachers: a lake, soil, different species of fish, river systems, geological history etc.

A good example for students during the field practice is that teachers do not only teach them, but live with them and share with them all the difficulties of the field work.
Fig. 2. Overcoming of a difficult site of a route for studying of a geological exposure of limestones. Russia, Tver region.

Fig. 3. Studying the environment of the lake. Russia Vladimir region
Fig. 4. Studying of sandy soils in the pine wood. Russia, Volga River valley

Fig. 4. Studying of a biodiversity of fishes in the lake. Russia Vladimir region
Fig. 5. Teachers and students in the routes: interdependence studying between soils and vegetation

Along with studying of ecological systems in field practice all students surely participate in public works (for example - cooking for all, maintenance of an order and purity of the territory of base of practice, etc.), in sporting events. It helps to form communicative and socially useful skills at students.

Fig. 6. Students make a dinner and spend a free time
The Bologna process is to use in education credit-modular system. In order to evaluate the activity of all kinds of students on field practice in the environmental department, we use the point-rating system of assessment. The maximum assessment is equal 100 points that corresponds to the European assessment A. Summer practice is an educational module. All summer practice allows the student to receive 8 credits.

4. CONCLUSIONS

Thus, during 20 years at the Ecological Faculty of Peoples' Friendship University the technique, methods and the program of educational field practices "Natural ecological systems" was established and perfected. The main methodological justification for the practices: students - ecologists need to understand the fundamentals of the functioning of natural ecosystems that have arisen as a result of long-term co-evolution of its member components. Along with the comprehensive and complex study of the natural ecological systems, field practice lays the foundation of scientific activity of ecologist.

Summer practice is the important educational module. During field practices students have different types of activity. The field practices is training of tolerance, interpersonal skills and ability to social adaptation. The results of our work are reflected in four textbooks.

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POSSIBILITIES OF SPORT AND PHYSICAL ACTIVITIES IN INFLUENCING
THE VALUE ORIENTATIONS IN YOUNG GENERATION

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Abstract
The identification of values orientations of the young generation is important not only for gaining knowledge about the young population itself and thus also for understanding the state and development of society. Swartz value system (SVS) was used to describe values and value orientation. In here presented study is followed the assumption that the basis of any potential changes towards an active lifestyle and towards the incorporation of sport into the life style is a timely presentation of fundamental values in life and, as the case can be “value of sport” to the young generation. Results of research realised in 2008 (366 secondary school students from the Czech Republic -54% of women and 46% of men) were compared to results of similar research realised in 2000. Growing hedonism and individualism in youth was found, may be as a reflection of more general social trend. The youth practicing sport showed greater orientation towards performance, which includes competitiveness, greater self enhancement, goal oriented efforts, emotionality and capability of reaching some social prestige. The position and significance of health value in this age category does not rely on participation in sport. The comparison of value orientations within a time lag of decade documents the dynamism of value orientations and the trend of society towards individualism, consumerism and hedonism.

Key words: Schwartz value system, youth, sport, health, life style.

1. INTRODUCTION
The problems of values and value orientations are generally regarded as an essential part of psychosocial analysis of social processes. In this context, the value orientations of the young population occupy a prominent position, as children and young people adopt the ideas, values, attitudes and behaviour patterns offered by society most easily. Children will carry the value orientations acquired in young age into their future life which will shape their future social development. The values of children are certainly related to the ways in which the children have been raised, although some authors point out that internalized values do not have to necessarily reflect in the child’s acts and behavior.

Europe represents a culturally and historically diverse region. However, many authors strive to compare values and value orientations of various groups both within particular countries and between countries and they therefore look for suitable methods of eliminating interfering intercultural differences. The most prevalent approach to evaluating value orientations across various cultures and countries has been developed by Schwartz and it is based on results of various scientific disciplines.

2 Article is published with support of VZ MŠMT ČR MSM 0021620804.
above all psychology and sociology. Schwartz (1992) attempted to find a universal structure of values common to all humankind which would be complete and universally understandable. In the European context, this approach has been most notably used in the European Social Survey which has been conducted across the European countries several times. The Czech Republic participated in this project in 2002 and 2004 (ESSDS, 2002, 2004) with main focus on adult population (Řeháková, 2006).

Values and value orientations can be researched independently but also in relation to various social phenomena. To these phenomena we can include health and lifestyles of various social groups and their relation to adequate physical activity and sport. This topic has been much discussed lately both in Europe and worldwide and it has been included in various program materials and policy recommendations (White paper on sport of the European Commission, 2007; Health for all in the 21st century, Czech government, 2007, ). In this paper, we document on the basis of the Schwartz’s concept of values the relationship between values and sport participation in youth in the Czech Republic.

2. THEORETICAL BACKGROUND

2.1 Approaches to research on values

On a general level, there are numerous approaches to research on values which originate both from a macro social perspective represented by sociology and from a micro social perspective emphasizing the psychological aspect. As mentioned by some authors, research on children and youth values presents more challenges than the research on values of adult population (Bočan, Maříková & Spálenšký, 2011).

Sociology perceives values as a part of culture and defines them as a set of creations made by human activity, a set of values and respected modes of conduct adopted by a certain community and passed on to future generations. In this way, it reflects also on the historical changes of culture (such as changes in the dimension of individualism/collectivism or democracy/authority) (Macek, 1999).

The advocated values serve as a criterion for the evaluation of the behaviour of the others and as a basis for the assessment of the degree of social usefulness of an individual in a group (Sekot, 2004). In this sociological context, values represent social standards through which the activity and behaviour of people in society are regulated. Values decide on what must be done, evaluated, where to aim, while standards regulate how i.e. behaviour patterns during the implementation of a value or general modes of conduct. Similarly, Mikšik (2001) points out that values change during the life course in relation both to the inner conditions (such as biological changes) and external environment represented by the experience of an individual.

Values are formed in relations with some values being more dominant and influencing the others. This complex of values is usually labelled as value orientation. Rokeach (1973) speaks about a value system. He understands it as a hierarchical arrangement of values where individual values are attributed an order along a continuum of relative importance. The value system represents an acquired organization of rules for making a choice or for solving a conflict between two or more modes of conduct or between two or more end-states of existence. Psychological perspective of Mikšik (2001) is very similar to sociological view, considering the value orientation as “a selective approach to certain aspects, subjects and phenomena of lived reality.” (Mikšik, 2001, 73).

Lately, Schwartz’s approach (Schwartz, 1992) has been very influential. It attempted to combine the sociological and psychological aspects defining values as desirable trans-situational goals varying in importance and serving as guiding principles in the life of an individual or a group. This approach has
been implemented in various comparative studies of European countries conducted within the longitudinal European Social Survey. Schwartz’s work provided a methodological background to “eliminating” cultural differences in populations of various European countries and allowed comparison of these populations. Schwartz characterizes values on several levels: values as cognitive structures; values as targets and motives; values as feature characteristics exceeding specific situations and activities; values as principles that guide behaviour; value priorities as characteristics of specific cultures. In his concept, values differ from attitudes by their general and abstract nature and by their hierarchical arrangement. To these formal features of values, Schwartz added the primary content aspect of a value which expresses the type of target or motivation interest.

The results of Schwartz’s study (2006) across different cultural environments showed that people differentiate among ten value types. These types were arranged within a circular diagram of value types representing a motivational continuum. The diagram in figure 1 displays both the arrangement of individual value types associating the total of 60 values which are not named here, and 4 value dimensions into which individual value types are associated according to the author. The closer any two value types are located in any direction on the circle, the more similar their motivations are, the more distant they are, the more contradictory their motivations.

Figure 1 Structure of relations within a value system according to Schwarz (1992)
In everyday life, there is evident that individuals or social groups differ in their value structure or value hierarchy. A question arises why people of the same socially cultural background, traditions, education react differently to the same or similar social situations. The answer may be that these situations are perceived differently as they are differently “framed” (formed). Goffman (1974) explains this fact by arguing that the framing of a social situation changes its effect. Gitlin (1980) says that frames are the principles of selection, emphasis and presentation composed of internal consensus with a theoretical insight into what exists, what will happen or what is going on. If individuals cannot directly correlate this situation frame with their personal experience, the major role in the acceptance of a frame is that of so-called experience reliability (a fit between a frame and real life events) (D’Anjou, 1996). Social frames are generally generated by group interests in achieving their goals in politics, economy, but also in sport. Other social frames are derived from the existing cultural environment, standards.

The relationship of values to the activity of individuals is of major importance. Anshel (2006), for example, produced a discontinuous value model which is based on the assumption that there may be no link between the values and behaviour of an individual. An example in relation to athletes may be the antagonism of values and behaviour resulting in disrespecting the principles of fair play, using forbidden performance-enhancing substances not only on the top-performance level, but also on the recreational level. Despite the recognized value of health, some people still smoke, eat too much, drink too much alcohol.

What is the relation between deeply recognized values and behaviour? It appears that this relation is of dynamic nature based on the interaction of values, situations, self-esteem and socio-cultural expectations. Leohr and Schwarz (2003) claim that a positive link between values and behaviour depends on the growing intellectual capacity of human being. A higher capacity will limit the effect of a situation on the selection of conduct – behaviour will be guided by values (faith) without greater variations and related ego-protecting rationalization. For example, the values of athletes, the values of sport itself, continuously respected by both active participants and the general public are successively brought into conformity with their behaviour. The reactions and expected standard behaviour of e.g. athletes, referees, spectators, help us to assess the values that gave rise to their current behaviour.

Media often talk about a decline in morals and values in politics, business, but also in sport. They tend to say that things are getting worse and are not what they should be like. This tendency is often motivated by a resistance to changes and by glorifying what used to be rather than by prominent changes in value orientations. In relation to sport, the results of a study by Mc Namee et al. (2007) focused on values and standards in sport revealed that sport spectators think that the absolute majority of athletes in selected sports, including football, play fair play and, in their opinion, the situation has improved during the last twenty years.

2.2 Value development and “value education”

In their study supported by empirical findings about intergenerational differences in basic human values, Lyons, Duxbury & Higgins (2007) proved that the population born before the year 1945, the generation born straight after World War II between 1945 and 1964, the generation born between 1964 and 1980 and after 1980 have different value hierarchies.

This lends itself to a conclusion that the generation of individuals “inhabiting” a common social, historical time frame is exposed to a common crystallization impulse which draws attention to their common features and their differences from the older generation groups. This impulse comes from important historical events such as war, economic crisis, economic prosperity. The question, however,
remains whether the generally recognized intergenerational differences in value orientations stated by Lyons are primarily caused by social and historical impulses, or whether they are a product of psychological and social needs related to the development of each generation.

For illustration, let us use a study by Ariely (2008), who investigated circumstances under which people are able to cheat and disrespect moral values. Ariely exposed individuals whose value orientation had been previously determined to various activities and tasks with a possibility of reaching the goal by using different means. The achievement of a goal was rewarded. It was manifested that, for example, the risk of being caught cheating did not affect the frequency of cheating. On the contrary, it was revealed that if the reward for a successfully achieved goal was provided in an indirect way, e.g. by tokens, which the test persons could later exchange for money, the rate of cheating doubled. It was manifested that this external “indirect” reward did not activate the moral codex – it did not support behaviour based on individuals’ moral values. On the other hand, when the study participants were encouraged to reconsider their values and were asked to recall the code of honour, cheating was nearly completely eliminated.

Ariely summed up the conclusions of his study in a relatively unambiguous statement that the results testify to several interesting aspects of human nature. One of them is that in the case of temptation the majority of us are willing to behave slightly dishonestly without considering the risks of consequences. The second one is that in a situation where there is no chance to be caught cheating, lying (non-ethical behaviour), the majority of us will not turn into outright liars, cheaters as our values (conscience) set certain limits, act as a type of corrective of the produced behaviour. It is, indeed, clear that we possess a sometimes hardly believable ability of rationalizing our immoral behaviour which is in contradiction to our values, and this becomes substantially simpler when this behaviour (cheating) is separated from direct reward (e.g. cash).

The elimination of cheating by stressing the individual’s value system may have its implications in value education. The emphasizing of moral values during a short-term targeted activity is relatively simpler bringing results that are to some extent predictable. In long-term value education, this process is much more complicated, and the results are less predictable.

Schwartz mentions two main sources of differences in the value systems of individuals and groups. Genetic sources (e.g. built on biological needs) are important also due to the fact that they are difficult to affect by either the environment or value education. Social and personal experience is the second important source of values. In the past, social experience was in the main controlled by the closest social surroundings (tribe, family, village community, religion). People belonging to these easily identifiable groups shared similar models, idols, social experiences, which differed from the experiences of other groups. In the last years, the globalization process has nearly effaced the effect of these local forces. Their role has been taken over by e.g. advertising, which presents, among others, “models of successful life” connected with success, wealth; famous sportspeople are presented as an ideal that may be achieved by everybody. In the same way, models of a beautiful body affecting particularly young individuals are presented. Thus “reality” that is not real is created. Modern global society gradually minimizes the effect of the social microclimate in value education.

Looking at values and their development in young people, we must keep in mind that the period of adolescence is the time of the final completion of the internal structure of the value system of individuals. Schwartz (2006) says that adolescence is the time of the development of life goals and value orientations, which are not much different from the adult population in the scope of respected values, but the order of importance of some values changes. Values are interiorized during most diverse acquisition processes, particularly during such activities like games, learning, work, interaction
with other people. Despite some genetic predispositions and successive susceptibility to the acquisition of certain values, the development of personality and value orientation is dramatically affected mainly by the primary factors of the transfer of cultural values.

As already mentioned, value orientation may change in the course of life. In early stages, the value system of an individual is strongly influenced by family environment. Bočan, Maříková and Spálenský (2011) explored parental attitudes to values and parenting practices related to passing values to children. In this context, they found two dimensions: the first one is represented by the ways in which children are raised to be self-confident and assertive individuals (e.g. being able to find a place in a group, organize one’s free time, not “to get lost in the world”); the second one, slightly dominant, is represented by the ways of upbringing toward moral values and social competencies (i.e. to be honest, polite, considerate, keep promises, and so on.

2.3 Values and sport activity

This value system formation process may also be mainly affected by active sport activity in the individuals who have sport as part of their lifestyle. It is evident that values in particular may affect the tendency of accepting sport as part of life. Some studies indicate what affects active sport activity mainly in young people. For example, Watson, Newton & Missok (2003) claim that the most important reasons for young people’s participation in sport are, above all, the expectation of fun, interest in sports and games, experience of activity, expectation of participation in activity. Gould et al. (1998) say that individuals practise sport because it is fun and they are fond of sports and games. Brustad (1993) mentions the expected experience of performed activity as an important motivating factor. The same reasons also attract Czech young people towards sports (Slepičková, 2001).

Provided children and the youth are guided towards active sport by the above-mentioned motives and they acquire certain values within the sport context, predispositions have been formed for affecting their value systems’ development even in everyday life. Kasser & Kanner (2004) claims that in a sports environment we should try to develop task-oriented sport activity in the athletes. Task orientation is supported by internal motives for mastering a task and approaching to the realistic performance capacity in a respective activity.

The ego orientation puts more emphasis on external values, goals like power or success. Successively, after these goals have been achieved, motivation for further improvement in a task-oriented situation diminishes. The scope in which internal or external values dominate in an individual, proves to be a significant predictor for well being. Numerous indicators, including e.g. self-esteem, depressive symptoms, alcohol abuse, or subjectively perceived life satisfaction, indicate that individuals who are motivated from the outside show lower well being than those who are motivated from the inside.

It is generally believed that sport is a value in itself strengthening internally oriented motivations and goals. Zhang, Pease & Hui (1996) claim that sport has a positive influence on values projected e.g. into the development of cooperation, communication, cultural heritage, fair play, identity etc. In their study focused on the relationship between an income (earning) and life satisfaction, Abdallah & Thompson (2008) registered that the growth of internal values, goals, enhanced the life satisfaction level despite stagnating incomes. This fact was, among other things, also caused by active participation in sport as well as by passive participation (as spectators).

Many individuals practising amateur-level sports receive no external reward at all for their sport activity. What keeps them doing sport? According to the Schwartz’s value model, there are numerous “internal” values represented e.g. by self-control, stimulation, hedonism, benevolence, health. “External” values, like Success, Power, Conformity, contribute to life satisfaction (happiness) only if
they are permanently updated. These values may in reality become demotivating in the sense: “I have achieved all that could be achieved, I cannot go any further”. Schwarz adds that across 76 countries with different cultures, benevolence, self-control and universalism (internal values) ranked among the first three of 10 values most preferred by individuals. Conformity, Power, Success (external values) in turn occupied the 4th, 5th and 10th place. Thus, Schwarz documents how globalized society oriented towards competition and market economy increases the significance of values generally considered as morally less desirable pushing aside other values bound on local conditions (tradition etc.).

The extent to which this process may be modified by sport activity is indicated by studies oriented towards this problem. One of them was a study by Watson et al. (2003), which surveyed how a specific locomotion programme for children aimed at the presentation of certain values may affect the acceptance of presented values. The authors claimed that a programme devised in this way and implemented on a long-term basis helped children in their value orientations. The values connected with locomotion activity gradually became prominent in the value stratification. On the other hand, Martinek et al. (1999) found only slight links between school results and participation in an extra-curricular locomotion programme oriented towards positive values. The study by Slepíčková & Kavalíř (1999), Kavalíř (2003) indicated potential correlations between the preference for values connected with sport activity and the level of participation in active sport.

3. RESEARCH AIMS AND METHODS

Sport in society is understood as a tool that can affect the value orientation of people. From the beginning of modern sport which dated almost two hundred years ago, the aim has been on development of socially required values and skills. Till present, sport has been presented to the young generation in particular as a desirable activity with potential impacts on the values respected by this population. People mostly perceive values as something desirable, of more or less importance for themselves. Here, however, a serious question arises. Provided some value is of a high importance for an individual, does the individual behave to aim at the achievement of this value? This study follows the assumption that the basis of any potential changes towards an active lifestyle and towards the incorporation of sport into this lifestyle is a timely presentation of fundamental values in life and, as the case may be, the “values of sport” to the young generation.

Due to the fact that studies oriented towards the problems of value orientations of the population have not been much involved in the correlations between values and sport, mainly in relation to the young generation, the study presented here has attempted to address this issue. Its focus was, therefore, on the youth practising and not practising sport with the aim of comparing the value orientations of these two groups, including the assessment of the position of health in their value hierarchy.

The description of values and value types was performed using the SVS (Schwartz Value System) questionnaire (Schwartz, 1992). This method is presently used on a massive scale for surveys of value orientations, and it has also been repeatedly used e.g. in the research of the European population (Schwartz, 2003, Řeháková, 2005). Among 57 values, SVS also evaluates the value of Health. When speaking about sport we cannot also ignore the relation between sport and health. The value of health belongs to the value type of Security together with other values (clean, national security, reciprocation of favours, social order, family security, sense of belonging). This value is generally attributed a very prominent position even by the young population, occupying as a rule the most prominent position among other values (Slepíčková & Kavalíř, 1999).
The survey was performed in 2008. The group of surveyed persons was composed of 366 secondary school students from the whole of the Czech Republic (54% of women and 46% of men). The surveyed group included students from gymnasiums (21%), vocational high school branches with school leaving examinations (GCSE) (32%) and students from professionally oriented secondary schools such as medical schools, commercial academies etc. (47%). It is known that at the secondary school age the interest in sport already recedes into the background, and in the general population there are relatively few individuals within this age category who regularly practise sport. Therefore, the survey deliberately included schools selected on the account of the existence of their school sports clubs. Thus, a sufficient proportion of youth practising sport was provided. In these schools, the classes participating in the survey were selected by lot. The students considered as sport-practising were those who do competitive sport (i.e. in a sports club or a school sports club), while the others were included among the population not practising sport. It was discovered that, within the surveyed group, 62% of respondents practise sport (also thanks to the offer by school sports clubs) and 38% either never practise sport or only in compulsory physical education lessons.

In accordance with the SVS methodology, i.e. through a standardized questionnaire, the respondents were asked to express the significance of each of 57 values, which are the values constituting the above-mentioned 10 value types (Figure 1). The respondents assessed these values as the "guiding principle in my life" on a nine point Likert scale (from “7” – the most important to me, to “-1” – in contradiction to my values). To analyze the obtained results, the basic methods in accordance with SVS were used, i.e. the mean score and the T-test for the comparison of individuals practising and not practising sport.

4. RESULTS

In order to find out whether participation in sport is related to the preference of some values and to some value type, the results obtained through the SVS methodology for the group practising sport were compared with those obtained for the group not practising sport. Table 1 displays the most preferred values in the group practising sport, while Table 2 in the group non-practising sport.

| Table 1 Ranking of ten values most preferred by students practising competitive sport |
|---|---|---|
| rank | value | score |
| 1 | HEALTH | 6,10 |
| 2 | TRUE FRIENDSHIP | 6,03 |
| 3 | FAMILY SECURITY | 5,91 |
| 4 | ENJOING LIFE | 5,67 |
| 5 | FREEDOM | 5,57 |
| 6 | CHOOSING ONE’S GOALS | 5,33 |
| 7 | MATURE LOVE | 5,20 |
| 8 | PRIVATE LIFE | 5,16 |
| 9 | CAPABLE | 4,97 |
| 10 | INTELIGENT | 4,87 |
Table 2 Ranking of ten values most preferred by students not practising sport

<table>
<thead>
<tr>
<th>rank</th>
<th>value</th>
<th>score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HEALTH</td>
<td>6,08</td>
</tr>
<tr>
<td>2</td>
<td>TRUE FRIENDSHIP</td>
<td>5,91</td>
</tr>
<tr>
<td>3</td>
<td>FAMILY SECURITY</td>
<td>5,83</td>
</tr>
<tr>
<td>4</td>
<td>ENJOING LIFE</td>
<td>5,34</td>
</tr>
<tr>
<td>5</td>
<td>FREEDOM</td>
<td>5,29</td>
</tr>
<tr>
<td>6</td>
<td>MATURE LOVE</td>
<td>5,14</td>
</tr>
<tr>
<td>7</td>
<td>PRIVATE LIFE</td>
<td>5,04</td>
</tr>
<tr>
<td>8</td>
<td>HONORING PARENTS AND ELDERS</td>
<td>4,94</td>
</tr>
<tr>
<td>9</td>
<td>CHOOSING ONE’S GOALS</td>
<td>4,81</td>
</tr>
<tr>
<td>10</td>
<td>CLEAN</td>
<td>4,73</td>
</tr>
</tbody>
</table>

As the respective mean score values show the order of the first five values in both groups is identical. We may assume that these values have more or less universal validity for the young population and their preference is not affected by the position of sport in their lifestyle. They are values preferred in other age groups of the population as well as is confirmed by another study (Slepčka & Pěkný, 2008). Health occupies the first position in both groups and no statistically significant difference was found. This finding again manifests how the generally proclaimed value of health in society is reflected in the value system of the population, including the youth. The fact that no difference between those practising and not practising sport was discovered in the surveyed age groups may also be attributed, apart from the universality of the opinion of the importance of health for life, to little life experience in the position of sport in the support for one’s own health. The value of health is seen identically by both groups, but the behaviour leading to health enhancement differs.

In the group of the next five values, differences may be found not only in terms of their order, but also in terms of the presence of different values among the preferred ones. In the group practising sport, 2 values are found among this group of values that are not named among the first ten values by the group not practising sport. It is the value connected with the ability of being productive, efficient in an activity and the value of intelligence connected with the ability of preferring logical thinking. In the group not practising sport, on the contrary, the first ten values include the value of choosing one’s own goals, independence in their selection and the value of order, neatness connected with some conservatism.

The statistical evaluation of the results obtained for the values occupying the 5th to the 10th position manifested that the group practising competitive sport significantly differs from the group not practising sport only in the value of “being able” which is connected with productivity in an activity, with performance. This may be attributed to the orientation towards performance in the group practising competitive sport where performance itself frequently becomes a value on its own. Even though differences in the preference of values cannot be unambiguously attributed to participation in sport, a potential effect of sport on the generation and modification of value orientations during the ontogenesis of an individual may be considered.
The next part of presentation is focused on the level of assessing value orientations by one order higher, i.e. on value types into which individual values are associated. Figure 2 shows the score (the mean score of values forming a respective value type) within individual value types achieved by the respondents.

As the majority of the value types shows the surveyed groups of youth practising and not practising sport differ. To be able to assess the significance of these differences, statistical analysis by means of the T-test was performed. Table 3 confirms that statistically significant differences exist between some value types in the surveyed groups.

<table>
<thead>
<tr>
<th>value types</th>
<th>sporting</th>
<th>non-sporting</th>
<th>T(5%)</th>
<th>T(1%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEDONISM</td>
<td>4,60</td>
<td>4,94</td>
<td>2,59</td>
<td>2,59</td>
</tr>
<tr>
<td>SECURITY</td>
<td>4,46</td>
<td>4,58</td>
<td>1,33</td>
<td></td>
</tr>
<tr>
<td>SELF-DIRECTION</td>
<td>4,27</td>
<td>4,52</td>
<td>2,39</td>
<td></td>
</tr>
<tr>
<td>STIMULATION</td>
<td>4,03</td>
<td>4,54</td>
<td>3,53</td>
<td>3,53</td>
</tr>
<tr>
<td>BENEVOLENCE</td>
<td>4,41</td>
<td>4,41</td>
<td>-0,33</td>
<td></td>
</tr>
<tr>
<td>ACHIEVEMENT</td>
<td>4,12</td>
<td>4,41</td>
<td>2,89</td>
<td>2,89</td>
</tr>
<tr>
<td>CONFORMITY</td>
<td>4,13</td>
<td>4,10</td>
<td>-0,21</td>
<td></td>
</tr>
</tbody>
</table>
Differences at the statistical significance level of 5% were found in the value types of Achievement, Hedonism, Self-Direction, Stimulation, Power. Differences at the significance level of 1% were found in the value types of Hedonism, Stimulation, Power. To make a more detailed analysis of the obtained differences, we must mention which values constitute these value types. **Self-Direction** builds on creativity, freedom, independence, curiosity, setting one’s own goals, self-respect. For **Stimulation** values like daring life, variable life, exciting life are important. **Hedonism** is expressed by the values of pleasure, enjoyment, indulgence. **Achievement** – being successful, ambition, influence, ability, intelligence. **Power** is formed by the values of social status, authority, wealth, protection of one’s own image, social recognition. It is evident that the value type of **Security** which involves the value of health is not assessed differently by either group.

The comparison of value types in the surveyed groups manifests that the value types more typical of individuals practising competitive sport are connected with characteristic features of competitive sport among which competitiveness, efforts at self-enforcement, emotionality and a possibility of reaching some social prestige, success and economic appraisal in particular may be included. Nevertheless, in value types as well we must keep in mind that considerations about potential correlations between practising sport as part of a lifestyle and the value orientation offer a possibility of two interpretations. The first of them is based on the consideration that individuals enter into competitive sport as their value orientation has already been shaped in this way by their social environment in which they lead their everyday life. The second interpretation presumes that intensive sport activity gradually modifies these individuals’ values by its specific social environment. A potential combination of both options also comes to mind. It is, in particular, in the group of youth practising sport where value orientations are finally shaped in terms of the hierarchy of value preferences that both possibilities play an equally important role.

Due to the fact that value orientations in the young generation are created in connection with social environments, the comparison of the results of our survey with the results of a study by Kavalíř (2003) is mentioned here for illustration purposes. This study worked with data obtained in the years of 1999-2000 using a similar sample of secondary school youth. The respective time lag is nearly one decade during which social development had indisputably advanced. The potential reflection of this time lag in the value orientations of young people is displayed in Figure 3. It compares the value types discovered in young people by Kavalíř (2003) and by our survey. In both cases, the population sample used is not split into individuals practising and not practising sport as it only illustrates a potential development of the value orientation of young people within the respective time period regardless of their relation to sport.

The most preferred value type in our surveyed group of youth is Hedonism, while in the group of youth surveyed in 1999-2000 it was Universalism. Other differences are evident in the value types of Achievement, Stimulation, Power. The respondents from our surveyed group prefer them more than the youth from the survey carried out 9 years ago. Growing hedonism and individualism in youth (a decline in the preference of Universalism) may be the reflection of a more general social trend where the value type expressing life indulgence tends to be understood as experiencing something
uncommon to risky. This may also be related to the growing preference for Stimulation. An effort at
detachment from everyday reality may also be documented by the growing preference for the value
type of Success and Power, which are aimed at self-enforcement in society. This tendency may be
considered as a more general feature of the whole society. While the value type of Success stresses
mainly active presentation of abilities in a specific interaction, the value type of Power accentuates
rather the attainment or preservation of a dominant position inside a more general social system. This
is combined with an effort at achieving a certain social status connected with an adequate economic
background. Only this allows one to “live life to the fullest”. At the same time, one of the principal
motivation goals of Universalism is understanding, recognition, tolerance and protection of the
prosperity of all people and nature. It is evident that unless one is able to accept the others who are
different on a long-term basis and to treat them fairly, preconditions are formed for the appearance of
conflicts affecting sometimes all society.

Figure 3 Comparison of value types of youth in 2000 and 2008

The comparison of both studies implies a declining preference for the value type of Conformity, which
expresses self-discipline in behaviour, abstention from activities that could contradict social
expectations or standards. This type is derived from the assumption that individuals suppress
inclinations that might be socially disruptive, that might pose a threat to the smooth functioning of a
group. The position of the value type of Tradition, which stands on the periphery of value preferences,
is of interest. For, as it is, traditional manners and standards of behaviour should be a symbol of group
solidarity, an expression of the uniqueness of a group even historically breaking away from the
globalization trends.

Even though the comparison of both studies only serves for illustration, it is evident that some
modification of the significance of values within the generated value orientation of young people
occurs due to social development. This fact must be kept in mind while trying to exert educational efforts oriented towards the youth.

Both our studies and the above-mentioned studies dealing with values, health, sport and the youth point out the need for the presentation of positive values to the population and, in particular, to the young people. This is the precondition for the successive acquisition of these values and their projection into the behaviour and acts of individuals. The young age, in particular, is the consolidation period of value orientations which steer the life of individuals in their later life.

The youth practising sport showed greater orientation towards performance in our study, which includes competitiveness, greater self-assertion, goal-orientated efforts, emotionality and capability of reaching some social prestige, success and economic appraisal. It is likely that in their adult life these individuals will transform the values oriented towards sport in the direction towards their professional career where they will most probably be more successful than their colleagues from our study who do not practise sport. The position and significance of the value of health in this age category does not rely on participation in sport. But as part of the value type of security it belongs to values which have a higher significance for those who do not practise sport than for those who get involved in situations with an uncertain outcome (traditional value of sport contests) and outside their common environment (participation in contests, comparison of one’s abilities and skills with unknown individuals) within their sport activity. The individuals practising sport must be able to cope with these “uncertain” situations.

The illustrative comparison of value types of the youth within a time lag of one decade documents the dynamism of value orientations. In this case we may assume that they are related to the development trends of the whole society accompanied by growing individualism, consumerism and hedonism of the lifestyle. To conclude, we may also state that the results discovered in our surveyed groups correspond to theoretical studies dealing with the respective problems.

REFERENCES


AUTOMATIZATION CREATE ELECTRONIC LEARNING
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Abstract
E-learning publication must meet the educational and methodical design - ergonomic and technical requirements. The Generator is designed for teachers’ independent work that allows creating electronic educational editions of their subjects in accordance with the requirements of national standard. Psychologists have noticed that the recognition of objects is easier in the usual context than in a precarious situation. That is, the student will be easier and faster perceiving new information from various disciplines using the EEP with a unified interface, a single way of composition of the learning elements and management structure, all of which can be easily created with the generator.

Key words: generator, e-learning, EEP

1. INTRODUCTION
While creation an electronic textbook it is possible to implement the basic didactic principles through the use of modern features of PC such as color graphics, animation, sound, simplicity and speed of access to information of interest (using hyperlinks), the ability to return to the starting material, the use of tooltips, etc.

The teacher is the central figure in education and training of students, who organizes the process of learning, builds a method of teaching using computers, which allows him to intensify the self-learning and cognitive activity, allows increasing the effectiveness of training and education of students.

In order to provide a complete education e-learning publication should exist in the following ways:
   a) a manual or a textbook;
   b) a workshop and laboratory practice;
   c) guidelines for writing term papers and course projects;
   d) materials for the control of the student's knowledge.

E-learning publication must meet the educational and methodical design - ergonomic and technical requirements.

2. AUTOMATIZATION CREATE ELECTRONIC LEARNING
The Generator is designed for teachers’ independent work that allows creating electronic educational editions of their subjects in accordance with the requirements of national standard ST RK 34.017-2005 “INFORMATION TECHNOLOGY. ELECTRONIC EDITION. Electronic educational edition”. There is no analogue of this program in Kazakhstan.
E-learning publications must meet the educational and methodical design - ergonomic and technical requirements.

![Educational-methodical training requirements for EPP](image)

Fig. 1. Educational and methodological requirements are necessary for achievement the completeness of the content in the subject area and methodological properties of e-learning publications. List of teaching requirements for e-learning publications is shown in the picture.

3. EXPERIENCE AT THE L.N. GUMILYOV EURASIAN NATIONAL UNIVERSITY

There is no need in programming when creating e-textbooks with the Generator. The teacher puts all the training materials in the program, and then it generates the EEP on the basis of the loaded data.
Fig. 2. Input and output data of the Generator is shown in the picture.

The advantages of this approach are as follows:
- Economically efficient;
- Allows concentrating on the material selection;
- Reduces the time of creation.

Data input is maximally simplified. There are two ways to input text information (theory, examples, assignments, questions and tests).

The first is to enter data in the EEP by selecting the buttons in the generator "Theory", "Examples", "Assignments," "Questions", "Graphics", "Audio," "Video", "Tests".
The required structure of folders and files is created automatically and saved in a database.

The second method. Let’s say you have already generated some data. To connect it to the EEP, you should just bring the information to a specific format.

The foundation of the generator development is the frame concept, designed by Marvin Minsky, one of the founders of the artificial intelligence theory. He believed that mental processes are based on people’s memories stored in different data structures – frames (Minsky, 79). Thanks to them, one realizes visual images (visual frames), understands the words (semantic frames), arguments and actions (scenarios frames and behavioral models). Thus, frame is an elementary semantic unit. This concept is used to improve the perception and control attention of students.

Thus, E.T. Semenova characterizes the knowledge base as a set of concepts with their properties and relations. A.S. Kleschev and M.Yu. Chernyakhovskaya consider frames as a model of concepts, and the systems of frames consider to be naturally interpreted as systems of rigorous definitions of concepts. It is natural in this connection to have reference to the philosophical and logical study of concepts, attempts to present some concepts of the notion as a theoretical basis for building a knowledge base or to make a conclusion about the nature and occurrence of concepts based on their modes of handling frames in knowledge representation systems (Semenova, 87).

It is necessary to note that the overall frame model hasn’t a monopoly on the representation of notions. They can be represented using semantic networks (their not-framed variants), using the apparatus or methods of multivariate statistical analysis. Problems of modeling concepts (more precisely, the simulation of certain aspects of the formation of notions and work with notions) are traditionally considered in studies of pattern recognition. Epistemological aspects of these problems were investigated by V.S. Tyuhtin.

For this purpose, EEP provides the possibility of installing educational material as a sequence of so-called “screens” – audio-visual frames, or simply frames. Training material is divided into semantic frames. Typically, one screen contains one semantic frame. If the semantic frames are simple to understand, hierarchically equal in the training material and follow each other, they can be placed on one frame-screen. This method of information presentation can significantly improve the perception of the information. Failure to follow these rules dramatically worsens the perception of information. For example, if one frame-screen contains several certain concepts, torn by explanations, the information cannot be perceived (violation of the equivalence of hierarchical frames). The correct choice would be to place concepts on the first frame-screen and their explanations on the next frames (preferably, each explanation should be on its own frame).

The collection of frames, which simulates some subject area, is a hierarchical structure in which the frames are gathered by genus-species relations. The hierarchical structure of the generated EEP is shown in Figure 3.

The EEP consists of a cover page, abstract, table of contents, elements of learning and management functions. An element of learning is a semantic unit of training information.

Elements of learning are lessons, modules and components. The lesson is the least semantic unit of training information, which includes the following parts: content, questions, assignments, tests, a glossary and a reference.

The content is the theoretical part of the learning material presented in the lesson. The content must consist of text, graphics, audio, video and other information related to the theme and appropriate to the selected audience, goals and objectives of the EEP.
Management functions are registration, navigation, viewing, testing, learning, designing and help content. Registration provides the ability to enter data about the user (student) in order to keep statistics about him/her. Navigation is the apparent relationship between the elements of the EEP and provides the necessary means of orientation and movement in the EEP. View provides a view of the total volume of teaching material included in the EEP. The user will not perform the assessments. Testing allows you to check the student's knowledge as of the current lesson, and throughout the course of study. In order to do that, the tester randomly selects questions from a common database of questions on curriculum, provides questions and answers related to the chosen topic. Test results will be displayed on the screen (Abdymanapov S.A et. all, 2001).

Education provides the student with the opportunity to explore the theoretical material on the current lesson, look at the questions and answers, to do exercises or solve problems and take the tests. In case of insufficient number of correct answers to the tests, the student cannot go to the next lesson and will continue to examine the current lesson.

Start date begins with the selection of learning paths, which can be defined in three ways: manual selection, test selection and a full selection.

The manual selection allows the tutor or the student to determine the trajectory of their own by selecting blocks, modules, and lessons in the index of the EEP.
In the test selection the program automatically defines the trajectory of learning based on the test results throughout the volume of educational material included in the EEP. In this case, the trajectory will include only the lessons, which were failed by the students.

The full selection includes the entire learning trajectory of educational material (all classes, modules and components) included in the EEP.

One may continue the learning process according to the selected trajectory only, taking lesson by lesson.

<table>
<thead>
<tr>
<th>Concept (Frame Name)</th>
<th>Slot 1</th>
<th>Slot value 1</th>
<th>Procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slot 2</td>
<td>Slot value 2</td>
<td>Procedures</td>
<td></td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td></td>
</tr>
<tr>
<td>Slot N</td>
<td>Slot value N</td>
<td>Procedures</td>
<td></td>
</tr>
</tbody>
</table>

Fig. 4. The designer is a toolbar that facilitates the creating the path of learning. Each node in the framing system has the form shown in the picture.

The concepts in every node are defined as a set of attributes and their values that are contained in the frame slot. In addition to the specific value the slot may store procedures and rules that are invoked if it is necessary to calculate this value. Among them there are procedures-daemons and procedures-slaves. The first start automatically when a certain condition arises, while the latter are activated only by a special request. A slot is an attribute associated with the node in a system based on frames.

The slot is a component of the frame. Slot is named in accordance with the type of attribute; the value of the slot may be an instance of the attribute, the other frame or a facet.

Each slot can be linked to one or more procedures that are performed when values of slots change.

Most often the following procedures are linked to the slots:

1. If added (performed when new information is added to the slot);
2. If deleted (this is done, when some information is deleted from the slot);
3. If needed (this is done, when requested information from an empty slot).
Procedure 1: daemon type procedure “if needed”, the necessary file is retrieved from the database, the program runs the macros that converts the documents into an *.htm format to be included to the EEP. When delivering the text information, the generator adjusts the text information of all classes to a single style: font Times New Roman (Cyrillic), size 14, the background of the main text is white, correct answers’ text background is light blue, hints’ background is light yellow.

Procedure 2: if the test is not failed the student is moved to the next lesson. Once all the lessons of this unit are successfully completed, the student is automatically taken to the next unit. To move to the next block, you have to first pass the intermediate control of knowledge (the number of tests equals to the number of lessons in the unit; each test is randomly chosen for every lesson). To move to the next module, you have to pass the endpoint control of knowledge. At the end of training the final control of knowledge is offered. In case of an incorrect answer to a specific question in the intermediate, endpoint or final testing this lesson is included into the learning program again (Omarbekova A. S. & Sharipbaev A.A., 2005).

Fig. 5. The data structure of a frame lesson is presented in the picture.
By the types of perception of information people are divided into three types: visual (perception of information through sight prevails), auditory (through hearing) and kinesthetic (through experience).

The perception of information of all types of people is improved if all channels are used. Didactic feature of the EEP that are created by the generator is its multisensory experience. The student receives all kinds of information at the same time. In addition, the transition from one screen (and, hence, the semantic unit) to another is controlled by the student (just press the button). This allows the student to choose the pace that is comfortable for him/her. Besides, it adds the kinesthetic element in the perception of information.

4. CONCLUSION

To improve the perception the program also uses a number of methods of attention management. These include the high amount of graphic illustrations, animations, fonts, and color selection, etc.

Using the concept of frames, multisensory experience, and attention management possible technologies enabled the creation of EEP having high density of information. The learning process becomes an individual process (for teaching in a computer room or at a personal computer at home).

Psychologists have noticed that the recognition of objects is easier in the usual context than in a precarious situation. That is, the student will be easier and faster perceiving new information from various disciplines using the EEP with a unified interface, a single way of composition of the learning elements and management structure, all of which can be easily created with the generator.

REFERENCES


METHODOLOGICAL PROBLEMS PREPARATIONS OF POLITICAL SCIENTISTS
IN THE MULTICULTURAL CONTEXT
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Abstract
In the given research two methodological problems of preparation of political scientists in a multicultural context are analyzed: 1. Definition of an object of research of a political science; 2. Revealing of dominating tendencies in political processes of the concrete countries. The author's variant of the decision of these problems is offered. An object of research of a political science probably to define in the general view as the set of political relations including all variety of public relations concerning the power. Dominating tendencies in political processes of the concrete countries are offered to be revealed on the basis of historically developed mental traditions of this or that country.

Key words: a multicultural context; political scientists; political processes.

The subject of this research is actual first of all need for professional political scientists for the majority of the countries of the world the very big. It is caused by that modern political processes are very difficult and diverse. The special urgency to this subject is given by a multicultural context in which modern political processes proceed.

The multicultural context in this research is understood as variety of cultural traditions of the different nations which representatives live in this country mental traditions in which differ from their own mental traditions.

It is obvious that this multicultural context can influence political processes in this country in case number of representatives of other mental traditions rather big. Such situation developed now in many European countries. In France, Italy, the Netherlands the great influence on political processes is rendered by migrants from North Africa, in Germany – from Turkey. This list can be continued. It is characteristic that the scale of similar migratory processes increases. Respectively, all becomes more difficult to solve the problems arising during interaction of big social groups of representatives of the different nations, different mental traditions. Complexity of the solution of these problems is shown, in particular, that the relation of the indigenous (main) people of this country to migrants sometimes happens hostile for various reasons. One of the main reasons for hostility to migrants consists that migrants don't observe mental traditions of that country to which they arrived. Such hostility in the conditions of a multicultural context sometimes leads to the conflicts of big scale, including to political conflicts. For example, in France in recent years periodically there are collisions of police with migrants from North Africa. To stop these collisions yet it is not possible, though the political leadership of France offers various versions of the solution of this complex problem. In particular, right-wing parties suggest to limit entry into the country of migrants. However it contradicts the Schengen agreements allowing free entrance and departure in countries of Western Europe.
It is possible to tell that now the problem of disputed relationship of representatives of the different nations in the conditions of a multicultural context has no conventional decision.

The solution of this problem can be found, in our opinion, in strategic prospect, by means of inclusion in system of preparation of professional political scientists of a number of the subject matters opening the reasons of the modern international conflicts.

The reasons of the modern international conflicts, including the conflicts to migrants, in many respects essentially differ from those reasons which were several decades ago. The main difference of the modern reasons of these conflicts from the previous consists, in our opinion, in essentially new approach to prospects of development of the national states. It is known that in the European community the problem of disappearance of the national states is actively discussed. However the solution of this problem isn't found yet. Moreover, the European community is now in system crisis an exit from which many see in refusal of the European integration and return to the independent national states. In such conditions a large number of migrants in the European countries will inevitably lead to increase in number of the international conflicts.

It should be noted that the multicultural context which has developed in Western Europe objectively gives to all political processes inertial character. This inertial nature of political processes doesn't allow to solve arising problems during the short period of time. It is obvious that the solution of the modern international conflicts needs the long period of time. Proceeding from it, it is possible to tell that in the solution of the called problems the system of the higher education can play a big role.

In system of the higher education, especially in system of preparation of professional political scientists, it is possible to include such subject matters which wasn't earlier and which consider features of modern and future political processes. Difference of these new subject matters from old can be seen that in them that multicultural context which developed in modern Europe should be studied and of which wasn't earlier. Besides, in new subject matters the prospect of development of a modern multicultural context, for the present not absolutely clear for many politicians should be shown. The general methodological basis for these new subject matters can become that always was considered as strength of the European education system – dialectic (according to G. Gegel and K.Marx) an approach to the analysis of political processes. Dialectic outlook can help to find the solution of the problems which have arisen in Europe.

It is known that the dialectic outlook assumes ability to see a contradiction in social development and to find ways of permission, removal of these contradictions. Only within dialectic outlook it is possible to see prospects of development of the national states in the conditions of globalization because the dialectics allows to analyze inevitable interactions of contrasts.

In our opinion, professional political scientists are necessary for teaching dialectics, ability to see unity and conflict of opposites in political processes. This task very difficult, it assumes a system approach to training of students and, except other, refusal of the philosophy of a postmodernism extended now.

If to try to find something the general in preparation of political scientists in the different countries, it is possible to note the following. All options of the specified preparation provide different ways (sometimes opposite) solutions of the same question on collision of the state and corporate interests. The term "corporation" in this case is used in the widest sense as association of people on interests: economic, bureaucratic, social, national, political etc. Thus it is necessary to mean that all these options reflect real processes and interests of big or small social groups. This indisputable fact should be considered at the solution of the tasks designated by us. In such context the problem of preparation of political scientists consists in inconsistent, simultaneous and continuous interaction and opposition
of the state and corporate interests. This interaction and opposition also make a problem, in it its contents, its essence.

Would be a mistake to consider that this problem can be solved in favor of only the state or only corporations. The solution is necessary for looking for in an optimum ratio state and corporate (in a broad sense) interests. It is represented obvious and long ago proved that without the state as the principal organ of management of society can't be reached a consent in society as set of a set of the corporations having various interests. From here with inevitability follows that as criterion of an optimality state signs as that, signs of the state which «should be» act. Unlike corporations which can appear and disappear, the state as that (irrespective of the form of government and a political system) «should be always». The state as that has a number of known unchangeable signs which can be reduced to three basic: 1) territory; 2) population; 3) resources of all types (economic, political, intellectual, natural etc.). These signs shouldn't decrease or disappear at all. Otherwise the state as that becomes unstable or will disappear. In the unstable state interests of the strongest corporations that results in even bigger instability of society and the state inevitably start to dominate. The state as that has a need for preservation and protection of the patrimonial, intrinsic signs. In realization, satisfaction of this requirement the state interests of any state also consist. In such context it is possible to formulate our author's determination of the state interests. The state interest is need of the state expressed in the form of the law for preservation and development of signs of the state by all branches of the government, by means of government and with active participation of the majority of citizens of this state. Key concepts of this definition: «requirement» and «state sign». Any state has a need for self-preservation (in preservation of the signs) and in this self-preservation and the state interest consists.

In search of examples of a solution of the problem of a formulation of the state interests in the presented look it is enough to address to world experience. In the majority of the stable countries of the world this problem is solved long ago and unequivocally in favor of such state which considers interests of all corporations and provides safety of all population. In practice the solution of this problem is complicated by constant resistance of any corporations, however, this resistance also constantly is overcome by the state. This contradiction between the state and corporate interests is in the center of modern world politics. Basic complexity of permission of this contradiction consists, in our opinion, in its dialectically inconsistent character, available the extramental, irrational beginning in mental traditions. Such approach inevitably assumes the analysis of a philosophical problem of a ratio rational and irrational in public consciousness.

The philosophical problem of a ratio rational and irrational is among fundamental problems, and as any fundamental problem, has exits to concrete areas of knowledge, in particular, on area of philosophy of the higher education. In the field of philosophy of the higher education of "crossing" with this problem it is possible to see in search of philosophical and methodological approaches to teaching of such subject matters, as history, political science, philosophy. In teaching of these subject matters inevitably "collision" with such social phenomena in which the ratio of rational and irrational people in behavior, in public consciousness is obviously shown. However the ratio rational and irrational for the present belongs to area of the low-studied problems which do not have a consistent explanation. Respectively there is a question of how to explain to pupils this complex problem which they face not only in the course of training, but also in an everyday life? This question is directly connected and with a question of how to understand actually this problem which is among "eternal" philosophical problems?
The solution of these questions can be promoted somewhat by the social and philosophical analysis of processes occurring in the modern world, in particular, such global process, as mass information. Rapid growth of mass information, explosive nature of information processes carry to one of the main features of the modern world. Mass information can be considered as one of the strategic directions of development of the modern world community, bringing to changes in public consciousness, including to change of a ratio rational and irrational. To such changes in the public consciousness, especially obviously shown recently, at the end of XX – the beginning of the XXI centuries, carry, except other, increase in volume of information functioning in public consciousness and increase in speed of distribution of information. These changes bring, in particular, to that the ratio rational and irrational becomes inevitable more various on the information filling and probable results. In such situation there is actual an analysis of mechanisms of information interaction in public consciousness, including in the ratio rational and irrational, with reference to teaching of a number of subject matters at the higher school.

It should be noted in this regard that mechanisms of information interaction in public consciousness are still a little studied. Therefore the analysis of these mechanisms can promote search of new approaches to research of a ratio rational and irrational in public consciousness. The analysis of these mechanisms with reference to our research presumes to conduct search of such philosophical tools which would promote more concrete designation rational and irrational or their separate parties, in particular, connected with one of types of information – with social information. Moreover, modern approaches to concept «social information» don't exclude use of this concept of quality of the general basis for comparison rational and irrational. That social and information approach allows to designate the unique indisputable moment in understanding of the irrational means, in particular: irrational is the substandard Latin word which is steadily functioning in public consciousness and carrying out the same information function, not dependent, in a certain degree, from that contents which is put in this word during the various historical periods and in various cultures (irrational is something "unreasonable"). Leaning on this indisputable fact, within social and information approach becomes possible to compare rational and irrational as the comparable words (information) which are steadily functioning in public consciousness, with the corresponding disclosure of the mechanism of their ratio. Such approach is represented unique if to mean something indisputable in understanding of the irrational. In this regard it is represented obvious that in modern conditions the analysis of the mechanism of information interaction in a studied ratio became an actual task.

The analysis of a studied ratio by means of social and information tools appears as the option of research which is giving in to check that somewhat distinguishes such analysis from version of the analysis with the help of "difficult checked" concept "reason". Check of results of similar research is possible, in our opinion, on a way of comparison of the revealed social and information parties rational and irrational in the course of their real social and information functioning in many respects defining motivation of social activity, that is check through the analysis of interrelation of social information and social activity.

One more problem caused by mass information and emphasizing an urgency of a subject of research, it is possible to consider a remaining gap between number of the people included in modern information processes and yet not included in this processes. This gap remains very essential – in the most general view it is possible to tell, being guided by well-known statistical data that more than 50 % of the population of Earth for the present have no possibility to use global information resources. One of consequences of it is that knowledge of those who is included in modern information processes grows much quicker than knowledge of those who isn't included in these processes. Different degree of knowledge of people in modern conditions can lead, in our opinion, to emergence of new different
options of a ratio rational and irrational in public consciousness. Besides, use of modern information technologies allows to manipulate, as we know, public consciousness in much big scales, than earlier. The modern manipulation public consciousness leads to that in some cases big masses of people appear misinformed, get to the irreal world, in virtual reality that can essentially affect a ratio rational and irrational in public consciousness.

The modern manipulation consciousness can be considered as one of manifestations of transformation of a dichotomy «reasonable – unreasonable» in a dichotomy «conscious – unconscious» where under "rational" it is understood "conscious", and under "irrational" – "unconscious". Thus rational and irrational many suggest to analyze a ratio through "rational", that is to rationalize this ratio. Rationalization of a studied ratio is expressed, in particular, in numerous attempts to "measure" this ratio "from the outside", as a ratio conscious and unconscious. However these attempts yet didn't lead to expected results. Without denying possibility of such direction of researches, it is necessary to mark out him while the unresolved tasks concerning our subject: these methods don't allow to "measure" social values – moral, family, political and others. These social values yet don't give in to rationalization, that is "measurement". Social and information approach assumes the opposite direction of researches of rational and irrational – studying not from the outside, and from within consciousnesses and only through consciousness, having left behind a research framework a problem unconscious.

In the conditions of mass information by the most optimum it is represented information-activities an approach to the consciousness, allowing more or less consistently to explain a ratio rational and irrational in public consciousness. Information-activities approach assumes identification of internal necessary communication, internal unity of studied contrasts – rational and irrational, opens possibility of search of this unity through the analysis of an information and functional role of rational, irrational and their ratio in public consciousness.

The question of approach possibility to consciousness as information activities is considered in A.N. Arlychev's work. [1]. A.N. Arlychev, as well as some other researchers, develops information-activities an approach to the consciousness, allowing, except other, «to reveal and open the nature of that information mechanism which defines specifics of functioning actually consciousnesses». [1, p. 6]. With reference to our research, the solution of this question appears as a necessary condition of achievement of a goal in the chosen foreshortening caused by noted specifics of the term "irrational". For achievement of a goal it is necessary to define the base concept "information". It is obvious that from a set of available definitions of the concept "information" of our research only such definition which doesn't contradict the chosen methodology can be used. As for our research information "in itself", how many its functional role in public consciousness so far as in it it is quite applicable, in our opinion, classical definition of information as «the removed uncertainty» [2, p. 43] is important not so much.

For social and philosophical research such approach creates possibility of allocation of social and information aspect of a studied ratio within traditional consideration of social information as one of the parties of social activity. Under social information we, at present, mean that its definition which gives N M. Churinov: «If … removal of uncertainty is carried out in the conditions of human activity, social information» [2, page 43] as a result takes place. In the tideway of the methodology offered by N of M. Churinovym, we consider also interdependence, interconditionality of social activity and the social information, expressed in the thesis:« Social information as essence activities, and activity as essence is information» [2, p. 43] Proceeding from such characteristic of social information, we have an opportunity to allocate in social activity of the subject social and information aspect, i.e. process of
creation and processing of social information by the subject in the consciousness. Interdependence and interconditionality of social activity and social information can be seen that social activity "creates" social information, and social information, except other, "creates" motives to social activity. In other words, without social activity social information becomes impossible, and without social information social activity becomes unmotivated. To see in this process a ratio rational and irrational, it is necessary to present rational and irrational in the form of social information or, more precisely, its properties.

To show rational and irrational in the form of properties of social information, it is necessary to reveal internal unity of these two contrasts as social and information unity. In this regard it should be noted that in available numerous attempts to find a certain unity rational and irrational the aspiration noted by us to "rationalize" irrational obviously prevails, to express irrational through the rational. These attempts didn't crown yet success in many respects because the irrational has no more or less certain contents and consequently always "escapes" the fixed characteristics of the rational. In this research the opposite approach – in search of internal unity rational is offered and irrational we lean on irrational, aspiring to express rational through the irrational. Such approach within the chosen methodology is possible only in one case when the irrational is considered only as the substandard Latin word which have an infinite set of values and steadily functioning in public consciousness. It is the unique indisputable characteristic irrational. Rational in that case too it is possible to consider only as the Latin word which too have a set of values and steadily functioning in public consciousness. It too one of indisputable characteristics of the rational. Thus, we with obvious evidence receive undoubtedly a general characteristic rational and irrational are two Latin words with a set of the values, steadily functioning in public consciousness. These indisputable characteristics rational and irrational within the social and philosophical and social and information analysis allow to conduct search extremely the general basis for their comparison, that is to conduct search extremely the general social equivalent rational and irrational. Extremely the general social equivalent with evidence should be the certain social universaliya included in the sphere of public consciousness, created in the course of social activity and capable to execute social and information functions. As base concept of a framework of the chosen methodology social activity acts. Therefore, the required equivalent is something created by the person and having universal value. In extremely general view this criterion in a certain degree is answered by the concept "culture". The inclusiveness to the sphere of public consciousness inevitably assumes such characteristic of culture, as outlook. The concept "culture" integrally includes also social and information functioning of the elements. Thus, to a required equivalent to a greater or lesser extent there corresponds concept «a world outlook universaliya of culture». For the solution of an objective it is necessary to find definition of a world outlook universaliya of the culture, not contradicting the methodology chosen by us. Such definition we find S. Stepin according to whom world outlook universaliya of culture are categories at Century, «which accumulate historically stored social experience and in which system of people of a certain culture estimates, comprehends and endures the world, reduces in integrity all phenomena of the reality getting to the sphere of its experience» [3, page 16]. If the offered logic scheme (necessarily extremely short) doesn't cause doubts, it is possible to tell that rational and irrational becomes possible to turn on in the category of world outlook universaliya of culture.

Inclusion rational and irrational in the category of world outlook universaliya of culture creates fundamental conditions for our research, allowing messages search of ways for a specification of rational, irrational and their ratio. These conditions treat: in the ontologic plan – possibility to consider rational and irrational as the opposite sides of outlook; in the gnoseological plan – possibility to
consider rational and irrational as social information, to be exact – as two opposite properties of social information (a specification of these properties – a subject of separate article).

The done short analysis allows to assume that in teaching of subject matters – stories, political science, – rational and irrational it is possible to suit philosophy to a ratio in the social and information plan, to consider this ratio as social and information function, as process of shifts and the transformations occurring in public consciousness. In the analysis of this process of shifts and transformations it is possible to rely on the standard definition rational [4, page 54], and irrational to consider "only" as a word, the certain information as which contents the stored social experience of the subject acts. The subject is guided by this social experience in the social activity, correlating it to rational definition of surrounding reality.

This correlation of the unique social experience with surrounding reality can be considered not as something mysterious and inexplicable, and as usual (but still low-studied) social and information process. As we tried to show, information - activities the approach to a ratio of the rational and irrational opens additional possibilities for understanding as most "eternal" problem of a ratio rational and irrational, and for search of options of its studying by students of the higher school. The offered approach allows to remove with irrational «an uncertainty cover», to consider irrational not as something "unreasonable", "unconscious", mystical and as the stored social experience of the specific subject which is transformed in public consciousness to social information and participates in social and information interaction.

In our option the problem of a ratio rational and irrational in public consciousness consists in that on a uniform methodological basis to open a role of a ratio rational and irrational in world outlook reasoned social activity. It is possible to consider as the solution of this problem, first, a choice of the corresponding methodological basis; secondly, a specification on this basis of concepts "rational" and "irrational"; thirdly, disclosure on this basis of the social and information (functional) mechanism of a ratio rational and irrational in public consciousness; fourthly, identification of a role of a studied ratio in formation of motive of social activity.

The offered formulation of a problem of a ratio rational and irrational in public consciousness displays only one of possible aspects of a fundamental philosophical problem rational and irrational. However this formulation, first, is guided by obviously indisputable characteristics rational and irrational; secondly, allows to see a ratio rational and irrational in public consciousness as rather independent social and information process. The last is defined by that this process is purposeful, has the purpose – formation of motive of social activity. This purpose also defines relative independence of this process as which main "participant" the ratio rational and irrational acts. Relative independence of social and information process of a ratio rational and irrational in public consciousness consists that this process is first purposeful, has own purpose – formation of motive of social activity, and, as a result, is delimited from other social and information processes by this focus; secondly, inevitably has own social and information contents defined by this focus. Independence of this process is always relative owing to that the purpose of this process – formation of motive of social activity – always is defined by set of the reasons (internal and external), main from which the public need of the specific subject of social activity acts.

If the offered planimetric logic scheme doesn't cause basic objections, possibility for its further development opens. In particular, the ratio rational and irrational as rather independent social and information process can be considered as the operator of shifts and transformations in the public consciousness, close on the functional role to the operator "prevrashchennost" (according to M.K.Mamardashvili). Besides, relative independence of this process allows to entitle it, to name it own «». In our option the name of this process should display its contents, namely – the mechanism of
social and information interaction which assumes shifts and transformations of social information in public consciousness. These shifts and transformations can be considered as «a counter number of metamorphoses» (according to E.V.Ilyenkov), as interaction of social information fields. At such approach the name of this process can be created by analogy to the physical concept "dipole". If in a dipole electromagnetic fields cooperate, in a studied ratio social information fields cooperate. By analogy to a dipole rational and irrational in public consciousness as rather independent social and information process it is possible to call a ratio «sipole». Sipole is an operator of social and information shifts and the transformations occurring in public consciousness within a ratio of rational and irrational as properties of social information.

More detailed disclosure of this "name" demands special research and approbation of the offered logic scheme of understanding of process of a ratio rational and irrational in public consciousness.

The offered approach to the analysis of a multicultural context through a ratio rational and irrational in public consciousness inevitably demands the analysis of such problem, as a role of social invariants in activity of subjects.

The idea of invariants exists in public consciousness since the most ancient times and is expressed in various forms. In our opinion, a social invariant (for example, work, shame) is the standard norm of a human host, a constant component of public consciousness, both institutional, and not institutional, necessary for existence of the subject of social activity as the human subject, dialectically interconnected with social activity of this subject. As the social norm designates a social invariant, except other, borders of social activity of the subject and border of the subject. Social invariants exist in the various forms having, in essence, the same contents – all of them comprise the certain basis defining a way of functioning of complete social system, in particular, of public consciousness. The variety of social invariants can be considered as display of variety of forms of public consciousness. However in order that the public consciousness kept integrity, the general, uniting social invariant promoting preservation of this integrity is necessary. Under such general invariant we traditionally mean work. In work as a social invariant finds the most complete concrete and subject expression a role of social invariants in public consciousness, including in a studied rational and irrational. In the numerous researches devoted to the analysis of process of work, the regulating role of work in public consciousness is convincingly shown. In our opinion, work somewhat promotes removal of a known paradoxicality of public consciousness, randomness and subjectivity overcoming in social processes and, respectively, in a studied ratio rational and irrational.

The social invariant, in our opinion, is created and used by the subject for production and reproduction of the way of activity, in particular, for definition of the borders and system quality.

By means of a social invariant the subject sets an obligation situation, for example: «it is necessary to work», «it is necessary to be ashamed» etc. The situation of obligation can be considered as a general (universal) social invariant. In mental updatings the subject gives to a general social invariant special characteristics, i.e. lines, characteristic for this culture or social group, fills it with the concrete contents, and qualities individual are given to a social invariant in social activity of the individual. The subject "imposes" a general social invariant on existing mental traditions, norms, customs, i.e. carries out their interaction. The analysis of this interaction in social and information aspect, in our opinion, presumes to conduct search of the non-standard solution of a known problem of an explanation of reproduction of norms and emergence of new standard systems.

In this regard in social invariants it is possible to see the means consolidating the subject, providing his integrity. Such assumption is possible, in our opinion, for two quite obvious reasons. First, limiting itself, the subject thereby forms itself, sets to itself the integrity, allocates itself as whole, having
borders. Secondly, creating the borders itself, the subject shows the creative activity inherent only in it, i.e. creates itself. In this process of self-consolidation the subject should overcome collision of the social interests, capable to give to opposition and the conflicts. In this overcoming a social invariant as the border and a way of consolidation can play the most important role of a regulator by means of which the subject finds a compromise between individual, group and general social interests. In order that the social invariant could play a regulator role, it should correspond to interests of all participants of the conflict, i.e. to be socially natural, «» for all, instead of artificial, "another's". Naturalness of a social invariant can be shown that he allows to do that is necessary rather, than forbids to do something. Such "permission" is organic for this subject, internally in it is inherent and consequently isn't perceived as restriction, coercion. The natural invariant, for example, – free work – generates optimism, energy, mass enthusiasm, creativity. The artificial invariant forbids something rather, than resolves, generating thereby "melancholy" about forbidden (Fichte), feeling of "abandonment" (Heidegger) the individual, pessimism.

The social invariant as means, a way of consolidation of the subject should correspond to this subject in the same way as this subject should correspond to own invariant created by him. Such compliance should be simultaneous, «here and now», it should correspond to the conditions which have developed in this concrete historical situation. Such simultaneous compliance (ratio) of the subject and his social invariant can correspond to infinite variety of the world. If the subject and his social invariant correspond not at the same time, are divided in time, correspond to different concrete historical situations, there can be a crisis of the subject (or «rationality crisis») because the subject in that case "will lose" one or several borders because «will lag behind in time», it will appear in a role «catching up the time», the concrete historical situation.

Speaking about a role of social invariants in public consciousness, we will note that their role consists, except other, that they provide tradition existence, but such existence which is characterized by a paradoxicality – both existence, and absence of tradition at the same time. That in a social invariant the tradition at the same time and already is means, and is still created by the subject during each concrete moment of its activity. The tradition «already is» as "old", created earlier; traditions «still aren't present» as "new", being created in new conditions. The mentioned oncoming traffic, including old tradition and new efforts of the subject, creates new tradition as updating of old tradition. It is possible to call this process process of simultaneous creation and tradition destruction by means of a social invariant. The social invariant creates preconditions for creating activity of the subject according to his public requirements, taking into account old traditions and old borders of the subject. Social invariants in many respects provide, in that case, self-sufficiency of the subject. Adapting to the paradoxical world in specific sociocultural conditions, the subject is compelled to create itself for the survival the corresponding invariants which help it to make the way of activity.

One more methodological problem of preparation of political scientists in a multicultural context is definition of an object of research of a political science. In our opinion, an object of research of a political science it is possible to define in the most general view as set of the political relations (that is the relations concerning the power), including all variety of the public relations concerning the power. It is possible to consider the offered option of definition of an object of research of a political science extremely wide because he assumes the analysis of all without an exception of the public relations to some extent mentioning a problem of the power in this country. It is important to note that the made definition considers that in many countries "power" is understood as different social institutes – secular, religious, traditional etc. These features of understanding of the power should be studied to future political scientists. Such approach demands fundamental humanitarian and sociological preparation of future political scientist to which should look for decisions in difficult conflict
situations of collision of interests of different social groups with different mental traditions. World experience shows that such solutions of the called conflicts which are based on understanding of dialectically inconsistent nature of political processes, on ability to find the compromise options accepted for all participants of the conflict are most effective.

In a multicultural context we consider as one more methodological problem of preparation of professional political scientists identification of dominating tendencies in political processes of the concrete countries. Dominating tendencies in political processes of the concrete countries are offered to be revealed on the basis of historically developed mental traditions of this or that country. It means that all participants of political process in the concrete country surely should consider need of observance of laws in force and traditions of this country in the activity. Observance of this condition is necessary restriction for those participants of political process who adhere to other mental traditions which are differing from dominating in this country. We consider observance of this condition absolutely necessary as now, and in the foreseeable future. If this condition isn't observed, inevitably there is a conflict based on a dichotomy "their-stranger". « The stranger» - is the one who doesn't observe mental traditions of the country in which he lives. Respectively the relation to "stranger" often reaches a conflictness, hostility.

To lower a potential conflictness in a multicultural context, in system of the higher education it is necessary to provide such subject matters which would acquaint students with variety of world cultural traditions. The most complex problem in it we consider studying of dialectically inconsistent interaction of different cultures and formation of ability to reveal dominating tendencies in political processes without damage to all other tendencies of infinitely diverse political life.

Ability to see variety of political life to recognize the right of each people to independence and, at the same time, to be able to reveal the main, dominating tendency in the conditions of the concrete country or the world as a whole – here very complex problem of preparation of political scientists which the system of the higher education in modern conditions can solve. If future political scientists receive such fundamental base preparation, they can make more effective practical recommendations to the acting politicians, making decisions in the difficult conflict situations arising in the conditions of a multicultural context. [5]

REFERENCES

CUSTOMER ORIENTATION MODEL FOR A HIGHER EDUCATION INSTITUTION: WHEN IS STUDENT-CUSTOMER ORIENTATION APPROPRIATE?

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Abstract

Extensive debate surrounds the topic of student-customer orientation at an institution of higher education. Some argue that student-customer orientation benefits both the university and the student; others claim that practicing customer orientation at a university is detrimental to both parties. This article argues that it is only after breaking the educational experience into meaningful categories can we ask whether or not student-customer orientation is appropriate at a higher education institution. Relying on review of literature and especially on James A. Muncy’s Orientation Evaluation Matrix (OEM), published in Marketing Education Review in 2008, as well as personal interviews with undergraduate students, the primary aim of the article is to elaborate Muncy’s OEM even further and develop the “Student-Customer Orientation Model” which holds the various categories of an educational experience. The secondary aim is to discuss the appropriateness of student-customer orientation at a higher education institution, relying on the categories in the model.

Key words: Student-customer orientation; model construction; higher education institutions

1. STUDENT-CUSTOMER ORIENTATION AT HIGHER EDUCATION INSTITUTION (HEI)

Outside the world of higher education customers today have a variety of products and services from a wide variety of suppliers (Bristow and Schneider, 2002). With a myriad of sellers who are not homogeneous, but excessively similar, the customer has the power and can vote with his or her purse, wallet, or pocketbook (Chekitan and Schultz, 2005). In other words, the customer is now in control.

The situation is quite similar in the field of higher education (Hussey and Smith 2010) and to respond to the changes on the marketplace, university officials have begun to apply the marketing concept to the academia. The two authors claim that due to the increased commercialism and consumer-oriented culture within the field of education, one of the most severe changes can be witnessed in the relationship between the students and their universities. Since marketing terminology has become commonplace within the university, the perception that students are customers is only logical to set in (Driscoll and Wicks 1998; Pitman 2000).

University marketers now are busy assessing the institution’s student-customer orientation, aim at targeting the market segments they feel their institutions’ strengths would be most likely to appeal to, match the university’s offerings to the needs of the segment, and study the sometimes incomprehensible purchasing decisions of the „customers“ (Bristow and Schneider, 2002). Edmunson adds, “More and more of what’s going on at the university is customer driven.” (1997). According to Svensson and Wood (2007), “students feel that they have rights equivalent to those rights that they see
in the everyday marketplace ... and they transfer the dominant marketplace “customer” model to their perceived relationship with the university” (p. 19-20).

Based on Valenzuela (2009), Saxe and Weitz (1982), Hillebrand (2010), Cross et al. (2006), Kotler and Andreasen (1996), Hoffman and Ingram (1982), Sharp (1991), Parasuraman (1987), Hennig-Thurau (2004), Matthing, Sandén and Edvardsson (2004), Danneels (2003), Jaworski, Kohli and Sahay (2000), Narver and Salter (1990), Kohli and Jaworski (1990), Desphande, Farley and Webster (1993), Bell and Emory (1971), Bailey and Dangerfield (2000), Slater and Narver (1998) and Brady and Cronin (2001), this article defines customer orientation as designing, communicating, pricing and delivering the appropriate and competitively viable product offerings to respond to customer existing as well as future preferences, needs and wants, thereby customizing and personalizing the offerings to provide customer satisfaction. In the remainder of the article the abbreviation HEI will stand for “higher education institution” as an umbrella term for universities, business schools and other higher education institutions.

Regarding customer orientation within a company’s activities, there have been a number of claims made as to it being of utmost importance for an organization’s sustainable development (see Narver and Slater 1990; Kilic and Dursun 2007; Christensen and Bower 1996; Hamel and Prahalad 1994; Doyle 1990; Parasuraman et al. 1988; Pesch, Calhoun, Schneider and Bristow 2008; Bejou 2005). Hamel and Prahalad additionally point out that customer orientation enhances business performance, regardless of the size of the firm and, most importantly, perhaps, regardless of the industry it is in (1994).

Applying the customer oriented approach to an institution of higher education has also created a lot of controversy. To begin with, some claim that when universities face falling demand they should focus on customer (i.e. the students) and remarket the product (i.e. education) and that viewing students as customers provides a competitive advantage for higher education and enhances a HEI’s ability to attract, retain and serve its customers (DeShields et al. 2005; Seeman and O’Hara 2006; Vetter 2005). Desai, Damewood and Jones (2001) clearly state that “Teaching in a setting of higher education is analogous to service delivery in the business sector. Students, as consumers of professional output, have needs and wants, which, if better understood, should result in an improved educational experience” (p. 136).

Browne (2010) claims that students should be put in the heart of the system and that “students are best placed to make the judgment about what they want to get from participating in higher education” (p. 25). According to Browne, schools should rely on student choice to drive up quality.

However, there are also those who disagree that students should be treated as customers. They claim that customer orientation does not contribute to professionalism and the biggest problem of all schools trying to use marketing to solve their problems was the idea that students are customers, thus likening the school to an upmarket training provider, rather than a HEI (Argenti 2000; Franz 1998; Holbrook 2005, 2007; Chonko, Tanner and Davis 2002). Holbrook and Hulbert (2002) state that education is one of the areas, where customer orientation does not belong because it would be at odds with the educational system if it was oriented toward “catering to the potentially low-brow and careerist tastes of students redefined as customers” (p. 100).

Hussey and Smith (2010) state that there are areas in which the “customer” analogy is simply inappropriate and even damaging. They claim that “the product (education) does not exist at the point of purchase and it may remain unavailable because unless the student has the necessary ability and works sufficiently hard, they may get neither an education nor a qualification” (p. 49).
One of the arguments that seems to prevalent in academic literature on this topic is the deduction that students should be/are viewed and treated as customers on the grounds that since they are paying for their education, they are entitled to have the goods delivered. The ultimate good or product that is to be delivered is the degree upon the completion of the programme. Nevertheless, some authors who have discussed this topic (Emery et al. 2001; Clayson and Haley 2005 among others) adamantly claim that the payment of the tuition fee does not automatically guarantee the degree. Irrespective of their effort, payment should not warrant good grades (Clayson and Haley 2005; Scott 1999), programmes should not be easy or assessment generous (Clayson and Haley 2005; Chonko et al. 2002) and lectures should not be entertaining and/or fun (Holbrook 2004). Some maintain that in addition to students, there are other beneficiaries of higher education: the future employees, the government bodies, the students’ families, the society in general (Eagle and Brennan 2007), who all have similar legitimate interests in higher education, and such “dumbing down” of education, as called by Emery at al. (2001) and Holbrook (2007), would be detrimental for the other interested parties in the long run.

Holbrook (2004) is using a sarcastic term “edutainment” and depicts a situation where customer orientation suggests the merits of offering students information which for them would be easy and fun to master, collecting feedback in order for the teachers to be able to create more popular course offerings and designing programs, the aim of which is to foster the graduates’ career on the job market and which Holbrook calls “vocationalism” or “trade-school mentality”. Similarly, Emery et al. (2001) depict a customer-driven course, where students compile their own syllabi, decide the course objectives, texts, assignments and assignments weights, on the amount spent on various topics and guest speakers and even though they attest that most HEIs do not practice these extreme methods of customer orientation, the mentality is still there in terms of office hours, course drop dates and procedures, attendance and teaching evaluations.

2. REVIEW OF EXISTING RESEARCH AND MUNCY’S ORIENTATION EVALUATION MATRIX (OEM)

Concerning studies which have an immediate bearing on the issue at hand, there is no lack of empirical evidence. Bristow and Schneider (2002), for example, developed and empirically tested a seven-item scale called the Collegiate Student Orientation Scale (CSOS) designed to measure students’ perception of the degree to which a higher education institution is student oriented. To develop the scale, the two authors relied on the scale for Customer Orientation of Sales people developed by Saxe and Weitz in 1982. However, the scale developed by Saxe and Weitz primarily intended to measure customer orientation of sales people and therefore the author of this article believes that it does not fit the context of a HEI.

Delucchi and Korgen (2002) surveyed sociology undergraduates and the 41-item questionnaire administered to 195 students was aimed at measuring the extent to which students believe that a school should be customer oriented. The survey rated the students’ attitude toward learning, faculty and grades. In the survey 43% of the respondents agreed that “If I’m paying for my college education, I’m entitled to a degree”, 53% agreed that it is the instructor’s responsibility to keep their attention in class and 73.3% of students contended that they “would take a course in which they would learn little or nothing but would receive an A”. All in all, the authors have illustrated the students’ consumerist approach to education in some categories, but have remained rather superficial in terms of the other categories of higher education.
Also Obermiller, Fleenor and Raven (2005), relying on two definitions (students as customers and students as products) and a questionnaire, conducted a quantitative study in two US and one European university both among the faculty and the students. Regardless of the relatively small sample, they provide insight into differences of perceptions across different fields of study as well as across different types of universities among students and faculty. Yet, it is the author’s opinion that the study once more ignores many of the aspects which the educational experience contains.

Regarding the findings described above, it must be acknowledged that even though the issue has been approached, the existing studies have not managed to probe as deeply into the matter as one would expect. Research so far either aims at incorporating all of the aspects of educational experience into a single or very few rather general questions (Bristow and Schneider 2002) or measures only some aspects of the educational experience and then generalize the findings across the whole array of experiences (Delucci and Korgen 2002; Obermiller, Fleenor and Raven 2005). As a result, this avails only a very limited and rather superficial understanding of the issue at hand because one should not hold that a HEI per se should or should not be student-customer oriented. Because the educational experience consists of a number of aspects, the educational experience should be broken up into categories (Muncy 2008), and it is only in terms of each category that the question of student-customer oriented can be asked.

To construct the student-customer orientation model, this article draws on Muncy (2008) who claims, “Before deciding whether students are customers, products, or partners, a systematic analysis needs to be done” (p. 16). Muncy’s OEM suggests that the educational experience consists of course content, curriculum, pedagogy and style, rigor and student evaluations of teaching. According to the matrix, student-customer orientation is appropriate concerning pedagogy. Other educational experiences in the matrix should follow either faculty orientation (course content), where the key influencer if the teacher; balanced orientation (curriculum), where the teacher, the student and the external stakeholder are all significant influencers; external stakeholder orientation (rigor), where external stakeholders are key influencers, the teacher a significant influencer and the student a minimal influencer; and content-specific orientation (use of student evaluations), where the teacher should have a significant influence on content, student on pedagogy and external stakeholder on rigor. He suggests that there are times when student-customer orientation is appropriate and times when it is inappropriate (2008, p. 22).

Nevertheless, an even more thorough understanding of the matter can be obtained if the OEM categories suggested by Muncy are broken up even further and additional sub-categories are added.

It must be noted that even though the article agrees with Muncy and a number of other scholars who state that education as a service has many customers (e.g. the students, the students’ parents, the labour market, etc.), this article concentrates on only one of the many, namely the students.

3. CONSTRUCTION OF THE STUDENT-CUSTOMER ORIENTATION MODEL

In order to address the issue at hand, a multifaceted model incorporating an array of educational experiences must be constructed. According to Kasanen, Lukka and Siitonen (1993), a study may be called constructionist if it is linked with individuals’ interpretations and objective observations and produces constructions – models, diagrams, plans, organizations, etc, or entities which produce solutions to explicit problems (p. 244-245).

Following Dodig-Crnkovic (2010), this research method implies the building of an artefact (practical, theoretical or both) that solves a domain problem (including a model for existing phenomena) in order
to create knowledge about how the problem can be solved (or understood, explained or modelled), and if previous solutions/models exist, how the solution/model is better than previous ones.

In order to construct a new model which would include the various educational experiences, existing literature was first analysed. As a result, a tentative model for student-customer orientation is presented in Figure 1 and then explained.

Based on the review of literature, student-customer orientation at a HEI can be classified into two major levels – the level of the institution and the learning situation. Those two fall into several subcategories. At the institutional level, student-customer orientation is divided into administrative processes, which is made up of admission (Eagle and Brennan 2007; Bailey and Dangerfield 2000), student feedback (Holbrook 2004; Emery et al. 2001; Eagle and Brennan 2007; Bailey and Dangerfield 2000; Muncy 2008; Khalifa 2009) and rigor (Edmunson 1997; Clayson and Haley 2005; Emery et al. 2001) and curriculum design (Franz 1998). At the level of the learning situation, student customer orientation falls into rigor, which is composed of grading (Kezim, Pariseau and Quinn, 2005;
Franz 1998; Clayson and Haley 2005; Chonko et al. 2002; Emery et al. 2001; Eagle and Brennan 2007; Scott, 1999; Chonko et al. 2002; Bailey and Dangerfield 2000), behaviour related aspects (Eagle and Brennan 2007; Franz 1998; Muncy 2008) and relational level (Clayson and Haley 2005; Franz 1998; Bailey and Dangerfield 2000); learning (Holbrook 2004; Eagle and Brennan 2007; Franz 1998), teaching methods (Chonko et al. 2002; Muncy 2008) and course design (Emery et al. 2001; Franz 1998; Clayson and Haley, 2005; Chonko et al, 2002; Muncy 2008).

Upon the completion of the tentative model for student-customer orientation, qualitative semi-structured personal interviews were conducted to elicit even further possible categories which the existing literature may have left uncovered. The interviews also sought the participants’ viewpoint on student-customer orientation within the educational experiences.

The interviews were conducted during two months with 7 undergraduate business students of both sexes and in either their 2nd or 3rd year of study. Relying on Onwuegbuzie and Collins (2007), according to whom the size of the sample is sufficient when no new information emerges, the number of interviewees remained at 7 since the last interview showed that data saturation and informational redundancy was achieved. Altogether, the interviews yielded 7 hours and 21 minutes of discussion and 121 pages of transcripts (font Times New Roman, 12). The transcripts were then analysed and results categorized with the aim of eliciting further dimension of educational experiences to be added to those in the tentative student-customer orientation model.

The participants were selected based on the following criteria: 1) both male and female participants has to comprise the body of respondents; 2) respondents had to be in their 2nd or 3rd year of study; 3) respondents had to be full-time students; and 4) respondents had to have an open mind towards the subject and willing to express their opinion. The reason for choosing students in their 2nd or 3rd year of study, the researcher guaranteed a body of respondents with some experience in being a student. Students in their 1st year would have had little experience with the different aspects of what constitute the educational experiences. The researcher chose full-time students because compared to part-time students they spend proportionally more time at the HEI and attend the HEI on a more frequent basis, as a result of which they have more contact with the HEI and are richer in educational experiences. Based on the researcher’s prior experience in the classroom, talkative rather than quiet students were chosen because this ensured that the interview would reveal richer information.

The interviews were scheduled in advance, mostly by approaching the participants in person. Having familiarized the students with the topic of the interview, all eagerly agreed to participate with the exception of one participant, whose schedule did not permit the proposed times. Instead of him, another participant was chosen. All participants’ anonymity was guaranteed and before the interview, permission for recording was obtained.

As a result of the semi-structured interviews, there emerged a number of further dimensions of educational experience in which student- customer orientation could be (and sometimes is) practiced. The following categories were added to the model in Figure 1: graduation, communication with administrative staff, communication between the student and the teacher, classroom studies and individual studies. Figure 2 below depicts the student-customer orientation model based on literature review as well as personal interviews. The model is explained in more detail below.
As a result of the literature review and interviews, the educational experiences within which student-customer orientation can be practiced fall into administrative processes (consisting of admission, student feedback and graduation), curriculum design, communication with administrative staff and rigor at the institutional level. At the level of the learning situation, student as customer orientation is made up of rigor (divided into grading and behaviour-related elements), student-teacher relationship (further divided into communication and other relationship matters), formal learning (both individual and in the classroom) and finally pedagogy (consisting of teaching methods and course design).

Compared to Muncy’s OEM, this model contains a number of further categories of educational experiences and thus provides a more thorough insight into the issue of student-customer orientation at a HEI.

If a HEI decides to practice student-customer orientation across all categories, or adopt pure market orientation (Snyder 2007), the HEI will become nothing but a diploma-mill, whose aim is to provide as many students as possible with a degree which, on the students’ side entails easy access, minimal effort and input in an entertaining environment with easy grading, pleasing teachers, little work and lax graduation requirements. The author agrees with Muncy (2008), according to whom “to do so, the school would ruin its reputation and seize to fulfil a viable purpose in society” (p. 17). However, if the
HEI decides to completely ignore the student’s needs and desires, it risks being left behind with very few students (if any at all). Relying once more on Muncy (2008), “the students have viable needs and wants in the educational experience” (p. 17) and unless the needs and wants are met, the students have a vast array of HEI offerings to choose between.

4. DISCUSSION: APPLYING THE MODEL

When placing the concept of student-customer orientation into each of the categories in the model, more contextualized and meaningful answers emerge. Whether or not a HEI should apply student-customer orientation now depends on which category of the educational experience is being considered. The article will proceed to discussing each of the 14 categories in the model in terms of whether or not a HEI should adopt student-customer orientation. The categories in the model will be substantiated with references in existing literature, results of interviews as well as the author’s personal opinion.

5.1 Institution

5.1.1 Rigor

This category refers to all the student’s dealings with the HEI during the process of acquiring higher education. It constitutes the perception and experience of the students when weighing the ease or hardship of the educational experience as a whole. It is an aggregate perception of the time spent acquiring a degree in terms of whether it was rather about sweat, blood and efforts or about entertainment, fun and wiggling out.

Based on a number of authors (Eagle and Brennan 2007; Hussey and Smith 2010; Franz 1998; Clayson and Haley 2005; Chonko et al. 2002; Holbrook 2004 among others), the interviewees and personal experience, a HEI should rather exercise rigour than lenience because only after a lot of effort and diligence can one be truly proud of the acquired academic degree. According to the interviews, a rigorous HEI would also be appreciated by the potential employers on the labour market and the graduates are in a better position to be employed.

5.1.2 Administrative Processes: Admission

Whether a HEI decides to admit all, most or only a limited number of students is for the management of the HEI to decide (Muncy 2008). One way or another, each of the three practices has its merits and drawbacks. If a HEI decides to admit all applicants irrespective of their intellectual abilities, the HEI can benefit from large enrolment numbers and fees. On the other hand, it runs the risk falling reputation and becoming a HEI for students with very low academic qualifications, thus alienating students with great academic abilities (Eagle and Brennan 2007; Bailey and Dangerfield 2000). Students with high commitment to study would feel disturbed by a number of demotivated students whose primary aim is anything but to study.

Admitting most applicants diminishes the risk described above to some extent, but not fully and the line between who gets admitted and who does not is excessively difficult to draw. On the one hand, the HEI is motivated by another potential tuition fee; on the other hand, it wants to have a high rather than low quality student body.

The last alternative – to admit only a limited number of students – is probably the most desirable from the vantage point of the reputation of the HEI, but has its disadvantages in terms of income generated from the tuition fees. Because HEIs today greatly depend on funding (Conway, Mackay and Yorke
1994), the possibility of admitting only the best is unattainable for many, if not most. As unfortunate as it is, such a situation has, on a wider scale, led to what a number of authors describe as commercialization of higher education (Kolesnikov et al. 2005; Söderqvist 2002; Bok 2003 among others) in which academic qualifications are being bestowed upon a number of those who are undeserving. 

Which of the three alternatives the HEI goes for is obviously for each of the school’s management to decide (Muncy 2008), but the merits of the first two should be weighed against the drawbacks.

5.1.3 Administrative Processes: Student Feedback

Whether or not a student is qualified to give feedback on the various aspects of his educational experience has been widely debated in academic literature (Holbrook 2004; Emery et al. 2001; Muncy 2008; Bailey and Dangerfield 2000). However, this topic remains outside the scope of this article. Instead, it agrees with Muncy (2008) that administering and drawing on student feedback should also be the HEI’s management’s decision (Muncy 2008). If a HEI wishes to take a student-customer oriented approach, it will ask its students for feedback and draw necessary conclusions. Nevertheless, regardless of today’s marketing mantra, which claims that customer orientation is the key to success (Bennet and Cooper 1981; Johnson 1998; Kotler and Andreasen 1996; Hillebrand, Kemp and Nijssen 2010 among others), a HEI should invariably remember that a school with its service of education differs from a car dealership (Svensson and Wood 2007), where one can choose a car in desirable colour, with appropriate extras and negotiate the price. It is true that students today can determine the major as well as the minor, they also have a choice as to electives, teachers, times and days, but all these choices, one way or another, entail certain rules and regulations put in place by the HEI and should not be negotiable. Or as Hussey and Smith attest, “the academic teaching the class is not in the position of a salesperson, who has to accept that, at least in principle, that the customer is always right” (2010, p. 50).

One cannot, for instance, choose not to take a compulsory course or have one’s way regarding whether or not to perform tests, exams and assignments. Therefore, while crafting the student feedback questionnaire, the HEI should carefully consider the categories which it seeks students’ feedback on and those it does not.

5.1.4 Administrative Processes: Graduation

Upon graduation the HEI will testify that the graduate is eligible to be the proud owner of an academic degree from the particular HEI. From there on the name of the school will forever be a part of the graduate’s life, both professional and personal. Based on the graduate’s performance, it is not only the quality of the graduate that will be assessed, but also the quality of the HEI. The respondents in the interviews all agreed that a HEI should realize the importance of deciding whether or not a potential graduate deserves to have the name of the HEI on his/her resume in the future, and depending on this, make a decision on the criteria which determine whether a student is or is not deserving of an academic degree. The respondents add that if graduation is easy, it is not only the reputation of the HEI which is tarnished, but also the reputation of those students who have worked hard for their degree.

5.1.5 Communication with Administrative Staff

The role of administrative staff in the students’ educational process is crucial. They act as consultants whom the students can turn to in case problems related to studies occur. Based on the interviews, the students would like to be treated as customers by the administrative staff. However, they specified that
communication with administrative staff should be friendly and helpful, but it is the following of the regulations and not exceptions that accommodate students’ wishes that should be a norm. The interview participants added that exceptions should be very difficult rather than easy to obtain.

Ideally, the degree of student-customer orientation of administrative staff should be officially determined by the HEI’s code of conduct.

5.1.6 Curriculum Design

Based on personal interviews with students as well as Franz (1998) and Holbrook (2004), (bachelor) students, while entering a HEI, do not know which courses will benefit them most. Therefore, quite contrary to Walker and Ainsworth (2001) and Lashine, Gill and Molnar (2002), this article states that student-customer orientation should not be practiced at the level of curriculum design and students should not be consulted on the choice of courses within a curriculum (Muncy 2008). Instead, the body to decide on the courses within the curriculum should comprise professors, but also specialists of respective fields as well as alumni. A HEI, while (re)designing a curriculum, should draw not only on internal, but also external expertise, thus balancing the academic with the practical.

The article will now turn to the level of learning situation which is even more multifaceted than the institutional level. It is first divided into four and then into eight further sub-categories and will be discussed in terms of student-customer orientation below.

5.2 Learning Situation

5.2.1 Rigor: Grading

Many authors who have written on student-customer orientation touch upon the topic of grading to a greater or lesser extent (see e.g. Kezim, Pariseau and Quinn, 2005; Franz 1998; Clayson and Haley 2005; Chonko et al. 2002; Emery et al. 2001; Eagle and Brennan 2007; Scott, 1999; Bailey and Dangerfield 2000). The prevailing viewpoint in the existing academic literature seems to be that grading should be strict rather than lenient and that one should work hard to earn a good grade. Even though easy grading may seem student-customer oriented – one does not have to make great efforts to receive good results – such practice will be detrimental to the students in the future when it appears that the knowledge they received good grades for is (close to) non-existent.

Quite contrary to a number of authors who write that students prefer easy-grading, the interview participants insisted that they would have teachers be strict in their grading rather than lenient. They claim that even though they occasionally wish they could score a good grade with minimum effort, they would later on feel dissatisfied and wish they would have had to work harder for the good grade.

5.2.2 Rigor: Behaviour-Related Aspects

According to existing literature, the I-pay-your-salary-so give-me-what-I-want attitude among students towards their teachers is occasionally detected (Helms and Key 1994; Bejou, 2005; Emery et al. 2001; Clayson and Haley 2005 among others). A clear analogy can be traced back to an everyday commercial setting where the customer has the right to get what he wants because he pays for the product/service. This article strongly agrees with those authors who claim that such student-customer oriented behaviour, if accommodated, will lead to the very demise of education (e.g. Clayson and Haley 2005; Scott 1999; Emery et al. 2001). The interview participants similarly attest that payment of a tuition fee should never translate into behaviour where the teachers are dancing to the tunes of the students. If there is no looking-up to the teachers, the educational experience is devalued.
5.2.3 Student-Teacher Relationship: Relational Level

Where the teacher stands at the relational level with students is of crucial matter. The interviews revealed that there are teachers who become very friendly with their students, as a result of which the students might start taking advantage of such a relationship and assume that the passing of a particular course/assignment is easier or that the deadline is of no relevance.

Whether or not a teacher is friendly is matter for the teacher himself to decide. However, based on the interviews with the students, friendly behaviour in or outside a class should not translate into less rule-following or ungrounded allowances. Even though some teachers are on more friendly terms with students, it does not mean that a deadline set in the beginning of the course could be ignored. Neither does it mean that a course could be passed with less effort if the relationship is of less formal nature. Therefore, at the relational level student-customer orientation should end where rules start.

5.2.4 Student-Teacher Relationship: Communication

When we decide to purchase a car, one characteristic of customer orientation is the availability of the agent in the dealership – the salesman is always available, gives us his mobile phone number and encourages calling him any time we have a question. However, based on the interviews with the students, the same degree of customer orientation would be ridiculous at a HEI.

A HEI should (and some have) develop certain rules. It is the HEI as an institution, not the teacher, who should determine how they should be contacted (by personal appointment, by e-mail, by phone). If by e-mail, then students should know when to expect answers – within an hour, a (working) day, a week.

The reason why these rules should be worked out by the HEI is simple – it would entail consistency and fairness regarding both teachers and students. If a teacher is required to answer an e-mail within, say, two days, students will not expect (or demand) and answer within an hour.

Thus, it is once again the rules set by the HEI that would design the principles for communication between the students and the academic staff.

5.2.5 Formal Learning: Classroom Studies

In this article formal learning is defined as learning that occurs within a student-teacher relationship within a structured learning setting, where the teacher sets the objectives and evaluation criteria. In the model, the category of formal learning falls into classroom studies and individual studies. In terms of classroom studies the teacher should be very specific about his/her requirements regarding study books and other materials, attendance, participation, preparation, involvement, the use of computers in class, etc. This viewpoint is agreement with the interviews where the respondents stated that rules, when established and followed, contribute to a more facilitating learning environment, decreased efforts on maintaining discipline and a more focused learning.

5.2.6 Formal Learning: Individual Studies

Existing literature as well as personal experience reveal that individual work and tasks that require an effort outside the classroom is something that students frown upon (Sword 2009). Education, on the other hand, is more than just a couple of PowerPoint slider per class. In some way, it is a journey where many things are discovered, rather than pointed at (Starkey et al. 2004; Starkey and Tempest 2009). Relying on existing literature as well as personal experience, students would prefer all material necessary to pass a course to be covered in a classroom rather than by complementary individual studying done outside the class. This, however, resembles a training course rather than a university
course (Holbrook 2005). At a HEI, students should develop the habit of being curious, wanting to find out more and making an effort to know more. This is not to say, of course, that classroom-teaching is redundant because teachers still need to provide feedback comment on individual assignments. Rather, it suggests that individual learning, which from the students’ perspective is not an element of student-customer orientation since it requires personal extra efforts, should be an inextricable part of higher education.

5.2.7 Pedagogy: Course Design

The issue of course design is about what to teach. Just like curriculum design is about courses within a curriculum, course design is about topics within a course. The author is in agreement with Muncy (2008) who claims that the teacher, having the proper credentials to teach the class, is in best position to decide which topics should be covered within a course. Because teachers often devote their professional career to studying one particular field, frequently have close connections with the respective industry and sometimes also work in the field outside the HEI, they are likely to be experts in the field and are therefore better informed about the theories, practices and changing trends in the field. This is also in agreement with the personal interviews where students stated that they are, by no means, in a position to dictate the topics to be covered since in this respect they are quite illiterate. They claim to always trust the teacher’s judgement. Or as Muncy says, “the fact that students are taking a class from a professor indicates that they are not as informed on the subject as the professor is” (2008, p.19).

5.2.8 Pedagogy: Teaching Methods

The aim of various teaching methods is clearly to enhance learning outcomes. Teachers should employ methods which would help students learn more effectively and this is an aspect in which the HEI should be very student-customer oriented. Even though, as pointed out above, it is the teacher, who decides upon the course design, it is the students whose voice should also be heard in terms of delivery. This, of course, is not to mean that classes should be only about fun and entertainment. Nevertheless, based on Chonko et al. (2002) and personal interviews with the students, teachers should strive to discover which teaching methods constitute effective teaching and create a facilitating learning environment. The ultimately aim is to create opportunities for independent thinking and problem-solving and the “factory” approach (Chonko et al. 2002) might not be the best method. Relying on the interviews as well as personal experience, a student, while acquiring new material, would greatly benefit from more interactive teaching methods (dialogues instead of monologues, team working and projects instead of plain cramming) and in an environment which would invite discussion, scepticism and questions.

5. CONCLUSION

The primary aim of the article was to construct the student-customer orientation model at an institution of higher education. While developing the categories for assessing, the aim was to cover and categorize the various aspects of the educational experience. While constructing the model, the article relied on existing academic literature, semi-structured interviews with students as well as personal experience.

The secondary aim was to conceptually apply the model to the HEI context. As can be seen from discussion, there are categories in the model in which student-customer orientation is appropriate and categories in which it is inappropriate. Even though this may seem at odds with aiming at consistency
across the whole organization in terms of the marketing concept, evidence from literature, interviews and personal experience calls for such an approach. Just like a bank serving its clients in a customer-friendly way has strict rules and regulations in place concerning interest payments and the like, so should a HEI remain true to its established rules and be strict in some categories of the educational experience (e.g. rigor, grading). In others (e.g. admission, student feedback) it may it may exercise a greater degree of student-customer orientation and in yet others (e.g. teaching methods) it should be very student-customer oriented.

Research body shows that different opinions regarding customer orientation at the HEI prevail (Bristow and Schneider 2002; Pitman 2000; Delucchi and Korgen 2002; Obermiller, Fleenor and Raven 2005; Ikeda, Campomar and Veludo-de-Oliveira 2009). However, one should not simplistically hold that a HEI *per se* should or should not be student-customer oriented. Because acquiring education as such consists of a number of aspects, the educational experience should be broken up into categories and it is only in terms of each category that the question of student-customer oriented can be asked.

Therefore, even though academic literature claims that customer orientation has made a variety of accommodating school administrations willingly jump to cater to students’ whims and wishes (Holbrook 2004), one should realize that by doing just this the HEI is doing a disservice to all, including the HEI itself. For this reason the author agrees with Muncy (2008) and claims that it is wrong to ask *whether* a HEI should be student as customer oriented. Instead, it would be better to ask *when* and *to what extent* a HEI should be student-customer oriented.

6. LIMITATIONS AND FUTURE RESEARCH

As mentioned earlier, this article addresses just one of the many customers of higher education – the undergraduate student. Because higher education has a variety of stakeholders (Muncy 2008; Holbrook 2007; Bristow and Schneider 2002), the issue of student-customer orientation may be analysed from different perspectives.

Also, the student-customer orientation model might differ in some of the categories if the interview respondents had been chosen from among students at a different level of their studies. This is to imply that future research should conduct a similar study among master and doctoral students.

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RESEARCH OF TEACHING RUSSIAN LANGUAGE LIKE FOREIGN LANGUAGE TO LEARNERS WITH SPECIFIC LEARNING DIFFICULTIES

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Abstract

The paper brings the results of research study focusing on the issues of teaching Russian language like foreign language to learners with specific learning difficulties (SLD). The study was realized within the framework of the research centre “Special Needs of Pupils in the Context of Framework Education Programmes” (MSM 0021622443). The aim of the research is to establish how teachers of Russian at lower secondary schools in the South Moravian region teaching to learners with SLD. The research methods included content analysis and questionnaire surveys.

Key words: teaching, Russian language like foreign language, teacher, learner, specific learning difficulties

1. INTRODUCTION

Often schools and teachers are faced with the dilemma of serving learners with special educational needs. Foreign language acquisition is a very demanding and long process for most learners, for learners with specific learning difficulties (SLD) even more so. Characteristic of our present time is a fact that the concept of upbringing and education is changing in the era of European integration, effective technologies and teaching strategies are used in lessons, and the aspect of pupil individuality is emphasized together with differentiated approach on the part of the teacher.

2. THE PROJECT “LANGUAGE AND COMMUNICATION” MAPPING THE TEACHING OF RUSSIAN AS FOREIGN LANGUAGE TO LEARNERS WITH SPECIFIC LEARNING DIFFICULTIES IN THE CZECH REPUBLIC

The contemporary school system of education pays increased attention also to the teaching of foreign languages since the capability of communicating in foreign language becomes a must in the today’s globalized world. The teaching of foreign languages passed through intensive development in the last hundred years, from the translation and grammatic concepts of teaching foreign languages the didactics have arrived at a method of communication the basis of which is formed by the content and context of a communication situation. Lessons are gaining drive, flexibility, plurality, their effectiveness is increasing, principles of adequateness and visualization are applied.

Current statistics speak of 5 to 20 percent of pupils in a today’s typical class of primary school declaring certain special requirements and needs (Bartoňová, 2007, pp. 9-35) in the educational process at different stages, i.e. apart from other handicaps the children exhibit also some light or more
serious signs of specific learning difficulties (hereinafter SLD) such as dyslexia, dysgraphia, dysorthographia, dyscalculia, dyspraxia, dysmusia or dyspraxia.

These individuals have to be unconditionally given the same standard of instruction and tending as the normal population and their right for equal access to education is also guaranteed by a number of legislative documents such as the “Charter of Fundamental Human Rights and Freedoms”, adopted by the Czech Republic in 1993, ratified documents such as the “Charter of children”, “Framework Educational Programme for Basic Education” of 2007, and other (Czech Republic, 2005). Difficulties to be encountered with in the school practice of teaching foreign languages are dyslexia (Grenarová, 2008, pp. 167-176), dysgraphia, dysorthographia and partly also dyspraxia.

Russian language is one of five basic foreign languages included in the “Framework educational programmes” (2007) of the Czech system of education. After the period of absolute recession in the first half of the 19th century, the interest in the Russian language has been gradually revived. That it is not a coincidence can be demonstrated by increasing numbers of pupils studying Russian recorded in the statistics on teaching foreign languages, published by the Ministry of Education of the Czech Republic, Research Institute of Pedagogic, Centre for the reform of school-leaving examination, pedagogic facilities and institutes.

The present trend of introducing the teaching of a so called second foreign language also in senior primary grades returns Russian back in the play along with French and Spanish. Moreover, under certain circumstances Russian is not entirely without a chance to become even the first foreign language.

3. THE PROJECT “LANGUAGE AND LANGUAGE COMMUNICATION” OF THE RESEARCH PROGRAMME “SPECIAL NEEDS OF PUPILS IN THE CONTEXT OF FRAMEWORK EDUCATIONAL PROGRAMME FOR PRIMARY EDUCATION”

Now we come up to the presentation of partial results from a qualitative research of the partial project in the field of education “Language and language communication”, resolved in 2007-2013 by the team of experts under the leadership of Prof. PhDr. Marie Vítková, CSc. within the research programme of the Faculty of Education, Masaryk University – “Special needs of pupils in the context of Framework educational programme for primary education”.

The main objective of the aforementioned research programme for 2011 is to map the current situation in the teaching of foreign languages, i.e. English, German, French and Russian to pupils with specific learning difficulties and with special educational needs in the region of South Moravia in Czech Republic at senior primary grades and in the lower grades of multi-annual grammar schools. In the below text the issue will be discussed from the Russian language teacher’s viewpoint of the implemented Russian language teaching process.

4. CONCRETE PARCIAL RESULTS FROM THE QUALITATIVE RESEARCH PROBLEMS OF TEACHING RUSSIAN LANGUAGE TO LEARNERS WITH SPECIFIC LEARNING DIFFICULTIES AS VIEWED BY THE TEACHER IN 2011

4.1 Methods of research, questionnaire survey, principal data on the sample of respondents explored

The collection of data reflecting the current situation in teaching Russian to learners with specific learning difficulties was carried out by means of anonymous questionnaire sent as an e-mail to
Electronic addresses of all primary schools and multi-annual grammar schools in the City of Brno and in the region of South Moravia (Jihomoravský kraj). The objective of research implemented at a general level was to enhance effectiveness and quality of lessons taught to learners with specific learning difficulties. The questionnaire survey was to find out concrete data and basic information concerning:

- teachers of Russian language – their skills in subjects taught;
- age, sex, pedagogic experience and grade of teachers;
- we were also interested in the types of classes in which our respondents teach;
- the number of learners with specific learning difficulties in the classes, etc.

The questionnaire was prepared as a system of closed inquiries, in which a group of questions required a closed answer yes/no, and a group of questions with optional scale of answers with the character of some questions also considering free answers of the respondents.

Questionnaires used for our purposes had to be completely filled; precisely we received answers from 21 teachers from primary schools and lower grades of multi-annual grammar schools in the City of Brno and region of South Moravia in Czech Republic, teaching Russian language as a compulsory subject, optional compulsory subject or in a not-compulsory language course.

The collected data were processed into a tabular form in Microsoft Excel PC programme and subsequently graphs and diagrams were prepared in Microsoft Word, which provide a visualization of the current state, current situation, data and other partial findings, and research results. The questionnaire survey, i.e. the proper collection of data was carried out in the spring months of the 2nd half of school year 2011.

### 4.2 Basic information on Russian language teachers and schools

#### Item: Number of respondents and their sex:

As mentioned above in the preceding sub-chapter, the questionnaire survey was attended by 21 teachers from primary schools and lower grades of multi-annual grammar schools in the City of Brno and in the region of South Moravia, who provide for the teaching of Russian language as a compulsory subject, optional compulsory subject or in a not-compulsory language course. The studied sample of teachers included 18 females and 3 males. The proportional representation of females and males can be expressed as 6 : 1, i.e. the share of males representing 18 percent in the studied sample of respondents. The fact generally corresponds with the proportion of female and male teachers presented in yearbooks of the Ministry of Education of the Czech Republic for recent years.

#### Item: Pedagogic experience of respondents:

The average pedagogic experience of teachers at primary schools or at lower grades of multi-annual grammar schools is 15.61 years – see Graph 1. Less than 5 years of experience was claimed by 3 respondents, 15 years of experience was declared by 11 teachers, 1 respondent was teaching the first year of his career, on the other hand, the longest mentioned teaching experience was 38 years.

#### Item: Highest accomplished education of respondents:

We were interested to know what was highest accomplished education of the respondents and participants in the questionnaire survey could make a choice from the following scale of answers: primary, secondary, higher technical, academic, doctoral. Nearly 81 percent (precisely 80.95 percent)
of teachers claimed to have reached academic degree and were fully qualified for the concerned type of Russian language lessons. Two respondents were currently studying at the Faculty of Pedagogy completing the required degree and qualification.

Item: Competence. Item: Other degrees and qualifications

Regarding the fact that teachers of Russian language experienced a dramatic loss of interest in their qualifications due to the recession of Russian language teaching and hence subsistence problems with an immediate threat to their personal career in teacher’s profession, many of respondents tried to extend their competence after the Velvet revolution by further study. We were interested not only in the second, but also in the third (possibly even fourth) accomplished line of study within pedagogic university education.

![Graph 1. Pedagogic experience in individual respondents.](image)

The specialization most frequently mentioned by the teachers as other subjects that they are competent to teach in addition to Russian was Czech language, German language, civics (now rudiments of social sciences), music education, biology, history, psychology, office work basics, art lessons and physical training.

A delightful finding is the information about the competence of Russian language teachers, which amounts to 80.95 percent – see Graph 2 and Graph 3.
Graph 2. Respondents’ competence Specialized class for learners with diagnosed SLD.

Graph 3. Second and third subjects in competent respondents.

4.3. Types of classes with the learners with specific learning difficulties

Item: Types of classes

In this part of the questionnaire survey – see Graph 4 – we investigated school grades and class types in which the teachers of Russian language teach. The respondents were offered the following scale of answers:
a) in common classes with no learners in whom the specific learning difficulties were diagnosed – concretely in grades (please specify);

b) in common classes with no learners in whom the specific learning difficulties were diagnosed but with some pupils suffering from problems resembling the learning difficulties – concretely in grades (please specify) + state the number of such pupils in the individual classes;

c) in common classes with learners in whom the specific learning difficulties were diagnosed, but the level of their problems does not require integration – only taking their problem into account – concretely in grades (please specify) + state the number of such learners in the individual classes;

d) in common classes with integrated learners with the specific learning difficulties – concretely in grades (please specify) + state the number of such learners in the individual classes;

e) in classes specialized for learners with the diagnosed learning difficulties – concretely in grades (please specify) + state the number of such pupils in the individual classes.

Our comments to the obtained data and results follow:

Question a) was answered positively by four teachers (all from the lower grades of multi-annual grammar schools, with 1 respondent teaching only the first year and therefore might not have discerned the latent form of specific learning difficulties with his pedagogic experience being still short).

Question b) was answered positively by four teachers, too (2 respondents from primary schools and 2 respondents from the lower grades of multi-annual grammar schools). The fact that pupils from the lower grades of multi-annual grammar schools appeared in the answers may have several explanations: * the learners are actually suffering from specific learning difficulties but can compensate SLD thanks to their high intelligence; * the learners suffer from learning “pseudo-difficulties” the reason or the triggering factor of which may be the transition of these learners from the primary school to the secondary level, exactness and different style of lessons, insufficiently acquired appropriate teaching strategies and pupil’s styles of learning, long-term stress from the new environment and the like.

Question c) was answered positively by 12 teachers (all from primary schools).

Question d) was answered positively by 3 teachers (all from primary schools).

Question e) was answered negatively by all respondents. The fact may have been affected also by the relatively low number of respondents in the sample of questionnaire survey.

As to the school grades, most often mentioned in the questionnaires we were greatly surprised by the fact that the learners were from the 8th and 9th grades of primary schools with the quantitative increase as compared with the lower grades being quite evident. Therefore a question offers itself for asking whether the increase does not result from the threat of written applicant qualification tests for the secondary school in the 9th grade. Through a targeted visit to pedagogic and psychology advice clinic or at school psychologist’s the parent apparently try to gain purposefully advantage for their offspring in the form of testimony upon the diagnosed specific learning difficulties. Otherwise we would have anticipated a rather opposite development in the number of pupils with specific learning difficulties on the basis of theoretical findings assuming that fourteen and fifteen years old pupils have sufficiently adopted compensation strategies, skills and aids already during the reeducation activity. The expressed hypothesis can be confirmed or disconfirmed by further investigations in the near future.
4.4 Partial Conclusions

The realized questionnaire survey has met our expectations, providing a realistic picture of the situation and condition in the school practice. We have gained a basic overview about the issue of Russian language teaching to learners with specific learning difficulties as viewed by teachers at the 2nd level of primary schools and in the lower grades of multi-annual grammar schools in the region of South Moravia and in its natural centre – the City of Brno. The current analysis shows that the today’s teacher is imposed upon high professional and human demands while the role of the teacher in the process of upbringing and education is irreplaceable (despite a whole range of technical possibilities for self-learning and effective teaching strategy).

Concluding we would like to remind several generally valid rules for working with the pupils suffering from specific learning difficulties and with specific educational needs, which are binding for teachers, parents of the child and experts in pedagogy and psychology as they were formulated in works published by S. Kerr (1997), Z. Matějček (1995) and a number of other specialists in the issue of special educational needs and specific learning difficulties Z. Michalová (2001), M. Selikowicz (2000):

- let us approach the process of education in a creative and positive manner;
- let us always try to get the children involved and to motivate them for activity;
- let us adhere to Komenský rule of schooling by playing;
- let us work every day;
- let us set up realistic goals by stages;

**Graph 4.** Types of classes in which the respondent teaches Russian language.
• let us evaluate not the process result itself but rather the effort exerted by the child;
• let us be uncompromising and fair;
• let us not scrape for praise even for (in our eyes) a negligible improvement and progress;
• let us support and develop the sense of reality in children;
• let us teach them self-assessment, independence and objectiveness;
• let us strive for creation of a system and order in the taught lessons;
• let us minimize disturbing elements, let us support peacefulness and concentration of both parties;
• let us not underestimate the permanent repetition of the already adopted skills, knowledge and capabilities;
• let us praise directly for a concrete activity, for mastering an exactly defined assignment;
• let us diversify the activities, let us interlace them with minute rests, let us change working positions, visual aids and work methods;
• let us deny boredom in children;
• let us arm ourselves with a sufficient measure of own quietude, composure and kindness, patience, understanding and optimism;
• let us maintain as tight contact as possible with all participating parties, let us exchange mutual information about the pupil.

5. CONCLUSION
Our paper has no ambition to present a complex professional view of the issue of specific learning difficulties as they are viewed by the teacher of Russian language. We attempted at a research into the issue of specific learning difficulties, trying to describe the lived current reality and to outline some regularities as well as possible suggestions for our future professional work. Partial results of our research will be definitely an inspiration for the further work of the whole expert team (Vítková, 2004) engaged in the research programme.

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IP INDICATORS AND COOPERATION BETWEEN UNIVERSITY AND SMES IN INNOVATION – HOW IS IT INFLUENCED BY THE EU STRUCTURAL FUNDS’ INVESTMENT IN R&D? THE CASE OF UNIVERSITY OF LATVIA

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Abstract

The purpose of the study was to evaluate the support of European Union (EU) structural funds investment in research and development (R&D) and its impact on facilitation of innovation in University of Latvia - EU structural funds programming period 2007 - 2013 is soon ending and this kind of research is necessary for planning upcoming period’s strategies. It was explored that R&D in University of Latvia is mostly funded from EU structural funds and that has led has to establishment of innovation-friendly environment, but has not yet promoted an increase in such indicators as patent applications, patent licensing and developed proposals for commercial use of inventions. It was also explored that, in the case of University of Latvia, patent applications as results of EU structural fund projects are not appropriate means for innovation development. Statutory rules regarding the use of those patent applications and the subsequent patents restrict the commercial exploitation of the scientific results and the possible transfer of the results to private sector.

1. INTRODUCTION

Innovation – a driving force of economies – has become a significant instrument in enhancing the quality of life in many countries especially in the less developed EU member states. It is clear that innovation performance has to be strengthened among EU as large disparities in this region can be witnessed. It is important for EU countries to act together and manage to stimulate those falling behind, because this is affecting the overall growth of EU negatively, and not only in innovations but the development of the whole economy as well. These disparities should be reduced in order to catch up with economies like the US and Japan (Archibugi and Filippetti 2011). One of the countries that is still struggling to catch up with the EU innovation leaders is Latvia. According to Innovation Union Scoreboard 2011 (hereinafter – IUS 2011) Latvia ranks last in innovation performance and this situation has not changed since the previous year. Some of the main reasons for this are the lack of cooperation between the higher education (hereinafter – HE) and the private sector and the low amount of expenditure in R&D (Ministry of Education and Science of the Republic of Latvia, 2011). It is necessary to attract additional funding for R&D activities from the private sector to boost Latvia’s performance in innovations.

So far EU SF investments have become a significant aid in enhancing R&D and innovation environment in Latvia - in the programming period 2007-2013, 494 661 724 EUR or 11% of total available funding will be allocated to Entrepreneurship and Innovations, while the allocations for science will reach the amount of 267 784 169 EUR or 6% of total available EU SF funding (Source: Division of EU total funding, Ministry of Finance of the Republic of Latvia). As the programming period 2007-2013 is ending in two years, it is necessary to do a research on if and how the funding received from EU has influenced different aspects of R&D environment. The purpose of this study...
was to focus on examination and evaluation of changes in University of Latvia (hereinafter - LU) IP indicators such as patent applications, licensed or assigned patents and cases of research result commercialization that occurred in period 2000-2010 especially looking at those after 2004 when EU support became available for Latvia. It was necessary to examine these indicators because they reflect the level of cooperation between SME’s and HE sector and might show if the additional funding has had any positive effect on these relationships. It was also important to examine the positive and negative factors affecting these indicators because that might help in understanding what should be done different if better results are to be achieved. LU was chosen as the studied institution due to the high number of EU funded R&D projects it implements. This study, however, does not include data on LUs units, which are acting on the rights of public agencies.

The following tasks were set to achieve the goal:

1) To research overall R&D and intellectual property environment in Latvia;
2) To research and analyze funding for R&D and intellectual property development in University of Latvia;
3) To research and analyze the changes in University of Latvia’s intellectual property and research results’ commercialization indicators in period of 2000 – 2010;
4) To research the process of technology transfer and links with entrepreneurs in University of Latvia.

The following methods were used to carry out the tasks:

1) Study of theoretical literature, periodical publications and legislation;
2) Analysis and evaluation of statistical data retrieved from:
   - Eurostat;
   - Central Statistical Bureau of Latvia;
   - World Intellectual Property Organization;
   - LU annual reports – financial reports, scientific institution reports;
   - EU SF project progress reports;
   - etc.

The funding from EU is still being received, therefore it is not yet possible to draw final conclusions and our research is still ongoing – results achieved in projects are regularly updated and further evaluations will be done as the projects and programming period 2007-2013 ends.

2. R&D AND IP INDICATORS IN LATVIA

As mentioned in the beginning of this paper, EU is facing integration problems in different areas and one of these areas is innovation development. Different stages of development that EU member states are in, affect the common growth in a negative way. Latvia is currently one of countries falling behind the most in respect to R&D and innovation indicators.

The Innovation Union Scoreboard 2011 (2012) divides surveyed countries in four groups according to the growth of their innovation performance - Innovation leaders, Innovation followers, Moderate innovators, Modest innovators. Latvia is categorized as a modest innovator with a well below EU27
average performance and it was the same in 2010. *IUS 2011* shows that Latvia ranks last among the 27 surveyed countries in the overall innovation performance in EU (neighboring countries Estonia and Lithuania are ranked 14th and 25th respectively) (Maastricht Economic and social Research and training centre on Innovation and Technology, 2012; 7).

In 2010 there were 318 institutions in Latvia that were performing R&D activities, which is less than it was in 2008 when there were 463 institutions. A decrease in numbers can also be witnessed in the amount of research personnel in Latvia 2008-2010 – it reached 4370 (full time equivalent) in 2008, but this number decreased to 3807 in 2010.

The decrease in research institutions and personnel can mostly be explained by the decrease in R&D funding that began in 2008 due to the economic recession in Latvia at that time. Changes in expenditure in R&D (as % of GDP in Latvia in 2008-2010), which is an indicator that reflects the financial support for R&D activities, are shown in Table 1.

Table 1 shows that total expenditure in R&D in Latvia started to decrease after 2008 and then again increased in 2010. The decrease can be explained first by the economic recession, second by the end of EU SF programming period 2004-2006, which was also a gap between implementation of projects.

In EU countries that can be considered as innovation leaders, the private sector is the main innovation driving force (Technopolis Group 2011), while in countries like Latvia - low to medium-low innovators - R&D activities are mostly driven by the investments from the public and HE sector (Technopolis group 2011; 5). Chaminade and Edquist (2006; 151) mentions that „those few countries that do a lot of R&D are all rich, and much of their R&D is carried out by private organizations“.

Private sector investments in R&D in Latvia have increased steadily since 2008, but Latvia is still falling behind its neighboring countries - private sector’s expenditure in R&D in Latvia in 2010 was 0.22% of GDP, while it was 0.23% in Lithuania and 0.81% in Estonia (*Eurostat Statistics, Main Tables*). According to *IUS 2011* „R&D expenditure in the business sector captures the formal creation of new knowledge within firms. It is particularly important in the science-based sector (pharmaceuticals, chemicals and some areas of electronics) where most new knowledge is created in or near R&D laboratories. The R&D intensity is above 2% of GDP in only 4 countries: Denmark, Finland, Sweden and Switzerland. The average R&D intensity for the EU27 is 1.23% and for 13 countries the intensity is below 0.50%“ (Maastricht Economic and social Research and training centre on Innovation and Technology, 2012; 83).

Great part of the research done by universities is basic research projects. It is not always possible to
foresee the results for such research. It is even less likely that the results will turn into products in the market. For this reason companies will avoid to fund such projects (Nelson, 1959). Chaminade and Edquist (2006; 143) describes that uncertainty, unappropriability, and invisibility will lead to underinvestment in R&D and the optimal allocation of resources for innovation will not be reached.

Partly, state research funding deals with the same problem as intellectual property rights. Without the incentive given by patent prospect, private sector will not be motivated to fund R&D. Economists are not saying that without public funding basic research will cease to exist but that its amount would be suboptimal (David, 2002). On the other hand, if research is funded form tax payers’ money it seems there’s no need for other incentives (Verspagen, 2006; 610). Namely as long as it promotes creation of inventions which are patentable according to patent laws, public funding could be viewed as an alternative to the patent system. The reason for public funding is the fact that particular kind of research like basic research where there’s no instant application, is not motivated by patent law. Private sector is not motivated to fund this research without the prospect to recoup investments (Verspagen 2006; 611-613). The work of universities is important because without it the investment in basic research would be below socially desirable level.

In connection with indicators related to IP in Latvia, it is mentioned in IUS 2011 that a high growth is observed in the number of Community trademarks and Community designs, but a strong decline is observed in Innovative SMEs collaborating with others and License and patent revenues from abroad (Maastricht Economic and social Research and training centre on Innovation and Technology, 2012; 37). Another IP indicator described in IUS 2011 is the number Patent Cooperation Treaty (PCT) patent applications - the number of patent applications indicates the rate of new product innovation and PCT based patent statistics are better suited for international comparisons. According to IUS 2011: „For the EU27 on average 4 PCT patents per billion GDP have been applied for. There are large differences with 9 or more patent applications in Finland and Sweden and less than 1 application in Bulgaria, Cyprus, Czech Republic, Greece, Latvia, Lithuania, the Former Yugoslav Republic of Macedonia, Poland, Portugal, Romania, Slovakia and Turkey“ (Maastricht Economic and social Research and training centre on Innovation and Technology, 2012; 88). The statistics of PCT patent filings in Estonia, Latvia and Lithuania, 2000-2010 are shown in Figure 1.

Fig.1. PCT patent filings in Estonia, Latvia and Lithuania, 2000-2010. Edited by authors, Source: World Intellectual Property Organization Statistics on the PCT System
Figure 1 shows that there has been an increase in PCT patent filings in Latvia from 3 in 2000 to 26 in 2010. This increase has not, however, been sufficient - Latvia falls behind the EU average and ranks 22nd (PCT patent applications per billions of GDP) according to IUS 2011 (Maastricht Economic and social Research and training centre on Innovation and Technology, 2012; 87).

The number of patent applications has increasingly been used in evaluation of the success of universities and university researchers. In countries like Denmark, Germany, Italy and Japan the patent number is used as a criterion when deciding on salary and appointing for a position (OECD, 2003; 14, 31-31).

Historically patent law has developed as protection means for investments of private companies and individuals. However since the last decades of 20th century patents are also registered by publically funded research institutions. In Latvia, the proportion of national patent applications from universities and public research institutions is sharply increasing during the last years. During the time period from 2001 to 2007 the proportion of those patents increased from 5% to 25%. In 2009 and in 2010 universities and research institutions filed approximately ½ from total number of Latvian patent applications. In absolute numbers, patenting activity of Latvian universities is low which can partly be explained by the low amount of R&D funding. The increase in university patenting has been explained by creation of university technology transfer offices in 2006 (Kristapsons, Tjuńina, Kozlovskis, 2011).

Information on patent applications in three universities in Latvia (LU, Riga Technical University and Riga Stradins University) is shown in Figure 2.

Fig. 2 . Patent applications in LU, Riga Technical University and Riga Stradins University 2000-2010.

Patenting activity in different HE institutions differs significantly. The country’s largest technical university – Riga Technical University could be characterized as a quite active patents’ applicant even if compared to German or Scandinavian universities. At the same time other universities, including LU still file only several patent applications per year. Still the patenting activity has increased for all universities since year 2000 and especially after the implementation of EU SF projects began.

Taking all the previous information into consideration, it is possible to conclude that the main
characteristics of innovation and R&D environment in Latvia are:

- Public and HE sectors are the driving force of R&D and innovation as these sectors provide the most funding for such activities;
- The cooperation between private and HE sectors is low and needs to be significantly improved in order to enhance Latvia’s innovation potential;
- Despite the increase in number of patent filings from HE institutions during the last years, there’s no significant increase in commercialization of inventions coming from the HE sector.

### 3. FUNDING FOR R&D AND INNOVATION IN UNIVERSITY OF LATVIA

LU is a state founded derived public legal person and is also a registered research institution and HE institution. The main sources for budget income are:

- Allocations for HE from the government;
- Income from tuition fees;
- EU SF projects;
- Research base support funding for research institutions;
- Other financial support determined in Law on Research Activity (University of Latvia, 2011; 229).

As it is with other indicators, the budget of LU has also increased significantly in period 2000 – 2010. There was, however, a decrease of 27.5% in 2009, which occurred mostly because of the economic recession that caused decrease in the allocations for HE, research base funding etc. Since 2004 LU has started to implement different activities funded by EU SF. The funding from EU SF has influenced R&D activities in LU. In 2008 funding from EU SF reached 52% of total R&D funding in LU. Until that, research base funding and funding for research activity development and infrastructure made the bulk of R&D funding in LU. In 2010, EU SF investments reached 3,52 million Ls (approx. 5 million EUR). Meanwhile only 3% of total R&D funding came from research contracts with local or foreign enterprises (University of Latvia 2011; 229).

Changes in total and EU SF funding for R&D in LU in 2000 - 2010 are shown in Figure 3.

It can be seen in Figure 3 that the total funding for R&D in LU has increased significantly since 2004 and the main reason for this are the EU SF projects – the implementation of these projects began in 2004, which actually shows the influence that EU funding has left on the R&D budget in LU. The circled area in Figure 4 shows the years when the most significant increases took place and they were mainly caused by increases in EU SF funding for R&D in LU at the same time.

The increase in EU SF investments in period 2000 - 2010 can be considered positive as additional funding for R&D is crucial to sustain research activities. However, there is a negative part in this as well – EU SF funding in 2010 already makes the bulk of total R&D funding in LU (52% of total R&D funding), which might cause problems for LU in the future as LU might become dependent of this funding. It is essential to attract other funding sources especially the ones coming from the private sector as enterprises should be innovation development driving force. There is another negative aspect of using EU SF investments to fund R&D in Latvia - the restrictions for commercial use of the results achieved in EU SF project implementation. In case a project is implemented as a project not connected
to commercial activity, then certain requirements should be met during the time of implementation and also five years after the completion of the project. In the case it is not fulfilled, some part of the funding must be returned to the state budget (Cabinet of Ministers of the Republic of Latvia, 2009). Commercial projects can of course also be implemented, but they are not as common as the ones with non-commercial purpose - it could mostly be because of the ERDF funding rate, which is less than in those not related to commercial activities.

![Fig. 3. Total R&D funding and EU SF funding in LU 2000-2010, Ls. Edited by authors, source: University of Latvia (2011; 229)](image)

4. PATENT APPLICATIONS IN LU


According to *Financial reports 2000-2010 and research institution reports 2006-2009* (University of Latvia, 2000-2010) LU has licensed one and assigned two patents. These statistics actually quite clearly reflect the same problem that can be seen in Latvia overall – the low cooperation between HE and private sector. Figure 4 shows the changes in patent applications in LU in 2000-2010.
It is shown in Figure 4 that the number of LU patent applications has changed very little from 2000-2006 but then in 2007 it rapidly increased. At first it would seem that this increase was caused mostly by ERDF projects implemented within the previous programming period (2004-2006), but only one of these applications in 2007 was actually funded by EU SF. 6 more were however funded by EU SF in 2008. It seems that EU SF has had some influence on the increasing number of patent applications, but the negative part in this is the lack of patents actually licensed or assigned.

Figure 4 also shows that the number of patent applications has not yet been influenced significantly by EU SF funding in this programming period. The reason for this is that the implementation of projects targeted towards innovation development started only in the end of 2010 or early 2011, so the planned increase in the number of patent caused by these projects is still on the way.

However, patents are not the only channel through which companies are profiting from university research. Moreover, not all research results are patentable. Some inventions are excluded from patent protection; there is also know-how and tacit knowledge. According to different studies the most common channels are scientific publications, scientific conferences, informal networks, cooperation agreements, commissioned research and student praxis in companies (Cohen et al. 1998; 1047) (Agrawal, Henderson 2002; 43). Widespread patenting in some cases can even hinder and not foster commercialization of university research results. Patenting can be harmful to research process itself and sometimes it can prevent utilization of research results via other channels (Mowery et al. 2001; 118).

If universities are being rated by their patenting activity, it can affect their strategy and they could move their research towards areas where patents are easy to obtain. The practice of patenting the results of academic research is problematic, since it structurally favors patentable over non-patentable approaches (Radder 2010; 227) (Henderson, Jeffe, Trajtenberg 1998; 126) The activity of universities and private companies is complementary. When universities act as companies, the synergetic effect between different market players might disappear (Verspagen 2006; 617) (Baldini 2008; 290-291). The development of science and technology is a cumulative process where new findings and discoveries are progressively affirmed or rejected. The results of such research are usually freely available. Open science fosters new discoveries and inventions increasing the common stock of knowledge, as well as it verifies and explains the working principles of available technology.
Scientific discovery is the basis of technological development. But technological development could also foster scientific research in order to understand the technology. (Nelson 2004).

There are several reasons why patents are useful for universities. Patents can help in collaboration projects with other universities and scientific institutions as well as private companies. Universities deliver information on their research not only via scientific publications but also via patents. Patenting of university research results could make impression in society that university research is actually useful, which could consequently arouse university researchers’ interest in commercializing those results (Verspagen 2006; 613).

Although university research projects commence because (public) funding is granted and not because of patent prospects, sometimes these results are being patented. Both motivations could be used simultaneously if the specific university patent motives are recognized. If on the other hand the wrong university patenting motives are chosen, it could be harmful to the fulfillment of universities’ missions. Traditional patent justifications that are based on protection of invention and capitalization of investments are not appropriate in case of universities because university research is not done with a goal to make financial profit. When university patenting is evaluated, it is important to assess whether it will promote dissemination and utilization of research results, whether it will foster cooperation with other public and private partners, whether it will attract additional private investment, and not whether it will allow recouping investments. Even European Commission indicates that proactive intellectual property policy may generate additional revenues for the public research organization; this should not be considered the prime objective (European Commission 2008).

5. UNIVERSITY OF LATVIA AS THE PARTNER FOR ENTREPRENEUR IN INNOVATION

LU has a long history in cooperation with entrepreneurs, but only in 2006 a special structural unit – LU Innovation center (hereinafter IC) has been established with an aim to facilitate knowledge transfer and commercialization of research results and cooperation with entrepreneurs in innovation. Establishment of IC was one of the activities in a project supported by state support program for developing technology transfer offices in higher education and research institutions. Still essential amount of the IC expenses is covered by ERDF.

Implementation of the main four functions of IC have ensured stronger links with existing industrial partners and have initiated new partnerships. Selected university research results have been transformed into products or at least have been “pushed” closer to become an innovation.

In order to be an efficient partner in innovation, IC uses both strategies to find links with entrepreneurs. Technology audits to select ideas and technologies with commercial potential and creation of commercialization proposals is used as part of ‘technology push strategy”. Organizing

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3 A term “patent-paper pairs” has been used to describe scientific articles and individual patents that disclose the same underlying “piece” of knowledge (Murray, Stern 2007; 649)

4 (1) Management of internal environment (IP management, innovation support services to researchers, internal communication, researchers’ training etc.); (2) Marketing of university competences and services; (3) Supporting the development of innovative ideas; (4) Initiating commercialization processes.
seminars for researchers and companies, brokerage events, idea generation meetings between scientists and entrepreneurs are activities done as part of “market pull strategy”.

In process of knowledge and technology transfer IC has met many challenges. Most of the challenges are not unique but well known among universities and R&D institutions involved in technology transfer and commercialization process: researchers and entrepreneurs speak in different languages; researchers are focused on scientific novelty while entrepreneurs are interested in the needs of consumers and profit generation; entrepreneurs are looking for short term results while researchers can offer them in medium or in long term.

Additionally IC has faced challenges that are not so common in other countries. Lack of trust is one of the most important barriers in organizing cooperation between entrepreneurs and researchers. Researchers are suspicious to loose results of research, and at the same time entrepreneurs are not opened to share the information about their product development plans and business ideas that could be improved by researchers. Great part of research infrastructure and R&D activities are financed by EU SF, legal restrictions should be considered in order to have effective and fast technology commercialization and close partnership with entrepreneurs. E.g. state aid rules and competition law should be considered. To avoid violations of EU state aid rules in technology transfer activities time consuming highly bureaucratic procedures should be followed. Quite often there are initiatives for small scale partnership projects, but the level of bureaucracy is similar as for projects worth millions of euros. Since 2004\textsuperscript{th} most of research projects have been co-financed by ERDF. Due to higher co-financing rate and lack of cooperation with entrepreneurs most of the projects have been approved as “non – commercial”. In some of those projects, ideas with commercial potential have been developed. The commercialization procedure of research results from “non – commercial” projects is expensive and difficult to implement, often it is not possible to reach equilibrium between price supplied by entrepreneurs and price demanded by LU.

In political documents and support programs ‘linear innovation model’ is dominated and the focus is on R&D, patent registration, manufacturing and hi-tech industries, while technology less intensive manufacturing or service providing have been ignored. This is another barrier faced by IC. Despite IC is willing to facilitate wide range of innovation and is striving to improve cooperation between entrepreneurs and researchers, representing also social sciences, IC has limited resources for that.

6. CONCLUSIONS

LU began to implement EU funded projects in 2004 and the amount of these projects has increased so much that the majority of expenditure in R&D in LU actually comes from EU.

However, despite this support, the number of LU patent applications, licensed and assigned patents and developed proposals for commercial use of inventions is quite low. Funding from EU SF has helped to increase the amount of patent applications, but has not so far significantly influenced licensing and assigning of patents as well. This can mostly be explained by the lack of cooperation between the HE sector and the private sector

Funding from EU SF has secured implementation of R&D activities in LU by providing additional funding, which was especially important in the time of economic recession. This funding has contributed in improving the environment for R&D and innovation development, however the amount of R&D outcomes in form of products with the possibility of commercialization and cooperation with private sector are the main things that have to be improved – in some cases the expected outcomes in
EU funded projects are not directed towards innovation development and coordinated among EU SF activities and other research projects implemented at LU.

Taking into account the university’s mission to disseminate knowledge to the wider public and the limitations of commercial exploitation of results achieved in EU SF funded projects, it is reasonable not to patent every possible application of the research results. Anyway, during the explored period, patenting activity of LU is quite low if compared to other universities in the country. From the point of view of this article this is not necessarily a bad indicator; from our point of view it is even a positive sign. However, the patenting experience provided by EU SF projects is useful as it raises awareness on the importance of IP among researchers, and the university is gaining good experience which could later be used in collaboration projects with the private sector.

ACKNOWLEDGEMENTS

Some issues described in this paper were previously examined in ‘EU Structural Fund investment in R&D and its influence on innovation development – the case of University of Latvia’ (Muižniece, Peiseniece 2012).

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THE PSIHOLOGO-PEDAGOGICAL MAINTENANCE OF VOCATIONAL TRAINING OF ENGINEERS FOR INNOVATIVE ECONOMY

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Abstract

An innovative economy requires a modern engineering competencies such as willingness to cooperate and work together, to overcome the problematic situation, to acquire new powers, meanings and values, to set and deal effectively with non-standard practical problems. Educational programs of professional training of engineers, Novosibirsk State Technical University include academic disciplines to develop these competencies. The article considers the experience, analyze the results achieved, and suggests guidelines for the development of modern skills of future engineers.

Key words: engineering education, innovation economy, horizontal collectivism, horizontal individualism, the competence of an effective social interaction.

The innovative economy is based on continuous technological perfection, on manufacture and export of hi-tech production with very high additional cost. Thus, it is considered that the profit creates an intellectual resource and innovative potential of professional collective in information sphere, instead of production of goods and concentration of the finance.

The innovative economy demands from the modern engineer such competencies as: readiness to cooperate and work in collective; to overcome problem situations; to find new forces, senses and values; to put and effectively to solve non-standard practical problems. Formation of these and others competencies is carried out in a subject matter «Organizational psychology», vocational training of engineers of Novosibirsk state technical university entering into curricula.

The system of the higher vocational training assumes two interconnected parties. She is obliged to provide reproduction of cultural values, and from this party, the system of the higher vocational training is conservative. On the other hand the education system urged to advance, expect, anticipate the future because its problem is preparation of the future professional, hence, it should contain a powerful resource for realization of innovative activity. Unfortunately, today vocational training crisis, including higher engineering education is found out.

Engineering education in Russia always was considered as one of thorough, despite various sociopolitical lists. Here some historical information. The beginning of technical education in Russia was creation of Engineering school in 1700 and Matematiko-navigatska of school in 1701. And then before founders of these educational institutions there was a question «To that to teach future engineers?». For example, in the curriculum of Mountain technical school (1773) as obligatory disciplines, were included: arithmetics, geometry, mineralogy, chemistry, architecture, hydraulics, mechanics, physics, and from humanitarian disciplines indispensable were drawing art, and also foreign languages (Latin, German, French). After, besides working off of theoretical knowledge, began to pay much attention to formation at future engineers of practical abilities. And «Practice of a factory economy» takes root into curricula on preparation of technical experts.
To compare last curricula to modern plans, certainly, not absolutely correctly. However it is obvious that on a trajectory of formation of engineering education in Russia the main emphasis becomes in subject the direction of knowledge. The paradigm of knowledge should be the key making personal focused educational paradigm, but not unique. The personal focused paradigm, along with transfer of knowledge assumes development in young people and the valuable relation to knowledge, need for it, abilities to own search of knowledge and to its reconsideration.

The traditional paradigm (knowledge) of engineering education was calculated on formation of knowledge, skills, and characteristic difference modern (personal focused) paradigms become independent search of knowledge and need of their improvement for constructive interaction with other people.

The profession of the engineer became complicated and made new demands to preparation of the qualified engineering shots. The analysis of any professional activity of the technical expert even if this activity also looks in reality as individual, in actual fact appears all the same collective. It is known that the founder of practical astronautics, the Soviet designer S.P.Korolev was not only the engineer by training, but as also the organizer of production of space-rocket equipment, the brilliant founder of professional collective. It worked in the closest commonwealth with leading scientists, could rally and direct to the necessary course work of people of the various organizations, was skillful to convince and inspire the ideas. Undoubtedly that the great engineer possessed organizing abilities, as they say, by the nature. However, it is impossible to deny that if in the course of professional and personal formation conditions of development of these or those abilities are created, quite appreciable result will be to some extent received.

Within the competencies approach reflecting necessary tendencies of a modern labor market, reveal not only professional, but also common cultural competences. In formulations of concrete common cultural competences accurately determine the social competences focused on productive interaction in professional space. We united some competences presented in different educational standards of new generation on preparation of engineers, directed on development of effective social interaction. Integrated competence looks as follows: ability and readiness for cooperation with colleagues, work in collective, professional team. Ability to direct people and to submit, bear responsibility of the accepted collective decisions. To show readiness for cooperation and maintenance of the partner, confidential relations, applying principles and methods of the organization of management of small and average collectives.

The modern specialist of technical university should consider not only efficiency and technology factors, but also social and philosophical, psikhologo-pedagogical and many other. And it means that the modern engineer of knowledge of physics, mathematics and equipment hasn't enough. In order that the person could realize itself in professional collective there is a transfer of accent from a question «To that to learn?» on a question «How to learn?».

Interactive forms of education which stir up activity of students are applied to creation of conditions of formation and formation of educational and professional group of students as future model of professional collective in the course of teaching of a subject matter «Organizational psychology». To interactive forms of education refer educational technologies of training in cooperation: game, projective technologies, technology of "master class", reflective technologies, technologies of self-knowledge, self-image and self-presentation.

Within the competencies approach reflecting necessary tendencies of a modern labor market, reveal not only professional, but also common cultural competences. In formulations of concrete common
cultural competences accurately determine the social competences focused on productive interaction in professional space. We united some competences presented in different educational standards of new generation on preparation of engineers, directed on development of effective social interaction. Integrated competence looks as follows: ability and readiness for cooperation with colleagues, work in collective, professional team. Ability to direct people and to submit, bear responsibility of the accepted collective decisions. To show readiness for cooperation and maintenance of the partner, confidential relations, applying principles and methods of the organization of management of small and average collectives.

Carrying out distinctions between people whom it is accepted to define as collectivists and the people, called in society individualists, as a rule, compare degree of expressiveness of their social qualities. Thus social qualities "grow" from experience of joint and individual activity of people, from a variety of compositions between these activity. In any case social qualities with evidence "revive" and "live" only in social process, in collective activity.

Today, especially after a series of crises, the importance of manifestation of the collectivist relation of people to business more and more began to be found. As the modern labor market demanded from the expert of any field of activity of mobile "inclusion" in various professional societies: interdisciplinary, international, multicultural.

In a training course «Organizational psychology» the following questions are considered: «Influence such as nervous system and temperament on professional activity and behavior in collective», «Stages of development of collective and feature of management at each stage», «Types of informal groups of staff of collective and possibility of influence on them», «Social and role and professional and role types of employees», «Administrative impacts on the personnel and feature of management of concrete collective», «The roles necessary for effective activity of a work collective».

Before discussing with students these questions, by tradition on the first occupations the priority orientation of students in a collectivism or individualism pole comes to light. More precisely, their collectivist or individualistic relation to life becomes clear. For this purpose students are offered to carry out a reflective task - «Individualism against a collectivism. A collectivism against individualism». Students get acquainted with statements of the known people having different views on a phenomenon a collectivism individualism. In a task, which material it is presented below, on odd ranks there are phrases welcoming a collectivism and pointing out the defects individualism, even ranks contain opinions of people sharply and quite negatively, relating to a collectivism. Carrying out of a task, students need to choose not less than eight statements which they divide with reference to own position on the matter. Then it is required to explain the point of view, to analyse the statement, to estimate other statements and opinions of members of educational and professional collective.

1. The person, merging with collective, doesn't lose itself. On the contrary, it reaches in collective of the higher step of consciousness and perfection (Barbju A, the writer);

2. The collectivism considers that the person should be chained to collective actions and thoughts for the sake of that "general welfare" (Rand A, the writer is called);

3. To be able to work in collective is first of all correctly to perceive criticism and not to hesitate to criticize an error of another (Zelinskij N.D., the chemist);

4. Individualism doesn't contradict a society, and includes freedom and belief in general harmony of interests (Klifford Tiz, the economist);

5. The separate person is weak, as left Robinzon; only in community with others it can make
much (Schopenhauer A, the philosopher);

6. The primary goal of a collectivism is to increase the state supervision of life of individuals (George Will, the journalist);

7. People together can make what not in forces to make alone; the unification of minds and hands, a concentration of their forces can become almost all-powerful (Webster J, the playwright);

8. Horrors of the twentieth century have been made by a collectivism for the sake of "general welfare". If the country developed on the basis of individualism of similar horrors wasn't observed (Rummel P, the politician);

9. The fate of those who comes off collective is sad, having got a false idea itself the supergenius or unrecognized talent the Collective will always lift the person and will put it strong on feet (Ostrovskij N.A., the writer);

10. The collectivism, unlike individualism, holds group as the basic level of moral values (Mark-da-Kuniv, an observer);

11. Individualism is the underlined weakness of the person (Prishvin M. M, the writer);

12. At the heart of individualism the moral human rights lie to work on own happiness. This aspiration demands a considerable quantity of independence, the initiative and personal responsibility (Klein Ė, the journalist);

13. The one who thinks that can do without others, strongly is mistaken; but the one who thinks that others can't do without it, is mistaken even more (La Rochefoucauld Ő, the philosopher);

14. The collectivism theory says that the will of the people is all-powerful, the person should submit; that the society as a whole, instead of the person, is unit of moral values (Bernstein Ő, the philosopher);

15. It is necessary to be able to merge with collective that won't prevent to be oneself (Rollan P, the musicologist);

16. In a collectivism there are more than emergency situations and victims because they give more possibilities for "virtue" (Woiceshyn Ė, the writer);

17. The collective is not any faceless weight. It exists as riches of individualities (Suhomlinsky V. A., the teacher);

18. Don't forget that pure democracy is the form of a collectivism which easily endows the individual rights of the majority (Bert Rand, the businessman);

19. Individualism or an imaginary separation from a society as is ridiculous in our representation, as suicide (Tolstoj A.N., the writer);

20. A collectivism - institute of violence which forces to behave live beings contrary to own interests and individual preferences for their use in the purposes (Butler Shaffer, the lawyer).

It would be desirable to note that young people it is quite often equivalent adhere both the points of view for individualism, and the points of view for a collectivism. Among the statements which are positively characterizing individualism, students more all of Woiceshyn (16), Bert Rand (18) share Clifford F. Tiz's (4) opinions, E.Klein (12). Concerning a collectivism they join A.Barbyus (1),
A.Schopenhauer (5), D. Uebster (7), F.La Rochefoucauld (13), V.A.Sukhomlinsky (17). Surprisingly, but students practically never choose M. M. Prishvin (11) considering that individualism is the expressed weakness in behavior of the person, and also Schaffer's (20) arguing B that the collectivism is the institute of violence forcing people to suppress the interests and using them in the purposes.

Lack of the choice explains youth a categoriality of similar statements. In their understanding the individualistic relation in the course of joint activity in receiving engineering education has the strengths as the person in a certain degree should be adjusted «on itself». It is understood as the statement for, presentation of the individual abilities, and, eventually, receiving a certain compensation for itself. The generation of Russians at the beginning of last century learned manifestation of an extreme collectivism, it should be noted that the historical past doesn't frighten youth, students don't consider a collectivism as violence institute. The collectivist relation — this understanding students of what in educational and professional collective conditions for the statement, presentations and estimations of their individual abilities will be created.

There are results of research in which it was revealed that the Russian students have collectivist beginnings and absence of hierarchy that, according to the author of research, testifies to horizontal individualism in student's community [5, p.36]. The Collectivism-individualism is one of the most important social and psychological parameters of culture. Its collectivist or individualistic relation shown in behavior of the person, in the course of joint activity is formed in system of its education. Priorities in behavior will be connected with cultural orientation of all society, but can appear personal typical owing to the bases put in the course of education of the subject.

On employment students discuss questions of a horizontal and vertical collectivism-individualism. Horizontal individualism assumes installations and values of equality of all people and simultaneously understanding of uniqueness of each person. At the heart of a horizontal collectivism installations and values of general equality lie, status privileges aren't supposed. Vertical individualism means the account of status privileges; thus uniform rules doesn't exist, each person himself establishes a measure of the isolation and the importance. For a vertical collectivism installations and norms of rigid status hierarchy in relations of people are characteristic [6].

On reflection of students of a society should are horizontally focused in respect of the phenomenon individualism-collectivism. And in discussion they often come to a conclusion that it not opposite concepts, and two poles of one scale. To same it would be desirable to add that, arguing on the professional collectives which members they should become in the future, they in a greater degree approve the collectivist relation of people in the course of joint activity.

Important question is degree of variability of a vector of behavior of the person in the course of joint activity. On our supervision over behavior of students at use of educational technology of the group project. Individualistic or the collectivist relation to work is similar to extreme points in pendulum movement. So, possible extreme situations lead to that at students with individualistic relation collectivist installations become more active. The situations demanding cooperation, the consent, staticize horizontal installations. Hence, the parity or collectivist can change under the influence of circumstances, but, obviously, not cardinally.

Under Aristotle's statement success to the orator create Logos, Athos and pathos, more modern words, realization of personal potential including innovative, depends on development and a parity of the basic properties: mind, feeling, will. On one of stages of employment students make a portrait of the person with which reliably and productively to work in collective. For this purpose they write down characteristics of people which are the most attractive in collective activity.
Thus, the portrait of the person with the expressed collectivist relation to work on the group project is made. The three-dimensional model mind – feelings – will is thus found out. For example, in signs: quickly to estimate complexity of a problem, to define main objectives, to make algorithm of the decision, to carry out the result analysis, properties of mind are isolated. External neatness, friendliness in dialogue, fidelity to a command, respect for interlocutors, determine sensitive the party peculiar to feelings. Strong-willed signs specify in resoluteness, purposefulness, boldness, as attractive characteristics of the person in work of small collective.

Students result more than twenty personal qualities, on frequency of occurrence it is possible to allocate six positions: responsibility, ingenuity, working capacity, sense of duty, skill to communicate, initiative.

In the responsible person they perceive reliability, honesty concerning themselves and others, readiness to recognize that the result is a consequence of your acts, but it not wine, and confidence, and ability to explain and show how you achieved this result. Ingenuity, confirms once again, told by us at the beginning of article that the paradigm of knowledge is an actual component personal focused as the person possessing a certain knowledge, will understand the task essence, carried out by collective quicker. When the collective works for the general result that employee who quickly gets tired is, usually, unacceptable, is tired, demands rest, distracts on the interests therefore students highly appreciate personal quality as working capacity. The diligent performer always was held in high esteem, here students also appreciate relative ability of the person to change depending on a situation: if for the joint purpose it is necessary to head work, it is necessary to execute function of the head and if the role of the subordinate is necessary for the general result, adequately to execute it. Skill to communicate as a whole, is perceived by students as establishment of the equal confidential relations, from this it follows that each participant of collective has the right to own point of view which is not necessarily similar to the point of view of other participants, however has the right of it to state and be heard. It is efficiency of social interaction. Initiative — activity and independence in offers, ideas concerning the organization of collaboration and the end result, and at students correlates initiative with responsibility, the initiative is higher, the there should be a level of responsibility above. Initiative without responsibility is considered by students as negative quality of the personality.

Development of system, multidimensional typology of activity of the personality correlating the individualistic and collectivist relation, is carried out in researches of interrelation of responsibility and initiative [1, p.7]. As a result of research six types of communications were revealed: harmonious, productive, reflective, performing, functional, contemplate. To most collectivist relation there corresponds communication at harmonious and productive type in which the combination of initiative and responsibility allows the personality to keep completely the autonomy at high level of activity in small collective in the course of implementation of the group project.

Students are offered to estimate on the five-point scale, specified above quality in structure of the personality. The same qualities are estimated by other participants of small collective with whom students in common carry out the group project. A method of a graphic representation of results two curves are under construction: own estimates and arithmetic-mean estimates of participants of small collective. In the beginning works on the collective project are observed big divergences in graphic curves. Own estimates of the personal qualities necessary in collective activity either are underestimated, or overestimated, in comparison with average estimates of participants of small collective. Similar information serves as an excellent material for reflection and introspection of each student. Asking itself a question: «What should I make to be the successful participant of collective activity?» students work over self-improvement of the individual abilities.
It is revealed that on termination of the group project curves of own estimates of personal qualities and estimates of other participants of small collective practically coincide, thus students have possibility to show all identity of the personality.

Nothing the role of educational and professional collective in the organization of educational activity of students is replaceable. At its organization in the conditions of collective it stimulates reciprocal manifestation for the end results of work, mutual aid. The Psikhologo-pedagogical theory of collective or the theory of activity of the interpersonal relations is realized now within the stratometrichesky concept. The last, representing system of hypotheses, ideas and experimentally received facts, shows difficult, multilevel structure of the interpersonal relations in collective, their dependence on the content of joint socially significant activity. It comprises both ideas of essence and features of group activity in collective.

The real crisis which tests higher education is connected with that the squall of knowledge falling on being trained, appeared essentially incompatible, neither with requirements of society, nor with the education system organization. The higher school focused only on scientific knowledge, doesn't give youth of sufficient orientation in real life, and the rate on an informations caused a separation of the higher school from production that does graduates incapacitated [3, p.140-141] causes in their re-instruction.

Many scientists emphasize that crisis of the higher engineering education consists in discrepancy to industrial and social realities and prospects of level of today's higher professional technical education intellectual, cognitive, vocational training [2, p. 573] means.

It would be desirable to provide consistently statements of two known people about an education phenomenon: the French writer A.Camus «the school prepares us for life in the world, which person educated — the one doesn't exist any more» and German sociologist G. Zimmel «who knows where to find that he doesn't know». Opening, the thoughts picked up in quotes we will pay attention that the educational space of higher education institution, most likely is a place for receiving conditions of social and personal and professional adaptation in the modern world.

As textbooks of economy affirms that the firms working in one professional sphere, thus close located territorially, harm each other and disturb productivity. An opposite example is the Silicon valley — the world center of the computer industry. In the Silicon valley interaction of similar firms carries not destructive as learn economy textbooks, and creative character. The spirit of a collectivism, the cooperative effect connected with possibility of creation of the uniform information and technological environment, with an exchange of ideas between highly-skilled personnel considerably surpasses traditional economic factors.

The post-industrial stage of development causes not simply of skill level increase, but also formation of other type of intelligence, thinking, the relation to quickly changing technological, social, information realities. Thus it is impossible to reduce attention to values of the person, its cultural - activities self-determination in the world of other people, work, scientific, professional collectives. To perfect the thought it is better in presence of others, to meet crisis more productive together with other people.

The big importance in innovative engineering education is defined by active and interactive forms of education, for example group projects - modern educational technologies of work in the cooperation, training to work in team, in collective. The conditions almost completely identical to real engineering activity and allowing students to gain experience of the complex solution of problems of engineering
design with distribution of functions and responsibility between members of collective are thus created.

In modern Russia the national system of innovative economy to which needs inflow of competent competitive experts of the engineering technical profile ready to creative and initiative activity within implementation of national and international social and engineering projects of any scale develops. Innovative engineering education for today's Russian society is focused on creation of conditions of formation of the personality capable and ready to quickly coming changes, to the uncertain future at the expense of development of abilities to creativity, to various forms of thinking, to cooperation with other people. Specifics of innovative training is defined by its openness, an anticipation of results on the basis of continuous reassessment of values and ability in new situations to collective actions.

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DEVELOPMENT AND ASSESSMENT
OF THE SELF-DIRECTED LEARNING COMPETENCE

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Abstract

With the establishment of the European Space for Higher Education traditional teaching methods have been replaced by new ones focused on Competence Based Learning. New techniques for competence assessment are also needed. We present an assessment method for the self-learning competence, based on rubrics and questionnaires.

Key words: Competence assessment, self-directed learning, rubric, European Space for Higher Education

1. INTRODUCTION

The establishment of the European Space for Higher Education (ESHE), as it is defined in the Bologna Declaration, implies important changes in the organizational, pedagogical and methodological aspects of knowledge transmission. Traditional methods based on teaching must be replaced by new methods based on learning and competences’ development.

The implementation of this new educational model has required, among other adjustments, a significant increase in autonomous work in relation to traditional face-to-face instruction activities. This adjustment provides more time for personal tutoring and mentoring in order to really promote a student-based education paradigm. So the success of this new Higher Education paradigm relies on the development of students’ self-learning skill, that is, the ability to motivate themselves, grow their self-confidence, define objectives, search for information and select good references, organize and schedule their work and apply self-assessment to their learning outcomes as well as to the process. Self-learning is also called self-directed learning, autonomous learning or self-regulated learning.

This new educational model also requires important changes in assessment methods: if we are now focusing on competences’ development instead of knowledge transmission, new methods for assessing higher order thinking processes and competences instead of factual knowledge and lower level cognitive skills are needed.

The research presented in this paper includes a definition of a model of self-directed learning, an assessment method based on rubrics and questionnaires, and a development strategy for the social interaction between teacher and student based on dialogical coaching.
2. SELF-DIRECTED LEARNING

The choice of self-directed learning as the key competence in our proposal, as said before, responds to the requirements of the ESHE which promotes a new educational focused primarily on the student who must become the fundamental agent in knowledge management. The ESHE establishes the competencies as a “common language” which allows the comparison of qualifications, professional profiles and academic profiles. But it also establishes (as we can find in the document Tuning Educational Structures in Europe) the necessary development of the students’ competence on “self-managed” learning.

The interest in the development of competencies in educational programmes is consistent with an educational approach focused primarily on students and their ability to learn, which requires more prominence and highest commitment levels since it is the student who must develop the capacity to handle information, look for it and evaluate it in a more varied way (library, teachers, Internet, etc.) . (Wagennar-González, 2003: 36)

This report also establishes that the three most valued generic skills are: "...the ability to learn; basic general knowledge; [and] the ability to work autonomously" (Wagennar-González, 2003: 40)

As it can be inferred from the earlier ideas, the competencies associated to the "ability to learn" and "work autonomously" become key points of the new educational paradigm proposed by the Bologna process.

In the case of Spain, most of the new learning methodology proposals derived from the implementation of the ESHE establish the need to introduce “autonomous learning” as a basic strategy.

2.1 Our model for self-directed learning

There are several approaches and models for self-directed learning. Most of them consider self-direction in learning as a learning process as well as a personal attribute.

Brockett and Hiemstra (Brockett & Hiemstra, 1991) consider self-directed learning as a process in which a learner assumes responsibility for planning, implementing, and evaluating the learning process. The notion of personal responsibility is a key factor in understanding the self-direction in learning. This model is based on the assumptions of the humanist philosophy.

Garrison's model of self-directed learning (Garrison, 1997) also includes the perspectives of self-direction as a personal attribute as well as a learning process. In this model self-directed learning is accomplished by three dimensions interacting with each other: self-management, self-monitoring, and motivation.

In our approach, we understand self-learning as acquiring autonomously knowledge and skills in some specific area or subject. It is also the ability to self-analyze and self-evaluate our way of learning, that is, learn to learn and improve our learning strategies and outcomes.

Self-learning requires three main categories of skills: self-motivation, learning process organization and self-assessment.

- **Self-motivation.** It is the ability to motivate ourselves to perform a task or tackle a new learning project. The elements involved in motivation are
  - Reason: The purpose of the task (the answer to the why question).
• Optimism: Believing the task is achievable.
• Self-confidence: Trusting in our resources to successfully complete the task.
• Enthusiasm: The initial energy required to undertake actions which will lead us to the goal.
• Persistence: The ability to maintain action regardless of our feelings.
• Resistance: The ability to face adversity and overcome obstacles.

• Learning process organization. This ability implies
  • Selection of good references: Searching for information in different sources and using own criteria to select appropriate information.
  • Objectives setting: There should be at least one general goal and some specific ones. The more detailed the objectives are, the easier and motivating to achieve them, because concrete actions will be more easily identified.
  • Scheduling: Defining an action plan, assigning dates to the objectives and establishing the tasks or actions that should be carried out to achieve the goals.

• Self-assessment. The ability to assess our learning based on different criteria of quality. The evaluation should include two different aspects: learning outcomes and learning process.
  • Learning outcomes: Assess the performance degree according to the initial objectives and the quality of the results, drawing conclusions. The student should develop its own standards of quality. It means also to be aware of the progression of learning.
  • Learning process: Assess both the quality of the initial scheduling and our own performance in the plan execution.

Self-assessment must be continuous; partial results should be revised to realize whether we are reasonably approaching the goals. On the contrary, some adjustments must be carried out on the initial plan.

3. RUBRICS AS AN ASSESSMENT INSTRUMENT

The methodology of evaluation of self-directed learning is used in this research is based on rubrics, a dynamic and reformulable evaluation instrument, that offers effective and accessible feedback, centered in the students’ work.

The rubric provides detailed information of the students’ learning progress, it facilitates the elaboration of the closing reports, and allows students to be aware of their weaknesses and strengths in relation to their learning process and activities. Rubrics can be holistic (used to evaluate several competences) or analytical (used for one single competence). We are using an analytical rubric, since we are evaluating only the self-directed learning competence.

In relation to the reliability of rubrics as instruments for learning assessment, and according to Anders Jonsson y Gunilla Svingby, they have the potential to promote learning and to improve instruction outcomes by making expectations and criteria explicit which also facilitate the feedback and self-assessment. (Jonsson, 2007: 139)
In Spain, researchers Martinez Figueira and M. Rivas fox (from University of Vigo) made a study to 81 undergraduate students in order to evaluate their opinions with regard to the utility, reliability and efficiency of the rubric. The results were (Martinez, 2011)

- More of 75% (61 people) affirmed that the rubric provided useful feedback in relation to the learning process and the work carried out.
- More of 60% (54) affirmed that the rubric allowed to certify the acquired competence level.
- More of 50% (49) affirmed that the rubric shows how they will be evaluated and (42) affirmed that the rubric helped them to understand the expected work quality.

4. COACHING AND LEARNING

Coaching is a training process in which an individual gets support while learning to achieve a specific personal or professional goal. The coaching process is focused on increasing individuals’ awareness, on generating responsibility and on moving people to action, because action is the change driver, and change is essential in coaching. Without change, there is no coaching.

Coaching is an old discipline that is gaining popularity and relevance every day. In fact, we could say that Socrates initiated the coaching with his teaching method (the Socratic method). The origin of “modern” coaching can be found in sports (Gallwey, 1974). The Inner Game became a revolutionary and very powerful methodology to achieve resounding results in tennis and the method was soon transferred to other sports and other fields, like business and education.

There are three main schools of coaching: the European school, with the model proposed by Sir John Whitmore (Whitmore, 2002) and Timothy Gallwey; the North-American model founded by Thomas Leonard, who also founded the International Coach Federation (the most important coach association in the world); and the Chilean school created by Fernando Flores and developed by Julio Olalla and Rafael Echeverria (Echeverria, 2009), with a model called Ontological Model.

The dialogical model is a new model created in the IDDI (a leadership training institute) at Universidad Francisco de Vitoria. It is based on solid anthropological and psychological fundamentals that provide an integral vision of the person. This model emphasizes the creation of a relation of meeting between coach and coachee, because human beings are conceived as beings that grow and develop in relations of meeting with other people and with reality.

There are two different approaches to the use of coaching in education. The first one, known as educational coaching, is focused on applying coaching process to teachers to increase their performance and results. This approach has been widely developed in the United States where we can find different validated models, such as cognitive coaching (Costa, 1992), instructional coaching (Knight, 2007) or peer coaching (Thorn, 2007).

The other approach is training teachers to use some competences and methods from coaching in their relations with the students. With these new abilities teachers can improved their teaching strategies and methodologies, favouring new more effective teaching and learning models. Although we can find a lot of initiatives in this line, we have not find any published research carried out to validate them. Our proposal follows this approach (Peñalba, 2012).
5. METHODOLOGY

One of the important contributions of this research is the assessment of the self-directed learning competence through teamwork using rubric and questionnaires. Effective questions based in dialogic coaching are introduced in a research stage to measure the effect on the own assessment and with the objective to prove the validity of proposed rubric.

Research seeks to explain, through a pilot study, the effect of the independent variable (effective questions of the coaching methodology), in the development of the dependent variable (self-directed learning competence in the team). The demonstration of the effect of the raised pedagogical model (effective questions of coaching dialogic) is performed by comparing the results obtained after its application in control groups.

The assessment used pre-test/post-test methodology, which allows for collecting data at an early stage of the project and later in the final phase, with the aim of achieving suitable quantity and quality of the data that lead to useful conclusions.

Data analysis is carried out using multivariate statistical methods to obtain an objective measurement and a standardization, validity and reliability of the outcomes. While the multivariate analysis has its basis in univariate and bivariate statistics, the extension to the multivariate domain introduces concepts and additional issues, ranging from the "theoretical value" of measurement scales used, errors of measurement, statistical results of significance tests and confidence intervals. The use of a multivariate model involves the development of a well-defined research plan that includes the analytical objectives in conceptual terms, the selection of the technique, the evaluation of the basic assumptions of this technique, the estimation of the model and its interpretation, to conclude with the implementation of validation techniques to determine the stability of the results.

The implicit tasks in the initial examination of the data are an essential part of multivariate analysis. Multivariate techniques pose huge demands to the analyst in the understanding, interpretation and articulation of results based on relations whose complexity may become very large. Knowledge of some important or evident interrelations can help in the specification and refinement of the multivariate model to use, as well as to provide a reasonable prospect for the interpretation of the results.

Many authors have classified the multivariate methods (Lebart et al., 1981; Dagnelie, 1981; Hair et al., 1999) but all agree that the three most important to take into account in no particular order of priority aspects are: the unit or not between the variables, scales of measurement you use for each one of them and the objective of the study.

The analysis and interpretation of any technical multivariate does not lead to a single answer, although it can help by a set of general guidelines, not exhaustive, but represent a philosophy of multivariate analysis. Among them we can mention the statistical significance and practical significance; the discussion of the relationship of the statistical power with sample size and statistical significance, ensure the parsimony of the model, the analysis of the errors of prediction not as a measure of the error, but as a starting point for diagnosing the validity of the results obtained and an indicator of unexplained relationships well as the validation of the results.

The thorough analysis of data leads to a better prediction and a more accurate assessment of the dimensionality. There are analytical techniques and graphic techniques that offer researchers a set of simple forms review, both the individual variables, and the relations between them.
It becomes evident to finish successfully a multivariate analysis involves more than just the selection of the right model. They must solve problems ranging from the definition of the problem to the critical diagnosis of the results. Without attempting to provide a rigid set of procedures to follow, will use an approximation of multivariate analysis in six steps, where the first three relate to the preliminary analysis of the data, the fourth refers to the itself analysis and the latter two refer to interpretation and possible standardization of the results obtained (Hair et al., 1999). They are:

**Fig.1. Stages of multivariate statistical analysis.**

The statistical methods are selected taking into account several aspects but all of them must include: (1) the structure of the data matrix, (2) the aim pursued, and (3) the nature of such data (Dagnelie, 1981).

The instruments used here for the collection of data (questionnaires and rubrics), as well as any employee in a research data collection instrument have three requirements: reliability, validity and objectivity. The robustness or reliability refers to the consistency inside of it, their ability to discriminate consistently between a value and another. The robustness or reliability of a measuring instrument refers to the degree that its repeated application on the same subject or object, produces similar results. This feature provides accuracy to the test. The validity indicates the capacity of the scale (nominal, ordinals, equal intervals and ratios) in that an instrument actually measures the variable that is intended to measure. A confusing scale may not have validity, as well as on a scale that
is measuring, simultaneously and indiscriminately, different overlapping variables. A scale is in effect when it truly measures what it claims to measure. With this requirement, the test measures what it purports to measure. And, finally, the objectivity grants to test a neutral, independent of the evaluator and the evaluated subject measurements.

The studied population is first degree of Business Administration and Management of the Francisco de Vitoria University. Probability sampling techniques are used to obtain the size of sample and the elements of the same. The pilot study is carried out on the sample.

The variables or characteristics necessary to measure the independent learning are based on theoretical variables (or construct) and are transferred to indicators that allow us to better understand the dimensions (or intermediate variables) of the theoretical variables and therefore the same variable construct. These empirical variables or indicators do not need to define, as soon as they are easily understandable, measurable and observable. The transformation of the constructs in indicators is done via a suitable operationalization of variables. Care in determining the nature of them (qualitative, quantitative (discrete or continuous), as well as its scale of measurement accuracy is essential to obtain robust results. The scales are measurement instruments and relate to the way in which the indicator is materialized.

The operationalization of the variables comprises several steps:

**Conceptual Definition** → **Identify dimensions** → **Operational Definition** → **Define scales**

**Fig.2. Steps in the operationalization of variables.**

The operationalization of variables is essential. Not all variable are easily measured, this procedure allows quantify and record the aspects and elements which want to research in order to reach conclusions. The operationalization of variables in this study is summarized in the next table:

<table>
<thead>
<tr>
<th>THEOREICAL VARIABLE</th>
<th>DIMENSIONS</th>
<th>INDICATORS</th>
<th>INSTRUMENT</th>
</tr>
</thead>
</table>
| Self-direct learning| Motivation | 1- Self-Confidence  
2- Emotional Conscience  
3- Resilience  
4- Interest  
5- Motivation and overcoming  
6- Motivación and recognition | Questionnaire |
|                     | Organization of process | Information, Targets and Planning | Rubric |
|                     | Outcomes | To achieve objectives | Rubric |
Tab. 1. Operationalization of the variables of self-directed learning.

The questionnaires are applied in n control groups and m treatment groups of the first degree of the Business Administration and Management of the Francisco de Vitoria University. The students have to have a similar profile and they must study the same subject.

In order to assess the acquisition or development of self-directed learning competence in teamwork, it is prepared a rubric. This instrument measures the progress of this competence based on different aspects:

<table>
<thead>
<tr>
<th>Self-Motivation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubric</td>
</tr>
<tr>
<td>Not Meeting: Not has interest and/or considers impossible the objectives</td>
</tr>
<tr>
<td>Developing: Display extrinsic motivation and/or possible and infeasible objectives</td>
</tr>
<tr>
<td>Meeting: Display intrinsic motivation and/or possible and feasible objectives</td>
</tr>
<tr>
<td>Exceeding: Resilience</td>
</tr>
</tbody>
</table>

Planning:
1- Organization
2- Identification of errors
3- Fit
4- Assessment
5- Feedback

Performance:
1- Aims and plans
2- Consience of success and mistakes
3- Introduction of improvements
4- Feedback

Outcomes:
1- Self-assessment with external criteria
2- Self-assessment with own criteria
3- Participation in co-evaluation
4- Feedback
5- Awareness of his/her progress
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Search for information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Not Meeting:</em> No complementary information and/or selected sources are useless</td>
</tr>
<tr>
<td></td>
<td><em>Developing:</em> Search a only means and/or useful and reliable sources but they are not sufficient</td>
</tr>
<tr>
<td></td>
<td><em>Meeting:</em> Search two means or more and/or suitable sources</td>
</tr>
<tr>
<td></td>
<td><em>Exceeding:</em> Search with experts and/or best sources</td>
</tr>
</tbody>
</table>

| Indicator               | Capacity to find appropriate sources (quantity and quality) to provide adequate, reliable and useful information |

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Objectives of learning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Not Meeting:</em> Not define and/or inadequate objectives</td>
</tr>
<tr>
<td></td>
<td><em>Developing:</em> Define a general objective and/or consistent but non-measurable objectives</td>
</tr>
<tr>
<td></td>
<td><em>Meeting:</em> Define general and specific objectives and/or consistent and measurable objectives</td>
</tr>
<tr>
<td></td>
<td><em>Exceeding:</em> Perfectly planned objectives</td>
</tr>
</tbody>
</table>

| Indicator               | Ability to set learning objectives: adequate, consistent and accurate                   |

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Planning of actions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Not Meeting:</em> No design of plan</td>
</tr>
<tr>
<td></td>
<td><em>Developing:</em> Identify tasks associated with each goal</td>
</tr>
<tr>
<td></td>
<td><em>Meeting:</em> Prioritize and estimated time for each task</td>
</tr>
<tr>
<td></td>
<td><em>Exceeding:</em> Set a proper schedule</td>
</tr>
</tbody>
</table>

<p>| Indicator               | Ability to schedule objectives and establish a plan of action                           |</p>
<table>
<thead>
<tr>
<th>Identification of learning outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rubric</strong></td>
</tr>
</tbody>
</table>
| *Not Meeting:* Not acquire new knowledge and/or it is not able to apply acquired knowledge  
*Developing:* Define and manage new concepts and/or applied partially without resolution of the case  
*Meeting:* It describes and explains new theories and/or implements and solves the case correctly  
*Exceeding:* Internalize the knowledge and/or applied analysis and synthesis for more complex cases |

| **Indicator** |
| · Ability to achieve goals both in the acquisition of theoretical knowledge and its practical application |

<table>
<thead>
<tr>
<th>Self-assessment of learning process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rubric</strong></td>
</tr>
</tbody>
</table>
| *Not Meeting:* Not self-assess and/or not extract conclusions about their learning  
*Developing:* Self-assessment with given criteria and/or draws conclusions from the feedback given to his works  
*Meeting:* Self-assessment with own criteria or is aware of the progress of their learning |

| **Indicator** |
| · Development of criteria (planning and performance) for self-assessing their own learning process and adjusted outcomes  
· Identification of factors not learning |

<table>
<thead>
<tr>
<th>Self-assessment of outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rubric</strong></td>
</tr>
</tbody>
</table>
| *Not Meeting:* It does not self-assess action plan and/or it does not self-assess their performance  
*Developing:* Consciousness of the failures of planning and/or errors and successes  
*Meeting:* Adjust your planning during the process and/or introduce changes or improvements in their performance |

| **Indicator** |
| · Development of criteria and techniques to evaluate the learning outcomes that have been achieved and to undertake continuous improvement |

**Tab.2.** Summary of self-direct learning rubric.
Evidences are described for every one of exposed criteria. These evidences are behaviors that can be observed both in each student and in the team in order to be able to assess them through certain indicators are described for each of the above criteria.

Both the pre-test and post-test, some of these indicators can be recognized directly, an expert analyses the way of working of the team and proceeds to valuation in accordance with the specifications of the rubric. This happens on the following criteria: search for information, identification of objectives of learning, planning of actions and identification of learning outcomes.

For the analysis of other indicators, several questionnaires are completed (by part professor and the students themselves, in a personalized manner and/or in team) at different times in the investigation, as discussed more below.

Previously, it is proposed to all group the realization of a project that must be resolved through the work team which consists of resolving a number of issues on the subject in question. Students do this work during a certain period of time enough so that they can acquire or develop competence.

Students have been guided to develop this project work as a team and not as a group, i.e. really sharing the leadership, distributing tasks in a collaborative manner and understanding the roles that each of the members of the team plays at every moment and sharing the final goal through the application of the techniques of meeting management explained in class.

It is applied a questionnaire to assess the way in which each team leads meetings of working to achieve the proposed objective. The answers to items are agreed by the members of each group, who also replied to questions about how to proceed from the moderator or host of the meeting. Thus analyses the implementation of the knowledge acquired on teamwork in the initial phase of the project.

During the process of work on the project, analyses the different criteria to be evaluated in this research. Thus, invites each of the members of the various groups, reply on the self-confidence (pre-test) a questionnaire, interest and motivation to learn. The same questionnaire will be also completed by the teacher that will try to answer the different questions after observing the way of behaving persons in the team.

Both forms shall apply again (post-test) both the experimental and control groups applied once the Dialogic coaching methodology through effective questions (the experimental group). During the making of this second teamwork applies new methodology of effective questions of coaching (only in the experimental groups), in order to verify if the heading has validity to provide results with regard to the measurement of the level of development of the competence of self-directed learning after the implementation of an innovative methodology.

6. CONCLUSIONS

In the presence of some environmental conditions which compel to change, European Space for Higher Education considers the need for changes in the teaching method. In the new educational paradigm, the unit of analysis are not the professor actions but the actions of the student. It's a paradigm that substantially changes the core. This rather than being represented by the teacher and the teaching is based on learning and the person who learns. This new paradigm leads us to think of learning as a process of constructing meaning. In this sense, the student is not limited to acquire knowledge but that builds it. The student is much more active and inventive, and his role to that of a being independent, self-regulating, who knows their own cognitive processes and has in its hands the
control of learning. Accordingly, the role of the teacher not limited to convey information but that actively participates in the process of construction of meaning of the student, making mediator between the structure of knowledge and the cognitive structure of the subject. Learning is, strictly speaking, an activity who learns, but is also a process linked to the teaching and, therefore, to the teacher that plays.

As a result, the University professor must change the orientation of its function. Rather than being a specialist that knows very well a subject and explaining it should become a learning professional, leaving the task of learning as a function of the student. The work of professor must lie in doing our utmost to facilitate their students intellectual access to content and professional practices of the discipline that explains, as well as facilitate the development of their competences.

Fig.3. Scheme of research process.
These circumstances have been determinants for the development and implementation of a new teaching methodology based on coaching Dialogic, exercised by the teacher as coach on the group of students.

This article presents a methodology for evaluating the effects of dialogical coaching on the development of autonomous learning of the student competition. This methodology is based on the realization of a pilot study with objective, reliable and valid such as the questionnaires and heading control groups and treatment in an adequate operationalization of theoretical determinant variables of self-direct learning in the use of measuring instruments and multivariate statistical analysis of the data collected to be able to generalize the results and obtain robust conclusions. This methodology aims to produce knowledge in understanding of the autonomous learning by the student and the factors that determine, as well as assess the quantitative and qualitative impact of actual questions from the teacher (coach) on the student independent learning.

We are aware that it is a long way to go, but the effectiveness of this methodology, without a doubt, would be a step in the construction of the learning by the student, where the teacher is companion in this process.

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THE PSIHOLOGO-PEDAGOGICAL MAINTENANCE OF VOCATIONAL TRAINING OF ENGINEERS FOR INNOVATIVE ECONOMY
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DEVELOPMENT AND ASSESSMENT OF THE SELF-DIRECTED LEARNING COMPETENCE
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