Education Transformation Issues

#3, 2019
The collection includes 9th the International Scientific- Practical Conference “Education Transformation Issues” by SCIEURO in London 27-29 December 2019

© SCIEURO


© SCIEURO

All rights reserved. This work may not be translated or copied in whole or in part without the written permission of the publisher, except for brief excerpts in connection with reviews or scholarly analysis. Use in connection with any form of information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed is forbidden.

The use in this publication of trade names, trademarks, service marks, and similar terms, even if they are not identified as such, is not to be taken as an expression of opinion as to whether or not they are subject to proprietary rights.
“Education Transformation Issues” #3, December 2019

Editorial team

Suhadolets T.V. (Editor-in-Chief)
Fang L.I. - University of Minnesota (Minneapolis, USA)
Emma Bailey - School of Life Sciences University of Glasgow (Glasgow, UK)
Eilidh Ferguson University of Glasgow (Glasgow, UK)
Prof. Thomas W. - Carnegie Mellon University, (Pittsburgh, USA)
Miles Padgett - School of Physics & Astronomy University of Glasgow, (Glasgow, UK)
Eilidh Ferguson - University of Glasgow, (Glasgow, UK)
Martyn Poliakoff - University Nottingham, (Nottingham, UK)
Jun Qian - Newcastle University, (Newcastle upon Tyne, UK)
Joris Louiseau - University of Southampton, (Southampton, UK)
Youssef M. H. A. - Astronomy Department, Faculty of Science, Cairo University, (Cairo, Egypt)
Aliëva S. K. - Azerbaijan State of Oil and Industry University, (Baku, Azerbaijan)
Gulmira Abildinova - L.N. Gumilyov Eurasian National University National University, (Astana, Kazakhstan)
Kadiyeva S.A. - Department of the Azerbaijani language and speech culture of Azerbaijan Medical University, (Baku, Azerbaijan)
Kopeikin V.A. - Ukhta State Technical University (Ukhta)
Nifaeva O.V. - Bryansk State Technical University (Bryansk)
Stupnikova E.A. - Federal State Institution of Higher Education "Russian University of Transport" (MIIT) (Moscow)
Sokolov M.V. - Tambov State Technical University (Tambov)
Yanukyey E.G. - North Caucasus Federal University (Stavropol)
Smolnikova V.V. - North Caucasus Federal University (Stavropol)
Kapustina N.V. - Federal State Institution of Higher Education "Russian University of Transport" (MIIT) (Moscow)
Myasnikova T.A. - Kuban State University (Krasnodar)
Skorikov S.V. - North Caucasus Federal University (Stavropol)
Gvozdeva V.S. - The Russian Presidential Academy Of National Economy And Public Administration (Moscow)
Samokhina L.S. - Federal State Budget Educational Institution of Higher Education «Moscow State Academy of Physical Education» (Moscow)
Basova V.M. - Kostroma State University (Kostroma)
Fedotov D.S. - Federal public state military educational institution (Krasnodar)
Evseev O.S. - Samara State University of economics (Samara).
CONTENTS

INFORMATION TECHNOLOGY ................................................................. 8

Devyatkov V.V., Kadyrbaeva A.R. KNOWLEDGE ASSESSMENT USING FUZZY SETS ........................................................................ 8

MEDICINE ..................................................................................................... 19

Abdullina G.I., Gabdrafikov V.N. WARFARINE-INDUCED SPONTANEOUS PERIODIC BLEEDING FROM RENAL VEIN: A RARE CASE WITH A UNUSUAL ETHIOLOGY ........................................... 19

ECONOMICS .............................................................................................. 28

Berkovich M.L., Simchenko N.A., Belkina O.V. STRATEGIC CONCEPTS FOR THE DEVELOPMENT OF HUMAN RESOURCES IN HIGHER EDUCATION SERVICES ........................................... 28

Rudneva Z. BUSINESS LOYALTY INDICATORS AND THE ROLE OF RUSSIAN CUSTOMS AUTHORITIES IN THEIR FORMATION ...................................................................................................................... 57

MANAGEMENT .......................................................................................... 63

Furin A.G., Manukyants S.V. LEGAL FRAMEWORK OF EDUCATION MANAGEMENT AND ADAPTATION OF PEOPLE WITH DISABILITIES IN RUSSIA ........................................................................ 63

LAW .............................................................................................................. 72

Assanova L., Ichshanova G. INTERNATIONAL LEGAL ARRANGEMENTS OF DEFENSE RIGHTS TO PRIVACY .......... 72

Abdramanova N.K., Abdukarimova Z.T. LEGAL FIGHT AGAINST LATENTITY OF ECONOMIC AND CORRUPTION CRIMES IN THE REPUBLIC OF KAZAKHSTAN ........................................................................... 76
LEGAL SCIENCES.................................................................82

Sinelnikova O.V. LEGAL REGULATION OF FOREIGN TRADE
RUSSIA AND CHINA OF THE BEGINNING OF THE XXI CENTURY
............................................................................................. 82

POLITICAL SCIENCES..............................................................93

Potapov D.V. TRANSITOLOGICAL PARADIGM OF POLITICAL
MODERNIZATION: THEORETICAL ASPECTS ......................... 93

EDUCATION.................................................................................97

Bronov S.A., Stepanova E.A., Katsunova A.S., Pichkovskaya S.Yu.,
Volkov M.V., Puh M.V., Sokolov P.V. THE PROCESS OF FORMING A
TREE OF DIDACTIC UNITS AT THE AUTOMATED CURRICULUM'\nSYNTHESIS ........................................................................... 97

Pravdov D.M., Pravdov M.A., Nikiforov Yu.B. WORKOUT IN
PHYSICAL TRAINING OF SENIOR SCHOOL BOYS........... 103

Markina N., Shchelokova E.G., Berkovich O.A. PSYCHOLOGICAL
RESOURCES OF INNOVATIVE DECISIONS OF STUDENTS IN THE
CONTEXT OF STUDYING THE DEMAND FOR EDUCATIONAL
SERVICES............................................................................. 112

FOREIGN LANGUAGES................................................................120

Stetsenko E.O. THE USE OF AUDIO AND VIDEO MATERIALS IN
TEACHING BUSINESS COMMUNICATION TO STUDENTS OF A
NON-LINGUISTIC UNIVERSITY .................................................. 120

Zaika L.A. WAYS OF DEVELOPMENT IN STEM-EDUCATION:
NEW APPROACHES............................................................... 125

SOCIOLOGY OF CULTURE...........................................................136

Krshunova O.N., Salimgareev M.V., Polivanov Y.M. UNIVERSITY IN
THE CONTEXT OF SOCIAL CONVENTIONS .................... 136
CULTURAL STUDIES................................................................. 140

Sonina E.S. WILLIAM SHAKESPEARE IN INTERNATIONAL BOARD GAMES................................................................. 140
INFORMATION TECHNOLOGY

Devyatkov V. V., Kadyrbaeva A. R.

KNOWLEDGE ASSESSMENT USING FUZZY SETS

Devyatkov V. V., Russian Federation, Moscow, Bauman Moscow State Technical University
Kadyrbaeva A. R., Russian Federation, Moscow, Bauman Moscow State Technical University

Abstract
This article discusses the traditional approach to obtaining estimates of student responses using the theory of fuzzy sets. Some operations of fuzzy logic are described to evaluate the answer to a specific question and to calculate the student's resulting mark. The approach proposed in this paper allows you to create a system of automated assessment of students' answers in relation to certain subjects that they study at the university. Interdependent assessment can be organized in such a way that the system will “lead” the student, offering him more and more complex questions depending on the intermediate assessment achieved.

Keywords: fuzzy logic, knowledge assessment, operations of fuzzy logic.

Introduction
The choice of methods for assessing the quality of knowledge is key in the implementation of the educational program, in connection with which the issue of determining the quality of knowledge of students is relevant. Moreover, the system for monitoring student academic achievement should be diverse and objective. Most of the existing automated knowledge control systems have a limited number of response forms and a two-point assessment system, due to the simplicity of the analysis of sample answers and the lack of formal analysis methods and a differentiated system for assessing students' answers to control questions.
According to [1], the model of fuzzy knowledge assessment allows the use of a multi-valued truth scale, which brings fuzzy logic to the level of a universal basis for the automation of pedagogical knowledge testing. The probabilistic determination of the truth of answers to test tasks with a high degree of complexity and problematicity allows us to overcome the subjectivity of the assessment process, as well as the effectiveness of automated self-learning and students' self-control, which, in turn, leads to an increase in the effectiveness of the educational process and the formation of students' mathematical culture.

Computer technologies, in particular, artificial intelligence, are integrating more and more into modern education. One of the solutions to the problem of competent integration is the formation of permaculture, transforming education with the help of fundamental effective principles for successful learning, which are described in [1], [8], [9].

**Individual, interval and estimated fuzzy sets**

The traditional approach to obtaining an estimate of the answer to a question is based on an analysis of the list of response properties important for evaluating an answer. In order to receive an assessment of the answer, it is necessary to determine the list of these properties and develop a strategy for their use to obtain this assessment of the answer. For example, the list of response properties important for evaluating the response may be as follows: 1) completeness; 2) connectivity; 3) conciseness; 4) speed; 5) rigor; 6) terminology; 7) grace, etc.

This work uses a number of ideas presented in [2]. We assume that the number of response properties is 10. To evaluate the response, we introduce a ten-point scale $C = \{1, 2,\ldots, 10\}$ the importance of the response properties in power equal to the number of these properties $q_i$, which form the set $Q = \{q_1, q_2,\ldots, q_{10}\}$, where $q_i \in \{q_1, q_2,\ldots, q_{10}\}$, $i = 1, 2,\ldots, 10$, and fuzzy number $\text{sign}^{q_i}_C$ [4], [5], [6], being a fuzzy set [3] with membership function $\mu^{q_i}_C(c_i) \in [0,1]$, $c_i \in C$.

In the theory of fuzzy sets, it is customary to consider a fuzzy set as a collection of pairs of the form $(\mu(c_i), c_i)$. For convenience, such pairs are written as $\mu(c_i)/c_i$. Thus

$$\text{sign}^{q_i}_C = \{ (\mu^{q_i}_C(c_i))/c_i | c_i \in C, \mu^{q_i}_C : C \rightarrow [0,1] \}.$$  

A fuzzy $\text{sign}^{q_i}_C$ set is called individual. It sets a fuzzy number, which determines the importance of the $q_i$ property in the formation of the resulting response score, and is actually a mapping $q_i \rightarrow \text{sign}^{q_i}_C$.

We introduce the concept of interval fuzzy sets $\text{subset}^{Q_i}_C$. We define the concept of an interval $Q_i \subseteq Q$ as a set such that:
The interval sets may be more or less depending on how many intervals (subsets) $Q_j \subseteq Q$ we want to use to evaluate the response. Each interval corresponds to one of the interval estimates of the response \[10\], for example, on a five-point scale: excellent, good, satisfactory, unsatisfactory, disgusting. Each interval fuzzy set $\text{subset}_j^Q$ has the same universe $C$. Plurality $\text{subset}_j^Q$ must satisfy the following properties: $c_i \in C$ exists that $\mu_j^Q(c_i) = 1$, $c_i \subseteq C$, (fuzzy set normality $\text{subset}_j^Q$). for all $c_1, c_2, c_3 \in C$, if $c_1 \ll c_2 \ll c_3$ (here $\ll$ - is a sign of order), that $\mu_j^Q(c_2) \geq \min(\mu_j^Q(c_1), \mu_j^Q(c_3))$ (convexity of a fuzzy set $\text{subset}_j^Q$). Each interval fuzzy set $\text{subset}_j^Q$ is a fuzzy number that has the universe $C$. The point of each interval fuzzy set is to show the contribution of the response properties to the set $Q_j$ (the larger the value $\mu_j^Q(c_i) = 1$, $c_i \subseteq C$, that the greater the contribution).

While we will not go into the meaning of the individual properties of $q_i$ and the procedures for the formation of individual fuzzy sets $\text{sign}_j^q$. We assume that the sets $\text{sign}_j^q$ are already given in the following form provided for this.

\[
\text{sign}_{j_1}^q = \{0/1, 0/2, 0/3, 0/4, 0/5, 0/6, 0/7, 0/8, 0/9, 0/10\},
\]

\[
\text{sign}_{j_2}^q = \{1/1, 1/2, 0/3, 0/4, 0/5, 0/6, 0/7, 0/8, 0/9, 0/10\},
\]

\[
\text{sign}_{j_3}^q = \{0/1, 0/2, 0,1/3, 0,5/4, 1/5, 0,5/6, 0,1/7, 0/8, 0/9, 0/10\},
\]

\[
\text{sign}_{j_4}^q = \{0/1,0/2,0,3,0,4,0,5,0,6,0,7,0,8,0,9,0/10\},
\]

\[
\text{sign}_{j_5}^q = \{0/1,0/2,0,1/3,0,5/4,1/5,0,5/6,0,1/7,0/8,0/9,0/10\},
\]

\[
\text{sign}_{j_6}^q = \{0/1,0/2,0,5/3,1/4,0,5/5,0,6,0,7,0/8,0/9,0/10\},
\]

\[
\text{sign}_{j_7}^q = \{0/1,0/2,0,3,0,4,0,5,0,6,0,7,0/8,0/9,0/10\},
\]

\[
\text{sign}_{j_8}^q = \{0/1,0/2,0,5/3,1/4,0,5/5,0,6,0,7,0/8,0/9,0/10\},
\]

\[
\text{sign}_{j_9}^q = \{0/1,0/2,0,3,0,4,0,5,0,6,0,7,0/8,0/9,1/10\},
\]
We introduce for example three interval sets \( \text{excellent}^{O_1}, \text{good}^{O_2}, \text{satisfactorily}^{O_3} \). For this, we divide the set \( Q \) into subsets characterizing the excellent, good, and satisfactory, respectively, the contribution of the properties of \( q_i \) responses, which are included in the set \( Q_j, j = 1,2,3 \) of excellent, good, and satisfactory estimates.

Let interval sets be the following:

\[
\text{satisfactorily}^{O_1} = \{1,1, 0,9,2, 0,6,3, 0,3,4, 0,5, 0,6,0,7, 0,8, 0,9, 0,10\},
\]

\[
\text{good}^{O_2} = \{0,1, 0,3,2, 0,6,3, 0,9,4, 1,5, 1,6, 0,9,7, 0,6,8, 0,3,9, 0,10\},
\]

\[
\text{excellent}^{O_3} = \{0,1, 0,2, 0,3, 0,4, 0,5, 0,6, 0,3,7, 0,6,8, 0,9,9, 1,10\}.
\]

Having interval sets \( \text{subset}^{O_j}_{C_i}, j = 1,2,3 \), one can obtain estimated fuzzy sets \( \text{sign}_{\text{subset}}^{O_j}_{C_i} \). For this we will use the following somewhat modified expression, based on the concept of the degree of inclusion \([7]\) of one fuzzy set (in this case \( \text{sign}^{O_i}_{C_i} \)) and different (in this case \( \text{subset}^{O_j}_{C_i} \)).

\[
\text{sign}_{\text{subset}}^{O_j}_{C_i} = \{\min[\max(1 - \mu^{O_i}_{C_i}(c_i), \mu^{O_j}_{C_i}(c_i), c_i = 1,\ldots,10], i = 1,\ldots,10} \}
\]

According to this expression for each \( c_i \) all pairs are considered first \( 1 - \mu^{O_i}_{C_i}(c_i), \mu^{O_j}_{C_i}(c_i) \). From each pair, a larger value \( 1 - \mu^{O_i}_{C_i}(c_i) \) or \( \mu^{O_j}_{C_i}(c_i) \) is selected. This is explained by the following:

1) If \( \mu^{O_i}_{C_i}(c_i) > \mu^{O_j}_{C_i}(c_i) \) then the individual contribution of \( q_i \), characterized by the value of the membership function \( \mu^{O_i}_{C_i}(c_i) \), above the interval contribution of the properties of the set \( Q_j \) characterized by the value of the membership function \( \mu^{O_j}_{C_i}(c_i) \), therefore, the value of the membership function \( \mu^{O_j}_{C_i}(c_i) \) can’t be taken
as an estimate of membership function. In other words, since 
\[ 1 - \mu_C^q(c_i) < \mu_C^O(c_i) \] then for the estimated value of the membership function \( \mu_C^{q_{\text{subset}}}(c_i) \) equals \( \mu_C^{q_{\text{subset}}}(c_i) = 1 - \mu_C^q(c_i) \).

2) If \( \mu_C^q(c_i) < \mu_C^O(c_i) \) those individual contribution of \( q_i \) characterized by membership function \( \mu_C^q(c_i) \) below the interval contribution of the properties of the set \( Q_j \) characterized by the value of the membership function \( \mu_C^{q_{\text{subset}}}(c_i) \) is accepted \( \mu_C^{q_{\text{subset}}}(c_i) = \mu_C^O(c_i) \).

3) If \( \mu_C^q(c_i) = \mu_C^O(c_i) \) then for the estimated value of the membership function \( \mu_C^{q_{\text{subset}}}(c_i) \) any of these values is accepted.

After that, from all the obtained values \( \mu_C^{q_{\text{subset}}}(c_i) \) having a minimum value, which is taken as the final estimated value of the membership function \( \mu_C^{q_{\text{subset}}}(c_i) \) for each \( q_i \).

Thus, for our example, we have:

\[
\begin{align*}
\mu_C^{q_{\text{easy}}}(c_1) &= \min(\max(1-1, 1), \max(1 -1, 0, 9), \max(1-0,5, 0,6), \\
&\quad \max(1 -0, 0,3), \max(1 -0, 0), \max(1 -0, 0), \max(1 -0, 0), \max(1 -0, 0), \\
&\quad \max(1 -0, 0), \max(1 -0, 0)) = 0,6 \text{ и далее аналогичным образом:} \\
\mu_C^{q_{\text{easy}}}(c_1) &= 0; \quad \mu_C^{q_{\text{high}}}(c_1) = 0; \\
\mu_C^{q_{\text{weak}}}(c_2) &= 1; \quad \mu_C^{q_{\text{meadle}}}(c_2) = 0; \quad \mu_C^{q_{\text{high}}}(c_2) = 0; \\
\mu_C^{q_{\text{weak}}}(c_3) &= 0; \quad \mu_C^{q_{\text{meadle}}}(c_3) = 0,9; \quad \mu_C^{q_{\text{high}}}(c_3) = 0; \\
\mu_C^{q_{\text{weak}}}(c_4) &= 0; \quad \mu_C^{q_{\text{meadle}}}(c_4) = 0,9; \quad \mu_C^{q_{\text{high}}}(c_4) = 0; \\
\mu_C^{q_{\text{weak}}}(c_5) &= 0; \quad \mu_C^{q_{\text{meadle}}}(c_5) = 1; \quad \mu_C^{q_{\text{high}}}(c_5) = 0; \\
\mu_C^{q_{\text{weak}}}(c_6) &= 0,3; \quad \mu_C^{q_{\text{meadle}}}(c_6) = 0,6; \quad \mu_C^{q_{\text{high}}}(c_6) = 0; \\
\mu_C^{q_{\text{weak}}}(c_7) &= 0; \quad \mu_C^{q_{\text{meadle}}}(c_7) = 0,6; \quad \mu_C^{q_{\text{high}}}(c_7) = 0,3; \\
\mu_C^{q_{\text{weak}}}(c_8) &= 0; \quad \mu_C^{q_{\text{meadle}}}(c_8) = 0; \quad \mu_C^{q_{\text{high}}}(c_8) = 1; \\
\end{align*}
\]
As a result, we obtain the following evaluation sets $\text{sign}_{\text{subset}}^Q$:

- $\text{sign}_{\text{weak}}^Q = \{0,6/q_1, 1/q_2, 0/q_3, 0/q_4, 0/q_5, 0,3/q_6, 0/q_7, 0/q_8, 0/q_9, 0/q_{10}\}$

- $\text{sign}_{\text{meadle}}^Q = \{0/q_1, 0/q_2, 0,9/q_3, 0,9/q_4, 1/q_5, 0,6/q_6, 0,6/q_7,0/q_8, 0/q_9, 0,3/q_{10}\}$

- $\text{sign}_{\text{high}}^Q = \{0/q_1, 0/q_2, 0/q_3, 0/q_4, 0/q_5, 0/q_6, 0,3/q_7, 1/q_8,0,6/q_9, 0,6/q_{10}\}$

### Fuzzy addition and division operations

The question is how to calculate the resulting score for the selected set of response properties. In the simplest case, if a subset is selected $\{q_1, q_2, \ldots, q_n\} \subseteq Q$ of $n$ properties for such an estimate, then it can be calculated as the arithmetic mean:

$$\text{sign}_{\text{weak}}^Q = \frac{\text{sign}_{\text{weak}}^{q_1, q_2, \ldots, q_n}}{n},$$

where $\text{sign}_{\text{weak}}^{q_1, q_2, \ldots, q_n} = \sum q_i = q_1 + q_2 + \ldots + q_n$.

$$\text{sign}_{\text{high}}^Q = \frac{\text{sign}_{\text{high}}^{q_1, q_2, \ldots, q_n}}{n} = \frac{\text{sign}_{\text{high}}^{q_1, q_2, \ldots, q_n}}{n} \text{ div } n$$

Since we are dealing with fuzzy natural numbers, here it is necessary to be able to perform fuzzy addition operations

$$\sum q_i = q_1 + q_2 + \ldots + q_n \text{ and division } \sum q_i = q_1 + q_2 + \ldots + q_n \text{ div } n.$$
\[
\text{sign}_{\theta}^{q_1,q_2,\ldots,q_n} = \sum_{q_1, q_2, \ldots, q_n} \text{sign}_{C}^{q_1,q_2,\ldots,q_n}(y) / y
\]

\[
|y| = c_1 + c_2 + \ldots + c_n, \quad \mu_{\theta}^{q_1,q_2,\ldots,q_n}(y) = \max(\min(\mu_{C}^{q_1}(c_1), \mu_{C}^{q_2}(c_2), \ldots, \mu_{C}^{q_n}(c_n)))
\]

Here \( q_1, q_2, \ldots, q_n \) a subset of PVCs selected to evaluate integral motivation; \( c_1, c_2, \ldots, c_n \) - the values of the elements of the universe, respectively, in sets \( \text{sign}_{C}^{q_1}, \text{sign}_{C}^{q_2}, \ldots, \text{sign}_{C}^{q_n} \), and each operation \( \max(\min(\mu_{C}^{q_1}(c_1), \mu_{C}^{q_2}(c_2), \ldots, \mu_{C}^{q_n}(c_n))) \) learning the value of membership function \( \mu_{\theta}^{q_1,q_2,\ldots,q_n}(y) \) sums of fuzzy sets \( \text{sign}_{C}^{q_1}, \text{sign}_{C}^{q_2}, \ldots, \text{sign}_{C}^{q_n} \) performed on membership functions \( \mu_{C}^{q_1}(c_1), \mu_{C}^{q_2}(c_2), \ldots, \mu_{C}^{q_n}(c_n) \) having the same amount \( |y| = c_1 + c_2 + \ldots + c_n \). The universe \( \Theta \) is the set of all such different \( y \).

Division:
\[
\text{sign}_{C}^{q_1,q_2,\ldots,q_n} = \text{sign}_{\theta}^{q_1,q_2,\ldots,q_n} \text{div } n = \{\mu_{C}^{q_1,q_2,\ldots,q_n}(z) / z \}
\]

\[
\left| \mu_{C}^{q_1,q_2,\ldots,q_n}(z) = \max(\min(\mu_{\theta}^{q_1,q_2,\ldots,q_n}(z))) \right|_{\theta \in \Theta, \ z = \theta \text{div } n}
\]

Every operation here \( \max(\min(\mu_{\theta}^{q_1,q_2,\ldots,q_n}(z))) \) get the value of the membership function \( \mu_{C}^{q_1,q_2,\ldots,q_n}(z) \) performed on membership functions \( \mu_{\theta}^{q_1,q_2,\ldots,q_n}(z) \) having the same meaning \( z \).

**Calculation of the resulting response score**

As an example, we take only two properties of the answer \( q_1 \) and \( q_4 \) and calculate for this case the resulting estimate.

\[
\mu_{\theta}^{q_1,q_4}(7) = \max \{\min(\mu_{C}^{q_1}(3), \mu_{C}^{q_4}(4))\} = \max \{\min(0.1, 0.8)\} = \max \{0.1\} = 0.1;
\]
\[
\begin{align*}
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(3), \mu_C^{q_4}(5)) \}, \min (\mu_C^{q_3}(4), \mu_C^{q_4}(4)) = \max \{ \min (0.1, 1), \min (0.5, 0.8) \} = \max \{ 0.1, 0.5 \} = 0.5; \\
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(3), \mu_C^{q_4}(6)) \}, \min (\mu_C^{q_3}(4), \mu_C^{q_4}(5)) = \max \{ \min (0.1, 1), \min (0.5, 1), \min (1, 0.8) \} = \max \{ 0.1, 0.5, 0.8 \} = 0.8; \\
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(3), \mu_C^{q_4}(7)) \}, \min (\mu_C^{q_3}(4), \mu_C^{q_4}(6)) = \max \{ \min (0.1, 0.8), \min (0.5, 1), \min (1, 1), \min (0.5, 0.8) \} = \max \{ 0.1, 0.5, 1, 0.5 \} = 1; \\
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(4), \mu_C^{q_4}(7)) \}, \min (\mu_C^{q_3}(5), \mu_C^{q_4}(6)) = \max \{ \min (0.1, 0.8), \min (0.5, 1), \min (1, 1), \min (0.5, 1) \} = \max \{ 0.1, 0.5, 1, 0.5 \} = 1; \\
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(6), \mu_C^{q_4}(7)) \}, \min (\mu_C^{q_3}(7), \mu_C^{q_4}(6)) = \max \{ \min (1, 0.8), \min (0.5, 1), \min (0.1, 1) \} = \max \{ 0.8, 0.5, 0.1 \} = 0.8; \\
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(6), \mu_C^{q_4}(7)) \}, \min (\mu_C^{q_3}(7), \mu_C^{q_4}(6)) = \max \{ \min (0.5, 0.8), \min (0.1, 1) \} = \max \{ 0.5, 0.1 \} = 0.5; \\
\mu_{\Theta}^{q_3} &= \max \{ \min (\mu_C^{q_3}(7), \mu_C^{q_4}(7)) \} = \max \{ 0.1 \} = 0.1.
\end{align*}
\]

Thus, we have following:
\[
\text{sign}_{\Theta}^{q_3} = \text{sign}_{C}^{q_3} + \text{sign}_{C}^{q_4} = \{ 0.1/7, 0.5/8, 0.8/9, 1/10, 1/11, 0.8/12, 0.5/13, 0.1/14 \},
\]
where \( \Theta = \{7, 8, 9, 10, 11, 12, 13, 14\} \).

\[
\text{sign}_{\Theta}^{q_3, q_4} = \frac{\text{sign}_{\Theta}^{q_3, q_4}}{2} = \left\{ \frac{0.1/7, 0.5/8, 0.8/9, 1/10, 1/11, 0.8/12, 0.5/13, 0.1/14}{2} \right\} = \\
\left\{ 0.1/3, 0.8/4, 1/5, 0.8/6, 0.1/7 \right\}
\]

Complementing this set with pairs with zero values of membership functions that were not used to simplify the calculations, we obtain:

\[
\text{sign}^{q_3, q_4}_C = \left\{ 0/1, 0/2, 0.1/3, 0.8/4, 1/5, 0.8/6, 0.1/7, 0/8, 0/9, 0/10 \right\}
\]

We now calculate the degrees of inclusion of this set in interval sets \textit{excellent}^{Q_1}_C, \textit{good}^{Q_2}_C, \textit{satisfactorily}^{Q_2}_C:

\[
\mu^{(q_3, q_4)_{\text{excellent}}} (c_j) = \min(\max(1-0, 1), \max(1-0, 0.9), \max(1-0, 0.6), \max(1 - 0.8, 0.3), \max(1 - 1, 0), \max(1 - 0.8, 0), \max(1 - 0.1, 0), \max(1 - 0, 0), \max(1 - 0, 0)) = \min(1, 1, 1, 0, 0, 3, 0, 2, 0, 9, 1, 1, 1)=0.
\]

\[
\mu^{(q_3, q_4)_{\text{good}}} (c_j) = \min(\max(1-0, 0), \max(1-0, 0.3), \max(1-0.1, 0.6), \max(1 - 0.8, 0.9), \max(1 - 1, 1), \max(1 - 0.8, 1), \max(1 - 0.1, 0.9), \max(1 - 0, 0.6), \max(1 - 0.3), \max(1 - 0, 0)) = \min(1, 1, 1, 0, 0.9, 1, 1, 0, 9, 1, 1, 1)=0.9.
\]

\[
\mu^{(q_3, q_4)_{\text{excellent}}} (c_j) = \min(\max(1-0, 0), \max(1-0, 0.9), \max(1-0.1, 0), \max(1 - 0.8, 0), \max(1 - 1, 0), \max(1 - 0.8, 0), \max(1 - 0.1, 0.3), \max(1 - 0, 0.6), \max(1 - 0, 0.9), \max(1 - 0, 1)) = \min(1, 1, 1, 0.9, 0.2, 0, 0.2, 0.9, 1, 1, 1)=0.
\]

We see that the degree of inclusion of the set \textit{sign}^{q_3, q_4}_C largest for the interval set \textit{good}^{Q_2}_C, those, evaluation of the answer when using the \textit{q_3} and \textit{q_4} properties for it is good.

**CONCLUSIONS**

The approach proposed in this paper allows you to create a system of automated assessment of students' answers in relation to certain subjects that they study at the university. The development of such a system using the described methodology for assessing responses is possible in at least two directions: firstly, for an independent assessment of responses based on their previously identified properties [11], [12],
[13], [14], [15], [16]; secondly, for an interdependent assessment of student knowledge, in which the system selects the next question directly in the process after the received assessment of the answer to the previous one. Interdependent assessment can be organized in such a way that the system will “lead” the student, offering him more and more complex questions depending on the intermediate assessment achieved.

References:


[14] Devyatkov V.V., Myo Tang Tong Automation of verification of incorrect configuration of firewalls // Bulletin of Bauman Moscow State Technical University, series "Instrumentation", 2015. – N. 1, p. 100 -110;


WARFARINE-INDUCED SPONTANEOUS PERIODENIC BLEEDING FROM RENAL VEIN: A RARE CASE WITH A UNUSUAL ETHIOLOGY

Abdullina Gulnur Ilshatovna, Russia, Federal State Budgetary Educational Institution “Bashkir State Medical University” Ministry of Health of the Russian Federation, student
Gabdrafikov Vadim Nailevich, Russia, Federal State Budgetary Educational Institution "Bashkir State Medical University" Ministry of Health of the Russian Federation, student

Abstract
The overall frequency of major bleeding in patients with atrial fibrillation receiving warfarin therapy is approximately 4%. Among these 4% of patients, spontaneous retroperitoneal bleeding (CRP) is a rare but potentially fatal complication with a nonspecific presentation that can lead to missed or delayed diagnosis. Modern literature provides little guidance for diagnosing and managing such cases. Anticoagulant SRH is associated with a high mortality rate (approximately 20%). Despite a vague idea, a quick diagnosis is crucial to pay protivokoagulyatsiyu and prevent the further thneck bleeding. Abdominal contrast computed tomography (CT) is the method of choice for imaging in suspicious cases. Patients with ADH require aggressive treatment with a blood transfusion, interventional radiological procedures, percutaneous drainage, or surgical evacuation of a hematoma. We report a case of warfarin-induced SRH from the renal vein in a patient who came to our emergency department with acute, nonspecific abdominal pain and shock. Based on clinical suspicions and characteristic CT findings, we diagnosed the patient with warfarin-induced hypertrophy of hypertension. We initially treated the patient
conservatively, followed by embolization of the right renal artery during the late course of the hospital stay, and he was discharged with good recovery. CRP should be considered in the differential diagnosis of abdominal pain, hypotension, and / or a decrease in hemoglobin in patients receiving anticoagulant therapy, especially in those with preexisting end-stage renal failure.

**Keywords:** Warfarin , spontaneous retroperitoneal bleeding from the renal vein, computed tomography, clinical case.

**Introduction**

The overall incidence of major bleeding in patients with atrial fibrillation (AF) receiving therapy Var Farina, is approximately 4% [1]. With mong the 4% of patients spontaneous retroperitoneal haemorrhage (CRP) is a rare but potentially fatal complication of a non-specific presentation which can lead to missed hydrochloric or delayed diagnosis [2, 3]. SRH is defined as a hematoma that is not associated with invasive procedures, surgery, trauma, or abdominal aortic aneurysm [2]. According to Mr. ablyudatelnogo cohort study conducted in the Department of Emergency Medicine Clinics of Ufa from 20 January 15 to 20 December 19, at about 66.3% of patients with the EAP only receive anticoagulants, 30.3% - only antiplatelet therapy , 16.5% - both of the drug and 15.3% - not one of them, [2] without any obvious precipitating factors. Most patients receive anticoagulant therapy for venous thromboembolism (deep vein thrombosis and / or pulmonary thromboembolism) or heart disease (valve prosthetics and / or AF). Patients receiving anticoagulant therapy typically have more severe hematomas with a higher incidence of severe anemia and shock [4]. A THER risk factors for major bleeding in patients receiving anticoagulants, include anemia, severe kidney disease, age ≥ 75 years, prior hemorrhage and hypertension. [5] Patients with end-stage renal failure (ESRD) are more prone to hemorrhagic complications, [5–7], mainly due to platelet dysfunction, anemia, and low levels of vitamin K.

The clinical picture of SRH is nonspecific, and patients are usually present with pain in the abdomen, groin, thigh, or back. About a third of patients may also be present with hypotension or shock [4]. A patient with a hematoma involving the iliac muscle may be a femoral nerve palsy or a mock stroke [2,4].

Massive bleeding into the retroperitoneal space is a true emergency, since it can lead to intravascular depletion of the volume, with or without an increase in intraperitoneal pressure, disrupting the perfusion of other vital organs [8-10]. Then requires rapid recognition, to reverse the effects of anticoagulants and stop the bleeding. Only a few reports of SRH deaths were published [11, 12]. We are reporting a case of warfarin-
induced SRH from the renal Vein, which we initially managed conservatively, followed by embolization of the right renal artery later during the hospital stay, with good recovery.

Clinical case

A 67-year-old male patient came to the emergency department with a history of abdominal pain for three days and fever for one day. The abdominal pain was mild or moderate in intensity and intensified in the right lumbar region the day before the presentation. The pain was associated with hematuria without any history of trauma or abdominal procedure. The patient had a known case of TPVP and received continuous ambulatory peritoneal dialysis four times a day. He also reported a slightly turbid peritoneal dialysis fluid and low outflow over the past three days. His chronic illnesses included hypertension, congestive heart failure, and AF with daily oral therapy with warfarin. At the time of the presentation, he had tachycardia (pulse rate, 150 beats / min) and hypotension (blood pressure, 66/45 mm Hg). The results of his physical examination were unremarkable, with the exception of mild soreness in the entire right side of the abdomen without any return tenderness or protection. We performed an ultrasound at the patient’s bed to detect an abdominal aortic aneurysm, but found nothing. At this time, we considered abdominal aortic aneurysm rupture, septic shock secondary to bacterial peritonitis, mesenteric ischemia, appendicitis, perforation of a hollow temple or complicated renal colic, such as pyelonephritis, in differential diagnosis. We have introduced an intravenous (IV) line for collecting blood samples and administering drugs. To cope with the pain, we injected morphine 5 mg intravenously. We initiated adequate resuscitation of fluid with 0.9% normal saline, aimed at an average arterial pressure of ≥ 65 mm Hg. In addition, we injected broad-spectrum antibiotics IV (piperacillin-tazobactam 2.25 g and vancomycin 1 g) to cover the bacterial infection. Along with blood cell counts, we requested a complete metabolic profile, coagulation profile and blood culture for the study; in addition, we sent peritoneal fluid for analysis. To identify other possible sources of infection, we performed an x-ray of the chest.

Initial blood tests showed the following: white blood cell count, $13 \times 10^9$ / L (normal, 4-10 $\times 10^9$ / L); hemoglobin level, 11.7 g / dl (normal, 13-17 g / dl for men); venous blood gases (pH, 7.30; pCO2 And bicarbonate, 24 mmol / l); the level of lactic acid, 6 mmol / l (normal, 0.5-1 mmol / l); and international normalized ratio (INR), 3.3 (the target INR of the patient with AF was 2.5). After the initial resuscitation of the fluid along the peripheral line, its blood pressure remained below the target average blood pressure, so we introduced a blood line for careful monitoring of blood pressure and began treatment with low-dose vasopressors. We ordered a contrast-enhanced abdominal CT scan to identify the intra-abdominal source of
shock, as described previously. At the same time, a retroperitoneal hematoma of $80 \times 60 \times 35$ mm in size was identified, which was located backwards to the right kidney and pushed the kidney forward. In addition, we observed a hematoma with a size of $70 \times 50 \times 55$ mm near the right upper third of the kidney with calcifying foci and perirenal fat deposits. We did not find active bleeding in the arterial phase (Fig. 1), however, we noted extravasation and blush in the late portal venous phase and delayed phase in the right kidney (Fig. 2). Thus, we diagnosed a patient with renal vein SRH in the presence of warfarin therapy.

Figure 1. Computed tomography of the abdominal cavity with enhanced contrast

Computed tomography of the abdominal cavity with enhanced contrast shows a retroperitoneal hematoma on the right side (white asterisk) without active bleeding in the arterial phase.

Computed tomography of the abdominal cavity with contrast-enhanced computed tomography showing retroperitoneal hematoma on the right side with extravasation in the venous phase (black asterisk).
Given the diagnosis of AHG and after discussion with a cardiologist, we stopped warfarin and immediately administered two units of freshly frozen plasma (FFP) and 10 mg of vitamin K IV to cancel anticoagulant therapy. We crossed blood and kept packed red blood cells ready for transfusion in the event of a further decrease in hemoglobin levels. Ultimately, the patient's blood pressure stabilized, and we did not observe a significant decrease in his hemoglobin level during repeated measurements. We consulted with a urologist, an interventional radiologist and a vascular surgeon and made a collective decision to conduct business conservatively, since anticoagulation was canceled, the patient was vitally stable, and there was no decrease in his serial hemoglobin level.

![Figure 2. Computed tomography of the abdominal cavity with contrast-enhanced computed tomography](image)

We placed the patient in the surgical intensive care unit (ICU) with a plan for re-contrast abdominal CT scan after 12 hours to monitor the progression of the hematoma. Later, at SICU, the patient's hemoglobin
level decreased to 6.6 g/dl, for which he received a blood transfusion, but repeated computed tomography did not show hematoma progression. The patient's condition was stable in dynamics, after a blood transfusion a stable level of hemoglobin was observed, so it was decided to continue conservative treatment.

During the course of treatment in ICU, abdominal pain resumed, and on the 13th day after surgery, blood pressure decreased. A third contrast-enhanced abdominal CT scan was performed with intravenous contrast, which showed an increase in hematoma size. Thus, embolization of the right renal artery was performed, after which the patient recovered well.

This case was reported after obtaining the informed consent of the patient and the approval of the institutional supervisory board of Hamad Medical Corporation.

Discussion

This case describes an abdominal pain shock that we diagnosed with renal vein SRH, a rare complication of warfarin treatment, which is common in the emergency department. This emphasizes the importance of considering a wide range of differential diagnoses, given the patient’s medical history.

Although major bleeding is a well-known complication of warfarin therapy, SRH associated with renal vessels is a rare complication, and its diagnosis can be difficult when the presentation is nonspecific.

INR $\geq 3$ in patients receiving warfarin therapy indicates an increased risk of major bleeding, especially in old age [13]. On dnako patients demonstrating therapeutic range of INR, are not immune to the possibility of CRP, as many patients with CRP may exhibit INR prescribed m therapeutic range [4].

Hematuria in patients receiving warfarin is most often associated with secondary factors, such as anatomical damage, infection, or renal bleeding [14]. Given the nonspecific presentation of SRH, a high suspiciousness index and the timely use of appropriate imaging tests are important to prevent mortality or morbidity associated with a missed or delayed diagnosis. CT is an important diagnostic test in the emergency department, as it is an easily accessible, highly sensitive, non-invasive method for obtaining information about the place and degree of bleeding. The use of contrast media helps locate active blood flow and determine the need for active intervention.

Management of bleeding associated with warfarin depends on many factors, such as the hemodynamic instability of the patient, the significance of the bleeding, the supratherapeutic value of the INR, and the risk of a thrombotic event associated with reversal.
of anticoagulation. Therefore, for the timely adoption of appropriate decisions, a multilateral approach is extremely important.

Invasive approaches to treatment are reserved for cases when a conservative approach does not help to achieve timely control of bleeding [15] or when a hematoma in the anatomical region causes pressure effects [10, 16, 17]. The conservative treatment of SRH secondary renal venous bleeding is an acceptable initial approach, with other invasive options being radiological intervention, percutaneous drainage, or surgical evacuation of hematoma [4]. In patients with serious or life-threatening bleeding, in addition to retaining warfarin and administration of vitamin K should be administered fast reversing the agents such as concentrates protrombi new complex (PCCs) or FFP [18]. PACs offer the following advantages over FFP: 1) they can be quickly reproduced with a small volume of infusion, 2) they can be delivered in a short period of time (20-30 minutes), 3) they have a faster onset of action, 4) and they do not require to limit the patient’s blood group [18]. However, PCCs have a lower concentration of factor VII than TFP. Therefore, FFP can be used in cases where PACs are unavailable, or in addition to PACs to compensate for factor VII in some cases [19].

**Conclusion**

CRP should be considered in the differential diagnosis of abdominal pain, hypotension, and/or a decrease in hemoglobin level in patients receiving anticoagulant therapy, especially in individuals with pre-existing ESRD. Most patients can be treated conservatively, and timely embolization can be life-saving in cases of active bleeding from the renal vessels.

**References:**


ECONOMICS

Berkovich M.L., Simchenko N.A., Belkina O.V.

STRATEGIC CONCEPTS FOR THE DEVELOPMENT OF HUMAN RESOURCES IN HIGHER EDUCATION SERVICES

Berkovich Maxim Leonidovich (contact person), Russian Federation, Applicant, Department of Economic Theory, Crimean Federal University named after V.I. Vernadsky, Vice-Rector for Security and Logistics, GBU DPO "Chelyabinsk Institute for Retraining and Advanced Training of Education Workers" (e-mail: berk_ml@mail.ru)

Simchenko Natalia Alexandrovna, Russian Federation
Doctor of Economics, Professor, Leading Researcher, Department of Management and Regional Economics, Maykop State Technological University (e-mail: natalysimchenko@yandex.ru).

Belkina Oksana Valentinovna., Russian Federation
Senior Lecturer, Department of Foreign Languages, Institute of Linguistics and International Communications, South Ural State University (National Research Institute) (e-mail: belkinaov@susu.ru)

Abstract
The proposed article focuses on the development of educational services market over time. Scientific papers on the conceptual experience of various strategies implementation for human resources development of higher education in the period from 2013 up to and including 2018 were analyzed. Particular emphasis is given to changes in approaches to the development strategies of human resources potential of higher education over time. The article addresses the issues of conceptualizing experience while applying various strategies for the human resources development in higher education; target indicators of various national projects; decrees of the President; decrees of the Government of the Russian Federation; various federal laws and certain by-laws; as well as changes in approaches
to developing strategies of human resources potential of higher education over time. The objective of the study presented in the article is to trace the evolution of concepts of human resource development for the period from 2013 to 2019 inclusive and to identify the correlation between changes in the cash receipts of higher education organizations (using the example of the Chelyabinsk region) from changes in conceptual approaches to the development of personnel potential of employees of such organizations. The study was conducted on the basis of data from open sources based on static analysis. As a result of the study, a direct dependence of the volume of cash receipts on the implementation of paid educational programs on changes in approaches to the development of human capital of higher education organizations was revealed.

Keywords: services, human resources development, higher education, strategy, concepts of development, human capital assets, investment.

Introduction
The education system is by nature a comprehensive system of interaction between individuals in the realization of public benefits. The process of mastering certain competencies is always tied to two-way interaction, in which the teacher transmits, and the student receives a certain set of knowledge and acquires certain competencies in various fields. This interaction can be called bilateral only because, according to the economic laws, the demand function is inextricably linked to the supply function within the framework of achieving a position of economic market equilibrium. In this situation, the educational institute represented by the representatives of the teaching staff forms the supply system, while consumers of the services of higher educational institutions (students) form the demand system.

However, the factors of such demand are usually implicit. Because of this, it is quite difficult for the head of an educational institute to determine the vector of developing his/her employees for more effective provision of educational services. In the economic context – for the effective formation of a system of proposals.

The relevance of the chosen research topic is determined by state policy in the field of education, primarily in the field of higher education. In the national project "Science"[21] there is a separate project aimed at developing the human potential of higher education services, the national project "Education" requires fundamental changes in the training of personnel for the modern economy, and more and more funding for higher educational institutions towards extra-budgetary activities due to reducing funding for the education system upon completion of the Federal Targeted Program for the Education Development requires from heads of
higher educational institutions ensure the competitiveness of their institutions in the educational services market.

By the concept of developing the personnel potential of the higher education services sector, we understand the mechanisms, principles, and positions used by the management team of the higher educational institute to create a system for managing the development of the university faculty competence for forming a system of offering educational services. Such a system should be consistent with economic development trends and public education policy strategies. In other words, in understanding the concept of developing the human resources potential of the higher education services sector, including the concept of human capital development of an higher educational institute (university), we proceed from the need to conceptualize the university’s management experience and / or choose conceptual approaches that are adequate to the identified problem.

In this article, the authors present the results of a research devoted to identifying the strategic nature of the concepts of developing human resources potential in higher education (using the example of the Chelyabinsk region). To do this, it is necessary to solve the following tasks: 1) to trace (analyze) the evolution of concepts of developing human resources for the period from 2013 to 2019; 2) to identify the relationship between changes in cash receipts of higher educational institutions and changes in conceptual approaches to building human resources, and, consequently, the human capital of employees of organizations.

As research methods, the authors used:

- analysis of statistical data presented on the official website for posting information on state (municipal) institutions;
- comparison of changes in the volume of cash receipts presented in the plans for financial and economic activities of higher education institutions of the Chelyabinsk region under the section “Extra-budgetary and other activities of the institution” with changes in conceptual approaches to building the personnel potential of educational services institutions (the latter are determined based on an analysis of studies of various authors on the above issue).

Thus, the authors are aimed at confirming or refuting the hypothesis that the development of conceptual approaches to building the university’s human resources and investments in the human capital of professors and teachers of higher education institutions is one of the factors for increasing the cash receipts from educational services provided by such personnel.

Analysis of strategic concepts for strengthening human resources for the period from 2013 to 2019

30
If we turn to foreign experience in building a system of interaction between students and teachers, we can see that it is fundamentally different from that adopted in the Russian Federation. So, for example, in the USA there is no system for the schedule of educational classes as such. The student himself/herself creates a schedule on the basis of a list of subjects that he/she must study, his/her full-time correspondence status, the quality of teaching a particular subject with a particular teacher. Thus, the student (consumer) independently determines for himself/herself the structure of the process of his training. At the same time, the student, in fact, has the opportunity to choose only a higher educational institution, the area and form of training (full-time or part-time), which, moreover, it will be quite problematic for the student to change over time when such a need arises. Understanding the essence of the current problems, which poorly reflects the market demands in the face of consumers of benefits, the government adopted the program "Education Development"[23]. Considering the provisions of this document in the context of changes in the realities of the educational services market over time, the authors analyzed the conceptual experience of strategizing the development of human resources in higher education services in the period 2013-2019 in the changing conditions of the market system to create a forecasting system for implementing strategic concepts for developing the human resources potential of higher education services in future periods within the framework of changes in market development paradigms.

The program "Education Development", had as its objectives, in particular: ensuring education quality (which is characterized by the achievement and preservation of the leading positions of the Russian Federation in various Russian and foreign rating monitoring studies), education accessibility (which is characterized by the accessibility of various levels of education to mastering appropriate educational programs), forming Russian online education (which is characterized by the introduction of online education in various educational environments and levels, as well as an increase in the number of “online courses” in areas that have already undergone “digitalization”).

In addition, in 2012, the target program “Science and Technology Development" was approved [24]. The main goal of this program was, first and foremost, strengthening personnel potential through the introduction of an effective system of personnel reproduction for the scientific and educational spheres (and, therefore, for the sphere of educational services in particular). The above target within the framework of the personnel development system was supposed to be achieved by solving many problems, of which almost each one was somehow related to strengthening personnel potential of the educational services sector.
In addition to the above, the Law “On Education in the Russian Federation” [37] entered into force in 2013. As noted in the works of L.I. Dudina and E.Yu. Nikitina, in connection with the provisions of the aforementioned Federal Law, it is necessary to take into account the new realities of the legal regulation of education so that the staff of higher educational institutions can effectively work with the human capital of students [18]. It should be noted that if earlier for issuing a state standard document it was required to ensure that educational programs comply with federal state requirements (FSR), a standard document only needs to comply with professional standards, which in the short term led to a flood of the educational services market by new players, and, in the long term perspective, significantly influenced the level of quality of the provision of educational services, which, fundamentally, temporarily slowed down the development of personnel potential of educational services.

In addition, at about the same time, the concept of "basic university" was introduced into everyday life. In itself, this phenomenon was aimed at modernizing the management system of educational institutions, allocating an additional substantial amount of funding to such universities, however, such a merger entailed rather unobvious consequences. So, the work of M.A. Golovina and T.S. Solovieva notes that the problems of creating basic universities are directly related to the loss of orientation of pedagogical universities to work with human capital in the framework of creating a new higher educational institution, which can lead to extremely negative results for the economy of the corresponding region. They also noted that modern realities require not just advanced training, which, according to the Law "On Education, must be carried out at least once every three years, but continuous improvement of their professional qualities and the development of new, more popular professional competencies throughout the entire interaction cycle of an individual with their human capital [10] Analyzing the publication activity of both the above and other authors in 2013, it can be noted that the researchers in one way or other, based on the prevailing market situations, note the need to ensure strengthening personnel potential of educational institutions in a difficult market situation that has developed in the framework of the global financial crisis since 2008, which could not but affect the domestic markets of the Russian Federation. However, the study authors do not suggest specific strategies for developing such potential (except quite obvious, in the form of differentiation of wages depending on qualifications (certification passed) and work performed, especially in the framework of scientific grants and various subsidies for the university faculty for other purposes.

To assess the impact of developing concepts for working with human capital, let us turn to the volume of cash receipts under the item “Extra-budgetary and other income-generating activities of institutions”
since this activity is usually the provision of paid educational services, and all other Extra-budgetary activities are presented in terms of financial and economic activities by separate items. This information is presented on the Official website for posting information on state (municipal) institutions. For the correctness of the study, the authors took information on institutions included in the list of higher educational institutions that are required to provide statistics on monitoring the performance of such institutions to the Ministry of Education and Science of the Russian Federation (since 2018 the Ministry of Science of the Russian Federation and the Ministry of Education of the Russian Federation). This allows combining this study with previous studies of the authors on this issue to further clarify effective methods of working with human capital and search for the most effective ways to invest in such capital [6] [7]. The authors chose exactly the cash receipts parameter from all the parameters presented in monitoring for the following reason. When a higher educational institution carries out its economic activities, most of the parameters submitted for monitoring fluctuate little. However, it is the increase in cash receipts from extra-budgetary activities that is usually an indicator of the increase in demand for teaching services of an educational institute. Any other parameter (an increase in the number of foreign students, an increase in students living in a dormitory, an increase in students eating in canteens, etc.) does not produce such a large deviation that stable relationships could be traced on the basis of such deviations in cash receipts. Thus, the source base of the research based on the hypothesis proposed by the authors was the official websites of universities in the Chelyabinsk region. Among them: FSBEI of HE "South Ural State Institute of Arts named after P.I. Tchaikovsky"; FSBEI of HE "Magnitogorsk State Conservatory (Academy) named after M.I. Glinka"; FSBEI of HE "South Ural State University (National Research University); FSBEI of HE "Ural State University of Physical Culture"; FSBEI of HE "Magnitogorsk State Technical University named after G.I. Nosova"; FSBEI of HE "Chelyabinsk State Institute of Culture"; FSBEI of HE "Chelyabinsk State University"; FSBEI of HE "South Ural State Humanitarian Pedagogical University"; FSBEI of HE "South Ural State Agrarian University"; FSBEI of HE “South Ural State Medical University” of the Ministry of Health of the Russian Federation; FSBEI of HE “Chelyabinsk State University” (Miass branch); Ozersky Institute of Technology - branch of Federal State Autonomous Educational Institution “National Research Nuclear University MEPhI”; Snezhinsky Institute of Physics and Technology - Branch of Federal State Autonomous Higher Educational Institution National Research Nuclear University MEPhI; Trekhgorny Technological Institute - a branch of National Research Nuclear University MEPhI; Uralsky branch of FSBEI of HE "Russian Academy of Justice" (Chelyabinsk); Chelyabinsk Institute of
Communications - branch of FSBEI of HE "Ural State University of Railway Transport".

Information on the cash flow of funds of such institutions is presented in Figure 1. Note that for a number of higher education institutions on the official websites there is no information on this indicator for 2013.

This information is the basis for the study and will serve as a starting point for further assessing the impact of strategic concepts for strengthening human resources on the amount received from such changes in cash.

Later, already in 2014, the sphere of educational services began to take, in a certain sense, the form and content of the market. When analyzing the current situation in the educational services market of this period, the authors proceed from the relevance of comparing an educational institute with a small and medium-sized business entity. Indeed, if to analyze by what criteria a particular organization is considered an entity of small and medium business (entrepreneurship), then the similarity between these entities of economic relations becomes apparent. The analysis of foreign experience allows us to note two facts. First, government funding for implementing innovative projects varies significantly between the Russian Federation and foreign countries. Secondly, the insufficient participation of the Russian state in the Education Development as an innovative sector and a branch of small business (entrepreneurship).
In addition, according to some researchers, there is a significant geopolitical gap between the amount of funds to support small businesses. So, in particular, Sirazetdinov R.M. and Mikhamezyanova D.D. note that financial support for developing small and medium-sized enterprises in the Russian Federation is tenfold difference compared to more developed world economies (for example, the economy of the United States of America). It should be noted that it is precisely such enterprises that, as a rule, provide the level of state GDP with their effective activities [34].

The above gives grounds to state the existence of contradictions in the system of educational services (as an innovative and scientific environment), between the tasks that need to be addressed through system functioning and funding allocated for such functioning.

As one of the ways out of the existing contradiction, the state developed the Strategy for Innovative Development of the Russian Federation for the period until 2020. [25]. Its creation was determined by a number of reasons, but one of the most important was that the Strategy for Developing Science and Innovation in the Russian Federation for the period up to 2015 [35], approved earlier, was not fully implemented. Since the start of the Strategy, for the possibility of incorporating the legislation of the Russian Federation into the legal field, about 50
regulatory legal acts were adopted with the aim of implementing certain provisions of the Strategy [35]. The above situation called for radical changes in strategic development concepts. Among other things, the Strategy for Developing Science and Innovation in the Russian Federation also had the task of developing human resources in the educational sphere.

It is noteworthy that the Strategy [25] formulated measures to develop the level of personnel potential of the innovative economy. Among them, among other things, it was stated that in order to increase the efficiency of economic investments, it was necessary first of all to develop human capital and potential, as well as coordinate domestic education to increase the level of knowledge of the population. This largely determines the need for further developing the higher education personnel potential.

The impact of changes in approaches to working with the human capital of universities can be traced by comparing changes in the volume of cash receipts between the indicators of higher educational institutions in 2013 and in 2014. Such a comparison is presented below in the diagram (Figure 2).

![Figure 2. Comparison of cash receipts (in Russian rubles) under the item “Extra-budgetary and other income-generating activities of institutions” for the periods of 2013 and 2014 (as exemplified by universities in the Chelyabinsk region) [31]](image-url)

As can be seen from the diagram presented in Figure 2, one may note that, in general, revenues from income-generating activities for
the period 2013-2014 tend to increase for most of the organizations represented.

In 2015, researchers began paying attention to the complex economic component of the human resources development system for educational services. Thus, the number of educational institutions in the field of higher education services continued the downward trend. According to the Federal State Statistics Service, the number of such higher educational institutions decreased by 2% compared to previous periods [30], provided that the above decline occurred against the backdrop of a decrease in the number of organizations with state foundations with an increase in the number of private higher educational institutions. This situation proves that the sphere of higher education services is a stable similarity of the services market, in which higher educational institutions are transferred to a private foundation for profit, which would be impossible if the educational services market players did not see financial benefits in such a foundation against the background of formed market conditions.

At the same time, an important factor is the fact that the decrease in the number of educational institutions, as a rule, was due to a merger, not liquidation. This was accompanied by the creation of basic universities and an increase in budget allocations for them. However, in such a situation, for an individual member of the teaching staff, developing their potential becomes not so much an obligation that is assigned to him/her and his/her employer by the Federal Law "On Education in the Russian Federation", but a necessity aimed at preventing being dismissed at the time of reduction. During this period, employers really began to interact differently with the staff of higher education services organizations - because of financial need, employers had to pursue a strict personnel policy, and, accordingly, approaches to developing the personnel potential of employees of educational institutions also began to undergo changes.

So, Astakhova Yu.V. in her work states that the way of living a person in society in one way or another depends both on the level of his/her income and on his/her position in society, which goes hand in hand with the level of the post held. In addition, a high position as a rule brings more stable income to an individual in the framework of various financial and social crisis situations [3] This conclusion can also be applied to the personnel reserve of the higher education services sector. Employees of such educational institutions will be less protected if their potential is less developed, and they are less competent as professionals in their field. The author also adds that the level of education itself now formally affects the demand for an individual in the labor market, that is, people with formally higher qualifications (documentary proved) are gradually crowding out workers who do not have such qualifications (that
is so-called “crowded out” effect) [3] And this trend can be traced, based on the findings of the aforementioned researcher, throughout the whole system of services in Russian higher education. This situation encourages faculty to intensively develop their market value.

In turn, Efremova P.V. notes the following: that, within the framework of existing trends, normative legal acts that are adopted in support of the development strategy of the Russian Federation do not carry mechanisms that would increase efforts aimed at developing human capital. However, it is precisely such development that directly affects the effectiveness of achieving strategic goals, posed to the Russian Federation by foreign policy and foreign economic great challenges. [13]

Thus, the authors agree that developing human resources should not only spur innovation, but also be innovative in itself. And this, in turn, means the introduction of new methods, technologies and forms of developing such a potential. In view of the foregoing, it is necessary to change the fundamental model for strengthening personnel potential, to change in a certain sense the paradigm of its development. So Babakayev S.V. and Kulyamina O.S. note the importance of investments in human capital in the overall portfolio of investment assets necessary for the effective development of the state. [4] At the same time, some researchers believe that only more modern approaches and a new, reformatted view of the problem of investing in human resources can help to reach a new level of strategic interaction with human capital. [1] [8]. Thus, we can say that the authors in their studies began to reflect the need not only to develop human potential, as required by the Federal Law “On Education in the Russian Federation”, but to increase the effectiveness of the existing potential - to direct human capital to search for non-standard solutions and ways of interaction of an educational institute with the educational services market. Gradually, there is coming an understanding of the effectiveness of investing in developing human resources and of the fact that the invested funds in developing human resources return later with a profit due to the attracted number of customers and, therefore, additional sources of financial support.

After analyzing approaches to new concepts of working with human resources in 2015, we turn to the difference in cash receipts from extra-budgetary activities of universities in the Chelyabinsk region between the indicators in 2014 and 2015 (Diagram 3)
Analyzing the data presented in the diagram (Figure 3), a significant increase in revenue from revenue-generating activities for the period 2014-2015 can be noted. This is especially evident in relation to the South Ural State University, the South Ural State Medical University, and the South Ural State Agrarian University.

In 2016, the strategic concepts of working with human capital are shifting towards the focus on the search for more efficient systems for investing in human resources, as well as systems for using existing potential to achieve the required level of market interaction. An unobvious factor that encourages employers to search for cost-effective systems for working with employees may be a change in the volume of services provided to the public (including educational services) in the Russian Federation. This trend is observed both in the analysis of the data published on the Rosstat website and in the analysis of changes in cash from the state in the form of subsidies for other purposes due to the end of financing of the educational system organizations by means of the Federal
Targeted Program for the Education Development, the maximum amount of financing of which is just accounted for 2013-2015 (within the framework of funding allocated to the Chelyabinsk region)

As can be noted, in recent years there has been a steady decline in the volume of such services. Such a process can be associated both with a decrease in the purchasing power of the population, and with a more selective approach of the population to their consumer preferences. In any case, subject to a decrease in demand, and with the remaining volume of players in the market, competition among organizations is steadily growing. In such a situation, organizations are forced to resort to the search for effective tools to maintain their position in the market, as well as to preserve the enterprise’s personnel potential developed over the years. According to researchers, one of such tools is an effective contract, which primarily allows teachers and education system managers to directly influence their income level, if the latter have a sufficient level of qualification and competence.

An effective contract is a sought-after market tool just because, as Anokhin S.A. writes, developing human resources is impossible without the simultaneous development of social infrastructure for those individuals whose investment in human resources is being studied [2]. That is, until the employee has a clear idea of the level of his/her social and financial support, any work to develop human resources will be of no sense. Even with the necessary competencies and qualifications, the employee will not have the opportunity to express himself/herself in an unstable and uncontrollable situation related to his/her stimulation.

Therefore, D.G. Lugueva and N.G. Gadzhiev [16] in their works explores an effective contract as an instrument not only for formalizing staff relationships, but also as an instrument of social support for an individual’s development over time, noting that an effective contract with skillful use can be an instrument of an employee’s influence on his/her level of remuneration. Thus, it becomes obvious that the main problem of introducing such a contract for strengthening personnel potential is the need to implement adequate agreements between the employee and the employer on the amount of employee incentives by the employer within the framework of such a contract, which, in its essence and according to foreign experience, is a heterogeneous indicator.

It turns out that in the Russian Federation there is a tendency towards more flexible incentives for workers, since a larger amount of the wage fund can be allocated for such incentives. Accordingly, the employer has great variability in the possibilities of stimulating various categories of workers, which means that it has the ability to fine-tune the incentive system in an educational institute. Together with the certification mechanism of the faculty, the employer of the educational services organization has the opportunity to create a self-regulatory
system for developing human resources, because, according to researchers [38] [39], human capital is one of the most important investment goals for the effective development of an educational institute, since, along with other intangible assets, organizations have a very high volume of capitalization when assessing the total volume of capitalization of an enterprise.

Next, we analyze the changes in the level of the cash receipt of universities in the Chelyabinsk region in comparison between 2015 and 2016 in the diagram (figure 4).

![Figure 4](image-url)

Figure 4 Comparison of cash receipts (in Russian rubles) under the item “Extra-budgetary and other income-generating activities of institutions” in 2015 and 2016 (as exemplified by universities in the Chelyabinsk region) [35]

As can be seen from Figure 4, the receipt of extra-budgetary funds has not changed at all universities in the Chelyabinsk region. We attribute this fact not so much to the incorrectly chosen vector of working with human capital, but to the restructuring of organizations after excess funding in 2013-2015.

On the basis of a number of empirical studies presented above, by 2017, scientists began to treat developing human resources as a market investment, which has certain parameters, certain investment conditions
and return on investment. Such an attitude to the funds allocated for strengthening personnel potential of the organization of the sphere of educational services (and the sphere of higher education services, in particular) is important only because, in the opinion of Lovchikova E.I., Pervykh N.A. and Solodovnik A.I., within the framework of the tasks facing the state in terms of ensuring the functioning of the elements of the digital economy, effective work with human capital is a serious help, and higher education institutions are the locomotive that can effectively provide such work. [14]

Thus, as far as human resources are essentially inextricably linked with investments, it is therefore necessary to develop a specific approach to investment policy. However, there is a serious problem associated with the lack of developing the methodology of such investments, which in turn leads to the problem of assessing the effectiveness of investing in human capital.

As for the parameters of investing in human resources, it should be noted that all the parameters are somehow tied to, in fact, the employees themselves, from whom a personnel reserve and personnel potential are formed at the same time. So, the investment return on investments in developing human resources depends both on the length of working age as a whole and on the time of work at a particular enterprise for a particular employee, therefore, when making investments in human resources, enterprises have to conclude additional agreements to labor contracts with employees, so that the latter will work for a certain time at the enterprise upon completion of any training course. This is only one of the tools to ensure the return on investment of an organization, but without a guarantee of such a return, investing in human resources alone might not exist as a phenomenon.

In addition, human capital also has the ability to become morally and physically obsolete as a fixed asset in the organization’s accounting, as well as accumulate and grow as a financial asset. This diverse nature of human capital just makes investors look for a special methodology and mathematical models for its description and forecasting for further investment. At the same time, investing in human capital is infinitely impossible. The human potential, unlike a financial asset, has a limit to increasing its profitability, after which further investment is not so much advisable as it is useless due to the complete absence of financial returns from further investment, which, as a rule, is associated with the end of working age.

In view of the foregoing, some researchers resort to special methods for analyzing investment efficiency. So, Berezina E.S., Gryaznova E.R. and Borshcheva Yu.A. in their work, they note that human resources should be considered from the point of view of an investment asset, that is, not only investing in human resources, but also
to monitor the rate of return on such investments, as the methods for such a measurement, the authors see “methods for measuring the effectiveness of personnel training based on the indicator "Return On Investment" - ROI.[5] Weighted indicators on the basis of such an indicator solve a variety of problems, but one of the most important and key is the determination in monetary terms of the effectiveness of the training, and along with this, the determination of the return on investment in such training. This indicator gives a clear economic answer to the question of the appropriateness of investing in human resources by paying for a specific educational program of a particular employee in specific economic conditions for the enterprise. Although ROI calculating is extremely time-consuming, it can help educational services organizations to calculate their investment portfolio correctly and based on the current market situation.

It should be noted that a little earlier, in December 2016, a decree was issued by President of the Russian Federation Vladimir Vladimirovich Putin on the approval of the Strategy for Scientific and Technological Development of the Russian Federation. [19] According to its provisions, at the first stage of its implementation in the period 2017-2020, the primary task is to reproduce personnel and develop human resources, without which it is impossible to ensure stable scientific and technological development of the country. It should be noted that such reproduction is difficult to overestimate. As E.V. Romanov notes [27] higher education institutions is fundamentally a concentration of best practices aimed at developing human resources, and teachers of such educational institutions should be considered as tools for interacting with human capital in the framework of its development. For quite some time, Russia has been developing e-learning platforms. The features of such platforms are that the teaching methodology developed for such platforms consists in the initial development of methodological concepts by scientific institutions with the subsequent use of such groundwork by teachers in the learning process. However, such a path at the international level has shown its lack of effectiveness.

As can be seen from the works of foreign researchers, the foreign experience of the higher education system shows the negative dynamics of the replacement of teaching staff with managers for the provision of educational services. So, S. Head focuses on the following: managerial techniques that the state imposes adversely affect education quality, and therefore the level of developing personnel potential due to a drop in the level of education [45]. The above methodology was previously born in business incubators and was aimed at achieving the maximum level of content management of the activities conducted by subordinates in the performance of their duties. This approach leads to the fact that the essence and reason why it is necessary to engage in developing human
resources and invest in human capital is a thing of the past. Such a system does not need human capital as a productive force, only executive managers are needed. In this regard, some researchers give extremely negative forecasts regarding the further logic of such a development. So, D. Schuster and M. Finkelstein [51] note that there is a problem of the work of representatives of the teaching staff on the topics that are declared by the state. In this case, the state wants to get a very definite product, so that the department heads essentially become process managers, state control increases, and the creativity of researchers in the framework of such a state order comes to naught. Researchers do not work on what is really relevant, but on what they pay more efficiently for.

Next, we analyze the changes in the level of the cash receipt of universities in the Chelyabinsk region in comparison between 2016 and 2017. (Diagram 5)

Figure 5 Comparison of cash receipts (in Russian rubles) under the item “Extra-budgetary and other income-generating activities of institutions” in 2016 and 2017 (as exemplified by universities in the Chelyabinsk region) [31]

According to the data presented in the diagram (Figure 5), ongoing stagnation can be noted. This trend has its own reasons. In our
opinion, this is due to the fact that during this period the leaders of higher educational institutions are faced with the task of determining the development vectors of the human capital of their employees. And investments in human resources are often an investment in long money. That is, the effect of investments in human development is not immediately apparent, which means that extra-budgetary activities based on changes in the human capital of employees will increase gradually according to the increasing demand for the services of faculty with a new vision for strengthening human resources. In addition, during this period, elections were held for the President of the Russian Federation. The elected President Vladimir Vladimirovich Putin stated as the goal of his presidency the socially developed state and social support for citizens. By virtue of the May Decrees issued by the President, the Government began to develop various national projects to implement the provisions of such Decrees. In connection with the foregoing, in order to determine the effectiveness of concepts for working with human resources, it is necessary to analyze data for 2018 and subsequent years.

In addition, the authors cannot but note that the work of the scientific community of higher educational institutions in accordance with the state order is deadlocked already by virtue of the Russian mentality, and can also lead to the impossibility of fulfilling the decrees of the President of the Russian Federation. Our system for developing the human resources potential of higher education should be structured differently and not follow foreign "innovators." As early as in 2018, T.Yu. Lozhkina noted that developing an institution of the educational sphere is impossible without developing the human potential of the teaching staff. Education, fundamentally, is a product produced by the personality of the teacher. Without developing such a person, the very core of developing the system of educational services and educational institutions disappears. [fifteen]. In her work, T.Yu. Lozhkina also proposed a new development concept - orientation to the strategic management of the educational institute, which, among other things, laid the strategic management of the human resources development system, since the effectiveness of working with human capital only manifests itself over time, and a strategic approach to developing the teaching staff. [15] During this period, on the example of universities in the Chelyabinsk region, one can note the orientation of the educational system institutions towards the adoption of the Development Program of such institutions. In such Programs, institutions are increasingly separately emphasizing the need for a strategic approach to working with human capital. As part of the Development Program, personalized teacher programs are being adopted. Such programs, approved by representative councils at educational institutions, allow not only to design developing human capital for employees, but also to manage such development, as well as
monitor the progress of such development. Moreover, during this period, the institutions themselves began to co-finance developing the potential of their employees, realizing the importance of such development of their reference employees in changing and optimizing the income structure of institutions.

Information on the change in the level of cash receipts in comparison between 2017 and 2018 is presented in the Diagram 6.

![Figure 6 Comparison of cash receipts (in Russian rubles) under the item “Extra-budgetary and other income-generating activities of institutions” in 2017 and 2018 (as exemplified by universities in the Chelyabinsk region) [31]](image)

As you can see in Figure 6, there are two extremum points in 2017 compared to 2018, which are associated in one case with the organization not providing information on its cash receipt for 2018 (thus, such a cash receipt is 0), and in the second the case of payment for services provided in 2017 after the fact during the period of 2018. Otherwise, we can note an increase, albeit small, in comparison with previous periods of stagnation.

In conclusion, it should be noted that it is not yet possible to analyze and compare the growth of extra-budgetary revenues from the
implementation of strategic concepts for developing human resources in 2018-2019, since higher educational institutions have not yet submitted information on the results of their activities in 2019, however, the authors predict a significant increase in extra-budgetary funds received from activities on implementing educational programs on a paid basis. The basis for this statement is as well as a certain development vector for strategic approaches in strengthening personnel potential, and an increase in the demand for educational services of higher education in the framework of developing a system of remote provision of educational services.

Moreover, in 2019, a whole series of EdCrunch International Conferences was held in the Russian Federation with the participation of reference representatives of the educational system of both the Russian Federation and other countries famous for the level of their education system. The theme of the series of conferences mentioned above sounded like "The inflection point: from human capital to human potential." The conference discussed topics such as: the strategy of using artificial intelligence and neural networks in the process of working with human potential, the concept of increasing human potential on the job or the so-called concept of "Continuous Professional Development Centers" (one of the strategic concepts promoted by the Ministry of Education Russian Federation and implemented within the Chelyabinsk region), the impossibility of developing territorial entities without developing personnel the potential of employees in such territories, the need to satisfy the personnel shortage of the economic system of the regions of the Russian Federation to ensure a technological leap and breakthrough of the state. The authors predict a significant increase in the amount of funds received in 2019 and subsequent years from extra-budgetary activities of higher educational institutions, taking into account the amount of effort and funds allocated to conceptualize the experience of developing human resources and testing strategic approaches to its development.

**Conclusion**

Summarizing, it can be noted that over the period 2013-2019, the system of human resource development and approaches to such development have come a long way in development and self-determination: from the need for advanced training in implementing legislation through identifying the problems of investing in human capital to a strategic approach to personnel development potential and analysis of investments in human capital as a means of production of the production cycle of the educational services sector. At the end of 2018 (September 3, 2018), at a meeting of the Presidium of the Presidential Council for Strategic Development and National Projects, the passports of the national projects “Education” and “Science” were approved [21] [22]. Most of the
indicators of these national projects and the tasks that these projects must implement indicate the need for exponential development of human resources in order to be able to directly compete with the leading world leaders in science and education. After analyzing scientific research in this area since 2013, the authors of this article note the need to continue applying the investment approach to developing human resources in terms of the return on investment in human capital over time and the effectiveness of such investments. According to the authors, such an investment approach requires a comprehensive analysis using mathematical methods and scenario forecasting, aimed at finding and modeling the most positive scenarios of effective investment in the human resources of educational services.

The authors of the article draw attention to the summary information on higher education system institutions, presented in the diagram 7.

Diagram 7 Comparison of cash receipts (in Russian rubles) under the item “Extra-budgetary and other income-generating activities of institutions” for the period 2013-2018 (as exemplified by universities in the Chelyabinsk region) [31]

According to the above diagram, which is a conclusion based on the information presented in Diagrams 1-6), an increase in the receipts of extra-budgetary funds for each year is unambiguously traced when considering the amount of funding by institutions. Thus, it can be said with sufficient degree that there is a direct correlation between developing strategic concepts for working with the human resources of higher
education institutions and the increase in funds received from extra-budgetary activities through implementing paid educational programs.

The justification of such results is, according to the authors, a direct relationship between investments in human resources, both financial and non-financial, and its subsequent effective use in the provision of paid educational services. Since investments in human capital are the so-called "long money", the effect of investments on human resources does not appear immediately, but over time. In the presented diagrams 1-6, such a correlation can be clearly traced. Thus, it is possible to trace how the work begun in 2013 had an impact in subsequent years on the level of demand for the services of higher educational institutions. However, it should be noted that in developing human capital, an important factor is the need to clearly maintain the vector of such development, so as not only to satisfy the demand in the educational services market here and now, but to direct efforts towards "future demand". And for this it is necessary that in every institution of the sphere of educational services of higher education there should be a clear development program, as well as a forecast of what specific educational services will be in demand in the future, to begin working on the human capital of their employees now to meet the demand for such services in the future. In addition, investments in human resources have a cumulative effect and, according to the authors of the article, the total level of benefits received from investments in human resources in a constant mode will be higher than their own investments in such potential. However, such an effect will only occur over time. The more time that constant work with human resources takes place, the greater will be the difference between the total investment in human capital and the level of economic effect of such an investment. But at the same time, the authors consider it extremely important to conduct forecasting and plan their activities on the basis of various multicriteria models for choosing particular development vectors. Further research in this direction could help create an effective toolkit for use by heads of higher educational institutions.

Based on the foregoing, the authors of the article consider the hypothesis that strengthening personnel potential of the institution’s employees directly affects the amount of money received from extra-budgetary activities carried out by such employees, sufficiently proved on the basis of independent data from open sources.

According to the authors, further work on strategizing modern concepts of human resource development will help heads of higher educational institutions more efficiently plan their cash flow, and can also serve as a basis for further research of the impact of managerial decisions aimed at developing the human resources of higher education institution.
employees and the level of demand for educational services of higher educational institutions in the Chelyabinsk region.

References:


Romanov E. V. Threats to the personnel potential of regional universities // Economy of the region. - 2018. - V. 14, no. 1. - S. 95-108


Available at: https://cyberleninka.ru/article/n/strategicheskoe-razvitie-innovatsionnoy-ekonomiki [Accessed date 27.02.2019].


23CF79E47255558379DA693D087334047727A6713DCA9EA9
12DB [accessed: 03.11.2019].

[51] Schuster J., Finkelstein M. The American faculty: The
restructuring of academic work and careers. Johns Hopkins

[52] Stephen S Lim, Rachel L Updike, Alexander S Kaldjian, Ryan M
Barber, Krycia Cowling, Hunter York, Joseph Friedman, R Xu,
Joanna L Whisnant, Heather J Taylor, Andrew T Leever,
Yesenia Roman, Miranda F Bryant, Joseph Dieleman,
Emmanuela Gakidou, Christopher J L Murray, Measuring human
capital: a systematic analysis of 195 countries and territories,
https://www.thelancet.com/action/showPdf?pii=S0140-
6736%2818%2931941-X [accessed: 03.11.2019].

Lifelong education: continuing education for sustainable
development. 2015. №13 (eng). URL:
https://cyberleninka.ru/article/n/investments-in-human-capital
(accessed: 03.11.2019).
Rudneva Z.

BUSINESS LOYALTY INDICATORS AND THE ROLE OF RUSSIAN CUSTOMS AUTHORITIES IN THEIR FORMATION

Zareta S. Rudneva, Russia, Khabarovsk State University of Economics and Law, candidate of economic Sciences, associate Professor of the Department of world economy and customs

Abstract: The creation of favorable business conditions in the country is evaluated through a set of indicators proposed by the world Bank, one of which is «International trade». In the ranking of countries in terms of business loyalty, Russia does not occupy a leading position. The reforms of customs administration implemented in Russia have changed the priorities in the activities of customs authorities. Analysis of the activities of customs authorities allowed to identify the reasons for non-compliance with the indicator «International trade». To expand the criteria for evaluating the activities of customs administrations and the implementation of the «International trade» indicator, performance indicators are proposed that take into account the trends of world trade, business interests, and state priorities.

Keywords: performance indicators, the rating of the country, the world Bank, the customs authorities.

Improving the business climate, lowering administrative barriers, and transparency of business rules are reflected in performance indicators in various areas and in the ranking of countries according to the business loyalty criteria conducted annually by the World Bank.

The rating of a country, according to the World Bank, is determined by a set of indicators that include registration of enterprises, obtaining building permits, taxation, international trade and other areas affecting the business environment [1].

In 2016, Russia ranked 51st in the business loyalty rating, rose to 35th in 2017, improved by 4 points in 2018 and ranked 28th in 2019, losing only Kazakhstan taken the 25th place among the countries of the Eurasian Economic Union.
Fig. 1. Ranking of countries according to their business loyalty indicator for 2019

In 2019, under conditions conducive to entrepreneurship, Russia (with the exception of Kazakhstan) overtook not only the member states of the Eurasian Economic Union, but also the BRICS countries, showing an improvement in the business climate for doing business, which nevertheless remains insufficient in the current world practice.

At the same time, such countries as Georgia, Northern Macedonia, Estonia, Latvia, Lithuania and others, presented in fig. 1 and located in the ranking of countries above Russia, more efficiently administered reforms that changed the economic activities of business entities.

Nevertheless, the assessment of performance indicators presented by the World Bank on the loyalty and simplicity of doing business in the country allows to identify areas that require changes in regulatory provisions and immediate adjustments [2], which confirms the view that Doing Business is not only in the interests of entrepreneurs, but also societies.

Over the years, the International Trade indicator has remained decreasing the ease of doing business rating in Russia [3].
According to the International Trade indicator, Russia lost 12.8 points to New Zealand as a leader in 2019, having improved the indicator by 5.7% and maintaining 99th place in the ranking of countries [4] for this indicator, as in 2018.

According to the World Bank, the countries that showed the best results on the International Trade indicator in 2019 are [5] Australia, Belgium, the Czech Republic, Croatia, Denmark, France, Hungary, Italy, Luxembourg, the Netherlands, Poland, Portugal, Romania, Slovenia, and Spain.

Raising the country's rating is facilitated by changes related to customs administration. The higher is the level of assessment of customs administration, the higher is the International Trade indicator and, as a consequence, the rating of the country.

Control over goods, vehicles moving across the customs border is carried out in Russia by the federal executive authority represented by the Federal Customs Service of Russia.

The activities of the customs authorities of the Russian Federation are characterized by results that are to be evaluated through the prism of external and internal indicators. The indicators are the results of the economic activities of the customs authority, act as tools for strategic and operational management, a means of control by the state [6] and guidelines for further improvement and reform of the customs system, as well as ensuring the development of international trade.
An external assessment of customs administration is carried out on the basis of the World Bank's annual rating (Doing business rating), according to the International Trade indicator, which includes both temporary and cost indicators.

Temporary indicators reflect:
1. The time in hours spent on conducting border and customs control during export and import operations;
2. The time in hours required to fill out and execute documents in order to complete export / import operations.

Cost indicators include:
2. The cost of export / import in US dollars when passing through border and customs control.

These indicators are to be directly and indirectly administered by the customs authorities of the Russian Federation.

In accordance with the provisions of the Roadmap [7], the planned benchmark for the effective work of customs authorities is Russia’s 17th position in the Doing business ranking according to the estimated International Trade indicator for 2018, which does not correspond to the actual value.

The planned values of the indicators for fulfilling the International Trade indicator for export / import in 2019 in the system of customs authorities are: the number of documents, the period for preparing documents, and the time for customs operations.

In 2019, in accordance with the assessment criteria selected by the World Bank and set out in the Roadmap, the planned timeframe for customs operations [8] for imported goods is no more than 2 hours, and for exported goods no more than 1.3 hours.

The performance of the functions assigned to the customs authorities is assessed through the number of documents required by the customs authorities. In 2018, to improve the International Trade indicator according to the Doing business rating, the number of documents required to complete customs operations for release should be no more than 4 [7].

However, the performance of indicators by the customs authorities, reflecting the results of reducing the time costs of customs operations at customs border checkpoints and minimizing the costs of participants in foreign economic activity, does not mean the achievement of the established International Trade indicator calculated by the World Bank.

Analyzing the countries’ performance of the International Trade indicator revealed the reasons that did not allow Russia to improve its rating.
Firstly, this indicator is performed by countries where the time of customs operations during export / import tends to zero or less than 0.5 hours [9].

Secondly, the term for executing documents for export / import operations does not exceed 1 hour.

Thirdly, executing documents is free, and the cost of export / import operations is absent or negligible.

At the same time, the minimum terms for customs operations do not indicate the quality of customs control, its specifics.

One of the priority areas of reforming control and oversight activities in the customs authorities in Russia is the implementation of performance indicators whose purpose is to reduce the administrative burden on customs control in relation to foreign trade participants by 20% by the end of 2018 and by more than 50% by 2025 [10]. Achieving this goal is ensured by the implementation of measures to categorize foreign trade participants, reducing the share of customs inspections, increasing automatically issued customs declarations, and increasing the information content of customs operations and services carried out by customs authorities.

But in order to use the Russian practice of administering indicators for international purposes of assessing the activities of customs administrations of the Member States of the World Customs Organization, it is necessary to determine indicators that are not in doubt as to their application, taking into account their assessment, over the actual period of time, of areas of activity of the Member States of the World Customs Organization, calculation methods.

These indicators include the reduction in the time of customs operations when releasing goods placed under the customs procedure; the number of counterfeit goods detected; the share of customs inspections in the volume of declared goods; the number of unscheduled inspections or indicators characterizing areas of activity related to the fulfillment of obligations under international legal acts, for example, classification of goods, customs procedures, origin of goods.

Thus, the system of performance indicators of customs authorities should be universal, transformable to various conditions of customs administration and the requirements of the time for use by customs administrations, the World Bank and other organizations to assess the International Trade indicator and determine the country's rating for creating favorable conditions for doing business.

References:


Order of the Government of Russia of 29.06.2012 No. 1125-R "on approval of the action plan ("road map") "Improvement of customs administration". URL: http://www.consultant.ru (access date: 17/12/2019).

Order of the FCS of Russia dated 30.10.2017 No. 1720 "on approval of performance indicators and efficiency of the FCS of Russia, territorial customs authorities and the Central office of the FCS of Russia". URL: http://www.customs.ru (access date: 17/12/2019).


Passport of the departmental priority project of the Federal customs service of Russia "Reform of control and supervision activities in the Federal customs service", approved by the minutes of the meeting of the project Committee dated 21.02.2017 No. 13 (2). URL: http://www.consultant.ru (access date:17/12/2019).
MANAGEMENT

Furin A.G., Manukyants S.V.

LEGAL FRAMEWORK OF EDUCATION MANAGEMENT AND ADAPTATION OF PEOPLE WITH DISABILITIES IN RUSSIA

Furin A.G., Russian Federation, Volga State University of Technology, Department of Economics, Associate professor, candidate of economic sciences

Manukyants S.V., Volga State University of Technology, Department of Economics, Senior Lecturer

Abstract

Russian legal framework of education management and adaptation of people with disabilities is examined. Firstly, we characterize the state management of education as a system. Secondly, we describe educational rights of citizens. Thirdly, we analyse national and international statutes and regulations and guidelines relating to the education of individuals with disabilities. Qualitative analysis of national and international statutes and regulations and guidelines allows us to describe the current situation in the field of education state management and adaptation of individuals with disabilities.

Keywords: adaptation, state management, legal framework, education, individuals with disabilities.

Introduction. Ongoing transformation of national sociocultural and economic framework is accompanied by international integration processes. Due to these changes the professional education and training and professional development face the need to improve. Russian system of education state management has a complex hierarchical structure.
According to current legislation it includes: federal-level and subject-level (or region-level) agencies managing education; educational organisations, their teaching staff, learners and their parents (for learners who cannot represent themselves); organisations providing any kind of support for education and education quality assessment; associations of legal entities, employers and NGOs; federal national educational standards and federal national educational standards requirements, educational standards, educational programmes of different types, level and (or) profile [1]. Russian educational system allows the implementation of the right to study for the whole life ('lifelong learning'). It contemplates consequent levels of education: general education, professional education, professional development and professional training. Professional education consists of higher vocational education and higher education (bachelor's, specialist's and master's degree programmes and postgraduate programmes). Professional education aims at giving learners knowledge and skills which determine the achieved level of some competencies allowing an individual to perform some kind of professional activities at certain job positions.

According to Russian Constitution, every Russian citizen has a right to get an education and he is guaranteed to get general access to and free higher vocational education in state or municipal educational establishments and at enterprises [2]. Thereat, equal access to education for all learners amid their educational needs and personal abilities is guaranteed by legislation.

Currently there are more than 2,9 million learners at higher vocational education facilities. Many of them need special support and assistance from the state. Solving problems of social involvement, everyday routine and labour activity has a high priority for individuals with disabilities. So, managing such processes by the government and diagnostics of social adaptation level become urgent. Social involvement and professional adaptation of individuals with disabilities are actual state objectives. Achieving these objectives involves all levels of education.

**Materials and methods.** Adaptation of individuals with disabilities is examined in several prospective: state management of education, particularities of social adaptation of individuals with disabilities, development of learners by creating appropriate framework in educational facilities etc.

Individuals with disabilities quite often can't accomplish their education, master professional competences. They face difficulties while communicating with peers. Regarding that, the state's objective is to enable such people to get professional education, social adaptation and a job. This objective requires legislation as an appropriate institutional framework.
International practice in the field of managing education and adaptation of people with disabilities includes several approaches: mainstreaming, integration and inclusion.

Mainstreaming as a process of adaptation means that children with disabilities communicate with ordinary children outside of education, e.g. at different events, exhibitions, contests. Education and adaptation of children with disabilities may be performed by integration, when they study at ordinary educational organisation but with the use of special classrooms and adapted programmes. Inclusion is possible when educational organisation has the environment suitable for educators of all kind, including ones with disabilities. All of these approaches are implemented in Russia more or less. Efficiency of education and consequent adaptation substantially depends on the legal framework for such processes.

In 2018 3658 educational organisations were providing programmes for training of skilled workers, office workers and middle-ranking specialists. 541.1 thousand students were enrolled in skilled workers and office workers training programmes, 2464.3 thousand students were enrolled in middle-ranking specialists training programmes. [3]. The number of students with disabilities enrolled in secondary vocational education programmes has been steadily increasing in recent years (21 482 people in 2016-2017 academic year, 22 935 people in 2017-2018 academic year, 25 004 people in 2018-2019 academic year) [4].

State regulation of professional educational organizations is carried out on the basis of the state target. Educational organisation prepares the state target accomplishment report which is revised by the convener of the organisation. Financing of such organisations is carried out according to the tariff classification and enrolment target. In some cases, additional financing from regional budgets applies, for example if educational organisation is enrolled in some state programmes. Children with disabilities traditionally get professional education and training at higher vocational education organisations like specialized schools, lyceums, technical schools, colleges.

Technique to study regulatory support of persons with disabilities education management involves the use of qualitative methods of the current legislation analysis.

Vocational training of persons with disabilities is regulated and governed by a large number of regulatory legal and scientific-methodical documents of international, national and regional levels. Using a qualitative analysis method, we focus on the description, interpretation and explanation of the key provisions related to state regulation, rights, adaptation and education of persons with disabilities.

1. International level.
1.1. Art. 26 of Universal Declaration of Human Rights states: “Everyone has the right to education. … Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms…” [5].

1.2. Declaration of the Rights of the Child states: “The child is entitled to receive education … He shall be given an education which will promote his general culture…” [6].

1.3. The UNESCO Convention against Discrimination in Education prohibits any kind of discrimination against certain persons or groups [7].

1.4. Declaration on the Right of Mentally Retarded Persons states: “The mentally retarded person has a right … to such education, training, rehabilitation and guidance as will enable him to develop his ability and maximum potential.” [8].

1.5. World Programme of Action concerning Disabled Persons proclaimed by UN General Assembly resolution 37/52 of 3 December 1982 states: “Equalization of opportunities means the process through which the general system of society, such as … educational and work opportunities, cultural and social life, including sports and recreational facilities, are made accessible to all.” [9].

1.6. Convention on the Rights of the Child states: “States Parties recognize that a mentally or physically disabled child should enjoy a full and decent life, in conditions which ensure dignity, promote self-reliance and facilitate the child's active participation in the community. … assistance … shall be designed to ensure that the disabled child has effective access to and receives education, training, health care services, rehabilitation services, preparation for employment and recreation opportunities.” [10].

1.7. Article III, p. 5 of World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs states: “Steps need to be taken to provide equal access to education to every category of disabled persons as an integral part of the education system.” [11].

1.8. According to Standard Rules on the Equalization of Opportunities for Persons with Disabilities, “States should recognize the principle of equal primary, secondary and tertiary educational opportunities for children, youth and adults with disabilities, in integrated settings. They should ensure that the education of persons with disabilities is an integral part of the educational system.” [12].

1.9. Art. 24 of Convention on the Rights of Persons with Disabilities states: “States Parties recognize the right of persons with disabilities to education. State Parities shall ensure an inclusive education system at all levels and lifelong learning … . States Parties shall ensure that persons with disabilities are able to access general tertiary education,
vocational training, adult education and lifelong learning without discrimination and on an equal basis with others.” [13].

2. National (Russian) level.

2.1. According to Art. 43 of the Constitution of the Russian Federation, everyone has the right to education. At the same time, the state guarantees accessibility and free availability of preschool, General and secondary vocational education, and on a competitive basis, free higher education [2].

2.2. The Family Code establishes that the child has the right to nurturing, education, development, respect for his dignity, and parents are obliged to ensure that their children receive a general education. In the case when the children are left without parental care and are in specialised organisations, these functions are carried out by the state [14].

2.3. According to article 9 of Federal law “On basic guarantees of rights of a child in Russian Federation”, the rights of the child may not be infringed in the implementation of educational activities [15].

2.4. Federal law “On social security of disabled people in the Russian Federation” regulates rehabilitation and habilitation of disabled people, including vocational guidance, General and vocational education, assistance in employment and adaptation at work. The state guarantees the creation of the necessary conditions for the people with disabilities to receive education, which ensures the observance of equal rights and freedoms, development and adaptation for the people with disabilities in society. The state ensures that persons with disabilities receive public and free education in accordance with adapted educational programmes and individual programmes for rehabilitation and habilitation of persons with disabilities. Organisations that carry out educational activities create special conditions for students with disabilities to receive education [16].

2.5. Article 2 of Federal law “On education in Russian Federation” provides the main concepts and definitions among which we should note “education”, “nurturing”, “training”, “professional education”, “vocational training”, “students with disabilities”, “inclusive education”, “adapted educational programme”. Legislation guarantees equal access to education for all students with their needs and opportunities taken into account. Realisation of the right is ensured through educational programmes adapted for the training of persons with disabilities. Article 5 establishes that in the Russian Federation the right of everyone to education is guaranteed regardless of various physical and life circumstances by creating the appropriate socio-economic conditions for receiving it throughout a person’s life. The state makes it possible for people with disabilities to receive education without discrimination against them, and carries out their social adaptation. Children who need help in mastering general education programmes are provided with the necessary psychological, pedagogical, social and medical assistance by
the state. It is important that the legislator defined the role of the state in providing career guidance, obtaining a profession and social adaptation (Article 42). Article 79 of the law regulates the organisation of education for students with disabilities. Vocational training and professional education are carried out on the basis of educational programmes, adapted, if necessary, for training such students, by creating special conditions for them [1].

2.6. Getting a professional education is a prerequisite for successful socialisation and effective self-realisation by people with disabilities. The Ministry of Education and Science of Russia has developed materials for the preparation and organisation of vocational guidance for students with disabilities and special needs [17].

2.7. The problems of integrated education for people with disabilities were discussed at the International scientific and practical conference in Moscow in 2001. That discussion allowed to formulate the principles of integrated education in educational institutions of a general type: integration through early diagnosis, through mandatory corrective assistance to each child and through multilevel integration models [18].

2.8. Creating conditions for education for children with disabilities involves the development of a diverse network of institutions and integration into educational institutions, which may vary depending on child's mental and (or) physical development [19].

Results. International legislation regulates the availability of education for all categories of people, not focusing on the presence or absence of disability, and consider training opportunities in both ordinary and specialised organisations. The state is actively engaged in adaptation and employment of individuals with disabilities.

National legislation and guidelines adequately consider the situation in creating all the necessary conditions for education, vocational guidance, social adaptation of persons with disabilities. At the same time, a number of issues require further elaboration and amendments to the legislation. For example, sanitary rules and norms adopted in the last century are still being used, which require updating to adapt to current conditions. Also the issues of financing students with disabilities are not sufficiently regulated and there is no state level accepted list of professions for which people with different disabilities can be trained.

Regional legislation and guidelines are developed and applied in accordance with federal legislation, but they often just duplicate the content of a higher level documents.

In general, the management of education of persons with disabilities, their adaptation and employment are given more attention abroad. But regarding the latest legislation changes in Russia, there have also been some positive changes: inclusive and interactive training is being introduced, specialised professional skills contests and state
programmes to secure persons with disabilities in the workplace are appearing.

References:


“Education Transformation Issues” #3, December 2019

ASSANOVA L., ICHSHANOVA G.

INTERNATIONAL LEGAL ARRANGEMENTS OF DEFENSE RIGHTS TO PRIVACY

ASSANOVA L., KAZAKHSTAN, MASTER DEGREE, UNIVERSITY OF INTERNATIONAL BUSINESS

ICHSHANOVA G., KAZAKHSTAN, PhD, UNIVERSITY OF INTERNATIONAL BUSINESS

Abstract

The article presents issues related to international legal means of protecting the rights to privacy. The author analyzes in detail internationally recognized statutory documents that contain such norms. As a result of the studies, it was concluded that it is effective to apply to court as the European Court of Human Rights. However, there are other ways of protections as for instance institutions for the data privacy. Keywords: international legal remedies for the protection of civil rights, the right to privacy, protection of personal data, judicial protection, European Court of Human Rights.

Keywords: inviolability, privacy, defense

Introduction. Privacy is one of the fundamental rights that every citizen has. Its main content is an indication of the certain autonomy of any person from interference by third parties, including the country in the person of its authorized bodies and officials, in his private life, which, in turn, must be ensured by an effective system of state legal means and measures aimed at protecting human rights and freedoms in the field of personal, family and intimate life, as well as preventing their violation. It should be noted that for the first time at the international level, the right to privacy received legal regulation in 1948 in connection with the adoption of the Universal Declaration of Human Rights. So, in Art. 12 the following thesis was reflected: no one can be subjected to arbitrary interference in his personal and family life, arbitrary encroachments on the inviolability of his home, the secret of his correspondence or on his
honor and reputation. Everyone has the right to protection of the law from such interference or such attacks [1].

**Materials and Methods.** Subsequently, this norm in almost the same context was directly reflected in the International Covenant on Civil and Political Rights (article 17) [2]. Analyzing this thesis, we conclude that in this form, the right to privacy is least like a subjective right that belongs to a particular individual. This can be interpreted as a kind of duty directed towards others.

The next document, which is worth mentioning when considering the issue of international legal remedies for the protection of the analyzed law, is the European Convention for the Protection of Human Rights and Fundamental Freedoms. So, in Art. Clause 8 of this act close attention is drawn to the fact that everyone is entitled to respect for his personal and family life, the inviolability of his home and the secrecy of correspondence. Intervention of public authorities in implementation of this right is not allowed, with the exception of some cases allowed by law [3]. Such circumstances may include maintaining state security and public peace, economic well-being, preventing upheaval, preventing the commission of crimes, protecting health and morality, and protecting the rights and freedoms of others.

It should be emphasized that thanks to the adoption of this Convention all European states received a kind of constitutional law that predetermined the creation of a system of guarantees of human rights unique in world practice, which is based on the principle of subsidiarity. This means that fundamental propositions enshrined in the Convention are binding on all states that are parties, and the European Court of Human Rights, in turn, is called upon to implement a control function over the observance of human rights at the national level. Consequently, we can plenipotentiary say that, using all available domestic remedies, any person takes legal action to the European Court with a claim for the protection of the violated right.

In addition, the Arab Charter of Human Rights indicates the inviolability of private life, which sets forth the following thesis: privacy is off-limits. Any violation of this immunity can be regarded as a criminal offense. At the same time, this internationally recognized document and significance contains certain differences from the above. So, the Charter discloses in sufficient detail the content of the concept of “personal life”, including, in particular:

- non-interference in the family life of a person
- inviolability of the home
- Secret of correspondence and other types of communication. In addition, reference to the right of privacy in one or another aspect can be found in such documents as the American Convention on Human Rights, the Convention of the Commonwealth of
Independent States on Human Rights and Fundamental Freedoms, and other documents at an international level. In general, we can say there’re fair number of documents that exists internationally and specify the right to privacy of any person who can count on his protection.

An analysis of these regulatory legal act allows to conclude that the right to privacy should be considered as a multi-element, including a body of fairly close by its substantive reference, nature of enforcement and the meaning of the right. This, in turn, is confirmed by their joint consolidation in most international legal acts, as well as in the national legislation of various states. In other words, it should be considered as a single right that provides a wide range of guarantees in various spheres of human activity.

At the same time, it must be noted that some international legal acts are morally outdated and reflect rather weakly key trends in the development of modern society. Given this fact, in order to organize and ensure effective international protection of the law in question, it is necessary to unify its legal regulation through the development and implementation of universal (suitable for all legal subjects) and regional international documents. Such a step is necessary so that the positions of various states in matters of private life, the inviolability of the home and correspondence, marriage and family, which differ from each other, and due to religious views and cultural characteristics, cannot have a negative impact on the completeness and accessibility of the exercise of the rights. In other words, it is advisable to prepare uniform legal conditions that would make it possible to most effectively realize the assumption of protection of the stated rights of really every person, regardless of the specified factors.

**Results.** As the results of numerous scientific studies on the protection of the right to privacy, in many countries of the world the basic law contains a general list of fundamental rights that reproduce the regulations of the Universal Declaration, or which it had a direct impact on.

It should be noted that true desire to fully take into account international standards, create a mechanism of law-governed state, is manifested in the current national legislation, which embodied the totality of universally recognized rights and freedoms and provided guarantees for their implementation. It must be understood that the level of protection and protection of the right to privacy, its guarantee by the norms contained in the law, and judicial practice is one of the key indicators of democratization of society, and serves as a necessary prerequisite for the formation and establishment of law-bound state.

Currently there’s a particular problem of protecting individual rights, protecting the individual from unauthorized collection of personal
data, abusive practice in the collection, processing and dissemination of personal information, acquired in wide use of information technology in modern society.

Indeed, it cannot be denied that modern technologies provide a unique opportunity to instantly exchange information, compare and synthesize personal data that contained in various information systems. At the same time, unauthorized access to databases is fraught with serious violations that are difficult to track and control. Since at present there are a huge number of means and ways to interfere in private life of an individual subject, for example, by listening to telephone conversations, hacking electronic mailboxes and accounts on social networks, installing hidden cameras, etc., having excessive interest from the media to persons leading a public lifestyle, there appeared an objective necessity to protect the right to privacy. In addition, the feasibility of developing and adopting legal acts aimed at protecting the right became apparent.

However, in order to absolutize and ensure the fullest possible implementation of the proclaimed principles, it is necessary to develop effective legal mechanisms with which human rights will certainly be ensured. At the same time, society as a whole and its individual subjects should be oriented to laws guaranteeing human rights and freedoms, including the right to privacy, act automatically, regardless of subjective will or arbitrary subjective understanding, which means, these mechanisms should work regardless of what the state structure of a particular public law formation is and what political forces are in power.

Discussion. In Europe, for a sufficiently long period of time, in order to ensure security and protection rights of privacy due to the widespread automated processing of data about citizens, a special institution of legal protection of the individual has been operating - the Institute for the Protection of Personal Data. Indeed, in many European countries national laws on personal data have been adopted, in a number of countries authorized representative positions have been commenced for the protection of this data, which favorably affects the functioning of the international legal protection mechanism.

It should be noted that the understanding of the right to privacy in different countries is significantly differentiated. This fact is due to economic, political, social, cultural, religious and other differences. Given this circumstance, in the process of developing universal international standards on issues of international legal remedies, it is necessary to consider the creation of methods similar to the European Court for protecting human rights in other regional international organizations.

Thus, summing up, we can state that it was exactly in international legal documents where the cumulative experience of all
mankind was found, expressing social value and prestige of the judicial protection of human rights.

References:

Abdramanova N.K., Abdukarimova Z.T.

LEGAL FIGHT AGAINST LATENTITY OF ECONOMIC AND CORRUPTION CRIMES IN THE REPUBLIC OF KAZAKHSTAN

Abdramanova N.K., Kazakhstan, PhD student, Department of «Jurisprudence», Akhmet Yassawi International Kazakh-Turkish University
Abdukarimova Z.T., Kazakhstan, Candidate of Law, associate Professor, Dean of the Faculty of Law, M.Kh. Dulaty Taraz State University

Abstract
The article discusses the causes of the existence and growth of latency of corruption and economic crimes in the Republic of Kazakhstan. The characteristic features of these crimes are analyzed. The main
consequences of corruption have been identified. The work examines the relevance and importance of combating the latency of corruption and economic crimes. The authors propose measures to prevent the latency of these crimes.

**Keywords:** latent crime, corruption, economics, crime, economic crimes, corruption crimes.

**Introduction.**

The Republic of Kazakhstan is among the countries of the world with a high rate of economic and corruption crimes according to international and domestic expert assessments.

Many criminologists, analyzing the concept of crimes, identify latency as signs of economic and corruption crimes. [1]

Despite the fact that the state takes many measures to combat corruption and economic crimes, the latency of these crimes continues to grow and remains less studied. And the increase in the proportion of latent crime (undeclared, unaccounted for, unidentified) is a symptom of the deterioration of the criminological situation in a country or region. [2]

In the Corruption Perceptions Index (CPI), according to studies by the Transparency International (TI) international organization (Table 1), in 2015 Kazakhstan scored 28 out of 100 points and took 123 out of 168 possible points. According to data compiled on the basis of citizens' opinions about their perception of corruption in our country, Kazakhstan is included in the list of countries with a high level of corruption and a low level of transparency. [3]

In 2016, Kazakhstan received 29 points and took 131st place. At the end of 2017, Kazakhstan was in 122nd place with 31 points, at the same level as Cameroon, Iran, Kyrgyzstan, Lebanon and Nigeria. In 2018, Kazakhstan led the Central Asian countries in the Corruption Perceptions Index, gaining 31 points and taking 124 lines, along with Djibouti, Gabon, Maldives and Nepal. [4]

<table>
<thead>
<tr>
<th>Year</th>
<th>The Republic of Kazakhstan</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>28</td>
</tr>
<tr>
<td>2017</td>
<td>31</td>
</tr>
<tr>
<td>A place</td>
<td>123</td>
</tr>
<tr>
<td></td>
<td>124</td>
</tr>
</tbody>
</table>

Back in 2007, V.V. Luneyev noted that today corruption crime in financial terms makes up 6 percent of GDP, stagnation occurs at 10 percent, and then the authorities are paralyzed”. [5]
The growth of economic crime, organized crime and corruption is an acute problem that poses a real big threat to the strengthening and further development of the economy of the whole country.

A characteristic feature of economic and corruption crimes are their highest latency.

**Discussion.**

Every competent citizen of our country understands how high the latency of crimes in the economic sphere is, how often corruption is now encountered, and how rarely they are known to law enforcement agencies. The real extent of these types of crimes is completely incomparable with the number of recorded crimes. And, of course, this is the reason for the critical attitude of people towards official statistics on the level of economic crime and corruption.

The main reason for the "unknown" economic crimes is the developed system of corruption, lack of knowledge in the investigation of complex economic crimes.

According to a study of statistical crime indicators, in the period from 2016 to 2018 the number of identified crimes in the sphere of economic activity in Kazakhstan decreased by more than 5 times (from 8170 to 1535) (Table 2).

The total number of economic crimes registered at the present time, even one-tenth does not reflect the actual state of crime in the sphere of economic activity.

**Table 2. The number of registered criminal offenses in the field of economic activity in the Republic of Kazakhstan**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 8 of the Criminal Code of the Republic of Kazakhstan Criminal Offenses in the Sphere of Economic Activity</td>
<td>5054</td>
<td>3481</td>
<td>4934</td>
<td>4914</td>
<td>3880</td>
<td>8170</td>
<td>3943</td>
<td>1618</td>
<td>1535</td>
</tr>
</tbody>
</table>

If we look at the table (Table 3) and see the dynamics of growth and decline in the number of criminal offenses in the sphere of economic activity over the past 9 years, and at the same time, we take into account that over the last 6-7 years the number of taxable subjects has significantly increased, then in statistics we see only a significant decrease in the number of recorded crimes. And here the question arises how the number of possible crimes decreases with an increase in the number of possible subjects of criminal activity.
Does this prove an increase in the latency of this type of crime? Economic crime is so malignant that it has already touched almost all spheres of the economy, which, in our opinion, is a great threat to the national security of the state.

What is the cause of this phenomenon? Of course, first of all, it is the corruption of government officials who themselves do not mind getting rich from the incomes of criminals. Secondly, it is a low level of professionalism of law enforcement officers in the identification, detection and investigation of crimes in the sphere of economic activity. Thirdly, there are gaps in legal regulation and state control over the management and use of financial and other material resources. And fourthly, not every law enforcement officer is eager to engage in hard-to-prove cases, from which official problems may later arise.

Also, crimes with a high level of latency include corruption and official crime. It is this type of crime that causes particularly significant harm in the development and implementation of measures to combat crime.

So, what is the difficulty of identifying and investigating such crimes? Firstly, an agreement concluded by bribery with an official is beneficial to both parties. They are interested in the fact that there are no witnesses or evidence.

Secondly, even in the case when bribes are extorted, people don’t even think to report it to law enforcement agencies, because not only do they not trust the employees fighting corruption, they also consider them to be “good” bribe takers.

Thirdly, law enforcement agencies face a difficult task – to detect the fact of corruption or another official crime, despite the official position and the status of officials committing a criminal offense. And such persons often have their own advocates, who possess significant political and administrative resources and, using them, cover the criminals from law enforcement. Thus, the scale of the latency of crime of this type increases.
The existence of latent crime undermines the principle of the inevitability of a person’s liability. Due to the fact that the majority of the population, committing economic crimes and bribery, goes unpunished, another part of the people, which still does not have sufficiently stable life positions and values, receives a negative example and poor education.

A huge danger to our society is corruption, which is associated with organized economic crime. This is one of the characteristic features of this type of crime. [6]

Criminal offenses in the field of computer information and communications are also highly latent. Since to identify and fix such crimes law enforcement officers must have high professionalism and special knowledge. But, unfortunately, they very rarely have sufficient technical skills to identify such crimes. They are unprepared for the detection and suppression of crimes in the field of high technologies.

We will offer and consider the following measures to prevent the growth of latency of economic and corruption crimes.

First of all, it is necessary to restore people's confidence in law enforcement agencies. Indeed, success in the fight against crime can be achieved only when efforts are made not only by law enforcement agencies, but by the whole society.

Secondly, it is necessary to develop and create a new system for detecting, recording and recording crimes. In our opinion, “The rules for receiving and registering a statement, report or report on criminal offenses, as well as maintaining a unified register of pre-trial investigations” of September 19, 2014 require substantial improvement.

Thirdly, solutions should be found to eliminate one of the main causes of perjury, that is, fear of revenge on the part of the perpetrators of the crime and their entourage. Namely, it is necessary to understand the reason for the ignorance of the population about the right to state protection of their life, health, property, legal rights, interests, members of
his family and close relatives, and to ensure his safety on the part of our state, which is governed by the provisions of Chapter 12 of the Criminal of the procedural code of the Republic of Kazakhstan “Ensuring the safety of persons participating in the criminal process” and the law “On state protection of persons participating in the criminal process” of July 5, 2000. And also it is necessary to identify the reasons for the non-functioning of the norms of these laws at the proper level, and take measures to eliminate them. All this can significantly improve the quality of testimonies of victims and witnesses of crimes, and improve the performance of law enforcement agencies, and reduce the criminal situation in society.

Fourth, a lot depends on the material, financial, personnel and scientific equipment of our law enforcement agencies. To prevent economic crime, law enforcement agencies should be provided with the necessary modern technology and knowledge no worse than criminals.

Conclusion.
The study of latent crime problems in the economic sphere is relevant. Economic crime and corruption crimes are growing rapidly. At the same time, the number of unsolved crimes in these areas is growing.

Criminological studies prove that the number of actually committed economic and corruption crimes and information about them are very significant.

References:
Abstract
The study of foreign trade activity is essential for those who need a deeper understanding of the multi-suffered situation of the Russian Federation, the prospects of trade and economic relations between Russia and China, taking into account government positions and national interests. Considering the current legal legislation of foreign trade in addition to negative aspects, it is possible to allocate ordinary Russian citizens elements allowing to take a decisive step in the direction of their own personal development, increasing their own potential and energy of the country. Legal trade and economic relations of the beginning of the XXI century of both States indicate a new leap stage and the formation of new trends in the field of cooperation. At present, the dynamics of stable cooperation is developing, taking into account the opportunities and requirements of the Russian Federation and China, as well as the interests of third countries.

Keywords: foreign trade relations between Russia and China, Russian-Chinese agreement, dumping, development of trade turnover, national interest, legal interaction of the middle class of the Ministry of Commerce of the PRC, trade representation of the Russian Federation.

Understanding that the world policy quite significantly dictates the rules of the game on each of the States under a certain specific "angle" and pressure-the degree of understanding of conceptually fundamental elements of the right legislation regulating foreign policy is significant. The Russian Federation and the people's Republic of China are leading
the way of concentrating rapprochement to each other, based on their own specific goals, values and objectives, building trade and economic relations, taking into account the legislation of both countries. And especially, taking into account the legal positions of the party, whose interest to a greater extent defends the interests of the internal harmonious order of the state.

It is important to note that the PRC has reached the highest level of contractual relations in the last 75 years of the new cycle of development of its civilization, preserving the national Chinese specificity in the legislative sector. The laws governing foreign policy carry the clarity and specificity of the country.

The main legal regulators of foreign trade of the people's Republic of China are:

- The law of the PRC "On treaties" adopted on 15.03.1999 by the President of the PRC Jiang Zemin at the second session of the ninth convocation of the national people's Congress of the PRC, which entered into force on 01.10.1999;

- Rules of the Supreme People's Court of the people's Republic of China on certain issues related to the enforcement of anti-dumping administrative cases;

- Rules of hearings on the definition of industry damage, considered and adopted by the state Committee of the PRC on economy and trade.[2]

The foreign trade of the government of the Russian Federation is undergoing adjustments with respect to the requirements of the world government and domestic positions. The implementation of the General management activities of the Trade mission currently transferred to the Ministry of industry and trade of the Russian Federation in accordance with the new decree of the President of the Russian Federation from may 15, 2018 N 215 "About structure of Federal Executive authorities" with the amendments and additions of October 28, 2019. The Ministry is headed by Minister of industry and trade of the Russian Federation – the Russian Federation Denis Manturov. Trade representative of the Russian Federation since 2018. in the people's Republic of China is Sergey Viktorovich Inyushin.

The main legal regulators of the foreign trade policy of the Russian Federation at the beginning of 2020 are:

- Treaty on trade and navigation between the USSR and the people's Republic of China of April 23, 1958;

- Federal law" on the basis of state regulation of foreign trade activity " dated December 8, 2003 No. 164-FZ (ed. from 01.05.2019);

- Regulations on the Trade representation of the Russian Federation in a foreign state, approved by the Resolution of the Government of the Russian Federation of June 27, 2005 No. 401 (as
amended by the resolution of the Government of the Russian Federation of June 25, 2014 No. 584).[1]

The document reflecting the basic principles and directions of bilateral cooperation between Russia and China is the Treaty "on good-neighborliness, friendship and cooperation", signed on July 16, 2001 and entered into force on February 28, 2002. Bilateral relations in the text are officially defined as relations of "equal trust partnership and strategic cooperation" [5]

Exploring differentiated legislation of the Russian Federation and the PRC governing foreign trade are the following: the law of the PRC "On treaties" adopted at the second session of the ninth convocation of the all-China Assembly of people's representatives, designed to protect the legitimate rights of the parties involved in the contract, ensure economic order in society and a strategic acceleration of socialist modernization, notes the strategic vector and the absence of the "fuzzy" nature. (The law came into force with the simultaneous termination of the "law of the PRC on the economic contract", "law of the PRC on the foreign economic contract and "law of the PRC on the technical contract".) [2] This law is quite easy, understandable and convenient to work with. The author notes the identity and similarity with the points of the GCRF regulating contractual relations, but with additional elements of concretization, conciseness, taking into account the basic foundations of the world standard.

Having studied the law of the PRC "on contracts" it can be noted that:

1. «Basic concept» A contract under this law is an agreement between equal subjects. (Agreements on such social relations as marriage, charity (shelter), guardianship are regulated by the provisions of other laws). In exercising their rights and obligations, the parties shall be guided by the principles of honesty and trust. It is clearly stated that Violation of economic discipline, damage to public interests is not allowed and that legally concluded contracts are protected by the law.

2. "Necessary aspects and criteria for the conclusion of the contract". Contracting parties must have civil rights and legal capacity. Contracts are concluded in writing, orally and in other forms. The written form is understood as any texts, letters, information messages, including telegrams, telexes, faxes, materials of computer data exchange, e-mail, in a formalized form reflecting the essence of the contract. The content of the contract is necessarily determined by the parties and usually includes the same categories as in the Russian legislation. The contracts of the PRC necessarily indicate the necessary or permissible Quality. In the Russian legislation the question of indication in contracts of necessary or admissible Quality of goods, services is not put sharply.
The law "On contracts" of the PRC States that the parties use the method of offer and acceptance, similar to Russian legislation, which is regulated in the civil code (Chapter 28.).

The PRC law recognizes damage to the other party situation (with obligations with subsequent compensation), if under the guise of the contract there were intentions to harm the interests of the other party, deliberately concealed important facts, provided false circumstances or there were actions that violate the principles of honesty and trust. In the legislation of the Russian Federation, losses include real damage and lost profits (Art. 15, 393 of the civil code).

Chinese legislation significantly emphasizes the high value of the basic moral character of the parties to the agreement, highlighting once again the culture of Chinese specificity. On the part of the Russian Federation, this issue remains without much attention and the emphasis is already on the responsibility for the actual violations of obligations in the aftermath.

3. "Terms of the contract" in the PRC and the Russian Federation are similar - entry into force, the ability to negotiate additional terms, an agreement on additional terms of validity, the invalidity of the contract, the terms of termination (at the request of one of the parties or by decision of the people's or arbitration court of the PRC. If one of the parties, using methods of deception and threats or taking advantage of the plight of the other party, forced her to enter into a contract contrary to her real intentions, the injured party has the right to apply to the people's court or arbitration body to change or cancel the contract. A people's court or arbitration body may not annul a contract if one of the parties requests that it be amended.)[2]

4. "Terms of execution of the agreement" – similar: obligations in accordance with the agreements, the possibility of concluding additional agreements, solutions inconsistent or unclear issues of the contract.

But the law of the PRC clearly takes into account different life situations, taking into account the variability of the world economy and the political situation. (If there has been a change in government prices during the payment period stipulated by the contract, the prices shall be calculated at the prices existing at the time of payment. In case of delay in delivery of goods: in case of price increase - calculation is carried out at previously determined prices; in case of price decrease - calculation is carried out at new prices. In case of late receipt of goods or payments: in case of price increase - calculation is carried out at new prices; in case of price reduction - calculation is carried out at previously determined prices).

5. "Terms of contract modification and replacement of persons in the contract". The question of the cession of the creditor to a third party
similar to the Russian Federation legislation: section 1 of article 382 of the Civil code, also pursuant to article 12 of the Federal law "On consumer credit (loan)" of 21.12.2013 № 53-FZ. [6]

6. Rights and obligations under the contract upon termination, the terms and conditions of termination of the contract, the possibility to demand the restoration of the status quo, efforts to fill and compensation, the terms offsets, questions of the deposited property, as there are similar concepts with the legislation of the Russian Federation (decree of the Plenum of the Supreme Arbitration Court of the Russian Federation of 6 June 2014 N 35 "On the effects of avoidance", GKRF (part one) from 30.11.1994 N 51-FZ (as amended on 18.07.2019 G. Rev. and additional, which entered into force from 01.10.2019).

7. Responsibility for non-compliance with the contract and other rules in the law "On contracts" of the PRC are clear and exclude the option of not solving the issue, taking into account the parameters of conscience and education by the culture of the ancient civilization. In the legislation of the Russian Federation, responsibility for non-compliance with the contract and other norms have similar concepts.

It is important to note that the law of the PRC "On contracts" describes very clearly the model contracts. Their form is convenient for the conclusion of external agreements, as well as in the internal practice of many States.

Taking into account the additional presence in the Russian legislation of article 1210 of the civil code (part 3) of 26.11.2001 No. 146-FZ (ed. Of 18.03.2019) - "Choice of law by the parties to the contract", i.e. the rights of the country in which the main conditions of the contract are created to a greater extent-additionally allows to conclude Russian-Chinese agreements from the position of the PRC. At the same time, of course, further emphasizing the degree of influence of the parties relative to each other.

What concerns the application of anti-dumping, antisubsidies and protective measures protect the legitimate interests of participants in the hearing to determine sectoral damage and in accordance with the "Regulations of the PRC anti-dumping measures", "Regulations of the PRC on antisubsidies measures" and "Provisions on protective measures" - was developed by China's General "Rules of conduct hearing to determine damages industry", approved by Order of the State Committee of China on economy and trade No. 44 of 15 January 2003, signed by the Chairman of the state Committee of China on economy and trade Lee Gungunum. (Hearings are held at the request of plaintiffs, defendants in investigations on the application of measures to establish industry damage and its causes. The rules include the necessary elements for the implementation of public hearings (except in cases involving state or commercial secrets)). High degree of responsibility of the top
management personally for interpretation of these Rules is specified. The responsibility is fully vested in the state Committee of China on economy and trade. [3]

It should be noted at once that the policy of the Russian Federation does not prohibit dumping, because its use as a market strategy does not contradict WTO rules. Dumping is the supply of goods for export at a price that is lower than the price at which the goods are sold in the domestic market of the supplier's country. [4] and given that this tactic can cause damage or threat to the national industry, the GATT / WTO has created an appropriate universal mechanism of counteraction. (In the WTO, the application of anti-dumping measures is regulated by the Agreement on the application of article VI of the GATT of 1947). A key element in the anti-dumping Russian question - is the collection of information and direction document issues for production, sales, profitability, prices, and information processing which gives a detailed understanding of the situation on the commodity market. Confidential information is not disclosed without the permission of the party providing it. Information shall be treated as confidential provided that the disclosure of such information will give an advantage in the conditions of competition to a third party or will entail adverse consequences for the person who provided such information or the person from whom the person received such information.

Since January 1, 2003, in accordance with the Administrative procedure law and other relevant legislative acts, the Rules of the Supreme People's Court of China have been introduced in relation to certain issues related to the enforcement of anti-dumping administrative cases. (The people's court, in accordance with the law, accepts for consideration administrative claims in respect of administrative actions in anti-dumping procedures: final determination of dumping and dumping margin, or damage and extent of damage; decision on imposition of anti-dumping duty, retroactive imposition of anti-dumping duty, reimbursement of anti-dumping duty or imposition of anti-dumping duty on new exporters; results of administrative review of imposition, revision, or termination of application of anti-dumping duty or price obligation; other contested administrative actions in anti-dumping procedures in accordance with the law and by-laws). [7] The people's courts of the PRC are courts of first instance in anti-dumping administrative cases.

With regard to, concluded between the USSR and China Treaty "On trade and navigation" from July 15, 1958., this presence is a high political criterion and carries strategic significance for the Russian Federation and China.

Given the position of the Russian Federation as the successor of the USSR, this agreement is the basic basis of positive relations. It has taken all necessary measures to develop and strengthen trade relations
between States in a spirit of friendly cooperation, mutual assistance, on the basis of equality and mutual benefit. (The governments of both Contracting Parties have agreed that they will conclude agreements, including long-term ones, ensuring the development of trade turnover in accordance with the needs of the national economy of both States, approving the most favored nation regime in all matters relating to trade and navigation, as well as other types of economic relations between the two States. Customs issues were taken into account in respect of: duties, taxes and other charges; warehousing of goods under customs control; rules and formalities applied in the customs processing of goods).

In FZ of December 8, 2003 N 164-FZ "About bases of the state regulation of foreign trade activity with changes as of May 1, 2019, adopted by The state Duma on November 21, 2003 and approved by the Federation Council on November 26, 2003, the foundations of state regulation of foreign trade activities, the powers of the Russian Federation in order to ensure favorable conditions for foreign trade and protection of economic and political interests of the Russian Federation are defined. (Highlights the basic principles of protection of the rights and legitimate interests of participants, equality and non-discrimination). In accordance with this law, trade policy aims to create favorable conditions for Russian exporters, importers, producers and consumers of goods and services. It is applied in accordance with the Constitution of the Russian Federation, other Federal laws and other regulatory legal acts of the Russian Federation, as well as generally recognized principles, norms of international law and international treaties of the Russian Federation. (The law defines the powers vested in Federal bodies of state power, bodies of state power of the subjects of the Russian Federation and bodies of local self-government in the field of foreign trade activities).

The law specifies that any Russian persons and foreign persons have the right to carry out foreign trade activities. At the same time, noting that the right may be limited in cases provided for by international treaties of the Russian Federation, this Federal law other FZ. It regulates that all elements (customs tariff regulation, non-tariff regulation, prohibitions and restrictions on trade in services and intellectual property, administrative measures, anti-dumping, countervailing measures, restrictive (permissive) measures of export (import), the procedure for issuing licenses, quota allocation, the right to enter pre-shipment inspection with the issuance of a certificate) related to foreign trade are carried out in accordance with international treaties and other laws, other regulatory legal acts of the Russian Federation and decisions of the Customs Union Commission. It is specified that the order of the conclusion of international treaties of the Russian Federation are submitted in the order established by the Federal law of July 15, 1995 N 101-FZ "About international treaties of the Russian Federation".
In accordance with this law, the Russian side provides for the possibility of introducing additional measures, taking into account the national interest, if necessary: observance of public morality and cultural heritage; protection of life or health of citizens, the environment, life or health of animals and plants; when importing (exporting) gold or silver; to prevent the exhaustion of irreplaceable natural resources, with a General or local shortage of goods; to fulfill international obligations; for the defense of the country. It also takes into account the existence of special economic zones, including for foreign trade activities, which is additionally established by the Federal law "On special economic zones in the Russian Federation", as well as measures to promote the development of foreign trade activities (lending, insurance of export credits).


With regard to the optimization of the system with the allocation of trade missions of the Russian Federation in foreign countries, in addition, increasing the effectiveness of the Federal law "On the basis of state regulation of foreign trade activities" - was additionally approved by the government Resolution No. 401 of June 27, 2005., signed by the Prime Minister-M. Fradkov. The Resolution includes a list of trade missions of the Russian Federation in foreign countries. Trade representation of the Russian Federation is located in China in Shanghai.

In conjunction with the presidential decree N 215 "About structure of Federal enforcement authorities" which States to convey to the Ministry of industry and trade of the Russian Federation functions on management of activity of trade missions of the Russian Federation in foreign States, this Resolution No. 401 is aimed at assisting in the establishment and development of trade relations between individuals and legal entities of the Russian Federation and of the host state, given the authority and capacity of Trade missions in the territory of stay.

Special attention in the Russian-Chinese trade cooperation is paid to EXPO. At the press conference of Commerce of the PRC, Deputy head of Eurasia Department of Commerce Liu Xuesong, Deputy head of the Committee for the promotion of trade of Heilongjiang province Li Shunhua indicated special attention to the plans for Russian-Chinese trade and economic cooperation. Where Liu Xuesong noted that since 2014 EXPO, jointly organized by the people's government of the Ministry of economic development of Heilongjiang province and the Ministry of trade and industry of the Russian Federation - successfully held the largest
comprehensive fairs at the highest level. Thanks to the efforts of the two sides, the importance of EXPO has increased and is becoming a "calling card" of bilateral trade and economic relations, playing an important role in promoting cooperation between regions and enterprises, as well as bilateral trade and economic development.[8] the Chinese side noted the interaction of the governments of the two countries, creating a bridge and a platform for dialogue and cooperation not only for the enterprises of China and Russia, but also for the enterprises of these countries with the business circles of third countries.

Also, the head of the Russian export center Andrei Slepnev in an interview with Xinhua said that in the future, the Russian export center at the Chinese international import exhibition intends to show a wide range of high-quality goods and competitive technologies.[10] on November 5, 2019, Shanghai hosted the second China international EXPO at the national Exhibition and Convention Center under the motto "Openness and innovation for win-win cooperation". Chinese President XI Jinping proposed to hold an international exhibition of imported goods in Shanghai annually. According to the organizers, 115 companies have already registered to participate in EXPO 2020. [11]

Summing up the above, it is important to emphasize the fact that China has been Russia's largest trading partner since 2010. According to the results of 2018, Russia became the country with the highest growth rate of trade turnover with China (+27.1%) among all Chinese partners. At the same time, the trade turnover in 2018, according to the General customs administration (GTU) of China, reached a record for trade between Russia and China - 107.06 billion dollars. By 2024, it is planned to reach the level of $ 200 billion. mutual trade turnover as mentioned in September 2019 in St. Petersburg during the 24th regular meeting of the heads of government of the Russian Federation and China. The main Russian exports to China are hydrocarbons, wood and wood products, chemical industry products and fertilizers, metals and their products, as well as agricultural products. Promising areas are the provision of transport and logistics services, e-Commerce. Currently, Russian and Chinese agencies are working on the opening of markets for various food products. At the same time, it is known that Shougang city County of Shandong province in Eastern China is an important base of China for the production and sorting of vegetables. The cooperative of 133 peasant households, with an area of 74 hectares of greenhouses annually exports from Shouguang 15 thousand tons of high-quality vegetable products to various Russian cities, including Moscow, Irkutsk and Yekaterinburg. Trade turnover is above 100 million yuan.[9]

In addition to trade, companies from Russia and China are developing a number of joint large-scale projects in the field of fuel and nuclear energy, civil aviation, satellite navigation systems, infrastructure
construction. One of the most important events in this field, commissioning of the second phase (third and fourth units) of the Tianwan NPP in China at the end of December 2018 and the signing of a month and a half after the successful launch of the contract for construction of the 7th and 8th units of NPP with Russian reactors of new generation. As for major infrastructure projects, the Blagoveshchensk-Heihe road bridge across the Amur river was docked and the Nizhnenlenskoye-Tongjiang railway bridge was docked. [5]

All of the above certainly speaks about the position of close cooperation. At the same time, speaking about the future, the Russian Federation should take into account the cultural specifics of ancient China and its teachings of the unchanging strategy of civilization.

Studying the legislation of the Russian Federation regulating foreign trade, excessive volume and variability is noted, requiring constant and timely control, and taking into account possible changes and additions.

The trade policy of the Russian Federation, which is part of the economic policy, needs to create more favorable conditions for, specifically, citizens of the Russian Federation: exporters, importers, producers and consumers of goods and services. Real legislative norms should not have the specifics of "disproportionate volume" and lead to the suppression of the desire to work with external partners. Legal norms require a radical reformation.

To support ordinary citizens of our country" aspiring " to foreign trade and economic relations is of great promising importance for the integrity and strengthening of the unification of the multinational population. The presence of a real internal strategic vector of the government of the country for the restoration and development in the interests of the population living specifically on the territory of the Russian Federation, understanding the need to recover our essence - will decisively, respecting the external world government, create a clear legal mechanism for the internal enrichment of each Russian citizen who has the desire to cooperate in the international context, benefiting his government, without depriving himself and his family members of priority benefits.

Only with internally strong components is a healthy happy whole future possible. For adoption of really favorable and convenient laws it is necessary to weigh accurately historical indisputable facts for the maximum possible period. And not only our country. Time is the best witness to who is right. The true criterion is - dynamics.

2018-declared the year of China-Russia interregional cooperation by the leaders of the two States.

References:
Politics Sciences

Potapov D.V.

TRANSITOLOGICAL PARADIGM
OF POLITICAL MODERNIZATION:
THEORETICAL ASPECTS

Potapov Denis Viktorovich, Voronezh State University, Russian Federation

Abstract. The article discusses the concepts and theoretical aspects of the transitological paradigm of political modernization. The author presents a number of approaches of the transitological paradigm in the system of models of political transitions to democracy, as well as a dynamic model of the genesis of modernization.

Keywords: transitological paradigm, political modernization, democracy model.

In science and philosophy, a paradigm (from Greek - an example, model, sample) is a certain set of concepts, or models, including theories, research methods, postulates and standards, which are contributions to scientific research. The original Greek term paradeigma was used in Greek texts, in Plato's "Plato's Timaeus" (AD 28) as a model or drawing [1] used to create the cosmos. Since 1900, the term has assumed technical meaning in grammar: the 1900 Merriam-Webster dictionary defines its technical use only in the context of rhetorical grammar, as a term for illustrative parable or fable [2]. In linguistics, Ferdinand de Saussure used a paradigm to refer to a class of elements with similarities [3]. In the Great Soviet Encyclopedia of 2004, the term "scientific paradigm" appears [4]: “A scientific paradigm is a set of scientific attitudes shared by the majority of the scientific community”.

93

"Education Transformation Issues” #3, December 2019
Our study focuses on the study of models of political transitions to democracy (in its various forms) - the transitological paradigm in the system of socio-political knowledge.

Among the first researchers who attempted to develop models of the transitological paradigm in 1969-1970 are B. Moor [5] and D. Rustow [6]. In his model B. Moor considered as particularly significant factors such factors as the distribution of power within the elites, the economic basis of landlords - "latifundists", the ratio of classes, the distribution of power between classes and the autonomy of the state in relation to the dominant class [7].

As an example, the starting point for constructing the transitological paradigm - a dynamic model of the genesis of democracy can be found at D. Rustow [8]: “The factors that ensure the stability of democracy are not necessarily equivalent to those that gave rise to this form of the structure of the political system: when explaining democracy, it is necessary to distinguish between its functioning and genesis”. The novelty of this approach to the transitological paradigm was shifting the emphasis from the constant factors that ensure the functioning of the regime to the ever-changing context of political dynamics, its genetic prerequisites and variables that determine the nature, direction and pace of movement. The model was deliberately limited to countries where the main causes of political transition are "inside" and not dependent on "push from outside": as happened in Germany and Japan after their defeat in World War II, or as happened in Australia, New Zealand, Canada, where democratic institutions were imported by immigrants.

One can note the concepts of the transitological paradigm of J. Linz, A. Stepan [9] and S. Huntington [10], based on considering the ratio of exogenous and endogenous factors.

A different approach to classifying the transitological paradigm is presented by D. Hald, stating that the concepts of the transitological paradigm - transformation of political regimes are usually divided into structural/functionalist and procedural/genetic ones [11].

However, the process of studying the transitological paradigm involves a gradual transition from a predominantly structural to a predominantly procedural analysis, an analysis of the phase of democracy consolidation implies the reverse order: from a procedural analysis to a structural one [12]. As V. Ya. Gelman noted [13], most authors of the transitological paradigm concepts explicitly or implicitly focus on one of two conceptual schemes:

1. "competitive elitism" in Schumpeter's version, in which the only criterion for democracy, in fact, is filling the government positions through free and fair elections [14];
2. The pluralistic model of "polyarchy" according to R. Dahl, in which the main dimensions of the political regime are "competitiveness" and "participation", and the main indicators of democracy are a set of civil and political rights and freedoms [15].

The considered schemes of the transitological paradigm give a more or less detailed idea of how the transition to democracy occurs, leading to modernization.

The collapse of totalitarianism, integration and global transition are objective phenomena that have changed many of the political and social doctrines that relate to democracy and civilization. Transition is the moving integration of society. The paradox of modern transitology is that between time and space, or between past time and future time, many modern societies are in conflict between two aspects: a) the old understanding of democratic changes and b) new political concepts.

The former refuse to recognize the transitological paradigm crisis, ignoring the transformations of the social structure of society and democratic institutions that have occurred over the past decades. So, for example, M.-M. O. Mohamedou, C.W. Haerpfer, P. Bernhagen, R.F. Inglehart, C. Welzel and others persistently argue that democratic transit, as goal-setting, remains in the default mode the only possible paradigm for the transformation of political regimes; moreover, they see the process of democratization as mediated not only by goal-setting, but also by the cultural and historical context.

We can conclude that thorough understanding of the transitological paradigm features may be achieved only as a result of the combined efforts of sociologists, political scientists, philosophers, historians and representatives of other disciplines. The transitological paradigm should be considered in a broad historical and socio-cultural context, as well as in the conceptualization of ideas about the nature of modernization processes and the formation of modernization subjects, which ultimately constitutes the methodological aspects of political modernization.

References:


THE PROCESS OF FORMING A TREE OF DIDACTIC UNITS AT THE AUTOMATED CURRICULUM' SYNTHESIS

Bronov Sergei Aleksandrovich, doctor (Technique), professor, Siberian Federal University and Krasnoyarsk State Agrarian University, Krasnoyarsk, Russia; nulsapr@mail.ru; ResearcherID: A-7048-2016, ORCID: 0000-0003-2489-1568

Stepanova Elena Arnol'dovna, senior teacher, Siberian Federal University, Krasnoyarsk, Russia

Katsunova Anastasiya Sergeevna, associate Professor, PhD (Physics and Mathematics), Siberian Federal University, Krasnoyarsk, Russia

Pichkovskaya Svetlana Yur'evna, teacher-assistant, Siberian Federal University, Krasnoyarsk, Russia

Volkov Maksim Vladimirovich, graduate student, Siberian Federal University, Krasnoyarsk, Russia

Puh Mariya Viktorovna, graduate student, Siberian Federal University, Krasnoyarsk, Russia

Sokolov Petr Vasil'evich, graduate student, Krasnoyarsk State Agrarian University, Krasnoyarsk, Russia

Abstract

The process of forming an array of didactic units has been considered in detail which allows to move on to its algorithmization and implementation of the curriculum’ automated synthesis with the creation of the appropriate automated information system for designing and implementing the educational process.

Keywords: educational program, educational process, curriculum, competence, didactic unit, information model
Introduction

The educational program (EP) is formed for a certain direction of training, profile, specialty or specialization. It includes a curriculum, a set of disciplines’ work programs and the assessment funds, educational and methodological manual as well as some formal documents.

Developing the educational program in full is a time-consuming process. It is usually developed by the responsible graduating department (for baccalaureate and specialty) or under the guidance of the head of the master's program. In any case, two problems are to be solved:

1) the content development;
2) the form development.

A content is a combination of knowledge and skills within the framework of academic disciplines.

A form is the placement of academic disciplines in time (curriculum).

The development of the educational program content is carried out based on the competency-based approach when the input competencies (obtained at the previous stage of education) are processed into the output competences. At the same time the requirements and restrictions are taken into consideration in accordance with the regulatory documents as well as the local restrictions and available resources (teacher contingent, student contingent, material and technical support) [1, 2, 3, 4].

It is proposed to automate the educational program development by synthesizing a tree of didactic units in accordance with the sequence of the material study [4]. In this case, it is required to solve several methodological problems related both to the concept of “a didactic unit” and to the peculiarities of its formation and use.

Materials and Methods

New didactic units (DU) are always formed based on the previously formed ones.

DU is a system containing the elements and connections between them, for example, in Fig. 1.

![DU Diagram](image)

Fig. 1. Didactic unit

In any system there are two types of components. Therefore, for each DU one can distinguish a complex of elements and a complex of connections.
The complex of elements (input DUs) is represented in the form of concepts and their corresponding terms.

A complex of connections transforms these elements into a new DU. That is why a system of input (existing) DUs related to each other becomes a new DU.

The connections can be of different nature, for example:
1) a mathematical expression (a formula, an equation, etc.);
2) a visual model (a diagram, a graph, etc.);
3) the hypothesis (an assumption);
4) the formulation of the theorem;
5) the theorem proof;
6) logical reasoning;
7) the introduction of a new concept (term) using the rules of terminology;
8) the method (the technique).

One can obtain different output DUs from the same DUs using various complexes of connections. For example, the Pythagoras’ geometric idea about the length of the legs and the hypotenuse in a right-angled triangle can be represented as a formula as well as a theorem proof.

Accordingly, the didactic unit “Pythagorean formula” can be represented as an independent didactic unit (as a formula) as well as the outcome of the theorem proof (there can be several proofs). Thus, it enables for some DUs to use multiple representation variants. In this case you can lay the study of several representations of the same DU in the DU graph (the tree).

Using one or another option of the DU representation is due to the need to master the corresponding components of the output competencies. For example, if the competence provides the ability to develop a theory and therefore, to possess a methodology for theorems’ proof, then it is required to study the Pythagorean formula as a theorem. For a deeper assimilation of the scientific activity methodology one can present the Pythagoras theorem with different proof versions. If only the possession of the corresponding calculation formulas is provided, then the theorem is not required as a finite mathematical expression is enough.

Thus, when forming the DU graph, it is necessary to consider which types of connections should be used. To do this, the connections must be classified according to the general concepts reflected in the competencies. Currently the part of competencies is formulated in the Federal State Educational Standards (FSES) and the other part is formed by the EP (Educational Program) developers in accordance with the professional standards. These competencies are formulated by the educational program developers and are associated with the types of
activities stipulated by the FSES and selected for implementation in this EP.

When forming the DUs’ array it is necessary to allocate the types of used connections as the input DUs.

For the automated DU tree formation each DU must have a range of pointers (parameters) in the array including the type of DU it refers to.

As the methods of DUs formation are necessarily used as input DUs along with the elements, they must be formed earlier as DUs from other DUs. For example, the DU «A Method of proof by contradiction», «Knowledge representation in the form of an algebraic equations’ system», «The Image of structural diagrams», «A Method for formulating a theorem», «Knowledge representation in the form of an algorithm», «The Rules for creating the calculation methods», «The Rules for compiling the measurement techniques», etc.

It is required to separate the arrays of DU for knowledge, skills and abilities.

While forming an array of DU knowledge it is sufficiently to use the notion «a tree of concepts» which is related to thesaurus on the corresponding direction (profile) of training. This thesaurus can be formed as a glossary of terms with the hyperlinks which will correspond to the concept tree. To formalize the concept tree (presented, for example, in the form of an adjacency matrix or a graph list), it is required to look through such a dictionary and fill in the corresponding matrix or list.

The DU examples for skills are the following: «Choosing a method of numerical integration», «The ability to form a method for calculating an electronic circuit», «The ability to develop a model of electromechanical AC devices», «The ability to determine the sequence of calculation of a pulsed voltage inverter», «The ability to depict the structural circuits of electronic devices», etc. Thus, the feature of DU skills is the ability to practically apply the existing knowledge in order to solve the problems of a given type. Moreover, it is required to possess more knowledge than it is needed for the specific case. In this situation, for example, «superfluous» knowledge is used as the input DU which is rejected and only some of them are selected which are required in this case.

But for the formation of an array of DU skills one should separately consider what operations from the point of view of skills are performed in the practical implementation of knowledge from the array considered above. These operations will represent those DUs which should be added to the DUs knowledge to acquire the skills. This makes it clear that some DUs of such operations are known at the level of the previous degree of education, and some must be studied and assimilated in the learning process. Therefore, an array of DUs is preliminarily formed which reflects the specific operations related to the skills. For
example, they are: «Classification of elements», «Classification of methods (technique)», «Identification of an element», «Identification of a method (technique)», «Combining the operations», «Operation of the mathematical formulas’ reading», «Operation of graphs’ visualization», etc. Each of these DUs is represented with the help of other DUs (which are input DUs in this case) and also uses the operation of forming DUs of a higher level of abstraction, for example, «A movement from simple to complex», «The Axiomatic approach», «A movement from complex to simple», etc. But these concepts are considered DUs and should be studied as well or presented in the array of input DUs.

An array of DUs skills is formed from an array of UDs knowledge and skills with the addition of a specific array of «instrumental» DU related to the possession of specific technical and software tools for manipulating knowledge and skills.

The examples of DUs for possession of skills are as follows: «Possession of the skills of depicting the structural schemes by means of a specific drawing program», «Possession of forms of differential equations systems’ recording in the form of state variables», «Possession of the skills of sequential format conversion when creating the text documents», etc. In this case, as a rule, knowledge and skills related to the implementation of practical actions are required as the input DUs: operating the computer, working in the specific programs, using the standard solutions and standard presentation forms.

In general, there is a complex interaction of knowledge and skills which are reflected in the complex interweaving of their respective DUs.

The sequence of formation of a common DU array is as follows: first, the array of DU knowledge is created, then – the array of DU skills (based on a combination of DU knowledge), after that – the array of DU abilities (based on a combination of DU knowledge and skills).

**Results**

As a result, the general array of DUs becomes multidimensional due to the knowledge, skills and abilities intertwining that corresponds to a common understanding of the competency-based approach.

Thus, the general array of DU (for the relevant field of science and technology related to the direction of training and the working DU array for a specific educational program are considered. The general array of DEs is a graph (in the form of a tree) containing all possible variants of knowledge, skills and abilities. The DU working array is a subgraph of the general array. The synthesis of a working array (subgraph) is carried out as follows: 1) the output DUs are set; 2) the input DUs are set; 3) a subarray (subgraph) is cut out from the general array (graph).

The structure of the DUs array is largely determined by the decomposition result of output competencies into knowledge, skills and abilities. And they are taken from the professional standards by software
developers. Therefore, the result of the DU array’ formation, to a large extent, is identified by the professional developers' level. Consequently, there are various options of the curriculum and the entire educational program for different interpretations of the output competencies.

**Discussion**

A detailed consideration of the process of forming the array of didactic units allows to subsequently proceed to its algorithmization and implementation of the main idea of the work – an automated synthesis of curricula with the creation of an appropriate automated information system to design and implement the educational process.

**References:**


WORKOUT IN PHYSICAL TRAINING OF SENIOR SCHOOL BOYS

D.M. Pravdov, Russia, Candidate of pedagogical sciences, associate professor, senior lecturer of the chair of physical culture and sport theory and methodology, Russian State Social University (Federal State Budgetary Educational Institution of Higher Education)

M.A. Pravdov, Russia, doctor of pedagogical sciences, professor, senior lecturer of the chair of physical culture and sport theory and methodology, Ivanovo State University (Federal State Budgetary Educational Institution of Higher Education), Shuya branch

Yu.B. Nikiforov, Russia, candidate of pedagogical sciences, associate professor, professor of the chair of physical culture and medico-biological disciplines, Armavir State Pedagogical University (Federal State Budgetary Educational Institution of Higher Education)

Abstract

This article describes the results of introduction of the workout program for training 16 to 17 year old boys. The workout methods are resorted to in physical training outside the classroom. The program is designed for 7 months of training sessions and consists of general and special preparation stages. It has been proved that combining dynamic exercises of general physical training with static workout exercises such as swallow stand (back scale), horizontal lever, horizontal support, horizontal support with legs spread, horizontal lever on high bar, horizontal lever with reverse grip, and human flag, positively influences some physical capabilities. On completion of the pedagogical experiment, a notably improved performance was registered in the experimental group boys compared to opponents from the reference group in such tests as high pull-ups (by 37.2%), forward bend from standing position on bench (29.9%), grenade throw (32.5%), trunk raise from lying position in a minute (19.8%), standing long jump (4.2%), 5 km skiing race (3.8%), 3 km race (4.6%), and 100 m sprint (3.4%).
Keywords: workout, 16-17 year old schoolboys, physical fitness, static and dynamic strength exercises, training program.

Introduction. An analysis of scientific and methodological literature makes it possible to conclude that at present very popular with the youth are new systems of physical exercises which, researchers believe, manifest the trends of the sports subculture [2,3,4,6]. Prominent among the new phenomena of sports subculture is the workout, the most common type of fitness leisure that improves the physical fitness [1,4]. It is established that the means of workout in the physical training of senior schoolboys are used erratically, resorted to are only exercises on out-door implements as part of extracurricular activities [5-9]. It has been noted that there is no universal methodology of using workout techniques in relation to senior schoolboys, which effort would be aimed at raising their level of fitness. Workout belongs to new types of physical training which is not yet sufficiently introduced in physical education of the Russian Federation’s schoolchildren. Its capabilities are inadequately used not only during physical education lessons, but also in extracurricular activities of senior school students, especially boys. The research on this subject is obviously scarce. This circumstance sharpens the need for improving the methods of training 16 to 17 year old boys based on workout exercises.

Materials and Methods (of Experiment)
At the preliminary stage of the investigation, in order to substantiate the workout methods applied to senior schoolboys, physical education teachers and senior schoolchildren (128 people) underwent a questionnaire survey. The study of the survey results shown by the physical education teachers (78 people) revealed that 90.5% of them consider workout exercises an efficient means of improving the senior schoolchildren’s physical condition. In their opinion, the systematic workout exercises during extracurricular sessions enhance strength, speed-strength abilities, and coordinating capabilities. Despite this fact, only 23.8% of the surveyed teachers occasionally use workout in their training sessions with schoolchildren, while 76.2% do not use it at all. It is established that they mainly use pull-ups and push-ups (95.23%). Most of those surveyed believe that this is not enough for preparing them to pass the national Fit for Labor and Defense fitness tests. 85.7% of respondents said so. Most of the teachers (71.42%) do not know the specifics of workout training sessions.

The study of the senior schoolchildren’s survey results confirmed the conclusion about the need for a special development of a workout methodology for improving their fitness. This is proved by the fact that
most students of the 10th to 11th grades are interested in such training
sessions and would like to work out.

The results of surveying physical education teachers highlighted
the problem of improving the senior schoolchildren’s physical fitness and
a need to develop and introduce the methodology of training senior
schoolchildren based on workout methods in extracurricular time.

In order to experimentally substantiate and check the influence of
workout on 16 to 17 year old schoolchildren, a special method has been
developed. It was introduced in the system of extracurricular physical
training of senior schoolboys. The method efficiency was checked in the
course of a pedagogical experiment. The research was carried out from
September 2018 to May 2019. The pedagogical experiment took place at
the facilities of general education schools of the city of Kovrov.
Schoolchildren of the 10th through 11th grades (28 students) were
selected for the pedagogical experiment in which an experimental and a
reference group of 14 students in each were formed. At the beginning of
the experiment, preliminary tests of both groups were conducted for
determining the schoolchildren’s fitness level. The obtained data were
statistically analyzed. In the experimental group the training proceeded
using the newly developed method, the reference group was trained under
the standard program. On completion of the pedagogical experiment, the
test was repeated for checking the efficiency of the developed method.

The experimental method. Workout exercises were performed on
both out-door implements and gymnastic apparatuses in the gym and
exercise room: climbing frames (circular, curved, twisted), parallel bars,
horizontal bars (uneven bars), wall bars, incline benches, flying rings, as
well as gym machines and special added weights.

In the course of training different physical exercises, both static
and dynamic, were used, such as swallow stand (back scale), horizons,
entrada de angel, hefesto, etc. All the exercises were done on pipes, high
and parallel bars, floor, wall bars, climbing frames, and other applicable
implements. In using the methodology of physical training with
employment of workout, most exercises were performed only with one’s
own weight. However, towards the end of the training program cycle
various added weights were used on arms and feet (from 100 to 500
grams). Given that one of the workout’s basic exercises is pull-up, it was
included in the set of daily training. It is noteworthy that one of the pull-
up versions is the muscle-up (rising by strength from a hang to upper
front rest). The second exercise in the package of workout methodology is
bending and unbending of arms in lying support. The third workout
exercise is bending and unbending of arms in a bar support (parallel bar
dips). The exercise is performed on the end and middle of bars.

For senior schoolchildren a training program has been evolved
for the period of the pedagogical experiment. The program is essentially
presented by a single period, a preparatory one. This period is divided into two stages: general preparatory and special preparatory.

The main tasks of the general preparatory stage are mastering the techniques of the workout basic exercises, raising the level of the schoolchildren’s fitness, and the study of complex static and dynamic exercises of the workout. The duration of this stage in the experiment is 8 weeks. The stage is presented by two mesocycles. The first mesocycle (duration - 4 microcycles) involves the participants in and prepares for a large amount of practice load. The second mesocycle consists of 4 microcycles. This is a basic mesocycle. Its aim is to increase the total amount of practice load and build up the means of enhancing the main physical assets. At this stage a repeated method was used with permanent as well as low loads (the load intensity was 60 to 75% of the possible maximum). Also, the amount of exercising gradually grew in the process.

This program of training sessions has been realized with senior schoolchildren at the beginning of the pedagogical experiment. It seeks to generally strengthen the muscular corset and prepare it for performance of more complicated exercises. Given individual features of the trainees, the schoolchildren were proposed to repeat it 2 to 3 times, if the program was not excessively complicated. Up to 10 minutes were assigned for performance of all exercises. At the same time, an effort was made for the intensity of exercises not to negatively impact the technique of their performance.

The special preparation stage. This stage witnessed stabilization of the amount of practice load, improvement of fitness, and an increased intensity due to the increased technical means of workout. The stage duration is 5 mesocycles. The main tasks of this stage (in the framework of the pedagogical experiment) were the higher fitness level of senior schoolchildren, demonstration of elementary workout combinations and achievement of adequate results in the national Fit for Labor and Defense fitness tests. During this training period the amount and intensity of exercises grew up and the repeated method with alternate loads was used. At first, the amount went down while the intensity came up to 85-95%, whereupon the intensity slid down to around the limit (75-85%) while the amount of load rose up. Under such circumstances, the main workout exercises and their combinations were included in the training system. This proceeded in compliance with the individual level physical and technical preparedness of the trainees.

For processing the investigation results, a method of mathematical statistics was used which computed the arithmetic mean, standard deviation, and the Student t-criterion.
Results. The processing and analysis of investigation results prior to the experiment did not reveal significant differences in the level of physical condition of young men in the reference and experimental groups ($p \geq 0.05$). The introduction of the developed workout method in the formative pedagogical experiment in the experimental group brought about positive changes shown in Table 1.

<table>
<thead>
<tr>
<th>Physical fitness indicators</th>
<th>Groups</th>
<th>t</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Standing long jump, cm</td>
<td>RG(n=24 people)</td>
<td>217.1±2.43</td>
<td>EG(n=24 people)</td>
</tr>
<tr>
<td>2. Forward bending from standing position on bench, cm</td>
<td>14.51±0.42</td>
<td>16.86±0.45</td>
<td>-2.16</td>
</tr>
<tr>
<td>3. Pull-ups on horizontal bar from lever, number of times</td>
<td>12.05±0.71</td>
<td>14.76±0.33</td>
<td>-2.21</td>
</tr>
<tr>
<td>4. Trunk raise, number of times per minute</td>
<td>51.16±0.57</td>
<td>60.95±0.81</td>
<td>-2.15</td>
</tr>
<tr>
<td>5. Grenade throw, m</td>
<td>28.17±0.55</td>
<td>35.71±0.52</td>
<td>-3.49</td>
</tr>
<tr>
<td>6. 100 m race, seconds</td>
<td>13.44±0.12</td>
<td>12.57±0.08</td>
<td>3.84</td>
</tr>
<tr>
<td>7. 3 km race, min., sec.</td>
<td>12.48±0.18</td>
<td>11.85±0.12</td>
<td>2.93</td>
</tr>
<tr>
<td>8. Skiing race, 5 km, min., sec.</td>
<td>24.56±0.24</td>
<td>23.48±0.16</td>
<td>3.58</td>
</tr>
</tbody>
</table>

Note: $t$ – two choice $t$-test based on the Student criterion for independent sampling; $P$ – level of dependence between groups; $\leq$ – differences between groups are dependable.

Changes in the trainees’ physical fitness after the pedagogical experiment testify to the statistical dependability of the increment of results in the experimental group in all indicators as compared to similar performance demonstrated by the reference group boys ($t=2.09–3.84$, at $P <0.05–0.01$).

It has been determined that the nature of result growth is of the same type for youths both in the experimental and reference group in
similar motion exercises. In this case the largest increase is observed in such tests as:

1. Pull-up from lever on horizontal bar (RG – 54.48%, EG – 91.68%);
2. Forward bend from standing position on bench (RG – 54.19%, EG – 84.06%);
3. Grenade throwing (RG – 24.09%, EG – 56.62%);
4. Trunk raise in a minute (RG – 18.42%, EG – 38.2%);
5. Standing long jump (RG – 9.54%, EG – 13.66%);
6. 5 km skiing race (RG – 7.53%, EG – 11.33%);
7. 3 km race (RG – 5.31%, EG – 9.88%);
8. 100 m sprint (RG – 4.06%, EG – 7.43%).

The data obtained show that the workout had the greatest influence on development of such physical qualities and abilities as strength, flexibility, speed strength abilities, endurance and speed. The study of the data makes it possible to state that the set of workout exercises complies with the factorial weight and is directed at developing expressly those physical qualities and abilities (Figure 1).

![Diagram showing the aggregate share of factorial weights (exercises) included in the workout set that influence the physical condition of 16-17 year old youths.](image)

The results obtained in the course of investigation prove efficiency of the proposed method of workout exercises done by senior
schoolchildren, which manifested itself in better physical development of 16 to 17 year old youths and their general fitness.

Along with higher achievements in physical development and the passing of *Fit for Labor and Defense* national test, the experimental group members made progress in performance of combinations consisting of 3 to 4 workout exercises. Towards completion of the pedagogical experiment they could do the following workout elements combined in compositions: human flag + horizon, front lever + human flag, human flag + entrada de angel, and human flag + entrada de Leon.

In addition, the study of workout performance by the experimental group members showed that many pupils do the main workout elements, steadily holding their body in space (Table 2).

<table>
<thead>
<tr>
<th>Workout exercises</th>
<th>Groups</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RG</td>
<td>EG</td>
</tr>
<tr>
<td>1. Swallow stand (back scale)</td>
<td>1.1±0.1</td>
<td>6.8±0.2</td>
</tr>
<tr>
<td>2. Horizontal lever on bars</td>
<td>1.3±0.1</td>
<td>5.3±0.2</td>
</tr>
<tr>
<td>3. Horizontal support</td>
<td>0.5±0.1</td>
<td>3.5±0.2</td>
</tr>
<tr>
<td>4. Horizontal support with legs spread</td>
<td>0.9±0.1</td>
<td>3.6±0.2</td>
</tr>
<tr>
<td>5. Horizontal support on bars</td>
<td>1.2±0.1</td>
<td>5.4±0.2</td>
</tr>
<tr>
<td>6. Horizontal lever on high bar</td>
<td>0.8±0.1</td>
<td>5.6±0.2</td>
</tr>
<tr>
<td>7. Horizontal lever with reverse grip</td>
<td>1.4±0.1</td>
<td>6.3±0.2</td>
</tr>
<tr>
<td>8. Human flag</td>
<td>0.7±0.1</td>
<td>3.5±0.1</td>
</tr>
</tbody>
</table>

The longest time of holding the static position was registered among schoolchildren doing the Swallow (back scale), 6.8 seconds and the horizontal lever on bar (with reverse grip) – 6.3 seconds. The time in performance of static positions was as follows: front lever (1 – horizontal lever on bars and 2 - on high bar); planche (horizontal support on hands, on bars – legs at the level of bars) varies between 5.26 and 5.63 seconds. The shorter static position holding time is characteristic of doing two versions of the planche exercise: horizontal support on bars, legs above and horizontal to the bar plane (3.53 seconds) and horizontal support on bars, legs spread apart (3.56 seconds). In performance of the human flag exercise the registered result was 3.56 seconds.
Discussion. The study of research literature on physical training of senior school students shows that many 16 to 17 year olds are physically inadequately developed. The system of sport and rehabilitative programs at schools, specifically, in extracurricular physical training sessions, does not use widely enough the means and technologies aimed at physical training through popular and new types of sports. It has been determined that the accompaniment of workout events on the street sports facilities is not sufficiently developed in terms of methodology. There are no recommendations and methods for using workout means among senior school students for improving their fitness. The analysis by research institutions and questionnaire surveying of physical education teachers and students testify to this. A method has been developed for workout sessions during extracurricular activities of senior school students (aged 16 to 17). Included in the practice are: general development exercises, running, and special exercises from the package of static and dynamic workout (and their versions) on apparatuses and without them, including with added weights. A seven-month training program has been elaborated, which included two stages: general preparatory and special preparatory.

The pedagogical experiment with 16 to 17 year olds in extracurricular time for realizing the methodology of physical training of senior school students from the experimental group based on the use of workout has established the dependably significant increase of results in tests as compared to youths from the reference group (t = 2.09–3.84, при P <0,05–0,01).

The obtained data show that workout has contributed the most to development of such physical assets as strength, flexibility, speed strength abilities, endurance and speed. Workout helped 16 to 17 year olds to successfully pass Fit for Labor and Defense national tests.

Summary. The proposed method of physical training of 16 to 17 year olds in the system of extracurricular physical exercises through workout is practically essential for improving the system of extracurricular form and contents of practicing. A set of workout exercises is recommended for use in training senior school students, taking into account their preparedness. It should vary in complexity of different combinations and transitions between exercises. The school students were recommended to observe the following rules: take a shorter rest between exercises to increase strength buildup and muscle growth; control the correctness of exercise execution; better do 5 push-ups correctly than 20 wrongly; follow the advice, failure to do so hampers the progress and leads to injuries; be sure to warm up properly and use in the process the exercises that warm up muscles that will be involved in practicing; first, do exercises with a small amplitude of performance, e.g., bar dips; do not hurry to perform complex exercises or simplify their
execution, e.g., push-ups on the floor instead of dips on bars; use your partners’ assistance (this will help you retain the technique, bring the muscles to the “chock-full” condition and will promote muscle growth and development); use the motion inertia (for example, in pulling up on a springy horizontal bar this helps to do a few more pull-ups and positively impacts the muscle and strength development); rest your muscles (take, preferably, a 1 or 2 days rest between training sessions for avoiding staleness and excessive fatigue); use a negative load (for instance, if there is no strength even for a single pull-up, climb the horizontal bar and then lower slowly within 5 to 7 seconds).

References:


PSYCHOLOGICAL RESOURCES OF INNOVATIVE DECISIONS OF STUDENTS IN THE CONTEXT OF STUDYING THE DEMAND FOR EDUCATIONAL SERVICES

Nina Markina, Russia, Chelyabinsk Institute for Retraining and Advanced Training of Education Workers, Candidate of Psychological Sciences, nvmark@mail.ru
Shchelokova Ekaterina Galiulovna, Russia, South Ural State University (National Research University), candidate of psychological sciences, kas_kat@mail.ru
Berkovich Olga Aleksandrovna, Russia, Chelyabinsk Institute for Retraining and Further Training of Education Workers, berkovichoa_chippkro@mail.ru

Abstract:
This article presents the results of an empirical study of the psychological resources of innovative solutions of students - future specialists of the innovative economy. Resource approach is considered as the most valid for the study of demand management in the educational services market. Particular attention is paid to changing approaches to the development strategies of the personnel potential of the higher education services sector. The study was conducted on the basis of data obtained using a personality questionnaire: "Diagnosis of tolerance to uncertainty" of S. Badner in the modification of G.U. Soldatova, the questionnaire "M. Kirton's Indicator" and the author's questionnaire of M.L. Berkovich. As a result of the study, a number of interconnections between the students' tolerance to the novelty of situations of uncertainty and the style of thinking when making innovative decisions were revealed. The discrepancy between the consumer's investment expectations and the real attitude of respondents to the product of the higher educational services market.

Keywords: innovative thinking, tolerance for uncertainty, resource approach, educational services.
Introduction

Traditional (classical) and post-non-classical paradigms of studying interdisciplinary phenomena in the conditions of society's consciousness transformation leads to the fact that the answers to the questions that a person poses to himself/herself more and more depend on our perception of not only the essence of the question, but also our perception of the research area as such. Thus, society begins to transform not so much under the influence of external factors, but under the influence of its awareness of the essence of the problem to solve. This approach is also typical in the practice of research on effective investment in human potential.

It should be noted that at the moment the issue of innovation in the framework of investment in human capital is raised in the Russian Federation at the state level. Many national projects in the Russian Federation (for example, "Science" and "Education" [1] [2]) impose special requirements on the personnel training system for the implementation of such projects. The same strategic guidelines correspond to the targets identified in Federal Projects and Programs. This challenge facing the higher education system requires a change of approaches to analysis and innovative transformation of system approaches to personnel training for developing the state's economy, including such aspect of personnel training for innovative economy as research of demand for higher educational services. The authors suggest that one of the most effective approaches to changing investing in human capital is the resource approach to such investment and development of human resources.

The resource approach to solving the problems of human investment involves the adaptation of the problem to the peculiarities of the reality under study. Thus, using the resource approach, it can be said quite clearly that the results obtained in studying the problem through the resource approach to such research will most fully reflect the context of the problem in its existing environment.

The appeal to the resource approach is dictated, first of all, by the ambiguity of the issue of investing in human capital. Researchers (Rodenkova T. N., Klimova A. A.) focus on the complexity of determining the final effect of human investment [3]. In particular, it is impossible to determine the benefits of such an investment without defining the specific prerequisites that make people invest in themselves and organizations invest in their employees. Moreover, it is even more difficult to determine the adequacy of the costs of such investments.
Based on the analysis of theoretical and applied sources we have identified the following resources of innovative solutions for managing the demand for higher educational services:

- стратегические strategic imperatives of human resource development;
- personal resources of innovative economy specialists' innovative behavior of (tolerance to uncertainty, innovative thinking);
- socio-cultural resources of innovative solutions (the mentality of the personnel reserve of the economy of the South Ural region).

The search for personal resources of innovative behavior of future specialists of innovative economy determined the purpose and program of empirical study. The purpose of the study: to identify the personal resources of innovative solutions of students of technical specialties in the context of studying their demand for educational services. To do this, it is necessary to solve the following tasks: a) to identify the ratio of adaptive and innovative style of thinking among students-future specialists; b) to determine the features of their tolerance to uncertainty; c) search for personal resources of students' innovative solutions and correlate them with the results of parameters that determine the demand for higher educational services.

**Methods**

Methods using in the empirical study - cross-section. To collect empirical material questionnaire and psychological diagnostics were used. The authors prepared a measuring material in the form of a special questionnaire and two personal questionnaires. Students had to answer questions concerning the factors that affect the level of students' demand for various education forms for educational services.

To study the features of the demand for higher education services, a questionnaire developed by M. L. Berkovich was used. To diagnose the personal resources of innovative solutions, the following were used:

- questionnaire " M. Kirton's indicator of innovative thinking " (the questionnaire allows to determine the ratio of adaptive and innovative cognitive style of respondents) [9];
- questionnaire "Diagnostics of tolerance to uncertainty" by S. Badner. The questionnaire diagnoses such indicators as tolerance to novelty, complexity and unsolvability of uncertainty situations, as well as the general indicator of tolerance to uncertainty [8].

The obtained empirical results were statistically verified using the software package of mathematical statistics of the Statistica 7 software product.

As a hypothesis, two assumptions are put forward. The authors suggested that innovative solutions of students of technical specialties -
future specialists of innovative economy are determined by the peculiarities of their attitude to situations of uncertainty. The second assumption is that students should focus more on the reference personality of the teacher, the depth of his/her scientific and professional experience in the studied issue, be ready to learn from his/her experience.

**Results.**

Study base: higher education institutions of the city of Chelyabinsk (South Ural State University (Research University), Chelyabinsk State University and South Ural State Humanitarian and Pedagogical University). The study was attended by 55 students of polytechnic and economic specialties.

Analysis of the results reveals a number of empirical facts.

First, we note that the average value of innovative thinking in the study sample is 106.31 points. This corresponds to a range of values of 96-117 points, defining this style of thinking as "weakly expressed innovators". Note that of the six types of thinking identified by M. Kirton [9] that determine the nature of innovative solutions, the respondents' results are distributed as follows. Three students were characterized by the "adapter" style of thinking (5.5% of the group). Twelve students demonstrated the "weakly expressed adapter" style of thinking (21.8% of the total). The "weakly expressed innovator" style of thinking was recorded for 23 students that is (41.28 % of the total number). And finally, 17 students had the "innovator" style of thinking (30.9 % of the total number).

In general, 15 students showed adaptive thinking style (27.3 %), and innovative style was typical for 72.7% of the respondents. Thus, we can talk about the dominance of indicators of innovative style of thinking among students of the sample under study.

Second, correlation analysis allows to note two interrelations. A significant positive interrelation between the students' tolerance to the novelty of uncertainty situations and the indicator of innovative thinking (Pearson correlation coefficient = 0.406 при p ≤ 0.001) was revealed. There is also a weakly expressed positive interrelation between the general indicator of students' tolerance to uncertainty and the indicator of innovative thinking (Pearson correlation coefficient = 0.281 at p ≤ 0.005).

The analysis of questionnaires and factor analysis of the levels of influence of a particular parameter of educational services on the level of demand for the latter showed a greater orientation of students on the content of the educational program itself, rather than on the teacher's personality who participates in the implementation of such a program. The results of multi-factor analysis are presented in earlier works of the authors.
Next we turn to the results interpretation.

**Results interpretation**

The authors see the interpretation of the study results using the Statistica 7 software product [4] in particular the thinking of the target group of respondents. One way or another, today's higher education is becoming formalized to a certain extent. In society, within the framework of the studied reality, higher education begins to depreciate. Now there is no guarantee that, having received a higher education, the individual a priori will have a higher competitive ability in the labor market. There may be several reasons for this. First of all, this is the lack of analytical work of higher educational institutions with the labor market and the educational services market. Although specialists in a situation of economic competitive market try to increase their value for a potential employer by obtaining higher education (foreign experience shows that this situation occurs everywhere [7]), higher educational institutions are aimed at making a profit. At the same time, this profit is manifested in two ways. First of all, the training of a number of students of certain specialties is laid down in the state task of higher education institutions. Previously, the state had a system of planned distribution of graduates of higher education institutions. Thanks to this, representatives of the target group of consumers of such educational services accurately realized their subsequent need and value for employers, since after receiving a higher education diploma each graduate was place to a certain position. In the current market situation, this approach is no longer applied. In this regard, the state task of the founder for higher education institutions does not entail any social guarantee for graduates. In addition, higher education institutions additionally conduct extra-budgetary activities, the volume of which, in fact, is limited only by the institution's classroom space. Taking into account also private higher educational institutions, the situation is going poorly.

Second, under the conditions of the changing economy in the changing world of the changing society, academic knowledge is inferior to the primacy in the needs of employers to potential employees practice and non-standard divergent approach to solving problems. This is facilitated in particular by the practice of so-called startups. A startup essentially involves the development of an innovative product that cannot be recreated based on previous experience. Thus, students begin to focus more on innovation, poorly studied and covered sections of the market. Hence, the student has a desire to adopt the experience of people who are familiar practically, and not theoretically with the area under study. In this position, webinars of highly referential individuals, or so-called informal education, become more popular. Thanks to non-formal education, an individual acquires a certain experience, but subsequently cannot show it
to the employer in the form of a document confirming his/her qualifications.

However, higher education (especially basic) in the framework of the personnel market of public positions and professions is still in demand. In state institutions, there is a clear binding of the rate occupied by an individual to the Unified skills guide for positions of managers, specialists and non-manual workers [5]. In the latter, in particular, there is a clear link to a particular position of the level of education and work experience in a particular area of the applicant for this position. At the same time, there is a certain problem associated with the fact that, as a rule, there are no open vacancies in such public institutions. Moreover, in the medium term, no vector of such a bias towards publicity is observed. In this case, since the individual is not able to assess his/her abilities to apply for a particular government position, he/she will not be interested in basic higher education. He/she will either be interested in the education that is easier for him/her to get, just to have a “basic higher education”. Or he/she won’t be interested in it at all, preferring to go to college. In such a situation, subsequent higher education, which the individual receives while already occupying a certain position, becomes more popular. A person already receives such an education in order to have certain personal and professional competencies in the area in which he/she has already found him/herself. Or such an individual will receive such an education only formally in order to formally correspond to his/her position. And in both cases, a person will still be more interested in the sense of what the teacher said than in the level of his/her formalized competence.

The results of an empirical study of personal resources of future specialists of innovative economy reveal the emerging mechanism of forming their innovative solutions. The revealed interrelation between the innovative style of thinking and tolerance to the novelty of uncertainty situations testifies to the readiness of students in their future professional activity to meet new ideas generated by their colleagues, the challenges of an unstable dynamic situation in the market. At the same time, the complexity and fundamental unsolvability of such innovative ideas will actualize the adaptive style of thinking. In other words, future technical specialists in situations of uncertainty will prefer the usual, well-established way of professional activity that may lead to a decrease in the innovative resources of the enterprise.

This problem is quite serious, because in this situation, the target audience of consumers of services loses confidence in academic education. At the same time, it should be noted that trust is also a serious economic resource, the loss of which can significantly and negatively affect the development of human capital of the personnel of higher education institutions. As study shows [6], the essence of the concept of
trust is somehow related to the subsequent volume of consumers of economic benefits in those producers of such benefits, whose consumer confidence index is higher. The educational services market is formed in the same way and, accordingly, also seriously depends on the level of confidence in the producers of educational services. Thus, the loss of trust within the educational services market eventually leads to a loss of students' interest in higher education and ultimately leads to a decrease in demand for higher educational services.

Conclusion
The above-mentioned situation identified by the study is critical for any innovative solutions within the framework of the higher educational services market. Such a change in the vector of interest of the target group of consumers of higher education services may jeopardize the development programs of this type of state institutions and private organizations. If students are not interested in the academic degree and level of scientific knowledge of the teacher, then the institution is constantly at the inflection point: on the one hand, an institution is obliged to fulfill the indicators stated in the state assignment by the level of graduate employees from among the teaching staff, namely: employees from among the faculty with candidate and doctor of science degrees, and, on the other hand, the educational institution must satisfy the demand for all services. In a highly competitive environment, an educational institution will sooner or later come to the realization of the fact that if one educational institution does not satisfy the demand for educational services, then another institution will satisfy that demand.

To mitigate such a problem, the authors intend to further research innovative solutions in the field of demand and ultimately develop a mathematical model that will be useful for designing marketing market scenarios in a single-product and multi-product market environment, which ultimately will allow heads of higher education institutions to design their investments in the human capital of their personnel, as well as more correctly develop a program for developing their institutions.

References:
[2] Passport of the national project "Education" (approved by the Presidium of the Council under the President of the Russian Federation for strategic development and national projects,


FOREIGN LANGUAGES

Stetsenko E.O.

THE USE OF AUDIO AND VIDEO MATERIALS IN TEACHING BUSINESS COMMUNICATION TO STUDENTS OF A NON-LINGUISTIC UNIVERSITY

Stetsenko E.O., Russia, Federal State Budgetary Institution of Higher Education "Syktyvkar State University" named after Pitirim Sorokin

Abstract

The article discusses the features of the use of feature films in teaching business communication in English classes at a higher educational institution. Examples of organizing assignments for the development of specific skills for teaching business communication of 2nd year students are presented.

Keywords: business communication, teaching methods, audiovisual teaching aids, competencies.

Modern society dictates the constant updating of the content, methods and methods of teaching English in order to improve the quality of training of future specialists. New information technologies play a special role in this. In language education, audio and video materials of various genres are increasingly being used: documentaries, science films, feature films, training programs, news reports, etc. This all diversifies the classes increases their informational and emotional richness, contributes to the development of communication skills. Watching movies helps students immerse themselves in the culture of the language they are learning. When we watch films in English, we get to know the real language, students hear intonation, see gestures, facial expressions, memorize words, but this way of learning a language requires training both from the teacher and the students.

It takes into account the pronunciation, the cultural environment reflected in the film. The film is chosen that students like and it increases
their motivation and involvement in language learning, which leads to positive results. We use English subtitles. This improves listening comprehension and understanding of the English language, we can rewind and revise difficult places to understand, listen to speech in order to catch the subtleties of speech. Students write out words, phrases from the film, this helps replenish the vocabulary. Thanks to subtitles, students can learn new words and constructions for themselves. When watching a movie, we can analyze complex points: you can pause, discuss certain episodes, thanks to modern technology. You can also switch the language from English to Russian, but you should rarely do this. Students can review this film at home.

To solve specific problems, teachers create their own development, organizing systematic work with audio and video materials in three stages: pre-demonstration (preview), demonstration (preview), post-demonstration (post-review) [2, p. 86]. Preview stage. Here we remove certain sociocultural and linguistic difficulties, prepare students for further tasks. Viewing stage. The linguistic, speech and sociocultural competence of students is developing, the vocabulary and students' regional geographic knowledge are expanding. After-viewing stage. We check the understanding of the content of the film. The task system may reflect the content of situational-communicative topics: business communication, communication features; speech etiquette; portrait of a businessperson; business conversation, business telephone conversation; business negotiations.

In conditions of a limited number of hours devoted to learning a foreign language in a non-linguistic university, we use the principle of interconnected teaching of listening and other types of speech activity; we use tasks for practicing phonetic, lexical and grammatical skills.

**Sample tasks for the feature film “You have got mail”**

Assignments to the film “You have got mail”

I. Answer the following questions:
1. Who is the owner of a store net? What business does he have?
2. What is the logo and motto of his store?
3. How many generations do they run their business?
4. How much do they earn per year? Is their business profitable?
5. Who is the owner of a small shop? What business does she have?
6. How many years was her family in this business?
7. How many years did Kathleen Kelly own her shop?
8. How much does she earn per year?
9. Is her business profitable?
10. Does she decorate the shopwindows of her store on holidays?

II. Compare
1. A supermarket and a small shop.

121
2. Two businesses.
3. Services, they provide their regular customers.
4. A store net and “A shop round the corner”.

III. Compare business portrait of Kathleen Kelly and Joe Fox (employers, entrepreneurs, competitors).

IV. Compare Kathleen Kelly and Joe Fox’s ways of lives, their friends, appartments, and the other property. What do they like and dislike?

V. Insert words in two columns: full of crowds of people, attentive staff, impersonal, ignorant customers, corrupt sense of commerce, helpful employees, deep soft armchairs, bags with store logo, mugs with store logo, reading fairy tales to children, Brinkley, a shopgirl, multi-storied mall, one-storied shop, cappuccino, toys, Patricia, Frank Navaski, departments, shelves, books, comfortable couches, buying coffee and biscuits.

VI. Answer the following questions:
1. When they started writing letters to each other?
2. Do they have any nicknames?
3. How were they acquainted with each other?
4. Where did they first meet?
5. Did Joe Fox ruin Kathleen Kelly’s business?
6. How did Kathleen Kelly try to save her shop? (Friends, readers, the articles in the journal "Observer", appearance on television, publicity)
7. Why could not Kathleen save her store?
8. Did she forgive him for bankrupting and closing her shop?
9. What episode of the film did you like the most? Describe it.

Sample assignments for a feature film “Frozen from Miami”
Assignments to the film “Frozen from Miami”
I. Write 7-10 expressions (adjectives) that characterizing Lucy.
II. Write 7-10 expressions (adjectives) characterizing Blanche Gunderson.
III. Write 7 expressions (adjectives) that characterize Ted Mitchell.
IV. Write 7 expressions (adjectives) characterizing Stu (Stanley) Kopenhafer.
V. Describe Lucy's journey. (A one-way ticket from Miami to Minnesota, a plane trip, a car ride from the airport to New Ulm).
VI. Describe in English the episode from the movie that you liked. (10 sentences).
VII. Translate into English.
1. The new manager of the plant is Miss Lucy Hill, her goals are the production of protein bars, the mechanization and modernization of
the plant, changing the composition of products, changing the marketing strategy, reducing staff by 50 percent, and preparing a schedule for closing the plant. Lucy Hill will expand production and arrange the sale of tapioca throughout the country, will become vice president of the company.

2. Ted Mitchell has been living in New Ulm for 10 years, drives a truck, the head of a union in southeastern Minnesota, and has a daughter, Robert.

3. Stu Kopenheifer is the supervisor at the factory.

4. Secretary Blanche Gunderson offers tea, cookies, participation, and care. Keeps tapioca recipe secret. Married, have a son. She became the head of the development department.

5. Realtor Trudy Vauuden wants to know a tapioca recipe.


VIII. Speak about


2. All flights were canceled; Lucy was unable to fly to Miami due to a blizzard.

3. All employees received a holiday bonus - money for Christmas.

4. Lucy and Blanche held an advertising campaign - tasting - promotion of tapioca with different tastes: with nuts, with berries.

5. Lucy found reliable investors to buy the plant. This deal will return the company to the town workers. They will become the owners of the company because of this deal.

6. New Ulm is the most German town in the USA, its population is 13,595.

IX. What episode of the film did you like the most? Describe it. Tasks can be performed both orally and in writing, and you can offer to perform the final test. Watching films in English is a great way to immerse yourself in the language, hone your listening comprehension, and replenish your vocabulary. Tasks contribute to the development of professional and communicative competence of students.

A graduate of a higher vocational school should be able to apply the knowledge gained during the training in everyday and changing situations at work, demonstrating his professional competence. Today in the scientific literature, there is a huge variety of interpretations of the concepts of "competence", "competence" and "competency-based approach. Some researchers believe that “the founder of the competency-based approach was Aristotle, who studied the possibilities of a person’s state, denoted by the Greek “atere”-“a force that has developed and improved to such an extent that it has become a personality trait” [1]. N.I.
Almazova defines competencies as knowledge and skills in a certain area of human activity, and competence is the quality use of competencies. Another definition of competency was given by N.N., Nechaev: "A thorough knowledge of one's business, the essence of the work performed, complex relationships, phenomena and processes, possible ways and means of achieving the intended goals" [3]. Considering professional competencies, most researchers distinguish: 1) simple (basic) competencies (formed on the basis of knowledge, skills, abilities, easily fixed, manifested in certain types of activities); 2) key competencies - extremely complex for accounting and measurement, manifested in all types of activities, in all relations of the individual with the world, reflecting the spiritual world of the individual and the meanings of its activity. Some studies also have other qualifications: 1) standard - those without which the normal functioning of an individual or organization is impossible 2) key - ensure their competitiveness in the socio-economic market, comparing favorably with similar representatives, 3) leading - this is "creation" future, manifested in innovativeness, creativity, dynamism and dialogue (cooperativeness, decentration, multiculturality) [1]. Competence can reveal a person’s strengths and qualities that he needs to improve. It determines the best way to do the job.

References:
WAYS OF DEVELOPMENT IN STEM-EDUCATION: NEW APPROACHES

Zaika L.A., Ukraine, Department of Foreign Languages, National Technical University “Dnipro Polytechnic”

Abstract
The increase in information system development of society and role of STEM-education are stipulated by the stepping up of students’ motivation for studying foreign languages and at the same time a high necessity of the industrial sphere in specialists who have competences in different spheres (for example, Engineering, IT) and have high moral and spiritual values, satisfactory theoretical and practical training, creative activity and competitive ability in modern world.

Keywords: competence-oriented, innovative technology, interactive methods, project activity, integrated knowledge, integrated approach, cooperative learning.

Introduction
Reforming of the system of education envisages the pursuing of the state policy in the sphere of education in Ukraine taking into consideration the direction of development of education of the world community and countries of the European Union. Education must be aimed at the increase of development of the scientific direction in education activity that will develop students’ competences which are necessary for research, creative and innovative activity at different levels of education. According to the National Conception of development of education in Ukraine the priority of education development is introduction of the modern technologies which ensure further perfection of teaching and educational process, accessibility and efficiency of education, training of young generation for life-sustaining activity in modern world.

The effective development of student 21st Century skills that students would need to be successful in their future endeavors include: a) life and career skills; b) learning and innovation skills; c) information,
media, and technology skills; d) key subjects. The first three parts describe profession or literacy students should develop and can be integrated and developed in any academic lesson. But the fourth part, key subjects, suggests interdisciplinary themes. [1]

In the 21st century all the focuses are shifted to the ability to critical thinking, cooperation, communication and creative approach to business. Thus, the main skills of the future are formed – 4Cs: communication, cooperation, critical thinking and creativity.

Modern technologies change future job positions and requirements to the skills of students. It is necessary to give our students such skills which will allow them to compete and prosper in that future which will inspire students to analyze, communicate, interact and adapt. [2, p.31]

Materials and Methods

Fast moving development of IT branch and robotic technology elicits the necessity in experienced specialists and, thus, sharp education necessity appears in quality training of students not only in technical subjects but in foreign languages as well. The English language is the language of STEM-technology. If you want to study science and be a scientist, you have to know the English language. Education has to correspond to modern tendencies of development of society and facilitate the increase of competitiveness. STEM-education gives opportunity to realize integrated education in practice. Such approach to education promotes introduction of the main competences: communication in state and foreign languages, quantitative literacy, competences in natural sciences and technologies, information and digital literacy, ability to study during life-time, social and civic competences, entrepreneurship, general cultural and ecological literacy and health life.

Academic skills, including analysis and problem solving skills, allow students to engage with content knowledge at higher levels of cognition. Non-cognitive skills, including study skills, time management, and self-management, assist students in optimizing their ability to gain content knowledge and use their academic skills to solve problems. Students who have these skills have high quality academic behaviors, characterized by a pursuit of academic goals despite any setbacks. [1]

STEM-concept envisages reinforcement of technical subjects with humanities, that is, combination of essentially technical STEM-concept with creative aspect of personality development. Introduction of STEM-technologies envisages the integrated approach to education, combination of content of different subjects. Integrated education uses the new concept of education in such a way for the students could see connection between different subjects and could realize the obtained knowledge and practically apply those skills in life.
The training lessons presuppose the transition of the theoretical knowledge of business communication in English, which the members of the group have got, into practical skills in the process of business interaction. The main methodological way of the given training lessons is the image-bearing role play modeling of the situations, dealt with the problem of hiring, and, on these principles awareness of their real motives and the chosen strategy of behavior. [3, p.96]

The new STEM-approach stimulates innovative activity as it helps put in order the creative processes which are behind the innovative leaps. Interactive education in the form of research has got advantages in comparison with the traditional model of knowledge transmission by the teacher to the student. STEM-concept means that the subjects are absorbed in connection with experience of the real world. The learning process comes close to the requirements of modern economy, which include the skills to launch innovative and competitive products on the market quickly.

Each student faces a lot of requirements at the modern stage of society’s development. To adapt rapidly in society and be competitive, it is necessary to be a competent personality in different spheres. Development of key competences, such as poly-cultural competence, readiness for conscious and responsible choice, technological, informative, social, communicative competences, and readiness for self-study, is necessary condition for personality’s development in the modern world. [4, p.3]

STEM-technology facilitates the development of the important features and skills – complex understanding of problems, creative thinking, engineering approach, critical thinking, applying scientific method and understanding the fundamentals of design basis.

STEM-learning is traditionally defined as the accumulation of relevant knowledge and processes of science. Learning supports are critically important for acquiring STEM knowledge because learning opportunities alone are not sufficient as demonstrated by students who attend science class but fail to learn relevant context. [5]

STEM-education is education which integrally ensures cognitive slant of the student’s personality, forms creative and mental activity of the students and creates conditions for realization of the personal opportunities and self-development. Thus, acquisition of integrated knowledge has become the urgent task of the learning process not less important than acquisition of knowledge in the sphere of scientific sciences.

Self-awareness is the main component of emotional intelligence. An individual with a high level of self-awareness knows his/her own strengths and weaknesses and can be aware of his own emotions, needs and motives. Self-control gives people an opportunity to control
themselves, be able to cope with their own emotions and direct them into a useful channel. [4, p.3]

New methodological approaches do not limit creative initiative of teachers while choosing learning content and its division according to the needs, development and proficiency of students, and they also envisage the following:
- principally new formation of goals and change of emphasis from narrow-subject into common didactic ones in educational activity;
- renovation of structure and content of the student courses;
- definition and assessment of the learning outcomes through the key and subject competences of students;
- implementation of comprehensive education, competence-oriented forms and methods of learning;
- implementation of innovative technologies of learning and interactive methods of cooperative learning;
- creation of conditions for obtaining effective individual experience in project activity and development of startups and business plans.

To create steady educational motives it is necessary to stress practical significance of knowledge for further life, create educational problem situations highlighting significance of the obtained knowledge for development of logic and abstract thinking ability to self-analysis. [6, p.359]

One of the forms of STEM-education are the lessons aimed at establishment of interdisciplinary relationships and which promote formation of students’ integral and consistent world outlook, updating of personal attitude to the issues which are studied at the lessons. It is possible to give such lessons by the method of combination of the same topics of several student courses. It is necessary to vary the ways of training cooperation to engage students into practical activity and to give opportunity to adopt the learning material and to form competences during different competitions, conferences and practical exercise lessons. At the same time, to form and control the subject knowledge and skills, the teacher should be supported by the system of integrated tasks modeled from the real-life situations.

Motives can be different but they appear only in the process of complex inner psychological activity of a student himself/herself and a teacher can influence only formation of student’s motivations (interests, moral standards, lifestyle principles) which will be used to form motives. [7, p. 50]

Effectiveness of the STEM-lesson depends on a variety of reasons, because that is a complicated psychological and pedagogical system. During the STEM-lessons the following kinds of educational activity are realized:
open-type tasks from different spheres of knowledge aimed at the search of solutions, using all possible ways to obtain the necessary information;
- setting of a problem;
- transition from practical and specific tasks to the abstract notions;
- discussion of solutions of the global issues of economy, ecology, engineering, management, IT-technologies, etc.;
- setting of task of project management individually;
- opportunity to create the research individually;
- organizing of the team work to develop the skills of mutual understanding.

The positive moments of the STEM-lessons are the following ones:
- the lessons allow to activate the cognitive work of students and to increase the tendency to synthesize knowledge;
- integrative cognitive knowledge help find out and develop the interests of students and that thing is the important moment in learning process;
- students get more sharp and vivid concept about the world views, because students connect knowledge in different subjects by general topic, general tasks and consider that connection in life on the specific examples;
- in the process of learning the English language for professional activity students really and slantingly face a lot of occupations (history and archeology, philosophy, cultural studies, philology, economy, political studies, law, biology, ecology, computer science, tourism, management, foreign affairs etc.). Learning of those occupations with the help of the English language of professional direction helps students to up-skill knowledge in future professional career and adapt socially.

The important role in increasing the efficiency of the STEM-lesson is connected with the following conditions:
- correct identification of the object of study, careful choice of the content of the lesson;
- incorporation of self-education of students into the learning process;
- usage of methods of problem-based learning, to activate the mental activity of students at all stages of the STEM-lesson;
- well- thought-out combination of individual and cooperative methods of learning.

It is necessary to mention that the idea of the usage of methods of comprehensive development in the sphere of education includes PBL-method as well. That method is similar to STEM learning in that sense
that in both methods the attempts are made to combine different disciplines in learning of the topics.

Problem-based learning promotes students’ confidence in their problem solving skills and strives to make them self-directed learners. These skills can put problem-based learning students at an advantage in future courses and in their careers. Technology of problem-based learning facilitates not only opportunity to obtain the necessary system of knowledge, abilities and skills, but to achieve the high level of their intellectual development, to form ability for independent mastering knowledge by the students by the way of their own creative activity, to develop interest to educational work, and to ensure substantial results of learning. [8, p.12-13]

With the aim to improve the quality of the STEM-lesson and to increase the level of knowledge of students it is necessary to follow the necessary rules, including:
- to use the new achievements in science;
- the information in the lesson must correspond to the ideal proportion of all didactic principles and rules;
- to provide the necessary conditions for productive cognitive activity of students, taking into consideration their interests, abilities and needs;
- to make connection with the earlier obtained knowledge and skills being supported by the achieved level of the students’ development;
- to motivate and activate development of all spheres of personality;
- to stick to the logic nature and emotional intensity of all the stages of the teaching and educational activity;
- to set the relationships with life and personal experience of students;
- to form practically necessary knowledge, skills and know-how, using rational methods of thinking and activity;
- to form the ability to study and the necessity to update knowledge constantly.

We focus on for learning supports for knowledge acquisition. Interest refers to attention to content over time. Engagement is involvement or participation in content, which results in positive emotional reactions. Identity is recognition by a student and others that he/she can contribute to a STEM field. Goal-setting is a central component of information-processing models of self-regulated learning. [5]

The effective way to form competences is the project activity. Project implementation envisages the integrated research and creative activity of students, which is aimed at obtaining the self-sufficient results under the guidance of a teacher. STEM-project is the way to achieve the
goal through the detailed development of the problem which is finished with the real practical result. A teacher guides a project and stimulates the students to the research activity, helps to set the goal and tasks of the project, to choose methods and techniques of the research activity and to search information to solve some certain learning and cognitive tasks. Students choose the form of presentation and defense of the obtained results individually.

Realization of STEM-project promotes formation of social competences allow to go through the technological algorithm from identification of problem and birth of an idea to creation of the product – startup – and also to learn to present it. Competitiveness in the labor market requires to intensify the students’ training in subjects and technical creativity, to master both knowledge in the frameworks of a number of subjects and skills in the usage of interdisciplinary approaches in solution of practical tasks (for example, in electrical engineering, IT-technologies, energy-saving technologies, biomechanics, robotics technology and intelligence systems, radio engineering and electronics, marketing, management, 3D modeling etc.).

The usage of qualitative educational Internet resources creates positive motivation for mastering STEM-education by the students and also promotes the cooperative learning activity. We stimulate students to do researches and teach them to draw conclusions. We use different types of creative projects in educational process, including:

- group project which is a joint educational and cognitive, research and creative activity of students, having common problem, goal, adjusted methods and ways of problem solution, aimed at achievement of the joint result;
- individual project which is a creative project carried out by one student under the guidance of a teacher;
- research project which is completely complied with the logic of research and it has got the structure of the real scientific research. This type of project presupposes reasoning of the applicability of the chosen theme of research, formulation of problem of research, the subject and object of research, the tasks of research in the sequence of the chosen logic, choosing methods of research, hypothesizing of solution of the defined problem, development of the ways of problem solution, discussion of the obtained results and conclusions;
- informative project is dealt with searching for information, concerning some issues. The students are assumed to become acquainted with information, to analyze and generalize facts. Such projects as well as research ones, require well-thought-out structure. Those projects are often integrated with the research ones and become their part and parcel and a module;
- practice-oriented project – it is the project aimed at solution of some problem of the applicable nature;
- creative project – it is the project with the creative product in center, the result of realization of personal fulfillment of the participants of the project group. It is necessary to stress that realization of the intellectual part of the project at the level of ideas, inventions, and drawings in English is very productive one.

The results of the projects can be a joint newspaper, a magazine, an article, a report, a business plan, an advertisement, a web-sight, data base, computer tests, computer programmed textbook (a very successful one “International Management” was developed and successfully applied for the distance learning of the students in NTU) and presentation. A presentation demonstrates and supports knowledge gained by the students and skills obtained in the process of doing the project. At the stage of presentation of the project the student has an opportunity to present the idea, methods and techniques of carrying out the work and the product of his/her project.

Successfully teaching presentation skills, an important arrow in the quiver of successful business and professional persons, challenges us to promote student development that will benefit them once they enter the workplace. [9, p.73]

During their presentations students tell about their project with interest, they organize their speech as a conversation, answer questions, use interesting facts to surprise the audience, try to do their presentations brief but informative and memorable. Visual aids in the form of fliers, cards on which students present the main points of presentation, demonstration of video sequence, presentation in PowerPoint are widely used. The students may also use the alternative form of presentation on posters to convey the main points of project activity and that allows demonstrate necessary information to every listener in the visual and synchronous way. To create presentations of that way students use colorful stickers, felt-tip pens, photographs and scraps from newspapers and magazines.

**Results**

All 315 students of different specialties, engaged in project activity, during the research period of three years successfully defended their projects in the English language. 76% of students have got excellent marks and 24% have got good marks.

The results of a lot of research prove that professional success in major kinds of activities is determined by the level of emotional intelligence. Those people having high level of emotional intelligence are able to use their abilities more effectively. Coordinated interaction of emotions and intelligence ensures an individual’s success in the most number of life spheres and activities. [4, p.3]
STEM education sets tasks of integration of sciences during the process of learning before the English language teacher. Integrated lessons facilitate the awareness and search of cause-and-effect relationships, development of logical thinking and communicative skills. One of the main tasks, that the teacher has to solve is organization and support of goal-directed cognitive activity of students and formation of research skills. STEM education helps to develop creative thinking, skills of engineering approach in solution of real-life tasks.

The main goal of scientifically-oriented education of student is creation of the education system on the basis of competence-based approach oriented on the self-realization of the personality of the young researcher. Using elements of STEM-technology a teacher creates for a student such opportunities which give them ability to be more active and interested in their own education. STEM-technology requires students to have a lot of abilities to critical thinking, ability to work both in a team and individually. STEM education with the help of practical lessons demonstrates the opportunity for the students to use scientific and technical knowledge in the real life. At the STEM lesson students plan and design models of the modern industry, create projects, propose their own models, draw conclusions and connect them with the real-life situations and their own experience. The more students are engaged in practical training, the more they develop their own skills. STEM lessons give opportunity not only to learn theoretical material, but confirm knowledge with the help of practical use of different tasks, which can be so interesting that their complexity will not indispose students.

The new material has to wake up emotions and desire to study English language, that is, to be emotionally active. Emotions play important role in formation of cognitive activity, interest to the sciences, needs in self-study. Emotions show which direction the subject or phenomenon is in concerning the needs and interests of a student, urge a student to the activity and strengthen mental processes. This is a factor of formation of cognitive activity, interest to English language. [6, p.360]

Conclusion
The students studying professionally-oriented English language using STEM technology learn and master modern knowledge with high level of independence and in a team.

The students
- effectively come in contacts and support communication in situations typical for everyday life and their future professional activity, using language skills and strategies according to the special situation;
- effectively give presentations and make mini-reports at the practical STEM lessons and conferences;
- highlight the results of their research and studies;
- do effective self-assessment;
- effectively communicate on professional topics and document their work;
- give and receive clear instructions;
- carry on and support conversation connected with their education and future profession;
- use special definitions and can communicate in English;
- they behave adequately in typical situations for educational and professional environment using the related regulations of cooperation between people in typical situations.

Thus, one of the main tasks of modern education is creation of conditions for comprehensive development of the future generation to ensure acquisition and development of intelligence, creative thinking, self-consciousness and analytical skills, taking into consideration the abilities of every student.

Application of STEM technology promotes development of skills of critical thinking and cognitive interests of students, develops imagination and creativity and develops ability quickly analyze situation. The teacher must create comfortable conditions for learning, under which a student will feel his/her intellectual progress, and that will make productive the educational process itself.

References:


SOCIOMETRY OF CULTURE

Krshunova O.N., Salimgareev M.V., Polivanov Y.M.

UNIVERSITY IN THE CONTEXT OF SOCIAL CONVENTIONS

Krshunova O.N. PhD in History, Professor, Kazan State Technological University
Salimgareev M.V. PhD in History, Associate Professor, Kazan State Technological University
Polivanov Y.M. PhD in History, Associate Professor, Kazan State Technological University

Abstract

In this article, the authors consider the university in the context of globalization. The initial thesis is the approval of the humanitarian paradigm of education. An attempt is made to trace the evolution of the university as an institution. The view on the inconsistency of the detected cognitive leaps is substantiated. New trajectories of social systems are considered. The significance of the local contours of educational models is affirmed. The authors believe that the orientation toward progress in education is a systemic sign uniting the planet. Without integration in education, there are no growth prospects. It is concluded that the experience of the past does not always act as a guarantor of progress.

Keywords: globalization, university, education, progress, social systems, transformation

In the context of modern trends, which are often filled with false landmarks and feck meanings, the university, as part of the social system, is going through crisis times corresponding to the century. Education to a rising degree determines "The possibility of the survival of man and of the human race"[1].

At the same time, among other global problems, in the context of globalization transformations, the university, as part of the social system, is going through deep changes which are actualize the hidden aspects of humanitarian problems.
Some of these problems, we will find out in this research. But we will do it on the basis that the simple reproduction of the “paradigms” of old thinkers and practices is not enough for the quintessence of the process of broadcasts knowledge and experience at the level of layers of societies (provided that the statement about the inevitability of the element of conservatism of the nature of education is correct)…

Education in its conceptual and meaningful forms has always been a social institution aimed at reproduction. Because it is his nature as a process of translating experience between subjects of social action into the future. Note that the communication duality is embedded in the node of social interactions. And it is inevitable as the transfer of knowledge from more experienced generations to others, potentially more equipped and adaptive. And this process is seen as a systemic element in the mechanism of reproduction of any social structures. Historically, it is realized in specific contours generated by cognitive leaps. And they, which is important, are due to the adaptation of the social system to the complicated sociocultural, political and economic situation. The maximum of direct connection between the level and types of the education system is closely intertwined with the phenomenon of freedom. The thought of the university with its rationalism and freedom from church and secular authorities constituted the backbone of the system of national statehood in Europe. This happened when thinkers gave impulses and generated ideas and discoveries of planetary significance. However, this process was accompanied by a gradual loss of freedom by a university corporation. State control was inevitable. Especially in the context of constant European wars, when the role of political and military organization was constantly increasing [2]. But the university, as an institution that “formats brains,” founded the structure of industrialism and technological explosion that we have been observing over the past centuries. Of course, the University played a special role on the eastern periphery of Europe too [3].

The mid-19th century became a very important milestone for education in Europe. At that time, some revolutions could be observed in this area. And as a result of these events, a system of universal compulsory education was born. Of course, this system was equipped with all the growth trends of educational standards, with the designation of higher education and the design of its avant-garde - a university corporation. The growing role of the university as a sociocultural space and its mission were the result of explosive technical and scientific progress. Conventionally, a university corporation is aggressively promoting the idea of sustained development. And, interestingly, it lays the basis for political, economic and cultural practices of modernity.

The idea of progress can be called "long-suffering." From the 18th century, the idea of progress was understood by European
intellectuals as the law of social development. Naturally, this idea was actively spreading and expanding. And in the future, it gave impetus to various social concepts, including Marxism and positivism. The setting to progressive movement actively influenced the socio-political and economic atmosphere of the 20th century. And gradually, the conventional setting to progress begins to be “objectified” through the processes of modernization and globalization.

It can be assumed that orientation toward progression is rational for many advanced countries of the world, because it expresses the essence of the social reality of human civilization. The great minds of the human race have grown on faith in progress. Belief in progress, with all its contradictions and its connection with regression, today is the moving force of the secular concepts of globalism. But, this aspect is debatable. We can only assume that due to the permanent tendency to reproduce, the social system complicates its structure. But she also seeks to reduce resistance to increased risks.

A new era of informatization and the use of "soft technologies" have shown new orbits of the trajectory of the university component of social systems in connection with the tasks of managerial culture. It is very important to note that the level of management culture, the degree of readiness for innovation, social orientation and responsibility of the managerial elite are turning into a condition of progressive movement and response to requests of the 21st century. The intellectual elite today is called upon to formulate answers to the challenges of our time. Elite training, of course, is a strategically important function of universities. First of all, elite universities. Because civilizations need a new generation of leaders who are ready to rule the world in a situation of overlapping types of crisis [4].

In the era of globalization and informatization, universities should become the leading engine, motor and the intellectual center in state governance. It is also axiomatic that universities are necessary links in integration into the global educational system. It is important that, the strategic importance of the university system is determined by the scientific potential of the country's leading universities in the regions of Russia. Tatarstan University Corporation and its elite are interested in defining regional identity, the timeless significance of local cultures. This is understandable from such a characteristic of a classical university as the combination of universalism and the presence of differences [5]. Each new generation explicitly or implicitly seeks to adapt to the complex and extremely formalized rules of the game in a modern way. And they use previous experience. However, even today, the experience of the past is not always a guarantee of movement to qualitatively higher levels. Two educational strategies follow from this, which can be arbitrarily designated as conservative and liberal. The first is related to the
strengthening of the role of the state. And, as a result, the bureaucratization of the system of social adaptation. The second brings us back to the practices of “nomadic” universities. The latest trend is very significant. It shows the aspiration of social communities for globalization without the interests of transnational corporations and states [6].

References:
CULTURAL STUDIES

Sonina E.S.

WILLIAM SHAKESPEARE IN INTERNATIONAL BOARD GAMES

Elena S. Sonina, Russian Federation, Saint Petersburg State University, Associate Professor

Abstract

The paper presents findings of the geographical, quantitative, and thematic analysis of 55 identified board games on William Shakespeare produced in nine countries of America, Europe, and Asia.

Keywords: William Shakespeare, literature board game, USA, UK, Russia, Germany, France, Austria, Czech Republic, Brazil, Japan

Introduction

Literature board games have had a long tradition: for instance, as early as in the middle 17th century, Jean Desmarets and Stefano Della Bella produced playing cards on ancient myths. [1] Producers of such board games most often turned to national canonical writers, but in terms of the developed game market, they do not also forget today’s writers. Great William Shakespeare is a foundation of the Western literature in general, “Shakespeare is the Canon. He established the standard and limits of literature.”[2] He plays the same role for the world literature, as A.S. Pushkin for the Russian one. In my research, I have identified about 180 Russian board games on works by Pushkin. [3] Now we will turn our attention to the global heritage and see which countries more often turn to the figure of Shakespeare in their game practices.

Having reviewed public and private Internet sources on board games, collecting, and antiques, the collection of the National Library of Russia and private collection of the author, we identified 55 games on W. Shakespeare. Such an insignificant number of the discovered games is due to difficulties in an access of the Russian author to foreign works and for sure we cannot consider this number final.
Table 1

<table>
<thead>
<tr>
<th>Manufacturing country of the game</th>
<th>Number of produced games on Shakespeare</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>15</td>
</tr>
<tr>
<td>Great Britain</td>
<td>12</td>
</tr>
<tr>
<td>Russia</td>
<td>12</td>
</tr>
<tr>
<td>Germany</td>
<td>7</td>
</tr>
<tr>
<td>France</td>
<td>3</td>
</tr>
<tr>
<td>Austria</td>
<td>2</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2</td>
</tr>
<tr>
<td>Brazil</td>
<td>1</td>
</tr>
<tr>
<td>Japan</td>
<td>1</td>
</tr>
</tbody>
</table>

Shakespeare study games in the United States of America appeared in 1861, when Shakespeare’s works appeared among the card sets of games called The Game of Authors. [4] This old game had a plenty of name variations. The name literary quartet is the most often. Players are expected to collect as many cards with texts of the same author as possible. For example, The Shakespeare Game (1900) has scenes from plays printed on 52 cards. The literary quartet is a game variant. [5] In the USA game of 1966, The Game of Shakespeare, based on the goose principle, players move miniature busts of the play writer and reach a finish line (the Globe Theatre) Fig. 1. In training game The Play's the Thing (1993), there is the reconstruction of the Globe Theatre where players act as authors and actors. Next year, in Minneapolis, poet Dave Capell produced the Magnetic Poetry, set of 200 words taken from Shakespeare's poetry and glued to magnets. [6] The USA games of 2000-ies had colourful execution in genres of war game (the Virgin Queen, 2012), semi-cooperative game (Kill Shakespeare, 2014), card filler (Bards Dispense Profanity: A Party Game Based on the Works of William Shakespeare, 2016), solo strategy Black Sonata, 2017), etc. There are supplements to games in a form of promo cards that double powers of characters (the Shakespeare: Prospero, 2015). Players can play a role of Juliet in the funny filler Where Are You, Romeo? (2013), come up with an end of quotes from Shakespeare in the Fakespeare (2015) and reflect on death secrets in Great Shakespearean Deaths: Card Game (2016). Moreover, there is also a card party where a player is an actor of the Globe Theatre, a premiere is about to take place and play writer Shakespeare is not alive: Bill Shakespeare Is Dead (2015). Some games might last for over eight hours, the life of the great play writer is presented as either a genuine script, or pursuit of mythological characters.
The games made in England are no less colourful and elaborated. At the late 19th century, English artist John Henry Frederick Bacon made a card deck on Shakespeare’s works. The deck was produced by London-based C.W. Faulkner & Co in 1895 and had many reprints later in Germany and other countries. [7] Traditions were continued in the early twentieth century: two decks of cards with Shakespeare’s characters were published in London (Shakespeare Playing Cards, 1902; Shakespeare-Spielkarte, 1906). [8] One can get acquainted with the playwright’s biography, his 37 comedies and tragedies while playing the game called Playing Shakespeare (1990) Fig. 2. The wheel of Shakespeare’s plays was created with the participation of the Royal Shakespeare Company. [9]

While playing the Shakespeare: The Bard Game (2004), one can turn into a theatre manager buying up Shakespeare’s plays. While playing fun filler the Classic Dinner Party: Dine with William Shakespeare and Anne Hathaway (2004) one can participate in a Victorian-style party. In the BrainBox Shakespeare players own a magic box with illustrations from seven plays of the playwright. In his homeland, a series of card games was produced that is a parody for board role playing games: Munchkin Shakespeare Kill-O-Meter (2009), Munchkin Shakespeare: Limited Engagement, Munchkin Shakespeare: Drama Dice, Munchkin Shakespeare: Staged Demo (2017), etc.

Non-monographical nature is typical for Shakespeare games produced in Russian. Mainly, they only mention Shakespeare among other great writers. Russian games cannot boast of colours, detailed mechanics, and pictorial accessories typical for the western board games. These trends have been alive since the introduction of table printed games in Russia, “carton games were imported in large boxes full of games from England at the request of Russian noblemen. English games always had a high printing culture. Nevertheless, Germany and France were main suppliers of cardboard games to Russia (owing to cheaper price and availability).”[10]

Of 12 games produced in Russia, only two are entirely on Shakespeare (both - Romeo and Juliet). Puzzles of 1900 were in the collection of the heir to the Russian throne, and therefore the State Hermitage Museum now keeps them. They look like hundreds of “curly pieces of thin plywood, the front surface of which is covered with glued coloured chromolithography sheets.” [11] The second game is the playing card role game Intrigues of Verona (2015) Fig. 3. It is indeed a Russian reprint of the game produced by USA publishing house Crash of Games. [12]

There are three national literature quartets that recall Shakespeare. The pre-revolution quartet cited 120 names of writers from England, Germany, Greece, Spain, Italy, Portugal, Russia, and France [13]. In the Soviet World’s Quartet, there were 32 cards showing portraits
and works of writers from England, Germany, Spain, Italy, Russia, the Scandinavian countries, the USA and France. [14] In the today’s quartet, publishers limited themselves to 28 authors. [15] Other Russian games are game strategy *Sid Meier’s Civilization: Glory and Fortune* (2011, reprinted Czech game), card games *Captain Obvious* (2016), *Quest History* (2018), filler *Movie Book Crocodile* (2014) and comic literary quizzes *I cannot wait to be deceived!, Cipollino from Bergamo* (2016), where Shakespeare gets only one question. In quiz *Biblio* (2016), 14 questions are on Shakespeare out of 1,800. [16]

Germany was the first to refer to the legacy of the English play writer in a game form: in 1785, in Hamburg, they produced the deck of cards with Hamlet, Ophelia, Macbeth, and King Lear. [17] One of the decks is now kept by the *Peterhof Museum of Playing Cards*. German publishers saved traditions of card games in various forms: literary quartet *Unsterbliche Dichter* (1954) Fig. 4, still well-known type of memory *Shakespeare Memo Game* (1959), pocket quiz *Pocket Quiz: Shakespeare* (2010), movie guessing game *Shakespeare-Quiz* (2011), and fun *Munchkin Shakespeare Deluxe* (2017).

The French produced the large strategy game *Shakespeare* (2015) and the supplement to it *Shakespeare: Backstage* (2016) Fig. 5. Six players (agents of London theatres) compete for the right to stage a performance with royal support. The game assumes engagement of actors and general workers, costume sewing and rehearsals, secret bets and a colour of the scenery. [18] The French card puzzle *T.I.M.E. Stories* (2015) outgames a detective story with the allegedly non-existent person named William Shakespeare. [19]

Austrian collectable cards are world famous. Let us refer to two decks: *Shakespeare Cards* of 1967 and 1975, designed by British actor Donald Burton. [20]

The Czech strategy game *Through the Ages: the New History of Civilization* (2015) includes excellent gameplay and setting, making it, as authors of the guide on the world’s board games think, one of the most common board entertainments of our time Fig. 6. [21] On the game box, there is Shakespeare along with other leading figures, such as Nero, Napoleon, and Einstein.

In the Brazilian card game *Shakespeare: Sonhos de um bardo* Fig. 7, players are expected to play as many Shakespearean characters as possible in five rounds allocated, while in Japanese *Shakespeare CARDUTA* cards (2007) based on an old national game, players need to insert a half of quotes from Shakespeare’s comedies and tragedies Fig. 8.

**Conclusion:**

In the search for board games on the great play writer, we saw electronic American, English, Russian games, etc. [22, 23], but this is a subject for another paper. In general, we may conclude that in table-based
Shakespeare studies that have invaded the world, card games prevail. They are designed for fun pastime and do not require in-depth knowledge of literature and literature studies from players. There are the most common objectives of game designers in various countries, such as involvement in reading through a game, getting people closer to works of the great Englishman, making readers got high on the mysterious world of the bygone era, and giving an opportunity to feel oneself in the streets of 16th-17th century-London.

References:
[8] Have I not here the best cards for the game, to win this easy match play’d for a crown? [Online]. Available at: https://www.russcards.com/shakespeare
[17] Take your Ophelia with my Hamlet. [Online]. Available at: https://babs71.livejournal.com/441858.html


Figures:

Fig. 1. The Game of Shakespeare. USA.
Fig. 2. Playing Shakespeare. Great Britain.
Fig. 3. Intrigues of Verona. Russia.
Fig. 4. Unsterbliche dichter. Germany.
Fig. 5. Shakespeare. France.
Fig. 6. Through the Ages: the New History of Civilization. Check Republic.
Fig. 7. Shakespeare: Sonhos de um bardo. Brazil.
Fig. 8. Shakespeare CARDUTA. Japan.
Education Transformation Issues

#3, 2019

The collection includes 9th the International Scientific-Practical Conference “Education Transformation Issues” by SCIEURO in London 27-29 December 2019

© SCIEURO