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UDC (651.34)

Model of Dynamic Management of Telecommunication and Computer Resources

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Abstract
The document identified the problem and developed a model of the dynamic management of telecommunication and computer resources. The present level of development of information and telecommunication technologies, the improvement of communication and their integration into the high-performance human-machine systems administration cause the creation of a single information and telecommunication space of mobile units. The work is devoted to consideration of bases of research of a set of tasks of tactical management of information security. Presents direct and inverse problems and solution methods.
Keywords: management of telecommunications and computing resources, mathematical model, optimization, the volume of tasks, the distribution plan telecommunications, the direct problem, inverse problem, dynamic programming, objects of application, information packages.

Introduction
The present level of development of information and telecommunication technologies, the improvement of communication and their integration into the high-performance human-machine systems administration cause the creation of a single information and telecommunication space of mobile units (air, water, rail and road). In these circumstances, particularly relevant get management tasks information and computer resources that can provide the optimal distribution of computing and telecommunications facilities in use.

Materials and Methods

This problem belongs to the main tasks of tactical management use of computer systems (marketing objectives). Each resource telecommunications should be appropriate divided between "real use" on the criterion of a minimum delivery time information packets.

Overall, the model can be represented as follows:

The volume problems for directions tons connection –

$$V = \left\langle v_j, j = \overline{1, n} \right\rangle. \tag{1}$$

Specific problems for volume 1 resource unit (r.u) product i ($i = \overline{1, m}$) and the second types j ($j = \overline{1, n}$) direction –

$$A = \left\| a_{ij} \right\|_{m \times n}; \tag{2}$$

unit costs (monetary units - th) performed on one task r.u i - th and second means for the j-th direction -–

$$C = \left\| c_{ij} \right\|_{m \times n}. \tag{3}$$

Telecommunications distribution plan is the matrix –

$$X = \left\| x_{ij} \right\|_{m \times n}, \tag{4}$$

where x_{ij} - the number of problems and of type intended for the j-th direction.

There was a next (inverse) problem of optimal distribution of diverse products - on the set of allocation plans $\{X\}$, each of which X satisfies the restrictions on the right traffic information –

$$\sum_{i=1}^{m} a_{ij} x_{ij} \geq v_j, j = \overline{1, n}, \tag{5}$$

find an optimal plan

$$X^O = \left\| x_{ij}^o \right\|_{m \times n}, \tag{6}$$

which minimizes the total cost of solving

$$CS(X^O) = \min_{\{X\}} CS(X) = \sum_{j=1}^{n} \sum_{i=1}^{m} c_{ij} x_{ij}^o. \tag{7}$$

This requires telecommunications will park –

$$\sum_{j=1}^{n} x_{ij} = B_i, i = \overline{1, m}. \tag{8}$$

If an existing park telecommunications is a vector –

$$B = \left\langle b_i, i = \overline{1, m} \right\rangle, \tag{9}$$

there is a "direct" problem of optimal distribution of different types of telecommunications - plans for distribution on the set $\{X\}$, each of which satisfies the X limit –

$$\sum_{j=1}^{n} x_{ij} \leq b_i, i = \overline{1, m}, \tag{10}$$

find an (optimal) plan

$$X^O = \left\| x_{ij}^o \right\|_{m \times n}, \tag{11}$$

which maximizing the total volume of tasks

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$$VS(X^O) = \max_{\{X\}} VS(X) = \sum_{j=1}^{n} \sum_{i=1}^{m} a_{ij} x_{ij}^O. \tag{12}$$

This volume telecommunications up –

$$\sum_{i=1}^{m} a_{ij} x_{ij} = V_j, i = \overline{1,n}. \tag{13}$$

Previously, it was found that the nature of production functions "effect-cost" is determined not only by the number of means (main resource) and their group performance (convex functions), and sometimes uncontrollable factors (dependence of demand on the number of vehicles) that make tool "not convex ". That is what defines a formal statement of the problem of distribution and selection of suitable mathematical programming methods for their correct solution [1-15].

Suppose there are n objects of this class resource use telecommunications to the "production" functions (cost-effect), which is the "logistics" and because they "do not bulge," Transcendence or uneven discrete set of statistical argument set pairs "argument function" with interpolation, such as "splines" [2].

The method of regression analysis or "trend" every logistics function is a polynomial of 3rd degree - the calculation formula for calculating its values at discrete (integer) argument. As a result of the application of the system of objects can be done to a table of values logistic functions for integer values of the argument –

| | *Wj (k) =* | | | | (14) |

	Wi	..	*Wj*	..	*Wn*
x=i	*wi(i)*	..	*wj(i)*	..	*wn(i)*
...	...	..	...	..	...
x=k	*wi(k)*	..	*wj(k)*	..	*wn(k)*
...	...	..	...	..	...
x=xmax	*wi(xmax)*	..	*wj(xmax)*	..	*wn(xmax)*

This is obviously the maximum number of resource units that can be distributed in the system object is –

$$NS_{\max} = n \times x_{\max}, \tag{15}$$

and the maximum overall effect will be –

$$WS_{\max} = \sum_{j=1}^{n} w_j(x_{\max j}). \tag{16}$$

Valid allocation plan means the objects are the vector –

$$X(NS) = \left\langle x_j, j = \overline{1,n} \right\rangle, \tag{17}$$

for which each component is within the convoy –

$$(0 \le x_j \le x_{\max j}), j = \overline{1,n}, \sum_{j=1}^{n} x_j = NS, (0 \le NS \le NS_{\max}), \tag{18}$$

and systemic effect in this regard is provided "separable" (which is additive) effects of partial function –

$$WS\{X(NS)\} = \sum_{j=1}^{n} w_j(x_j). \tag{19}$$

Exhaustive set of feasible allocation plans *{X}* gives a certain area on the coordinate plane *WoN*, and each *X* correspond to the distribution plan, as it coordinates expenses *NS (X)* and the effect of *WS (X)*.

But only plans that form a "top left" border region of feasible solutions, is the set of optimal solutions - Pareto *{Xo}*. Indeed, among the solutions that the "equivalent" to the *X* on the effect of *WS (X)* (horizontal dotted line), the best is a decision that belongs to the "left" landmark region *{X}*, because requires minimal compared with *NS (X)*, costs among the solutions that the "equivalent" to the *X* expenditure *NS (X)* (vertical dotted line), the best is a decision that belongs to the "top" landmark region *{X}*, for giving the maximum, compared to *WS (Xo)*, effect.

Analysis of typical graphics Pareto function *{X}* [3] (the set of optimal solutions that forms a continuous curve red in Fig. 1) shows that the optimal allocation of resources («point» *Xo*) is almost enough ("core") systemic effect –

$$WS(X^O) \approx (0.75 \div 0.85) \times WS_{\max} \qquad (20)$$

achieved relatively minor (partial) cost –

$$NS(X^O) \approx (0.35 \div 0.45) \times NS_{\max}, \qquad (21)$$

and further increase system costs only leads to a significant reduction in their "group" because of falling productivity growth systemic effect.

This means that the "primary" task of optimal distribution means the objects are "inverse" problem - on the set *{X}* general-numerical allocation plans, each of which meets the required level restriction effect

$$WS(X) = \sum_{j=1}^{n} w_j(x_j) \geq WS^{nomp}, \qquad (22)$$

find an (optimal) plan – vector

$$X^O = \left\langle x_j^O, j = \overline{1,n} \right\rangle, \qquad (23)$$

which minimizes the total cost of the resource –

$$NS(X^O) = \min_{\{X\}} NS(X) = \sum_{j=1}^{n} x_j^O. \qquad (24)$$

If necessary, "concessions" may be decided to limit the secondary "direct" problem of optimal allocation of means on objects - on the set *{X}* general-numerical allocation plans, each of which meets the permissible limits on resource costs.

$$NS(X) = \sum_{j=1}^{n} (x_j) \leq NS^{npun}, \qquad (25)$$

find an (optimal) plan – vector

$$X^O = \left\langle x_j^O, j = \overline{1,n} \right\rangle, \qquad (26)$$

maximizing the overall effect –

$$WS(X^O) = \max_{\{X\}} WS(X) = \sum_{j=1}^{n} w_j(x_j^O). \qquad (27)$$

All of this – the dynamic programming problem solved adapted (minimized to providing solutions to problems of resource distribution) by "pyramidal Tables" [1-15].

The procedure is dynamic programming successive stages of conditional and unconditional optimization. Step conditional optimization is to determine the potential of all the "states" and relevant to them conventional stepper optimal resource allocation plans

$$R_i^O(k) = \left\langle r_i^0, (k - r_i^O) \right\rangle, i = \overline{(m-1),1}$$

for each object, starting from the last T1 Those finishing first, with recurrent expression - functional Bellman [1-2] to additive effect –

$$W_i(k_i, r_i^O(k_i)) = \max_{\substack{r_i = 0, k_i}} \left\{ w_i(r_i) + W_{i+1}(k_i - r_i) \right\}, \quad i = \overline{(m-1)},$$

$$k_i = \overline{0, N_i}$$

где   (28)

$$N_i = r\max_i + N_{i+1} = r\max_i + (r\max_{i+1} + \ldots + r\max_n), \quad i = \overline{(m-1)}.$$

Graphical interpretation of the functional Bellman and optimal resource allocation plan stepper given in Fig. 1.

It provided (for ease of understanding) isometric coordinate system to display the tool Bellman {#} in functionality (28).

The first component amounts $w_i(r_i)$ – it is stepping effect and the second object - set the schedule on the "left vertical" coordinate plane; the second component amounts $W_{i+1}(k - r_i)$ – it is the total effect to the objects of the $(i + 1)$ th to m-th (at best "stepper" distribution plan $(k-r_i)$ bus resource) - the flight schedules of the "right vertical" coordinate plane; set $R_i(k) = \langle r_i, (k - r_i) \rangle$ possible plans for the allocation of resources between the i-th object and the rest of the $(i + 1)$, …, m and objects for the first step - direct k, which schedule provided in the horizontal (bottom) coordinate plane. When fingering set allocation plans w, k resource, according to (14), each of which corresponds to the "projection" on axis (r_i), where there is a "stepping" effect (ordinate the arrow), and projection on the axis $(k-r_i)$, in which there is an effect for the rest of the objects $W_{i+1}(k - r_i)$ ordinate which also shows the arrow.
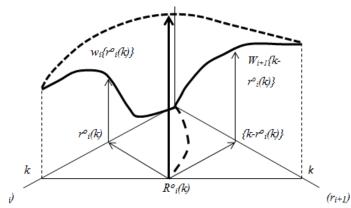
Figure 1. Functional Bellman and optimal resource allocation plans for stepping on and i-step

The amount of data ordinates according compilation in {#} equals applicator $w_i(k)$, which is provided with an arrow "points" $R_i(k)$. Obviously, the set of plans along the line k gives the applicant the set, which are values Bellman functions for allocation plans $\{R_i(k)\}$ and owned a vertical plane, which has a k line its intersection with the horizontal plane. Thus, the set of the function Bellman $(w_i k_i)$ forms a "curve" (shown in bold dotted line), which has a maximum value for optimal distribution plan – the point $R_i^O(k) = \langle r_i^0, (k - r_i^O) \rangle$.

From this value, according to (14), is the "potential" (meaning functional Bellman) for the value of the argument k; enumeration values $k = \overline{0, N_i}$ allows to go all the meaning of "potential" and for the first step - they provided a thick dotted line in the horizontal plane of the coordinate (of

origin). Thus, above the horizontal coordinate plane there is a "two-dimensional" function Bellman, serial section whose vertical plane for variable argument value k determine the appropriate maxima of the features that are functional Bellman values. A look at Fig. 1 "from above" on a horizontal coordinate plane, can interpret two-dimensional "surface" function Bellman over it as its "numerical terrain" of the applicant to the "pyramid" area of the horizontal coordinate plane. As a result, there is a matrix of conditional optimization optimal conventional stepper offices –

$$R^O = \left\| r_{ij}^O \right\|_{M \times N}, \tag{29}$$

and on her Pareto function [1] system for functional objects as one step conditional optimization $W_i\,(k)$.

Step unconstrained optimization is to find the matrix Ro vector unconditional stepper optimal distribution plan offices as $k = N$, m units of resources between objects –

$$R^O(N) = \left\langle r_1^O, \dots, r_i^O, \dots, r_m^O \right\rangle. \tag{30}$$

Suppose you want to find an optimal plan distribution of resources between units N, m objects of their application, which provided the tool "FX expenses" in numerical form –

$$\{w_i(k), k = \overline{0, r_{max}}\}, i = \overline{1, m}. \tag{31}$$

Provide general scheme of procedures for conditional stages (upper band) in absolute (lower band) SE optimization problem (Fig. 2). At each step, using a "pyramid" interpretation coordinate plane bearing numerical terrain features Bellman.
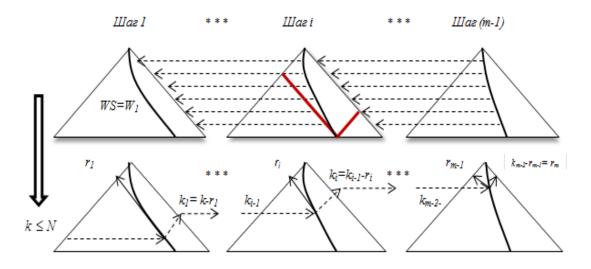
Figure 2. The scheme conditional stages (upper band) in absolute (lower band) optimization problem in SE

Solving problems of resource optimization classical method of dynamic programming, which is globally exact requires, unfortunately, a significant investment of computational resources (RAM and number of transactions ordered busting) for computers. Note that the conditional optimization procedure can be reduced repeatedly ordered bust at each step only values of the argument of the function of each partial effect, which are the coordinate elements when calculating potentials (in Fig.2 for the i-th step shown gray line). Significant reduction of required calculations and computer memory is achieved based on actual values of function arguments "effect-cost" objects. Since the maximum value argument for each partial function is limited –

$$r \max_{j} \le NS, j = \overline{1, m}, \tag{32}$$

the reduction of conditional optimal search area departments on Bellman for all objects in all steps will be (times) –

$$\delta = \left\{ \sum_{j=m-1}^{1} N \cdot (n/2) \right\} \bigg/ \left\{ \sum_{j=m-1}^{1} r\max_j \cdot (N_m - r\max_j) \right\}, \qquad (33)$$

where Nj - accumulated the j-th step the sum of the maximum values of r, equal

$$N_j = r\max_j + N_{j+1}, N_m = r\max_m, j = \overline{(m-1),1}.. \qquad (34)$$

The analysis shows that winning this procedure compared to existing performance and the desired memory appears multiple computers.

Discussion

Thus, the solution to the problem of distribution facilities by means of force application completely defines the number of members on the types of assets that is required for the formation inflicted systemic effect. This - the first stage of determining the basic composition of forces and the forces of application software for the system. The composition of assets derived data to solve the problem further distribution of forces for tasks (events) application process. Solving problems of resource optimization classical method of dynamic programming, which is globally exact, requires, unfortunately, a significant investment of computational resources (memory volume and number of transactions ordered busting) for computers.

References:

1. Dmytryenko V.D. Study stream traffic properties, circulating in networks of computer systems of application to critical time definitions intervals network resource management / V.D. Dmytryenko, M.I. Naumenko, S.G. Semenov // Systems of control, navigation and communication. K.: CRI navigation and control. 2009. Vol. 3 (11). P. 198-201.

2. Semenov S.G. Distribution channel resources in the network equipment is information exchange in unified automated control system/ S.G. Semenov // Radio electronic and computer systems. H.: NAC "HAI". 2008. Vol. 6 (33). P. 307-310.

3. Dharaskar R.V. Trends and Prospectives of the Dynamic Resource Management Using Adaptive Techniques in Distributed System/ Dharaskar R. V. // International Journal of Computer Science and Telecommunications. Vol.2. Issue 7, October 2011.

4. Imen Grida ben Yahia, Khalil ur rehman Laghari Analysis of Telecommunication Management Technologies / Imen Grida ben Yahia, Khalil ur rehman Laghari // International Journal of Computer science & Information Technology (IJCSIT), Vol 1, No 2, November 2009 . P 152.

5. Koshmina I.V., Romanov S., Malashonok D.Y. Dynamic management of distributed computing resources.

6. Prokhorov A.V., Pahnina E.M. Multiagent technology resource management in distributed computing environments.

7. Foster I.T., Kesselman C.Nick J.M.Tuecke S.Grid Services for Distributed System Integration // IEEE Computer. 35(6). 2002. pp. 37-46.

8. Wolf M.A., Filimonchuk T.V., GridelliR. N. Resource allocation for Grid-systems // Collection of scientific works of Kharkiv Air Force University. 2009. Vol. 1(19). p. 100-104

9. Kovalenko V. N., Kovalenko E. I., KoryaginD. A., D. A. SemyachkinManagementparallel jobs in the grid with non-dedicated resources. // Working Paper No63. M.: IPM RAS. 2007. C. 1-2.

10. Prokhorov A.V., Pakhnina E.M. Agent-based Semantic Grid Service for ResourceManagement // Proceedings of International Conference "Parallel and DistributedComputing Systems" (PDCS'2013). pp. 249-256

11. Sheremetov L.B. Model of fuzzy coalition games in the open network configuration tasks supplies // Izvestiya RAN. Theory and control systems. 2009. No 5. from. 94-108.

12. Masloboev A.V. Models and algorithms for the interaction of software agents in the virtual business-environment of innovation development // Vestnik MSTU, Volume 12, No2. 2009. from. 224-234.

13. Herman A. Matveev Trushkova Ekaterina MODEL OF DYNAMIC RESOURCE SHARING // HERALD Buryat State University, No 9. 2011.

14. Sotomayor, B. "A Resource Management Model for VM-Based Virtual Workspaces", Masters paper, University of Chicago. February 2007.

15. Rasmus Andersen, Brian Vinter: Harvesting Idle Windows CPU "Cycles for Grid Computing." In Proceedings of the 2006 International Conference on Grid Computing & Applications, GCA 2006; Las Vegas, Nevada, USA, pp. 121-126.

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Модель динамического управления телекоммуникационными и компьютерными ресурсами

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Аннотация. Современный уровень развития информационных и телекоммуникационных технологий, улучшение коммуникаций и их интеграции в высокоэффективных человеко-машинных систем управления предусматривает создание единого информационного и телекоммуникационного пространства мобильных подразделений. В документе определены задачи и разработана модель динамического управления телекоммуникационных и компьютерных ресурсов. Работа посвящена рассмотрению основ исследования комплекса задач тактического управления информационной безопасностью. Представлена прямых и обратная задачи, а так же методы их решения.

Ключевые слова: управление телекоммуникационными и вычислительными ресурсами, математическая модель, оптимизация, объем задач, распределение плана телекоммуникаций, прямая задача, обратная задача, динамическое программирование, объекты применения, информационные пакеты.

UDC 33

Human Capital and Economic Development
Review of What was Studied and Where was Researched

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Abstract
The main aim of this study is to define the most researched topics and geographical locations and the most active authors and institutions in Human Capital and Economic Development research area. 317 articles that published between 2007 and 2014 from 5 different journals with Social Scientific Citation Index (SSCI) were examined. This study also explores relation between research topics and researched countries and why some topics attracted more attention than others. It is found that some topics and geographic locations were researched more than others. Authors identified topics that were researched less or not researched as well as geographic locations. Proposal for future study is discussed according to results of analysis.
Keywords: human capital, economic development, research topics, research geographical location.

Introduction
Human Capital plays central role for Economic Development. Lucas (1988) and Romer (1990) brought out the idea that long-term continuous growth could be created by human capital. Mincer (1996) found that during the 20th century human capital development has been impressive. He argues it with: first, progress of education: from small percentages of high school graduates to almost general completion. Second, rise in real income per capita. Third, urbanization: from almost half human forces in agriculture to fewer than 5%. Forth, demographic transition: from high percentage of fertility and mortality to the families with the good health and greater longevity. And, fifth: the trend of woman's contribution in the labor market (Mincer, 1996).

Moreover, according to Mincer (1996) there is a mutual relationship between economic development and human capital growth. Thereby, Mincer (1996) stated that human capital could be involved in economic development as an result of economic growth, not only as a cause of growth process (Mincer, 1996).

According to Schultz, T. W. (1972), the investment in human capital can appropriately be sorted into investment in (1) schooling and higher education, (2) post school training and learning, (3) preschool earning activities, (4) migration, (5) health, (6) information, and (7) investment in children (population) (Schultz, 1972).

The main aim of this study is to present an overview picture of what was studied, where studies were conducted and who did the research about the human capital and economic development. This study investigates papers that were published between 2007 and 2014 to define the most studied topics. This study explores relation between research topics and countries where those researches have been conducted and why some topics attracted more attention than others. Furthermore, we analyzed contribution of authors and institutions, and made a network that shows relationship among authors. This study was investigated articles from five Economic Development journals.

This research contributes to the field of Human Capital in a several ways. First, this is unique research, which includes 317 papers published in top journals between 2007 and 2014. It should be noted that papers were published during and after financial crises. Second we identified countries where researches were conducted more frequently and research topics that were focused in those countries. Third, we defined the most active institutions and authors in the field of human capital and economic development.

In the remainder of this paper, methodology was presented and results were briefly explained and discussed. Paper will be completed by giving conclusion after mentioning about limitation and proposal for future research.

Methodology

This study is based on articles from 5 well known journals with social science citation index (SSCI) in economic development research area.

Name of journals are as follows:
• Economic Development and Cultural Change
• Journal of Economic Growth
• African Development Review
• Journal of Development Economics
• The Economic and Labour Relations Review

Human capital and economic development related articles that were published between 2007 and 2014 have been chosen for analysis. 317 relevant articles were found and necessary information was extracted from those articles. This information consists of title of article, publisher name, journal name, published date, volume, issue, name of authors, keywords, and abstract.

Collected data was analyzed to find the most studied topics, focused countries, the most active authors and institutions in this area.

Content Analysis

8 main variables have been identified using keywords, titles of articles and abstracts. Moreover, sub-variables that belong to those main variables have been defined and how frequent these variables are studied was analyzed.

Research Location Analysis

221 articles out of total 317 articles were focused on specific geographic location. These locations were identified by analyzing abstracts and titles. Later, variables and focus countries were matched to identify which topics are studied the most in which country. In addition to countries, it was also analyzed that which topics are studied the most in which continent. Number of studies for each country was counted as well as for continents.

Authors and Institutions Analysis

Author and institution names are collected from articles to determine which author contributed how many articles and which institution contributed how many articles. This information was used to find the most active authors and institutions. The author list is used to find academic connection between authors. This connection is visualized by drawing coauthorship network graph (Debicki et al., 2009).

Results

Authors' Activities

560 different authors have contributed to writing process of 317 articles in 5 different journals between 2007 and 2014. Table 1 shows names of 60 authors who are coauthor of more than one paper. Authors who contributed to only one paper were not included into the list. John C.Anyanwu is published the most among 560 different authors with 5 articles in total 5 different journals. There is only one author who contributed to 5 different articles. There are two authors (David McKenzie, Holger Strulik) who contributed to 4 different articles. 10 authors contributed to 3 papers, 47 authors contributed to 2 articles, the rest 500 authors contributed to only one article.

Table 1: The most published authors

Name	Count
John C. Anyanwu	5
David McKenzie	4
Holger Strulik	4
Belton Fleisher	3
Çaglar Özden	3
Damien de Walque	3
Frédéric Docquier	3
Harsha Thirumurthy	3
Jean-Marie Baland	3
Jere R. Behrman	3
John Gibson	3
Xinzheng Shi	3
Yves Zenou	3
Amparo Castelló-Climent	2
Ana C. Dammert	2
Berk Özler	2
Cally Ardington	2
Chad Turner	2
David de la Croix	2
David E. Sahn	2
Djavad Salehi-Isfahani	2
Duncan Thomas	2
Emla Fitzsimons	2
Futoshi Yamauchi	2
Haizheng Li	2
Harounan Kazianga	2
Hillel Rapoport	2
Iain Campbell	2
Imran Rasul	2
Irineu Evangelista de Carvalho Filho	2
Jakob B. Madsen	2
Jean-Philippe Platteau	2
Jesús Fernández-Huertas Moraga	2
Joshua Graff Zivin	2
Kathleen Beegle	2
Kaushik Basu	2
Kenneth L. Leonard	2
Kwabena Gyimah-Brempong	2
Ludger Woessmann	2
Marcel Fafchamps	2

Murray Leibbrandt	2
Norbert Schady	2
Pedro Conceição	2
Peter F. Orazem	2
Priya Ranjan	2
Rebecca Thornton	2
Richard Akresh	2
Robert Tamura	2
Simone Bertoli	2
Sanghamitra Das	2
Sean E. Mulholland	2
Sebastian Galiani	2
Sebnem Kalemli-Ozcan	2
Seonghoon Kim	2
Steven Stillman	2
Una Okonkwo Osili	2
Vladimir Ponczek	2
Xiao-yuan Dong	2
Yasuyuki Sawada	2
Zaki Wahhaj	2

Institutions' Activities

Authors of 317 articles are supported by 323 different institutions. Table 2 presents number of articles that each institution supported. Table 2 shows institutions that supported more than 4 articles. There are 20 institutions that supported 3 different articles, 55 institutions that supported 2 different articles and 218 institutions that supported only one article. It should be noted that institutions are counted per article. When 2 or more authors are supported by same institution in the same article, that institution is counted only ones. Moreover, if an author is supported by 2 or more different institutions, all institutions are included. The Word Bank was the most active institution by supporting 35 different articles.

Table 2: The most active institutions

Institution Name	Count
World Bank	35
National Bureau of Economic Research, USA	16
University of California	15
Institute for the Study of Labor, Germany;	14
Harvard University	10
Université Catholique de Louvain	9
Centre for Economic Policy Research, UK	8
CES-Ifo, Germany;	8
African Development Bank	7
International Food Policy Research Institute, USA;	7
Stanford University	7
University of Maryland	7
University of Michigan	7
University of Oxford	7
Inter-American Development Bank	5

Ohio State University	5
University College London	5
University of Cape Town	5
University of Namur	5
Brown University	4
Cornell University	4
Duke University;	4
Institute for Fiscal Studies, UK	4
International Monetary Fund	4
London School of Economics	4
Monash University	4
University of Copenhagen	4
University of North Carolina	4
University of Pennsylvania	4
University of Auvergne	4

Coauthors Connection Analysis

Figure 1 presents authors who are coauthors of 2 or more articles and their academic connection with other authors. Each author who is coauthors of 2 or more articles is presented by a black dot in the graph. If two authors participated in same two or more articles, they are connected by a line. For instance, John C.Anyanwu is coauthor of 5 different articles and he is presented by a dot. Both Jean-Marie Baland and Fernanda Estevan are coauthors of 2 or more articles and both of them are coauthors in the same 2 or more articles. They are presented by dot and their coauthorship is presented by a line between. Another example can be a triangle relationship between David Mckenzie, Steven Stillman and John Gibson. They all have contributed to more than two articles and Mckenzie and Stillman contributed to same 2 or more articles as well as Mckenzie and Gibson or Stillman and Gibson.

Topic Analysis

Topic analysis aims to show focuses on certain topics. Topic of each article is determined and named as subvariable. Similar subvariables are combined to define main variables. Main variables of the articles are as follows: Health System (16.7%), Education System (17%), Migration (15.8%), Labor Market (17.7%), Gender Gap (8.2%), Population Growth (11.4%), Inequality and Poverty (3.8%), and Human Capital (9.5%). Health System, Education System, Migration, and Labor Market are the topics that were the most attractive topics.

In Labor Market related articles, it is found that the topic, Child Labor, is the most studied topic with 34%. Furthermore, Labor Market and Employment comprises 12%, comparing with Labor Market and Unemployment which were studied only 5%. On the other side, Labor Market and Economic Crises topic comprises only 2%, which was unexpectable due to chosen time period (2007 to 2014) of this research.

In Education System related articles, it is found that the topic, Education and Economic Growth is the most studied topic with 44%. Education and Inequality is studied the second most with 9%. Fertility and Parental Participation topics comprise 7% each. Other topics comprise less than 7% each and surprisingly, Education Distribution topic takes only 2%.

Migration related studies are also one of main topics in this research with 15.8% of all articles. It is found that the most studied topic in this area is Migration and Economic Development with 36%. Brain Drain is the second most studied topic with 22%. Topics Remittance and Temporary Labor Migration take 8% each. On the other hand, Illegal Migration takes only 2%.

Another main study area is Health System with 16.7%. AIDS is the most studied topic with 24%, then Nutrition with 21% and Health and Economic Growth with 19%. Malaria and Health Expenditures were studied with 6% each.
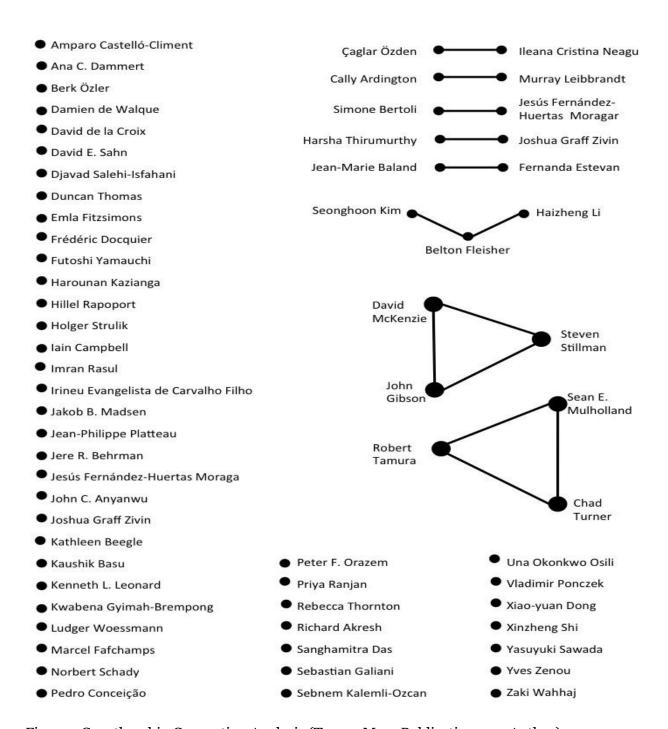
Figure 1 Coauthorship Connection Analysis (Two or More Publications per Author)

11 % of studies were about Population Growth. 45 % of Population Growth studies were focused on Family related topics. Furthermore, Mortality takes 22 % and Fertility takes 11 %.

All main and subvariables were presented in

Table 3. The most left column presents main variables and the second left presents subvariables which belong to one of main variable. Article count column shows how many articles focused on that specific main and subvariable. Percentage in Group column is amount of studied about subtopic respect to all studied in main topic group. Percentage in Total column shows how much percentage of all studies is dedicated for certain main or subtopic.

Table 3: Main and subvariables and their distribution

Main Variable	Subvariable	Article Count	Percentage in Group	Percentage in Total
Health System		53		16.7
	Health and Economic Growth	10	18.9	3.2
	Nutrition	11	20.8	3.5
	Child Health	3	5.7	0.9
	AIDS	13	24.5	4.1
	Epidemics	1	1.9	0.3
	Malaria	3	5.7	0.9
	Health and Productivity	2	3.8	0.6
	Health Expenditure	3	5.7	0.9
	Health Inequality	4	7.5	1.3
	Education in Health Care	1	1.9	0.3
	Health Systems and Fertility	2	3.8	0.6
Education System		54		17
	Education and Economic Growth	24	44.4	7.6
	Education and Expenditure	3	5.6	0.9
	Education and Fertility	4	7.4	1.3
	Education and Health	2	3.7	0.6
	Education and Income	3	5.6	0.9
	Education and Inequality	5	9.3	1.6
	Education Distribution	1	1.9	0.3
	Education and Parental Participation	4	7.4	1.3
	Education and Public Schools	3	5.6	0.9
	Education and Cash Transfer Program	3	5.6	0.9
	Women's Education	2	3.7	0.6
Migration		50		15.8
	Migration and economic development	18	36	5.7
	Migration and brain drain	11	22	3.5
	Migration and education	2	4	0.6
	Migration and Investment	2	4	0.6
	Migration and wages	3	6	0.9
	Illegal Migration	1	2	0.3
	Temporary Labor Migration	4	8	1.3
	Internal Migration	2	4	0.6
	Migrations and Inequality	3	6	0.9
	Migrations and remittances	4	8	1.3
Labor Market		56		17.7
	Labor Market and Economic Development	10	17.9	3.2
	Labor Market and Civil War	3	5.4	0.9
	labor market and employment	7	12.5	2.2
	labor market and investment	1	1.8	0.3
	Labor Market and Poverty	1	1.8	0.3
	Labor Market and regulations	4	7.1	1.3
	Labor market and unemployment	3	5.4	0.9
	Labor Market and Discrimination	1	1.8	0.3
	Labor Market Youth Employment	2	3.6	0.6

Child Labor	19	33.9	6
Labor Market and Economic Crisis	1	1.8	0.3
Women's Labor and Motherhood	4	7.1	1.3
Gender Gap	**26**		**8.2**
Gender and Income	6	23.1	1.9
gender difference in education	5	19.2	1.6
gender empowerment	1	3.8	0.3
Gender Inequality	5	19.2	1.6
Gender-Caste development	2	7.7	0.6
Gender and employment	1	3.8	0.3
Labor Market and Gender	2	7.7	0.6
Women's Right	4	15.4	1.3
Population Growth	**36**		**11.4**
Family and Economic Growth	16	44.4	5
Population Growth	8	22.2	2.5
Mortality	8	22.2	2.5
Fertility	4	11.1	1.3
			0
Inequality and Poverty	**12**		**3.8**
Poverty	10	83.3	3.2
Inequality of nations	2	16.7	0.6
Human Capital	**30**		**9.5**
Human Capital and Economic Growth	13	43.3	4.1
human capital and civil war	1	3.3	0.3
Human Capital and Human Rights	1	3.3	0.3
Share of Wages	6	20	1.9
Income	2	6.7	0.6
Social Security	4	13.3	1.3
Pension	3	10	0.9

Researched Country Analysis

221 of 317 total articles focus on a specific geographical region or country. Each article which targets a specific location is labeled with country name and study topic. Table 4 displays the number studies that targeted a continent in main research topics. Since the list of countries is too long, our discussion here is given in continent level.

The most studied continent is Africa with 88 articles (40%). The second most studied continent is Asia with 69 articles (32%). Central and South America is studied in 47 different articles (21%). Table 5, Table 6, Table 7, Table 8, Table 9, and Table 10 presents countries and number of studies that researched that country.

Results show that the most studied topic in Africa is Health System (32%) and then Labor Market (18%) as a second and Education System (15%) as a third most studied topic among articles related to Africa continent.

In Asia continent, focus of studies moves to Education System and Health System with 21% each. Gender Gap and Labor Market comprise 13% of research while Population Growth and Migration comprise 10% and 9% respectively.

Big part of researches in Central and South America focuses on Labor Market. 34% of studies focuses on Labor Market while 21% on Migration, 11% on Health System.

North America, Europa, and Australia are, as expected, less studied continents since most of countries from these continents are well developed countries.

In country level, China and India are the most studied countries with 16 articles each (14% of all countries in total). Mexico has been studied in 15 articles while South Africa in 13 and Brazil in 11 articles.

Table 4: Topic distribution over continents

	Education System	Gender Gap	Health System	Human Capital	Labor Market	Inequality and Poverty	Population Growth	Migration
Africa	13	6	29	9	16	5	9	1
Asia	15	9	14	5	9	4	7	6
Central and South America	10		5	4	15	1	3	9
North America	1			1				4
Europa	1				2		2	1
Australia	1	2			1		1	1

Table 5: Studied countries in Africa continent

Africa	88 articles
South Africa	13
Africa	10
Kenya	6
Nigeria	6
Tanzania	6
Sub-Saharan Africa	5
Uganda	5
Ghana	4
Malawi	5
Cote d'Ivoire	3
Ethiopia	3
Burkina Faso	2
Cameroon	2
Lesotho	2
Madagascar	2
Senegal	2
Sudan	2
Arab Countries	1
Egypt	1
Eritrea	1
Botswana	1
Mali	1
Morocco	1
Mozambique	1
Rwanda	1
Swaziland	1
West Africa	1
Zambia	1
Zimbabwe	1

Table 6: Studied countries in Europa continent

Europa	6 articles
Turkey	3
UK	2
BiH	1

Table 7: Studied countries in Asia continent

Asia	69
China	16
India	16
Indonesia	9
Bangladesh	3
Pakistan	3
Philippines	3
South Korea	3
Vietnam	3
Iran	2
Taiwan	2
Cambodia	1
Himalayas	1
Japan	1
Malaysia	1
Nepal	1
South Asia	1
Sri Lanka	1
Tajikistan	1
Israeli	1

Table 8: Studied countries in Central and South America

Central and South America	47 articles
Mexico	15
Brazil	11
Colombia	6
Latin America	5
Peru	3
Argentina	2
Ecuador	1
El Salvador	1
Guatemala	1
Nicaragua	1
Venezuela	1

Table 9: Studied countries in North America

North America	7
United States	7

Table 10: Studied countries in Australia

Australia	6
Australia	6

Discussion

This study has investigated 317 articles from 5 different economic development related journals among SSCI journals. The main aim of this study was to identify the most studied topics, the most studied countries, the most active authors and institutions in reseach field of economic development and human capital from 2007 to 2014. 560 different authors from 323 different institutions have contributed to writing process of 317 articles. 221 of these articles were dedicated to some country or geographic location. Articles are categorized under 8 main topics. Results of analysis show that the topics Labor Market, Education System, and Health Systema are the most studied topics and the most studied subtopics are Education and Economic Development, Child Labor, Migration, and Family and economic Development. Moreover, it is also found that in a continent level, Africa continent is the most studied continent and in a country level, China, India, Mexico and South Africa are the most studied countries.

Author and institution analysis has shown that huge number of authors from huge number of different institution are conducting researches on Human Capital and Economic Development. Coauthorship connection analysis has shown that studies are not centralized, that is, studies and authors are distributed to different locations and institutions.

Health System is one of the most studied topic with 16.7% of all articles. Among subtopics in Health System, AIDS is the most studied subtopic with 4.1% then Nutrition follows with 3.5%. However, Health Expenditure was studied only 0.9%. Health System was studied the most in Africa continent with 13.1%, then in Asia with 6.3%. In Central and South America, studies about Health System comprises only 2.3% of all studies. No study has found on Health Study in Europa, North America, and Australia contenents.

Education System is studied mostly in Asia with 6.3% and in Africa with 5.9%. In Central and South America, Education System related topics comprises 4.5% of all studies. It is found that about North America, there is only one article published related to Education System, and this article studied education and income of states of the United States using data collected between 1840 and 2000 (Turner et al., 2007). Also about Australia, only one article was published by Gerry Redmond (2009). Redmond studied Australian childeren's right to develop to their fullest capacity (Redmond, 2009). About Education System in Europa, only article from Murat Kirdar researched about ethnic disparities in school enrollment using data collected from Turkey (Kirdar, 2007).

Labor Market is the most studied topic with 17.7%. In Africa and Central and South America, topic is studied 7.2% and 6.8%, respectively. For Asia, study percentage is 4.1. The most studied topic in this area is Child Labor with 6%. In addition to Child Labor, Women's Labor, Labor Market and Employment, Labor Market and Regulations are also among studied topics. Moreover, there is only 2 articles about Youth Employment in Labor Market. John C. Anyanwu studied characteristics and macroeconomic determinants of youth employment in Africa (Anyanwu, 2013). One of the two articles about Labor Market in Europa is article about conflict displacement and labor market outcomes in post-war Bosnia and Herzegovina(Kondylis, 2010). Other study about Labor Market in Europa is article which explores the impacts of 2008-2009 economic crisis on joblesness in Turkey(Bahçe and Memiş, 2014).

Migration is mostly studied in Central and South America contenent. The percentage of migration related studies in Central and South America to all studies is 4.1%. Then percentages of studies in Asia and North America are 2.7% and 1.8%, respectively. In each of Africa, Europa, and Australia contenent, only one study is published about Migration. The article from Africa analyses data from Nigerian villeage to compare success between villeagers who left and who stayed (Onyeiwu et al., 2008). Boese, Campbell, Roberts, and Tham (2013) investigated temporary migration of nurses to Australia and their adaptation to Australian health system (Boese et al., 2013). Furthermore, Ali Berker is author of the only article from Europa among our researched articles. He investigated the labor market consequences of internal migration using data from 1990 and 2000 censuses in Turkey (Berker, 2011). The country where migration is studied the most is Mexico with 8 articles. Among papers related to migration in Mexico, Manuela Angelucci (2012) investigated the effect of US border policy on Mexican illegal migration (Angelucci, 2012). Moreover, this is the only article which studies illegal migration.

Gender Gap with 8.2%, Inequality and Poverty with 3.8%, and Population Growth with 11.4% are among less studied topics. Gender Gap is mostly studied in Asia with 4.1%, Inequality and Poverty in Africa with 2.3, and Population Growth in Africa with 4.1%.

According to our analysis of geographical locations and to topics, number of articles for some specific locations and topics appear very low. As expected, it is found that studies focus more on developing countries than on developed countries. From other side there are still many developing countries which could be focus of research in human capital and economic development. For instance, there is only one study that investigated Southeastern. However, transitions countries in Southeastern Europe such as Albania, Bosnia and Herzegovina, Macedonia, Serbia, and Kosovo can be researched more.

It is also found that there are topics which were not studied at all or sufficient. For instance, there is only one article about migration in Africa despite civil wars, health and education problems. Illegal migration also could be studied more. Moreover, Health and Education Expenditures did not take sufficient interest as well as Education Distribution. Furthuremore, there is a need to research more on Youth Employment and Unemployment. Unexpectably, it appears that effects of economic crisis on main topics of our research were not investigated enough despite this study examines period of economic crises and post economic crises.

Limitations

This study identifies the most researched topics in Human Capital and Economic Development research area in 5 different journals from 2007 to 2014. It also identifies the most studied geographic locations as well as the most active authors and institutions. Our method to evaluate individual and institutional contributions is adapted from earlier approaches in entrepreneurship (Shane, 1997) and family business (Debicki et al., 2009). However, several limitations exist in this study. First, even if we have investigated 317 articles which can be considered as a big enough article pool, number of journal that were examined is 5. More journals can be included to obtain more precise results. Moreover, each of 8 main topics can be investigated separately using the same approach with this study. Second, this study is also limited to last 7 years. Third, the results of our research are affected by the journals we chose to examine. Our focus was on economic development related journal with SSCI.

Based on our analysis, it is noted that several topics have not been researched enough as well as some geographic locations. These topics and locations have potential to be future study topic.

Conclusion

317 articles were explored in order to identify the most studied topic and geographical location and the most active authors and institutions. It was found that Health System, Education System, Labor Market and Migration are the most studied topics where Education and Economic Development, Child Labor, Migration, Brain Drain and Family and Economic Development are the most studied subtopics. Moreover, China, India, Mexico, South Africa and Brazil are the most researched countries. In continent level, Africa is found as the most researched continent. 560 authors from 323 different institutions has particapated in writing these 317 articles. Author and institution analysis showed that studies are not centrilized around certain group of institutions and authors, by contrast, researchs are distributed all over the world. Research topics focus mostly on devoloping countries, however, it is found that locations of research are mostly from developed countries. Results of our analysis identified that some topics have potential to be researched extendedly such as migration in Africa, illegal migration in general, Health and Education Expenditures, Education Distribution, and Youth Employment.

References:

1. Angelucci, M., 2012. US Border Enforcement and the Net Flow of Mexican Illegal Migration. Econ. Dev. Cult. Change 60, 311-357.

2. Anyanwu, J.C., 2013. Characteristics and Macroeconomic Determinants of Youth Employment in Africa: Youth Employment in Africa. Afr. Dev. Rev. 25, 107–129. doi:10.1111/j.1467-8268.2013.12019.x

3. Bahçe, S.A.K., Memiş, E., 2014. The impact of the economic crisis on joblessness in Turkey. Econ. Labour Relat. Rev. 25, 130–153. doi:10.1177/1035304613519380

4. Berker, A., 2011. Labor-Market Consequences of Internal Migration in Turkey. Econ. Dev. Cult. Change 60, 197–197. doi:10.1086/661217

5. Boese, M., Campbell, I., Roberts, W., Tham, J.-C., 2013. Temporary migrant nurses in Australia: Sites and sources of precariousness. Econ. Labour Relat. Rev. 24, 316–339. doi:10.1177/1035304613496500

6. Debicki, B.J., Matherne, C.F., Kellermanns, F.W., Chrisman, J.J., 2009. Family Business Research in the New Millennium: An Overview of the Who, the Where, the What, and the Why. Fam. Bus. Rev. 22, 151–166. doi:10.1177/0894486509333598

7. Kirdar, M., 2007. Explaining Ethnic Disparities in School Enrollment in Turkey (MPRA Paper No. 2649). University Library of Munich, Germany.

8. Kondylis, F., 2010. Conflict displacement and labor market outcomes in post-war Bosnia and Herzegovina. J. Dev. Econ. 93, 235–248. doi:10.1016/j.jdeveco.2009.10.004

9. Mincer, J., 1996. Economic development, growth of human capital, and the dynamics of the wage structure. J. Econ. Growth 1, 29–48. doi:10.1007/BF00163341

10. Onyeiwu, S., Iorgulescu Polimeni, R., Polimeni, J.M., 2008. Distributional Impact of Globalization-induced Migration: Evidence from a Nigerian Village. Afr. Dev. Rev. 20, 115–134. doi:10.1111/j.1467-8268.2008.00179.x

11. Redmond, G., 2009. What Can Data on Educational Outcomes Reveal regarding Australian Children's Right to Develop "to Their Fullest Potential"? Econ. Labour Relat. Rev. 20, 35–58. doi:10.1177/103530460902000104

12. Schultz, T.W., 1972. Human Capital: Policy Issues And Research Opportunities, in: Economic Research: Retrospect and Prospect Vol 6: Human Resources. UMI, pp. 1–84.

13. Shane, S.A., 1997. Who is Publishing the Entrepreneurship Research? J. Manag. 23, 83–95. doi:10.1177/014920639702300105

14. Turner, C., Tamura, R., Mulholland, S.E., Baier, S., 2007. Education and income of the states of the United States: 1840–2000. J. Econ. Growth 12, 101–158. doi:10.1007/s10887-007-9016-0

**Человеческий капитал и экономическое развитие.
Обзор того, что и где было изучено**

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Аннотация. Основная цель данного исследования является определение наиболее исследуемых тем и географических местоположений наиболее активных авторов и учреждений в области исследований человеческого капитала и экономического развития. Были рассмотрены 317 статей, которые опубликованы в период между 2007 и 2014 гг. в 5 различных журналах, включенных Social Scientific Citation Index (SSCI). Это исследование также рассматривает отношения между научно-исследовательскими темами и исследуемыми странами, и почему некоторые темы привлекают больше внимания, чем другие. Автор обнаружил, что некоторые темы и географические места были исследованы в большей степени, чем другие. Авторы определили темы, которые были исследованы меньше или не исследуются, а также их географические местоположения.

Ключевые слова: человеческий капитал, экономическое развитие, научно-исследовательские темы, исследование географического расположения.

UDC 33

Life Satisfaction – Migrants from Serbia and Montenegro to Denmark: Case Study

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> "It is strange how little it takes to be happy and even stranger how exactly that little we lack" Ivo Andrić (Vujović, 2007).

Abstract

The community of migrants from Serbia and Montenegro, although not numerous (about 8.000), it is interesting to researchers because in Denmark the middle of which is economically dependent on, maintains its socio - economic identity, and therefore the quality of life. As an instrument for assessing quality of life of migrants from Serbia and Montenegro in Denmark, used a questionnaire was created by the World Health Organization and questionnaires evaluating quality of life created by Department of Psychology at the Royal College of Surgeons in Ireland, adapted to the needs of this research. Metric characteristics of the questionnaire were evaluated on a sample of 189 respondents - migrants from Serbia and Montenegro who live and work in Denmark. Despite the large variability answer most of these areas (respondents listed a total of 48 resort life as a determinant of their own quality of life), can be classified into the following eight global domains: health, emotional well-being, material well-being, interpersonal relationships, productivity or performance, safety, social communities and religions and spiritual domains of life. Displayed is the average value of the quality of life by gender. Personal values are ranging from 13-100% SM. In order to determine the differences in the index of quality of life in relation to age, conducted statistical testing the quality of life index difference between age groups. For respondents younger than 17-29 years, the average quality of life index was 68.68 with a standard deviation of 12.18. Quality of life index for the second age group (30-59 years) is 67.39 with a standard deviation of 12.17. For respondents 60 and over years, the average index is 66.48, with a standard deviation of 7.07.

Keywords: migrants, Serbia, Montenegro, Denmark, quality of life, areas quality of life.

Introductory considerations

Starting from the prehistoric and tribal communities, the question is what is at that time was the quality of life. Of course, the first place was that the individual is healthy; it is able to provide

himself with enough food and females / males for their reproducing. When the year of fertile and having enough fruits and animals then man tribal community was overjoyed because all the rest of the time he was preparedness and formal communication with members of the tribe (Milivojević et al, 2011).

The man of modern times is much unhappy than man tribal community. The reason is that from my life expected a lot more, and requirements others toward him are far more pronounced (employer, family, school, society ...), and being unable to fulfill all that he is dissatisfied and less happy. Of course that the concept of quality of life was introduced much later, only in the last century, and if you are about happiness discussed by many philosophers since ancient times to today (Milivojević et al, 2011).

According Milivojević et al (2011) in the literature on the quality of life we have dozens of definitions and models. In addition to general models of quality of life we find the models for specific groups of people (those who are sick, persons with developmental disorders, athletes ...). Thus, the models and the definition of quality of life differ depending on the author and the ruling schools. However, despite the fact that there are variations in individual visions continue to be implemented consistently establish uniform terminology for achieving uniformity of scientific research and application of models of quality of life in practice. Basically, it is based on a detailed assessment of the similarity (difference) in the framework of meetings preferences, opinions, behavior and values, which provides a clear meaning and understanding of all that is quality of life. Thus, so far developed models show the collective quality of life and personal values, priorities and expectations, while at the same time perform combining living conditions and traditional statistics.

So the first empirical study of "quality of life", i.e. the level of life and standard of living (level of living) to Gojčeta et al (2004), were created in the framework of Economic Sciences. Trgovčević et al (2011) suggest that the term "quality of life" first mentioned Pigou in 1920 in a book about economics and welfare, while the first documented use of the term in the medical literature; we meet 40 years ago in the field of transplantation medicine. The level of life determined on the basis of satisfaction of material needs, and the only indicator of social development was a national income. As most people as superior quality distinguishes health, there is a need for a definition of quality of life related to health (HRQoL – health related quality of life).

Over the years, the number of studies on quality of life is increasing, and the World Health Organization (WHO), provides definitions of quality of life. According to WHO (1998), quality of life is defined as the perception of individuals about their own position in life in the context of culture and value systems in which they live, as well as to their goals, expectations, standards and interests. It is a broad concept which covers: physical health of individuals, psychological status, material independence, social relations and their relations to the significant environmental characteristics.

Drewnowsky and Scott (1968) indicate that "the Geneva model of quality of life" that shaped the United Nations Institute for exploration of social development in Geneva in 1966, according to which the level of quality of life is defined as "the degree of satisfaction of material and cultural needs of society" and its indicators are: quality of food, housing, health, education, recreation, and safety of material gain. However, Allardt (1976) indicates the "Scandinavian model" according to which the quality of life depends on satisfying all universal human needs, it is of: 1) material needs (determined in the have): physical needs, the needs of existence, 2) social needs (determined with love): the need for security, belonging, acceptance, love and needs removal, 3) Personal needs (determined with be): the need for learning, self-actualization and personal development needs.

In determining the concept of quality of life in addition to economic and social indicators (which are objectively measurable), numerous researchers introduce and subjective indicators (measurable degree of satisfaction). Among the many authors on this occasion apostrophized: (Lewis, 1968; Smith, 1973, Knoh and Maclaran, 1978; Helburn, 1982; Pacione, 1984; Lay, 1991; Cella, 1992; Ira and Kollár, 1994; Diener and Suh, 1997; Sheldon and Elliot, 1999; Diener, Suh, Lucas, & Smith, 1999; Diener, 2000; Dzurova and Dragomirecka, 2000; Hagerty et al, 2001; Boelhouwer, 2002; Diener et al., 2003; Beauchamp , 2004; Mandzuk and McMillan, 2005; Wu and Yao, 2006; Ryff and Singer, 2008; Jarholm, 2009; Aranđelović et al, 2010; Lucas and Diener, 2010; Slavuj, 2012; Rajović and Bulatović, 2015; Rajović and Bulatović, 2016).

Armstrong and Caldwell (2004) considering the importance of the term quality of life and its "rhetorical power", equating it with social, medical and technological progress. Keith (2001) and

Schalock (2000) suggest that quality of life can be used as "sensitive concept that provides recommendations and guidelines". However, Schalock (2004) states that quality of life we can understand as "social circuit" and the "organizational concept" or "this entire together "it is as" systematic framework through which one can see efforts aimed at improving the lives of individuals". According to Kahn (2004) objectively measuring living conditions taking into account the modest share of the personal, subjective quality of life and / or well-being. Cummins (2000) focuses on the personal level of life satisfaction of individuals, regardless of the objective scarcity of its environment. It is worth to be invited to Hawking (1998), which emphasizes that the essence is not the existence or absence of a single theory, but only a better understanding of our existence.

In order to understand the changes of the concept of quality of life, it is necessary to know the essence of life and its interaction with the social order, and with the physical environment. At first, the quality of life boiled down to social standards ... and later begins with research needs and satisfaction of man and clear distinction is made between the objective and subjective quality of life, in the end of the last century, according to the theory of sustainable development, in a big way and entered the third dimension of the quality of life, which refers to the quality of the environment. In the last few years as the fourth dimension of quality of life are introduced science and technology development (Jakopin, 2011).

Table 1: A taxonomy of Quality of Life definitions

Type	Name for type	Description
(A) Expert/professional's definitions		
I	Global definitions	The most common, general, type of definition - usually say little about the possible components of QOL. Usually incorporate ideas of satisfaction/dissatisfaction or happiness/unhappiness.
II	Component definitions	Break down QOL into a series of components, dimensions or domains, or idem tidy characteristics deemed essential to any evaluation of QOL.
II a	(Non-research-specific)	Identify a number of dimensions of general QOL, but may not necessarily claim to cover every possible dimension.
II b	(Research-specific)	Explicitly tailor red to meet the objectives of a specific piece of research. May therefore overlook or exclude certain dimensions of QOL considered less relevant to the research aims.
III	Focused definitions	Refer only to one or a small number of the dimensions of QOL.
III a	(Explicit)	Focus on a small number of dimensions of QOL considered essential to QOL, but does so explicitly.
III b	(Implicit)	Focus on one or two dimensions of the broader concept of QOL, but implicitly, without making this clear.
IV	Combination definition	Global definitions (same as type I) that also specify dimensions (as in type II).

Source: Bell (2005) according to Farquhar (1995).

Global definitions are identified by Farquhar as the most common type within the expert literature. These are very general definitions that omit the possible components of QOL. Component definitions break down QOL into its constituent parts, dimensions or "domains", or identify key characteristics considered essential to evaluate QOL. These fall into two categories. The non-research specific will typically identify a number of dimensions of general QOL - both objective and subjective – although it may not claim to cover all the possible dimensions of QOL. A research-specific component definition, in contrast, is one where the writer has considered the

concept of QOL specifically with regard to his or her own research focus. As a result, some possible dimensions of QOL may be overlooked or excluded from the definition because they are considered less relevant to the research focus (Bell, 2005).

Referring to research Farquhar (1995) prominent researcher Bell (2005) indicating on the third types are focused definitions. Either explicitly or implicitly these refer to just one component, or a minority of components, of QOL. Farquhar found these to be most common in the literature relating to health and functional ability. Explicit focused definitions, for example, were found most commonly in the health-related QOL literature where researchers focus on a small number of factors considered essential to QOL, but do so openly. In contrast implicit focused definitions concentrate on one or two components of the whole concept but without making this plain. Most commonly authors will use the term QOL without defining it, but will then operationalise it in terms of one or two measures, from which the reader may interpret a definition. But as Farquhar comments, "In these circumstances it is difficult for the reader to assess how the authors fully interpret the term the fourth type are combination definitions, those that are global definitions (type I) but which also specify components (type II).

Large research heterogeneity of approach to measuring quality of life stems from the different approaches to the concept of quality of life. In fact, today there are many approaches to measuring quality of life, which may vary between countries and between regional economic integration and organizations (egg use a different set of indicators to assess the quality of life are: the European Union, OECD, UNDP ...) (Ilić et al, 2010; Jakopin, 2011; Werner, 2012). However nevertheless in the present studies mostly used for testing the quality of life developed by the World Health Organization through the implementation of "WHOQOL-100" (WHOQOL Group, 1998) and adapted by different languages and cultures around the world.

The nineties years the last century WHOQOL group under the auspices of the World Health Organization began a project development of a common instrument for assessing quality of life, to be used around the world. WHOQOL-100 questionnaire consisted of several stages. The first phase involved the adoption of compliance with the definition of quality of life, as well as the establishment of an international approach to assessing the quality of life. In the second phase of development, research of the concept of quality of life in 15 different cultural centers, in order to determine the list of areas / aspects are important for quality of life assessment. In the third are phase of development, from a total of 236 questions (items), selected the 100 questions. It included the four questions from each of the 24 areas of quality of life and 4 questions related to the areas of overall quality of life and overall health. In this way WHOQOL-100 provides a detailed assessment of each specific area related to quality of life. However, in certain cases, the WHOQOL-100 proved to be too large for practical use, and is initiated Population Research WHOQOL-BREF questionnaire, which composition of 26 questions (WHOQOL Group, 1998).

According to WHOQOL Group (1998) survey consists of two parts: 1) The general part includes personal information about interviewee with a total of 6 issues (gender, age, education, marital status, as well as two issues related to the health condition); 2) The second part of the questionnaire includes 26 questions, of which the first two questions relating to the perception of the individual's quality of life and satisfaction with their own health, and the remaining 24 questions belonging to one of four domains: a) physical health (perform everyday activities, dependence on medical care; energy and fatigue, mobility, sleep and rest, the pain and inconvenience; working capacity); b) psychological health (physical and appearance; negative and positive feelings, self-esteem, concentration); c) social relationships (personal relationships, social support, sexual activity); g) environmental (financial income, freedom, physical security and safety; availability and quality of health care; housing conditions; leisure activities; opportunities for acquiring new information, transportation).

The questionnaire for the evaluation of quality of life, direct method of determining the importance of the area of quality of life "(Schedule for the evaluation of quality of life-SEIQoL: A direct weighting procedures for quality of life domains) was created at the Department of Psychology at the Royal College of Surgeons in Ireland. SEIQoL is implemented through a standardized and semi-structured interview which specifies the names and descriptions of the five areas that the person believes the main determinants of their own quality of life, then assessment of the state or functioning of individuals in each of these areas by self-assessment on a scale from 1 to 7 (where 1 = the worst possible to 7 = the best possible), and the importance of an individual

gives to each of these areas (ranked by importance). It is not necessary that each area has a different rank, is allowed and the answer to all of these areas as important (O'Boyle et al, 1993).

Research Methodology

The community of migrants from Serbia and Montenegro, although not numerous (about 8.000), it is interesting to researchers because in Denmark the middle of which is economically dependent on, maintains its socio - economic identity, and therefore the quality of life. How is it term quality of life is complex, it needs to be considered within the more theoretical approach or framework. So there are two interpretations: one provided by the respondents, and the other researchers (Rajović, 2014).

In order to obtain representative data in the survey, it is planned that a combination of surveys and interviews involving at 2% of respondents of the total number of Serbian and Montenegrin immigrants in Denmark, and about 200 participants. In the first stage, were selected settlements that represent migrants as a whole: Copenhagen, Hilerod, Frederiksberg, Helsingør, Næstved, Silkeborg, and Rødovre. The number of respondents in this case, determined on the basis of the inventory immigrants Rajović (1993), corrected with the number of migrants from recent data Rajović (2014) and Rajović (2015). In the second stage, the author chose GR respondents the combination of accidental and deliberate choice, in order to ensure the quota. The planned number of respondents in the realization of surveys and interviews has been exceeded, but the stricter control logic at the end of the questionnaire dealt with a total of 189 questionnaires, representing a very high turnover of 96.2% of the planned sample. The second group of data related to the areas that make the personal determinants of quality of life of migrants and their universality and specificity, i.e. it was important to assess the importance of the area found in the personal quality of life and in the end determine how respondents evaluate their life (or level of functioning) on each of the above areas individually. As an instrument for assessing quality of life of migrants from Serbia and Montenegro to Denmark, use contemporary combination questionnaire was created by the World Health Organization and questionnaires evaluating quality of life was created by the Psychology Department at the Royal College of Surgeons in Ireland[*].

"Specialized literature contains a great number of studies dealing with questions of the theory and methodology of the QoL. In spite of this, plurality or only partial, consensus prevails in opinion on the given theme. Even if it may seem that this situation is the result of the multidisciplinary nature of QoL, the differing views on the concept appearing in studies pertaining to the same scientific disciplines consistently point to the highly subjective nature of the concept. It is manifested in subjective perception and interpretation of QoL by any individual regardless of his/her qualifications or specialization. From the point of view of the scientific approach to QoL, above all definition or interpretation of the content of the concept, the related terminology, methodological basis and criteria dependence or criteria by which the QoL is estimated are the factors where a considerable plurality of views exists" (Ira et al, 2009). It is only possible to talk about partial consensus when the idea of a "two-dimensional" or "multidimensional" structure of QoL is accepted. In spite of terminological similarity (which is confusing to some extent) the two characteristics of QoL possess their individual content and meaning. Although an attempt was made to discern the content of two-dimensionality and multidimensionality, it is true that the term dimension still appears in the context of QoL in dual meaning. In connection with the question of defining the QoL but also of the relevant terminology the use of so-called meta-concepts should also be mentioned. Among the most frequently applied meta-concepts are: well-being, life satisfaction, happiness, health, quality of place, sustainability, and livability. Based on an extensive overview of the meta-concepts, arrived at the conclusion that due to their contents they all can be broadly comprised in the common quality of life concept (Ira et al, 2009).

Research procedure is based on research: Hughes and Hwang (1996), Anderson and Gerbing (1998), Nahid and Shamsuddin (2001), Vuletić and Mujkić (2002), Skevington et al (2004), Skevington et al (2004), Kler (2006), Liebig (2007), Bayram et al (2011), Ostling (2013), Kleven et al (2014). Research mentioned authors helped us to easily implement, it is defined the goals and results of the research.

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Analysis and Discussion

Demographic variables such as gender, age, education, socio-economic status I can be condition differences in objective living conditions and the manner in which an individual experiences and assess the quality of your life. The impact of demographic variables on subjective indicators of quality of life was examined in numerous studies, which showed different patterns of association in different cultures: Andrews and Withey, 1976; Watson et al, 1988; Van Oudenhoven and Willemsen, 1989; Wqaston and Klark, 1992; Ruff et al 1999; Wahl et al 2004; Lima and Novo, 2006; Lučev and Tadinac, 2008. Society may differ according to the expectations and standards relating to the standard of living and level of satisfaction and happiness, as well as to the objective conditions of life that are associated with certain demographic characteristics (Lučev and Tadinac, 2008).

Table 1 shows the distribution of respondents by age, gender, education and place of birth. Approximately 30.2% of the respondents were born in Denmark, while 69.8% were born in Serbia and Montenegro. Of the total number of respondents (189) in research is participated 103 men or 54.4%, or 86 women or 45.5%. Of the total number of respondents born in Denmark (57), participated are 28 men and 29 women, respectively 75 men and 57 women born in Serbia and Montenegro. Most of the respondents born in Denmark (57.2%) were in the age group of 17-29, while in the age group of 30-59 years participated 42.8% of respondents. Of the total number of births in Serbia and Montenegro (132), the majority of respondents were in the age group of 60 and over (50.0%), while the total number of respondents in the age group of 30-59 years was 34.1% in the group of 17-29 years was 10.9%.

Table 2: Respondents by place of birth, age, gender and educational, Source: Survey

Study participants	BIRTH PLACE				TOTAL	
	Serbia and Montenegro		Denmark			
	N	%	N	%	N	%
GENDER						
Female	57	43.0	29	51.0	86	45.5
Male	75	57.0	28	49.0	103	54.5
TOTAL	132	100	57	100	189	100
AGE GROUPS						
17-29	21	10.9	33	57.2	33	17.5
30-59	45	34.1	24	42.8	69	36.5
60 and more	66	50.0	-	-	87	46.0
Total	132	31.0	57	100	189	100
EDUCATION						
Primary or less	35	26.5	3	5.1	38	20.1
Secondary	89	67.4	33	49.0	122	64.6
High School	8	6.1	21	37.6	29	15.3
Total	132	100	57	100	189	100

According to most of the findings from the literature educational level was positively associated with pleasure and happiness (Ruff et al., 1999; Kling and Wing, 1999; Nezlek, 2000; Markus et al., 2004; Ryan and Huta, 2009), which is logical given that a higher level of education an individual provides a greater range of opportunities and resources available. In terms of education of the total number of births in Serbia and Montenegro participated in the study with primary school 26.5% of respondents with secondary education 67.4% and with higher school 6.1% of them. The educational structure of the total number of respondents born in Denmark in the research were involved with secondary education 49.0%, with a higher school (students included) 37.6% and primary 3 respondents.

Table 3: Names, frequency and percentage of nominated areas by age groups and in total

Name of the area	Total		17-29		30-59		60 and more	
	N (%)							
Health	113	15,2	46	14,8	42	14,8	25	16,6
Family	102	13,8	48	15,5	39	13,8	20	13,2
Finance, Material status	84	11,3	39	12,7	33	11,5	13	8,6
Job	83	11,2	41	13,3	29	10,2	13	8,6
Love	72	9,7	29	9,4	34	11,9	9	6,0
Friendship	64	8,6	36	11,7	17	5,9	11	7,3
Social life / Society	26	3,5	11	3,6	11	3,8	4	2,5
Religion	24	3,3	3	0,9	11	3,8	10	6,6
Sport	19	2,7	9	2,9	9	3,1	1	0,7
Free time	17	2,3	2	0,6	9	3,1	6	4,0
Career	15	2,0	3	0,9	11	3,8	1	0,7
Spiritual Life	15	2,0	2	0,6	3	1,1	10	6,6
Peace	14	1,9	1	0,3	2	0,7	11	7,3
Entertainment	14	1,9	8	2,6	6	2,1	0	0
Happiness	13	1,8	7	2,3	5	1,7	1	0,7
Interpersonal relationships	12	1,6	3	0,9	2	0,7	7	4,6
Housing issue	12	1,6	5	1,6	2	0,7	5	3,3
hobby	11	1,5	7	2,3	4	1,4	0	0
Self-satisfaction, "I" at peace with herself	11	1,5	2	0,6	6	2,1	3	2,0
Family life	10	1,3	2	0,6	7	2,4	1	0,7
Music	10	1,3	6	1,9	4	1,4	0	0

Source: Survey

Involved are a total sample 189 respondents. Each participant was identified five areas that it considers the main determinants of satisfaction quality of life. There are total of 48 areas. In Table 2 are given the names and the frequency of allegations in areas that are designated for more than ten times the total sample. Respondents point out six areas with a high incidence of allegations in determining satisfaction with the quality of life. In the first place according to the frequency of health (N = 113), then comes the family (N = 102), finance and material status (N = 84), job (N = 83), love (N = 72) and friendship (N = 64). On further analysis it was found that all respondents in defining determinants of satisfaction with quality of life cite at least one or more of these six areas. In addition, 10 areas have fewer incidences of allegations out of 10. Such a great number of different areas are a reflection of individual differences among respondents, reflecting the individual specificity of satisfaction with the quality of life.

For the purpose of further analysis of the results with respect to age, the subjects were divided into three age groups. The first age group of 17-29 years (N = 33), the other from 30-59 years (N = 69) and the third of 60 years and older (N = 87). As in the overall data, in the group of younger respondents highlights six areas that are most prevalent as determinants of satisfaction with quality of life. The most frequently stated family (N = 48), followed by health (N = 46), job (N = 41), and finance and monetary situation (N = 39). A total of 41 different designated area. Among subjects other age groups, 30-59 years old, found a different distribution of answers and rank the importance of certain areas. This group of respondents, who mostly belong to the active working population, the most common appoints the following four areas as the determinants of satisfaction with the quality of life: health (N = 42), families (N = 39), love (N = 34), and finance and monetary situation (N = 33). According importance, in the first place comes health, then family and third in love and fourth finances and monetary situation. Total appears in 25 areas, which is less compared to those younger age groups. In the group of respondent's third age group,

60 years or more, three areas stand out for the frequency of allegations. These are: health (N = 25), families (N = 20), and business and finance and monetary situation (N = 13). Number of domains that occur as determinants of satisfaction with the quality of life is the smallest in this group of respondents was 14. And these respondents was within the group attached most importance to health, then family and area related to business and finance and monetary situation.

Table 4: Three most important life areas by age group, Source: Survey

Rank importance	Age groups		
	17-29	30-59	60 and more
1	Family	Health	Health
2	Health	Family	Family
3	Job	Love	Job/ Finance and material status

The core of the concept of "quality of life" of each individual is his experience satisfaction with life and its course and the conditions, prospects, possibilities and limitations that each individual has in their life (Krizmanić i Kolesarić, 1989). This assessment, based on the individual experience and the aspirations, wishes and values of the individual, determined physiological assembly characteristics of the individual and objective conditions in which he lives. Cognitive and connective characteristics of each individual determine the range and quality of interaction with the environment, its adaptability to changes in the physical and social environment, as well as the changes that occur within an organism (Petz et al 2005.). Thus, the health of the group of respondents third age group 60 and over by the frequency of allegations in the first place (N = 25). Also, it should be noted that not only their own health but also the health of their loved ones, the respondents consider the allegations to be important in their own quality of life. With the right Vuletić (2013) emphasizes that Ill health is certainly one of the external factors that negatively affect the lives of individuals. The impact of a damaged health quality of life is multidimensional. Not only does affects in terms of physical symptoms, thus limiting operation, but they the present and indirect effects such as the changes in working abilities, potential isolation, increasing dependency on others, bad habits ... Self-assessment of health status and quality of life are an integral part of population studies. These measures show the importance of the subjective perception of health and quality of life independent of objective measures. Considering that chronic diseases and conditions have become part of everyday life for a large part of the population, the question of quality of life in the circumstances.

Marital status and family proved to be a significant factor in the subjective aspect of quality of life in a number of different studies: people who are married or in a consensual union are happier and more satisfied than nonmembers (Wahl et al., 1998, Diener et al., 1999, Burckhardt et al., 2003, Wahl et al., 2004). There are some findings which indicate that that this relationship is particularly pronounced in developed societies (Veenhoven, 1983, Blom and Listhaug, 1988, Lima and Novo, 2006, Wani et al., 2013) what kind is and Denmark. Life of respondents in Denmark is largely takes place within family, which in addition to its members connects relatives and compatriots. Its integrated functions are especially reflected in the socializing with strangers. According to composition or size, family immigrants mainly "covers marital union - husband and wife, the nuclear family – a married couple and their children, extended family - parents, children, grandchildren, relatives of the first degree, and relatives community - the second instance relatives. The largest number of respondents in Denmark lives in a nuclear family. Grandparents, as well as in homeland actively participate in the upbringing and preservation of their grandchildren. It is noticeable that for over 40 years living and working in Denmark among migrants from Serbia and Montenegro, the family changed significantly and as an institution, and on how to educate. While we were immediately after immigrating to Denmark could be characterized as strict hierarchy, in the previous period from arrival till today, she is increasingly based on cooperativeness of all family members, although it noted that in terms of ethnicity retain the respect of generational affiliation. Thus the members of the second and third generation migrants, noted due respect to the elderly

and as far as the position of women, to her yet always receives a considerable burden of family responsibilities (Rajović, 2011). So the family in a group respondents the first age group, according to the frequency of allegations in the first place (N = 48). Respondents emphasize that they are accepted and Danish principle of substantive independence of their children. Upon entering the marriage, their kids are instantly apartment of Danish society, which most often of equipment parents of personal financial resources. So, the family is in these cases maintain characteristics, which has brought from their homeland. The biggest difference to family life in homeland is early economic independence. Almost all the migrants how emphasize the participants know each other and they know who is whence and when he came in Denmark. They have recorded and phone numbers each – other and serve up the phone book, which is given to every owner free fixed phone number in Denmark. Family life and kinship relations among our migrants are highly developed. The migrants maintain close links with their relatives, not only in Denmark but also from those who live in Sweden and Germany. Not forgets not even relatives who remained in homeland, and mutual visits are frequent, especially during the holiday season, which many of our migrants carried out in homeland.

Job occupies a large space in the life of nuclear family migrants. Parents spend a great deal of time on work and education of children. Denmark is huge attention to children. Habitually is that children are they find independent beings which adults should to hear and as early as possible, children should be yes engage in autonomous decision. How in families of our emigrants, as well as the Danish children's institutions and schools place that children getting used to the responsibility of and learn responsibility in so much as it is possible in relation to their age. Danish laws require that children have the right to care and safety according to children is to be treated with due the respect for their personality. Therefore it is prohibited and punishable by law apply force. Parental responsibility is to provide children the love and care and creating a safe environment for their growth.

In the group of respondents third age group, area jobs and finance, or material status most frequent of allegations sharing third place (N = 13). An important are feature of the migrants' families, who lives in Denmark, are certainly financial, and material status. From what can be noticed and see the standard of living of migrants in Denmark is really on a high level. Almost all the migrants have very nice comfortable apartments, equipped with modern furniture and appliances. Individually, each family has a car. From individual interviews with respondents, we found out that most of them own houses built in homeland or purchased apartments, and owners of business premises mainly in the country. Also, a number of migrants has own savings "an old foreign currency savings", which them were not allowed to raise 27.04.1991 and today as pointed out by respondents devalued. Foreign currency savings depositor's estimate that the newest Law from 2004 on the restitution of assets by 2017 does not mean anything to them, because they emphasize the how many of them will not be a living

The group respondents other age groups, areas of love stand out for the frequency of allegations third (N = 34). Rightly Halauk (2013) emphasizes that love is the most desirable emotions, deeply rooted in us, which of course emphasize the respondents. Basically, love different in color (figure emotions) and in sinewy (the victim whom we are willing to tolerate). All primarily referring to conjugal love, which is the beginning and romantic and passionate. Partnership relations are marked by sexual attraction and the existence of passion thereby yes partners everyone wants exclusively for itself. There is no doubt that such a person in those moments live a high quality of life! Explaining love, we must mention a few others that we could clarify the picture called emotion - love. Respondents emphasize the and which coincides with research Halauk (2013) that the greatest love of parents to children, the love of grandchildren, love of brother and sister, the love of parents, love of my grandfather and grandmother, love for friends and love for the pet. As for the volume, it is indisputable that she strongest against children, specifically according to grandchildren. Today it was confirmed that each age has its own love that in youth and in old age varies in color and intensity.

Table 5: Quality of life index by gender and for the whole sample, Source: Survey

Respondents	N	Arithmetic mean	Standard deviation
Men	103	61.65	13.77
Women	86	61.01	14.29
Total	189	61.36	14.03

Table 5 is presented average value of the quality of life by gender. Personal are values ranging from 13-100 % SM. And if the female respondents, on average, have a lower value than the total extent of personal quality of life, the difference was not statistically significant (t= 0.3775, df=187; p>0.05). In order to determine the differences in the index of quality of life in relation to age, conducted statistical testing the quality of life index difference between age groups. As can be seen in Table 6 respondent's first age group (17-29) achieved the highest values while respondent's third age group (60 and over) achieved the lowest values. However, this difference has not been statistically significant F = 0.7896; p>0,05.

Table 6. Quality of life index by age groups, Source: Survey

Age groups	Arithmetic mean	Standard deviation	Minimum	Maximum
17-29	68.68	12.18	16.66	100.00
30-59	67.39	12.17	33.33	100.00
60 and more	66.48	7.07	50.00	83.33

For respondents younger than 17-29 years, the average quality of life index was 68.68 with a standard deviation of 12.18. The theoretical range in which they can move the index value is 0 to 100. The range in which is range of indexes for this age group is from 16 to 100 degrees. Quality of life index for the second age group (30-59 years) is 67.39 with a standard deviation of 12.17. Individual values are within the range of 33 to 100 degrees. This is the age group with the highest variability of individual values and the largest range of indices. For respondents 60 and older, the average index is 66.48, with a standard deviation of 7.07, and in the range of values from 50 to 83.

Finally, we show the indicators of quality of life in function of mature age man that is what it that is dominated by ages and stages of life cycle is are presented in Table 7. There are age-related, dominant in the life of the key groups of indicators. The difference is evident in each of these phases.

Table 7: Indicators of quality of life in function of mature life span man

Lifetime time	Time period	Dominant in life	Key groups of indicators
Maturity	women 19 to 30 men 21 to 35	End of school Selection of titles Economic independence	Are represented by sets All four indicators dimensions of quality of life:
Wound	women 31 to 45 men 36 to 50	Love and selection of partners	Economic Social
Median		Starting a family Children Social status	Environment Science and Technology
Late	women 45 to 70 men 50 to 70	Contribution to the Community Health Sex	Systems of values

Lifetime time	Time period	Dominant in life	Key groups of indicators
Age Of the 70 years since the death	Of the 70 years since the death	Maintenance and service Health Decent life in old age Attention and care by Family and society Friendship Jan range of interests Creating a strategy for Long life	Health Health services Economic status Systems of values Attention and Care Social needs Interests Striving for long life Preparing for death
Death			Health Fear of death Lightweight death

Source: Milivojević et al (2015).

Thus, the method for determining indicators and indices of quality of life in this period, as well as life satisfaction and happiness are not much different and in full compliance with the applicable methodologies. According to Milivojević et al (2015) goals, needs, desires, expectations and attitudes change with the phases of the life cycle from generation to generation of human population. The problem arises for complex system levels where for practical reasons it is not possible for a longer period on the same sample continuously measure the value of life quality of life satisfaction, subjective well-being and happiness. Only on the same sample and the same individuals as possible to make conclusions about trends and laws by which these variables change. For now, the only such study was conducted by Harvard University, USA. The project started in 1938 and lasted for a full 75 years and it was attended by 268 male respondents. Measurements included the astonishing range of psychological, anthropological and physical characteristics-from personality type to the IQ of the habit of drinking to family relations ... Analysis of collected data and the results of research led to many discoveries that require revision attitudes in the field of quality of life and happiness.

Conclusion
Our research evidence based on similar studies Bell (2005), Schalock (2004), Pavićević (2004), Herček (1985), Rokach, (1989), Smith et al(1998), Selvamanickam et al (2001), Sheanhar et al (2001), Castels (2006), Narchal (2007), Daniel (2007), Cattaneo et al (2013), Dustmann and Frattini (2014), Otrachshenko and Popova (2014), indicates the following important findings in research:
1. QOL and well-being are also a concern of the social indicators movement, which developed in both Scandinavia and the US in the 1960s and 1970s out of a feeling that economic indicators alone could not reflect the QOL of populations. Over the past 30 years this has become a fast growing discipline now fully embraced by governments and public sector agencies worldwide, seeking to measure and compare changes in QOL within and between communities, cities, regions and nation states. Major studies of QOL, for example, have been sponsored by organisations such as UNESCO, the OECD, and the World Health Organization (WHO),
2. QOL emerged as an academic discipline in its own right in the 1970s, with the establishment in 1974 of the peer reviewed scientific journal Social Indicators Research, founded and edited by Alex Michalos. Since then the volume of academic articles concerned with QOL and well-being issues has steadily increased. Schalock reports that since 1985 alone over 20,900 academic articles have appeared in the international literature containing the term "quality of life" in their title. A second key academic publication is The Journal of Happiness Studies, a multi-disciplinary journal which provides a forum for discussion of what it describes as the two main traditions in happiness research (1) speculative reflection on the good life and (2) empirical investigation of subjective well being. The International Society for Quality-of-Life Studies

(ISQOLS) serves as a forum for academic researchers working in this field, encouraging inter-disciplinary research and methodological debate and development. Our literature search produced a final selection of 244 articles, the majority academic but with a significant minority drawn from commissioned consultancy work and reports by public sector agencies,

3.   More intensive departure of citizens from the former Yugoslavia for temporary work abroad, recorded in the mid-sixties years the last century. To work outside the country, went mostly younger population from rural areas. Yugoslavia was the only European communist country, who sent the labor force in the capitalist countries. The first stage of labor migration is mass labor immigration to the country's capitalist economy. The second, "family reunification", when workers burst, to reduce isolation, save money and make life easier in a foreign environment, bring their spouses and children or establish a new family. In a situation where migrant begin to start families when their children start attending Western European schools, then migrants decide in most cases to permanently stay. The third phase is the "permanent residence "and development of new ethnic minorities,

4.   In migrants, on life satisfaction affecting assessment in the difference between: the new living conditions, living conditions of their close in the mainstream, and that which they had in the past. "Factor change of residence" can cause feelings of loneliness, because it involves the relocation and reduced the number of social relationships, separation from family that provides a sense of belonging. Factors which during relocation influence the social and emotional loneliness of migrants are reasons for departure from the country of origin, the problems of coping with the new environment, cultural differences, foreign language, unemployment, education problems, the consequences of social isolation, responsibility and the necessity of making important decisions for which they were not prepared,

5.   However, Baumeister and Dewall (2005) show that for the migrant's change of residence may be affected positively or negatively, but that primarily depends on the attitudes and relationships of migrants to moving as well as individual personality traits. Loneliness occurs when not satisfied the need for attachment to other people (Weiss,1973) and the dissatisfaction of these needs leads to lower satisfaction with life (theory of self-determination). Haslberger and Brewster (2007) emphasizes that something better social skills can help women (who are socially sensitive ...) to learn faster, being safer, and that easier to find their way in the new environment and culture, as opposed to male migrants which according to the Gergen and Gergen (1986) and Haneš (2012) the adults (first generation immigrants) in the spirit of tradition and preserving the national identity. However, we note that for other especially third-generation migrants from Serbia and Montenegro in Denmark and this barrier lose its significance. Generally speaking, in the beginning, life satisfaction migrants in the host community may be reduced due to language barriers, cultural differences, decreased social interaction (Hossen and Westhues, 2012; Mirzaie et al,2014). However, the process of independence in the new environment is faster, because the individuals working active, and in addition to the length parallel stay and with years of age, to a greater extent the satisfy needs for autonomy and competence, which have a positive impact on life satisfaction, and independence,

6.   Frank et al (2014) relying on research Otrachshenko and Popova (2011), Polgreen and Simpson (2011) and Massey and Akresh (2006) confirming yes differences between the average life satisfaction of immigrant groups and their source-country populations may also be attributable to unobserved factors. For example, life satisfaction itself may play a role in individuals' decision to migrate. Although some research indicates that individuals with lower levels of happiness are more likely to migrate, others argue that those who lack the financial resources to migrate likely have the lowest levels of satisfaction within source countries. In addition, life satisfaction is a significant predictor of whether an immigrant remains in the host country. Immigrants who are unhappy in the host country are more likely to return to their source country or to move to another country. The result is an over-representation of immigrants in the host country with high life satisfaction. Data limitations prevent an examination of this issue in this paper,

7.   Data on the number of Yugoslav immigrants in Denmark are shown in the "statistics on foreigners", volume 2 in the editorial office Bruun and Hamer (1991). The said statistics records, the total number of migrants from the former Yugoslavia in Denmark in 1967 amounted to - 358, 1974-6.802, 1991-10.039. However, the Danish statistics does not show migrants from the former Yugoslavia in Denmark, in the republics of the former Yugoslavia. About the exact number of

migrants from Serbia and Montenegro in Denmark it is difficult to give precise data. According to unofficial estimates, in Denmark have about 8.000 citizens of Serbia and Montenegro. According to Vladimir Radulovic ambassador of the state union Serbia and Montenegro in Copenhagen (2005): "It's hard to say how many of our people have the citizenship of Serbia and Montenegro, because in the meantime, 40–50 percent of them accepted the Danish citizenship, which is why they have to give up previous citizenship, because Denmark does not allow dual citizenship",

8. The research life satisfaction: migrants from Serbia and Montenegro in Denmark included a total of 189 respondents. Despite the large variability answer most of these areas (respondents listed a total of 48 resort life as a determinant of their own quality of life), can be classified into the following eight global domains: health, emotional well-being, material well-being, interpersonal relationships, productivity or performance, safety, social communities and religions and spiritual domains of life. Respondents really stand out six areas with a high incidence of allegations in determining satisfaction with the quality of life. In the first place according to the frequency of health (N = 113), then comes the family (N = 102), finance and material status (N = 84), job (N = 83), love (N = 72) and friendship (N = 64),

9. The average index of quality of life according to sex the in the range of 13-100% SM. In order to determine the differences in the index of quality of life in relation to age, respondents first age group (17-29) achieved the highest values while respondent's third age group (60 and over) achieved the lowest values. For respondents younger than 17-29 years, the average quality of life index was 68.68 with a standard deviation of 12.18. Quality of life index for the second age group (30-59 years) is 67.39 with a standard deviation of 12.17. For respondents 60 and older, the average index is 66.48, with a standard deviation of 7.07, and in the range of values from 50 to 83,

10. Gives life in Denmark, the best are shows a study Organization for Economic Cooperation and Development (OECD). The OECD in its initiative 'Better Life' has investigated how various aspects of life affect the common good of a society, and the quality of life in different countries. In addition to the salary, the OECD for each country taking into accounts the balance between work and private life. The index for a better life is calculated using three factors: 1) The amount of time spent on personal activities, 2) the percentage of employed women with children between 6 and 14 years, 3) the number of employees in the workplace are spends more than 50 hours a week. The first on this scale is Denmark. The Index balance between work and free time totaled 9.1. Time devoted to leisure activities ranged around 16.31 hours, the percentage of employed women with children 6-14 years was 78%, employees in the workplace spend more than 50 hours per week is 0.02% (www.nadlanu.com).

The system of values is the basis of man's personality, his life attitudes and form of life. Value systems are not the same for all individuals, and they are generally significantly differing from individual to individual. However, each person has to adapt its system of values of national and civilization value system. But the basic system the value of individual is the basis for its life satisfaction, quality of life and happiness. She constantly compares the fulfillment of your life with your value system and assesses the qualitative attributes this fulfillment. We know that the legality of same origin, but the conditions of origin are not. On the other hand, the basic value system of the individual suffers significant changes during its life cycle (childhood, adolescent, mature people, old people). Quality of life, life satisfaction and happiness are a direct function of age; however, respondents' statements refer only to the moment of interview and may not be accurate for the whole life of man. In other words, the value system suffers significant and often radical changes, depending on the age and condition of life (Milivojević et al, 2015).

Finally, Denmark is a model example of state where the persistent and deliberate work, culture and democracy realizes legally, economically and socially stable society, attractive for other countries and peoples. In this and such a society, your place is migrants from Serbia and Montenegro. Hence the author himself GR has a lot of sympathy for this country and its people, which is understandable, because he lives in Denmark narrower part of the family and wider family (Rajović, 2011).

References:
1. Vujović, M., (2007), Thoughts for eternity, Independent publishing agency "Zlaja", Belgrade.

2. Milivojević, J., Arsić, A. K., Milovanović, K. K., Đokić, S., Savović, I.,(2011), The new philosophy of quality of life, 38 National Conference on quality, 6 conference on quality of life, FO Quality Festival, B-121-130, Kragujevac.

3. Gojčeta, M., Joković-Oreb, I., Pinjatela, R., (2008), Some aspects of the quality of life of adolescents with and without cerebral paralyze, *Hrvatska revija za rehabilitacijska istraživanja*, *44*(1): 39-47.

4. Trgovčević, S., Kljajić, D., Nedović, G., (2011), Social Integration as Determinant of the quality of life of persons with traumatic paraplegia, *Godišnjak* 6(4): 493-506.

5. WHO (1998), The world health report: life in 21 century-a vision for all, Geneva

6. Drewnowsky, J., Scott, W., (1968), The level of Living Index - New Version, UNRISED, Genève.'

7. Allardt, E., (1976), Dimension of Welfareina Comparative Scandinavian Study, *Acta Sociologica*, 19(3):, 227-239.

8. Lewis, G. M., (1968), Levels of Living in the North-Eastern United States c. 1960: A New Approach to Regional Geography, *Transactions of the Institute of British Geographers*, 45, 11-37.

9. Smith, D., (1973), An introduction to welfare geography, Department of Geography and Environmental Studies, Johannesburg, University of the Witwatersrand.

10. Knox, P. L., MacLaran, A., (1978), Values and perceptions in descriptive approaches to urban social geography, in: D. Herbert and R. Johnston, (Ed.), Geography and the Urban Environment, John Wiley, Chichester, Sussex, 197-247.

11. Helburn, N., (1982), Presidential address: Geography and the Quality of Life, *Annals of the Association of the American Geographers,* 72(4), 445-456.

12. Pacione, M., (1984), Evaluating the quality of the residential environment in a high-rise public housing development, *Applied Geography*, 4(1), 59-70.

13. Lay, V., (1991), Quality of Life social strata in Croatia – Social structuring welfare, social structure and the quality of life in Croatia, *Zbornik radova*, IDIS, Zagreb, 1-12.

14. Cella, F. D., (1992), Quality of life: the concept, *Journal of Palliative Care*, 8(3),8–13.

15. Ira, V., Kollár, D., (1994), Behavioural-geographical aspects of environmental quality, *GeoJournal*,32(3), 221-224.

16. Diener, E., Suh, E., (1997), Measuring quality of life: Economic, social, and subjective indicators, *Social Indicators Research*, 40, 189-216.

17. Sheldon, K. M., Elliot, A. J., (1999), Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model, *Journal of Personality and Social Psychology*, 76, 482-497.

18. Diener, E., Suh, E. M., Lucas, R. E., Smith, H., (1999), Subjective well being: Three decades of progress, *Psychological Bulletin*, 125, 276-302

19. Diener, E., (2000), Subjective well-being: The science of happiness and a proposal for an national index, *American Psychologist*, 55, 34-43.

20. Hagerty, M.R., Cummins R.A., Ferriss A.L, Land, K., Michalos, A., Peterson, M., Sharpe, A., Sirgy, M.J., Vogel, J., (2001), Quality of Life Indexes for National Policy: Review and Agenda for Research, *Soc Indic Res.*,55(1),1-96.

21. Boelhouwer, J., (2002), Quality of Life and Living Conditions in the Netherlands, *Social Indicators Research*, 58(1), 113-138.

22. Diener, L., Oishi, S., Lucas, R. E., (2003), Personality, culture, and subjective well-being: Emotional and cognitive evaluations of life, *Annual Review of Psychology*, 54, 403-425

23. Beauchamp, T.L., (2004), Does Ethical Theory Have a Future in Bioethics?, *J Law Med Ethics*, 32(2),209-17

24. Mandzuk, L.L., McMillan, D.E., (2005), A concept analysis of quality of life, *J Orthop Res.*, 9(1), 12-8.

25. Wu, C. H., Yao, G., (2006), Analysis of factorial invariance across gender in the Taiwan version of the Satisfaction With Life Scale, *Personality and Individual Differences*, 40, 1259-1268.

26. Ryff, C. D., Singer, B. H., (2008), Know thyself and become what you are: A eudemonic approach to psychological well-being, *Journal of Happiness Studies*, 9,13-39

27. Jarholm, B., Albin, M., Johansson, G., Wadensjo, E., (2009), Perspective of working life research, *Scand J Work Environ Health*, 35(5),394-6.

28. Aranđelović, M., Nikolić, M., Stamenković, S., (2010), Relationship between Burnout, Quality of Life and Work Ability Index - Directions in Prevention, *Scientific World Journal*, 10, 766-77.

29. Lucas, R. E., Diener, E., (2010), Subjective well-being. In M. Lewis, J.M. Haviland-Jones, L., Feldman Barrett (Eds.). Handbook of emotions (pp. 471-484), New York, London: The Guilford Press.

30. Slavuj, L., (2012), The objective and subjective indicators in the study of the concept of quality of life, *Geoadria*, *17*(1), 73-92.

31. Rajović, G., Bulatović, J., (2015), Different attitudes toward the quality of life concept, *Azerbaijanian Journal of Economics and Social Studies*,4, 70 – 93.

32. Rajović, G., Bulatović, J., (2016),Life as a geographical theme - one more contribution to the study of quality of life, *World Scientific News*, 28, 41 – 57.

33. Armstrong, D., Caldwell, D., (2004), Origins of the Concept of Quality of Life in Health Care: a Rhetorical Solution to a Political Problem, *Social Theory and Health*, 2(4),361-71.

34. Keith, K.D., (2001), International Quality of Life: Current Conceptual, Measurement, and Implementation Issues, In: Glidden LM, editor. International Review of Research in Mental Retardation, 24, San Diego: Academic Press.

35. Schalock, R.L., (2000), Three Decades of Quality of Life, *Focus Autism Other Dev Disabl*, 15(2): 116-27.

36. Schalock, R.L., (2004), The Concept of Quality of Life: What We Know and Do Not Know, *J Intellect Disabil Res.,* 48(3):203-16.

37. Kahn, N.B., (2004), The Future of Family Medicine: A Collaborative Project of the Family Medicine Community, *Ann Fam Med*, 2 (Suppl 1): s3-32.

38. Cummins, R.A., (2000), Objective and Subjective Quality of Life: an Interactive Model, *Soc Indic Res*, 52 (1): 55-72.

39. Jakopin, E., (2011), Measurement of prosperity and quality of life, Business and Finance, Available from: http://www.bif.rs (11.03.2014).

40. Bell, D., (2005), Quality of Life and Well-being: Measuring the Benefits of Culture and Sport: Literature Review and Thinkpiece, Scottish Executive Social Research.

41. Farquhar, M., (1995), Definitions of quality of life: a taxonomy, *Journal of advanced nursing*, *22*(3), 502-508.

42. Ilić, I., Milić, I., & Aranđelović, M. (2010). Assessing quality of life: Current approaches, *Acta Medica Medianae*, *49*(4).

43. Werner, S. (2012). Subjective well-being, hope, and needs of individuals with serious mental illness, *Psychiatry research*, *196*(2), 214-219.

44. The WHOQOL Group (1998), Development of the World Health Organization WHOQOL BREF Quality of Life Assessment, *Psychological Medicine*, 28: 551—558.

45. O'Boyle, C.A., McGee, H., Hickey, A., Joyce, C.R.B., Browne, J., O'Malley, J., (1993), The Schedule for the Evaluation of Individual Quality of Life. Administration Manual. Department of Psychology, Royal College of Surgeons in Ireland.

46. Rajović, G., (2011), Demographic characteristics of the modern labor migration from Montenegro to Denmark, *GeoScape*, 6(1-2): 2-10.

47. Rajović, G., (2013), Some socio-geographic characteristics of modern labor migration from Serbia and Montenegro to Denmark: social life and social relations migrants, *International Letters of Social and Humanistic Sciences*, *2: 1-17.*

48. Rajović, G., (2014),Geographical contribution of contemporary labour migration from Serbia and Montenegro to Denmark*, International Journal of Migration and Residential Mobility*, 1(1): 28-*49.*

49. Rajović, V., (1993), Montenegrins in Denmark, Nikšić:"Unireh".

50. Rajović, G.*, (2014),* Some characteristic of ethnic identity –Case study: migrants from Serbia and Montenegro to Denmark, *Antrocom: Online Journal of Anthropology,*10(2), 187-224.

51. Rajović, G., (2015), Organization and Activities of Migrants from Serbia and Montenegro in Denmark: a Case Study, *European Geographical Studies*, 6(2): 92-110.

52. Ira V., Andraško I., Michalek A., Podolak P., (2009), Quality of life: geographical research in Slovakia, Geographia Slovaca,26,101-120.

53. Hughes, C., Hwang, B., (1996). Attempts to conceptualize and measure quality of life, *Quality of life, 1*, 51-61.

54. Anderson James, C., Gerbing David, W., (1998), Structural equation modeling in practice: a review and recommended two-step approach, *Psychological Bulletin*, 103(3):411–423.

55. Nahid, A., Shamsuddin, A.F., (2001), Immigration and the unemployment benefit programme in Australia, *Applied Economics, 33*(12): 1587-1597.

56. Vuletić, G., Mujkić, A., (2002), What makes the personal quality of life: A study on a sample of Croatian urban population, *Liječnički vjesnik, 124*(2), 64-70.

57. Skevington, S.M., O'Connel, Kathryn A., The WHOQOL Group (2004), Can we identify the poorest quality of life? Assessing the importance of quality of life e using the WHOQOL-100", *Quality of Life Research*, 13(1): 23–34.

58. Skevington, S.M., Lotfy, M., O'Connell, K. A., (2004), The World Health Organization's WHOQOL-BREF quality of life assessment: Psychometric properties and results of the international field trial, A report from the WHOQOL Group, *Quality of Life Research*, 13(2): 299–310.

59. Kler, P., (2006), Overeducation among tertiary educated immigrants to Australia: A longitudinal study, *Labour Economics Research Group, University of Queensland, Discussion Paper*, (9), 39.

60. Liebig, T., (2007), The Labour Market Integration of Immigrants in Denmark, OECD Social, Employment and Migration Working Papers, Head of Publications Service OECD, France.

61. Bayram, N., Thorburn, D., Bilgel, N., (2011), The quality of life of Turkish migrants in Sweden: a survey to determine the psychometric characteristics of the instrument 100 the quality of life of the World Health Organization, *Migracijske i etničke teme, 27*(1): 39-55.

62. Ostling, A.,(2013), An overview of highly skilled labour migration in Denmark with a focus on Indian nationals, CARIM-India Research Report 2013/43, Robert Schuman Centre for Advanced Studies, San Domenico di Fiesole (FI): European University Institute.

63. Kleven, H. J., Landais, C., Saez, E., Schultz, E., (2014), Migration and Wage Effects of Taxing Top Earners: Evidence from the Foreigners' Tax Scheme in Denmark, *The Quarterly Journal of Economics, 129*(1): 333-378.

64. Andrews Frank M. & Withey Stephen B. 1976. Social Indicators of Well-Being: Americans Perception of Life Quality. New York: Plenum.

65. Watson D. Clark L. A. & Tellegen A. 1988. Development and validation of brief measures of positive and negative affect: the PANAS scales. *Journal of personality and social psychology, 54*(6), 1063.

66. Van Oudenhoven J. & Willemsen P. 1989. Ethnic Minorities: Social Psychological Perspectives (Tinke M.(ed.). Amsterdam: Swets & Zeitlinger.

67. Ryff Carol D., Magee William J. Kling Kristen C. & Wing Edward H. 1999. Forging macro-micro linkages in the study of psychological well-being, in: C. D. Ryff and V. Marshall (ed.). The Self and Society in an Aging Process. New York: Springer, pp. 247–278

68. Wahl Astrid K. RustØen T., Hanestad Berit R., Lerdal A. & MoumT. 2004. Quality of life in the general Norwegian population, measured by the Quality of Life Scale (QOLS-N). *Quality of life research*, 13(5),1001–1009.

69. Lima Maria L. & Novo R. 2006. So far so good? Subjective and social well-being in Portugal and Europe. *Portuguese Journal of Social Science*, 5(1), 5–33.

70. Lučev I. & Tadinac M. 2008. The Quality of Life in Croatia–the Connection between Subjective and Objective Indicators as well as Temperament and Demographic Variables with a Reference to Minority Status. *Migracijske i etničke teme, 24*(1-2), 67-89.

71. Kling K. C. & Wing E. H. 1999. Forging Macro-Micro Linkages in the Study of Psychological Well-Being. *The Self and Society in Aging Processes*, 247.

72. Nezlek J. B. 2000. The motivational and cognitive dynamics of day-to-day social life. *The social mind: Cognitive and motivational aspects of interpersonal behavior*, 92-111.

73. Markus H. R., Ryff C. D., Curhan K. B., & Palmersheim K. A. 2004. In their own words: Well-being at midlife among high school-educated and college-educated adults. *How healthy are we*, 273-319.

74. Ryan R. M. & Huta V. 2009. Wellness as healthy functioning or wellness as happiness: The importance of eudemonic thinking (response to the Kashdan et al. and Waterman discussion). *The Journal of Positive Psychology*, *4*(3), 202-204.

75. Krizmanić, M., Kolesarić, V., (1989), The attempt conceptualization of the term "quality of life" *Primijenjena psihologija*, 10(1989), 179 -184.

76. Petz, B., et al (2005), Psychological dictionary, Jastrebarsko: Naklada Slap.

77. Vuletić, G., (2013), Self-perceived health and quality of life in Bjelovar - Bilogora counties: regional differences and specificities, *Radovi Zavoda za znanstvenoistraživački i umjetnički rad u Bjelovaru*, (7), 213-222.

78. Rajović, G., (2011), Montenegrin immigrants in Denmark, "The Agency PC system", Belgrade.

79. Wahl, A., Burckhardt, C., Wiklund, I., & Hanestad, B. R. (1998). The Norwegian Version of the Quality of Life Scale (QOLS-N). *Scandinavian journal of caring sciences*, *12*(4), 215-222.

80. Burckhardt, C. S., Anderson, K. L., Archenholtz, B., & Hägg, O. (2003). The Flanagan quality of life scale: Evidence of construct validity. *Health and Quality of Life Outcomes*, *1*(1), 59.

81. Veenhoven R. 1983. The Growing Impact of Marriage, *Social indicators research*,12 (1), 49–63.

82. Blom, S., Listhaug, O., (1988), Family and quality of life, *Tidsskrift for samfunnsforskning*, *29*(1), 5-28.

83. Wani, N. A., Dar, K. A., Wani, R. Y., (2013), Relationship between marital adjustment and socio-cultural determinants, *Indian Journal of Health and Wellbeing*, *4*(1), 31.

84. Halauk, V., (2013), The quality of life in health and disease, *Radovi Zavoda za znanstvenoistraživački i umjetnički rad u Bjelovaru*, (7), 259-269.

85. Milivojević,J., Đorđević,J., Stojanović,S.,(2015), Quality of life, life satisfaction and happiness during the whole life cycle of men,10 National Conference on quality of life, Quality Festival, B 89 - B 98, Kragujevac.

86. Herček, E.,(1985), Postwar migration perspective of Europe, *Migration issues,* 1(1): 5-20.

87. Rokach*, A., (*1989*),* Antecedents of Loneliness: A Factor Analysis, *Journal of Psychology (123), 369–384.*

88. Smith, W.K., Kevin, W., Avis Nancy, E., Aaman Susan, F., (1998), Distinguishing between equality of life and health status in quality of life research: a meta-analysis", *Quality of Life Research*, 8(5): 447–459.

89. Selvamanickam, S., Zgryza, M., Gorman, D., (2001), Coping in a New World: TheSocial and Emotional Wellbeing of Young People from Culturally and Linguistically Diverse Backgrounds. Brisbane: Queensland Transcultural Mental Health Centre, Queensland Health and Youth Affairs Network of Queensland Inc.

90. Shenkar, S., Carlson, D., Billington, R., Orley, J., The WHOQOL Group (2001), The WHO quality of life assessment instrument (WHOQOL-BREF): the importance of its items for cross-cultural research, *Quality of Life Research*, 10(8): 711–721.

91. Castels, S.,(2006), Guest workers in Europe: A Resurrection?, *International Migration Review*, 40(4): 741-746.

92. Narchal, R., (2007), Migration: Destruction and reconstruction of the self. *Sensoria: A, Journal of Mind, Brain & Culture*, *3*(1), 55-64.

93. Daniel,O.,(2007), Foreign workers: Rethinking Yugoslav Economic Migrations towards the European North-West through Tran nationalism and Popular Culture", In Imagining Frontiers, Contesting Identities, eds. Steven G. Ellis and Lud'a Klusáková, Pisa University Press, Pisa.

94. Cattaneo, C., Fiorio, C. V., Peri, G., (2013). Immigration and careers of European workers: effects and the role of policies, *IZA Journal of European Labor Studies*, *2*(1), 1-26.

95. Dustmann, C., Frattini, T., (2014), The fiscal effects of immigration to the UK, *The economic journal*, *124*(580), F593-F643.

96. Otrachshenko, V., Popova, O., (2014), Life (dis) satisfaction and the intention to migrate: Evidence from Central and Eastern Europe, *The Journal of Socio-Economics*, *48*, 40-49.

97. Pavićević, A.,(2004), Some issues of external migrations of Yugoslavia after World War II, *Journal of Ethnographic Institute of the Serbian Academy of Arts and Sciences*, 57: 129–137.

98. Baumeister, R. F., DeWall, C. N., (2005), The I nner dimension of social exclusion: Intelligent thought and self-regulation among rejected persons. In K. D. Williams, J. P. Forgas, & W. von Hippel (Eds.), The social outcast: Ostracism, social exclusion, rejection, and bullying (pp. 53-73). New York, NY, US: Psychology Press.

99. Weiss, R. S., (1973), Loneliness: The experience of emotional and social isolation, Cambridge, MA: MIT Press.

100. Haslberger, A., Brewster, C., (2007), Domains of expatriate adjustment with special emphasis on work. In Cadiz University's 6th International Workshop on Human Resource Management, Jerez, Spain.

101. Gergen, J., Gergen, M. M., (1986), Social psychology, Berlin: Springer Verlag.

102. Haneš, O., (2012), Socio-demographic characteristics, social distance and stereotypes among students in Banja Luka, *Primenjena psihologija*, *5*(1), 59-79.

103. Hossen, M. A., Westhues, A., (2012), The medicine that might kill the patient: structural adjustment and its impacts on health care in Bangladesh, *Social work in public health*, *27*(3), 213-228.

104. Mirzaie, G., Ahmady, K., Ali Mhrabe, H., Masoenlavasane, G., Azadfallah, P., (2014), The prediction of lifestyle according to personality traits, *Journal of Behavioral Sciences*, *8*(2), 177-184.

105. Bruun, I., Hamer,O., (1991), "Statistikker over udlændinge, ingen sekunder, Danmarks statistik 1991.ar".

106. Frank, K., Hou, F., Schellenberg, G., (2014), Life Satisfaction among Recent Immigrants in Canada: Comparisons with Source-country Populations and the Canadian-born, *Analytical Studies Research Branch Research Paper Series*, 363,5-23.

107. Otrachshenko, V., Popova, O., (2011), Life (dis)satisfaction and decision to migrate: Evidence from Central and Eastern Europe, Arbeitsbereich aus dem Osteuropa - Institut Regensburg, Arbeitsbereich Wirtschaft, Migration and Integration.

108. Polgreen, L.A., Simpson, N.B., (2011), Happiness and international migration, *Journal of Happiness Studies*, 12, 819-840.

109. Massey, D.S., Akresh, I.R. (2006), Immigrant intentions and mobility in a global economy: The attitudes and behavior of recently arrived U.S. immigrants, *Social Science Quarterly,* 87 (5), 954-971.

110. Statement V. Radulović (2005), Ambassador of the State Union Serbia and Montenegro in the Copenhagen newspaper "Blic", Available from: http://www.blic.evropa.net (26.08 2005).

111. Why is life in Denmark the highest quality, Available from: http://www.nadlanu.com (16.08.2015).

112. Milivojević, J., Đorđević, A., Stojanović, S., (2015), Functional link between quality of life and system of values, 42 National Conference on quality, 10 conference on quality of life, Quality Festival, L5-1-L5-12, Kragujevac.

УДК 33

Степень удовлетворенности жизнью – мигранты в Дании из Сербии и Черногории: пример

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Аннотация. Сообщество мигрантов из Сербии и Черногории, хотя и не многочисленное (около 8,000), представляет интерес для исследователей, так как в Дании

часть из которых являются экономически зависимыми, они сохраняют свою социально-экономическую личность, и, следовательно, качество жизни. В качестве инструмента для оценки качества жизни мигрантов из Сербии и Черногории в Дании используется вопросник, созданный Всемирной организацией здравоохранения и анкеты, оценивающие качество жизни, созданные кафедрой психологии в Королевском колледже хирургов в Ирландии, адаптированые к потребностям данного исследования. Метрические характеристики анкеты были оценены на образце 189 респондентов – мигрантов из Сербии и Черногории, которые живут и работают в Дании. Несмотря на большой разброс ответов большинстве из этих областей (респонденты перечислили в общей сложности 48 и показатели курортной жизни использовали в качестве определителя собственно качества жизни), могут быть классифицированы на следующие восемь глобальных доменов: здоровье, эмоциональное благополучие, материальное благополучие, межличностные отношения, производительность или эффективность, безопасность, социальные сообщества и религии и духовные домены жизни. Отображается среднее значение качества жизни по полу. Личные ценности, начиная от 13-100 % СМ. Для того, чтобы определить различия в индексе качества жизни в зависимости от возраста, провели статистический анализ качества разности показателей жизни между возрастными группами. Для респондентов моложе 17-29 лет, средний индекс качества жизни был 68.68 со стандартным отклонением 12,18. Индекс качества жизни во второй возрастной группе (30-59 лет) является 67,39 со стандартным отклонением 12.17. Для респондентов 60 и более лет, в среднем индекс составляет 66,48 со стандартным отклонением 7,07.

Ключевые слова: мигранты, Сербия, Черногория, Дания, качество жизни, качество жизни области.

Pedagogical sciences

Педагогические науки

UDC 37

Physical Activities of Pupils in Slovak Primary Schools

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Abstract
In this work we studied the physical activities of 1082 pupils in primary schools that were analysed using questionnaires and then evaluated from a perspective of municipal and rural schools as well as from the perspective of the regions the pupils come from. The results were analysed using the TAP programme developed by the GAMO Company in Banská Bystrica. Our survey shows that during the working week almost 20 % of boys perform some physical activities within a time-scale of more than 5 hours a day. In terms of the preference of physical activities, collective sports prevail considerably over individual ones – almost 50 % of all responses. The sports activities offered at schools or in a place of residence are actively performed by less than 14 % of boys.
Keywords: physical activity, pupils, primary school.

Introduction

Physical activity is understood by Brettschneider and Naul (2004) as the group of all exercises produced by the skeletal muscles leading to increased frequency of pulse and breathing. In the past as well as nowadays, there were many studies (HHS, CDC, PCPFS, etc.) focusing on the question of physical activity that tried and are trying to clarify the relation between the amount of physical activities, their intensity and frequency. In 1978 the American College of Sports Medicine (ACSM, 1978) concluded that even the mean intensity of physical exercise can improve working capacity. Over the past years new knowledge and recommendations referring to physical activity have been published but sometimes they are inconsistent or even appear to be contradictory. This is the reason why it is necessary to know the organization publishing the directive or recommendation about what to do and particularly at whom these recommendations are aimed (Hendl, Dobrý, 2011).

In any event, the majority of all studies point out that the amount of physical activities exercised by adolescents is following a downward trend. According to the international HBSC (The Health Behaviour in School) research study, the majority of school children are not active enough concerning physical activities. It is stated in the given study that almost 50% of all girls exercise intensively less than 5 days, getting worse as they age (http://www.hbsc.org/). The results of the study made by Hagströmer et al (2010), who compared the aspect of physical activity from the point of view of its intensity in Sweden (n = 1172) and in the United States (n = 2925), also demonstrated that the population generally preferred a sedentary lifestyle and very little activity. A group of aged Swedish people was more active performing mild or more intensive activities than a group of elder American people. On the other hand, the younger Swedish men's frequency of sedentary lifestyle exceeded the frequency of young men from the United States. We also learn some interesting facts from the study written by Bouchard (2015), stating that people who prefer walking and riding a bicycle as their transport activity to reach work do 30 up to 60 minutes more physical exercise per week than people living in suburban areas who are more reliant on motorised vehicles.

A lack of physical activity has become a characteristic of today's world, which has a negative impact on the health of each individual. The results of the survey carried out by STEM/MARK and VZP 2013 (n = 2058) in the Czech Republic point out that 55% of men and 60% of women have a risky waist measurement and that there was a significant negative increase (women and men) between 2000 and 2005, in terms of men also between 2010 and 2013. According to the WHO (World Health Organization, 2010), an inactive way of life represents the fourth biggest death factor in the world. Moreover, as the WHO states, the increasing rate of lifestyle diseases relates to lifestyle and a lack of exercise in most European countries. Economic consequences are reflected in healthcare, slowing down the economic growth caused by frequent sickness absence (inability to work) and also premature death. The financial cost of 910 million euros per year affects 10 million members of the European population, concerning half of the population that is not physically active enough.

The partial task within the **KEGA 002UMB-4/2014 Project called "Innovation of Physical Activities for Pupils in Primary Schools Carried Out in a Natural Environment Through Play Using the Global Positioning System"** was to find out the extent and content of the physical activities of pupils at primary schools in selected Slovak regions.

Materials and methods

The fundamental method in the research was applied by means of questions –an anonymous, non-standardised survey we performed following research needs. We distributed questionnaires among pupils at the primary schools in selected Slovak towns in the first half of the 2014/2015 school year. The results of the survey were evaluated by the GAMO Company Banská Bystrica through the TAP programme. The survey included 1012 correctly completed questionnaires. The more detailed characteristics of pupils is represented by Figure 1. We analysed the answers provided by pupils from the aspect of municipal and rural schools as well as from the aspect of two Slovak regions – Central and Eastern Slovakia.

Figure 1. Characteristic of the studied entity (n = 1012)

Results

The results of our survey point out the surprising fact that during the first working week pupils attending rural schools do less physical exercise (less than 1 hour per day 21.85% and more than 2 hours per day 36.69%) in comparison with pupils attending municipal schools (less than 1 hour per day only 14.20% and more than 2 hours per day 46.56%) – Figure 2. The low percentage of physical activity, also shown in the studies of different authors, for example Pratt et al. (1999), Miklánková, Sigmund, et al. (2007), Biddle et al. (2009), etc., should make the national and international institutions intervene in various ways. We agree with Suggs and McIntyre (2011) that the legal, political and economic environment of the nation plays an important role in this regard because it can promote and implement prevention programmes to support a healthy lifestyle throughout various institutions. However, practical experience refers to the opposite trend, for example in checking the activities of the Czech Republic in 2009/2010 it was found out by inspection that the number of schools with extensive physical education is decreasing in comparison to 2009, when there was a decrease of more or less 14 %.
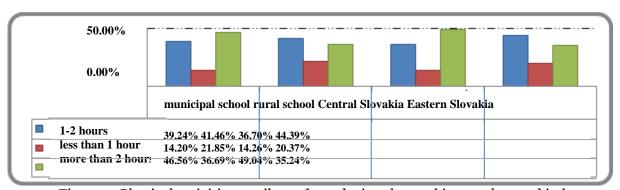
Figure 2. Physical activities pupils perform during the working week stated in hours

Regarding the given Slovak regions, almost 50% of boys from Central Slovakia do some physical activity for more than 2 hours per day, whereby only 35.24% represent boys from Eastern Slovakia. The statistical evaluation is shown in Table 1.

Table 1: Statistical evaluation – Physical exercise of pupils during the working week stated in hours

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	** p= 1.163 E-03	** p= 4.245 E-05

Legend: statistical significance – p < 0.01=**, p < 0.05, =*, n= statistically insignificant

After we obtained these data, we were focused in the survey on how many hours per day pupils perform physical exercise at the weekend. The results of the study written by Nadera et al. (2008) demonstrate that children at the age of 9 spend more than 3 hours doing physical activities not just during the week, but also the weekend, whereby as children get older, they perform fewer activities. At the age of 15 they spend just 49 minutes exercising one day a week and it is even less at the weekend – only 35 minutes per day.

Following the answers of the pupils attending municipal and rural schools, we found out that only 16.03% of the boys in municipal schools and 17.93% of the boys in rural schools dedicate less than 3 hours per day to physical exercise (Figure 3).

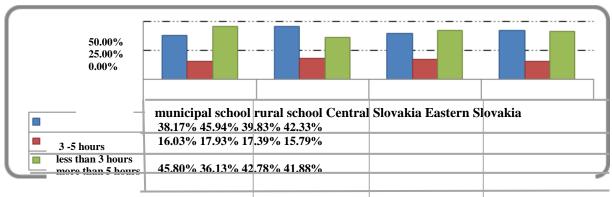|	municipal school	rural school	Central Slovakia	Eastern Slovakia
■	38.17%	45.94%	39.83%	42.33%
■ 3 -5 hours	16.03%	17.93%	17.39%	15.79%
■ less than 3 hours more than 5 hours	45.80%	36.13%	42.78%	41.88%

Figure 3. Physical activities performed per day during the week given in hours

In terms of boys attending municipal schools, 48.80% of them dedicate more than 5 hours per day to perform a kind of physical activity, while boys in rural schools represent 36.13 %. The given differences based on the answers were statistically significant at the Chi level – p < 0.05. Referring to the selected regions of Slovakia, there were no considerable differences registered in the boys' answers nor were the different answers statistically significant for the reason mentioned above (Figure 2).

Table 2: Statistical evaluation – Physical activities performed per day during the weekend given in hours

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	* p= 0.01109	n p= 0.66651

Legend: statistical significance - p < 0.01= **, p < 0.05 = *, n= statistically insignificant

During school holidays more than 40% of the boys attending municipal and rural schools as well as boys living in Central and Eastern Slovakia perform physical exercise more than 5 hours, which is considered a positive aspect. On the other hand, in the case of all selected groups, the percentage of those boys doing less than 3 hours of physical activity per day increased too (almost 1/3 of boys from all selected groups). The amount of exercise is inappropriate for these boys during holidays and to a certain extent it can lead to childhood obesity - Cínová et al. (2005) found out that 7-11 years old children in Slovakia are affected by childhood obesity, representing 8%, and 14-17 years old children, representing 11%. From the point of view of statistical evaluation the difference in answers is illustrated by Table 3.

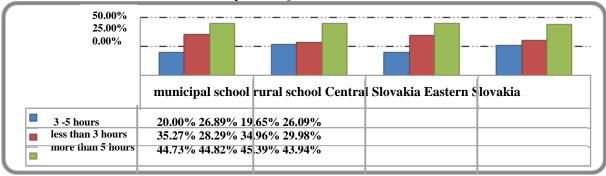|	municipal school	rural school	Central Slovakia	Eastern Slovakia
■ 3 -5 hours	20.00%	26.89%	19.65%	26.09%
■ less than 3 hours	35.27%	28.29%	34.96%	29.98%
■ more than 5 hours	44.73%	44.82%	45.39%	43.94%

Figure 4. Physical activities performed by pupils during the week in summer holidays stated in hours

Table 3: Statistical evaluation – Physical activities performed by pupils during the week in summer holidays stated in hours

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	* p= 0.01561	* p= 0.03730

Legend: statistical significance – $p < 0.01$= **, $p < 0.05$ = *, n= statistically insignificant
Regarding almost ¾ of all the groups we evaluated, the boys spend their free time both passively and actively.

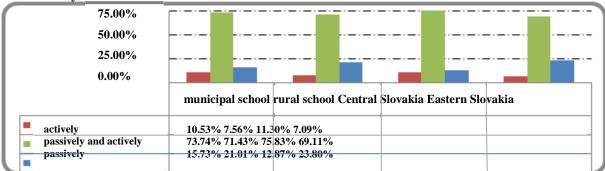|		municipal school	rural school	Central Slovakia	Eastern Slovakia
■	actively	10.53%	7.56%	11.30%	7.09%
■	passively and actively	73.74%	71.43%	75.83%	69.11%
■	passively	15.73%	21.01%	12.87%	23.80%

Figure 5. The manner of spending leisure time

Following the answers of the boys attending municipal and rural schools, we did not record statistically considerable differences, but on the contrary, from the point of view of the Slovak regions, the answers were statistically significant at a level of $p < 0.01$. There was a higher level of passivity demonstrated with the boys living in Eastern Slovakia.

Table 4: Statistical evaluation – The manner of spending leisure time

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	n p= 0.05012	** p= 9.935 E-06

Legend: statistical significance - $p < 0.01$= **, $p < 0.05$ = *, n= statistically insignificant
In terms of the character of physical activities – recreational, performance (both of them are equally covered), the boys from all selected groups responded in a very similar way. Approximately 44% of them prefer recreational activities, while roughly 33 % prefer performance activities. The remaining percentage is equally represented by both, recreational and performance activities. The boys' responses were statistically insignificant for the reasons given above. Bendíková (2014) found, in a group of secondary school students, that only 20 % of girls regularly pursue sports and recreational activities either at the recreational or performance level. On these grounds it is clear that the level of physical competence is on a moderate but gradual declining trend for the majority of the population, also proven by the results of the comparative study of the school population's physical competence (Raczek-Mynarski-Ljach, 2002).
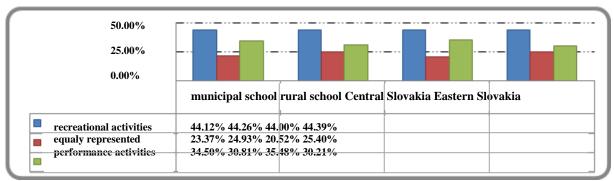
Figure 6. Character of physical activities (Question 5/6)

Table 5: Statistical evaluation – Character of physical activities

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	n p= 0.32620	n p= 0.09540

Legend: statistical evaluation - p < 0.01=**, p < 0.05 = *, n= statistically insignificant

The majority of pupils (61.07 %) attending municipal schools prefer doing physical exercise in leisure circles. On the other hand, referring to location, the physical activity shows a balanced distribution among the pupils in rural schools. From the point of view of location, boys from the Central Slovakia are used to attending leisure circles (69.91 %), while in Eastern Slovakia there are physical activities almost equally distributed (leisure circles, sports grounds, outside close to their residence). The responded question concerning municipal and rural schools as well as Slovak regions were statistically significant at the level - p < 0.01.
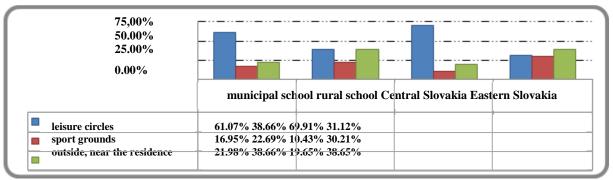
Figure 7. Prevailing location of performing physical activities (question 6/27)

Table 5: Statistical evaluation - Prevailing location of performing physical activities

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	** p= 2.413 E-11	** p= 4.2610 E-34

Legend: statistical significance – p < 0.01= **, p < 0.05, = *, n= statistically insignificant

It is obvious that boys prefer collective sports (almost 50 % of responses in all selected groups) to individual ones. Studying the popularity of collective sports games among the pupils we found that the results we obtained are in conformity with the studies of various specialists such as Slezák-Melicher (2008), Lenková, et al. (2010), Nemec-Adamčák (2013), Beťák (2014). They did a research focusing on pupils' interests in their favoured physical activities, performed either at physical education classes or in their free time.

Almost 20 % of the boys in all selected groups prefer individual sports. The responded question concerning municipal and rural schools as well as the Slovak regions were statistically insignificant.
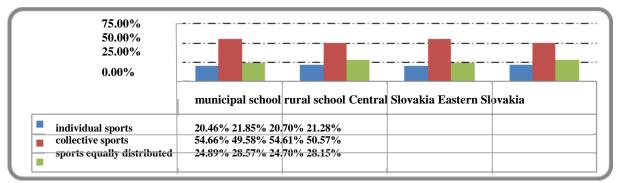

	municipal school	rural school	Central Slovakia	Eastern Slovakia
■ individual sports	20.46%	21.85%	20.70%	21.28%
■ collective sports	54.66%	49.58%	54.61%	50.57%
■ sports equally distributed	24.89%	28.57%	24.70%	28.15%

Figure 8. The popularity of sports (Question 7/5)

Table 7: Statistical significance – The popularity of sports

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	n p= 0.28102	n p= 0.38001

Legend: statistical significance - $p < 0.01$= **, $p < 0.05$= *, n= statistically insignificant

In terms of collective sports, boys prefer traditional sports games (football, basketball, volleyball, etc.). This was proven by the frequency of responses provided by municipal and rural schools that reached over 56% and 65.04% in the case of the boys from Central Slovakia. We were not surprised by the high popularity of traditional collective sports, since mainly football is one of the most favourite sports for boys (Nemec, 2002; Kollár, 2006). Less known collective sports (floorball, ball hockey, field hockey) are mostly favoured by boys living in Eastern Slovakia – 24.49%. The statistical evaluation of this question is shown in Table 8.

	municipal school	rural school	Central Slovakia	Eastern Slovakia
■ traditional	56.64%	56.02%	65.04%	45.08%
■ less known	20.15%	14.01%	13.04%	24.49%
■ both are equally represented	23.21%	29.97%	21.91%	30.43%

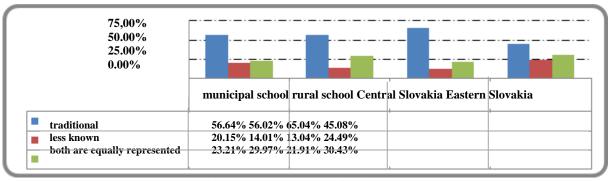Figure 9. Popularity of collective sports

Table 8: Statistical evaluation – Popularity of collective sports

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	* p= 0.01108	** p= 5.4581 E-10

Legend: statistical significance - $p < 0.01$= **, $p < 0.05$ = *, n= statistically insignificant

In terms of individual sports, it was proven by the responses of all selected groups that sports activities carried out in natural environments are dominant – hiking, bicycle touring, Nordic walking, etc. The response rate was over 60%. Individual sports carried out in sports facilities are mostly preffered by boys from rural schools – 26.33%, while regarding Slovak regions it was more in the case of boys from Central Slovakia – 20.52%. Evaluating this aspect from the perspective of municipal and rural schools we found considerable differences at the level p < 0.01, but from the perspective of the Slovak regions there were no considerable differences.

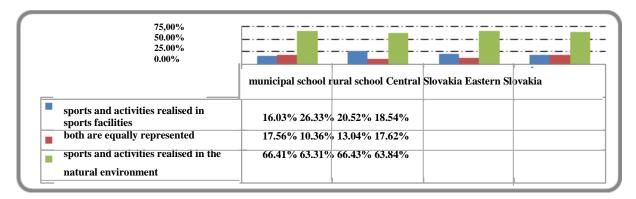|	municipal school	rural school	Central Slovakia	Eastern Slovakia
■ sports and activities realised in sports facilities	16.03%	26.33%	20.52%	18.54%
■ both are equally represented	17.56%	10.36%	13.04%	17.62%
■ sports and activities realised in the natural environment	66.41%	63.31%	66.43%	63.84%

Figure 10. Popularity of individual sports from the point of view of the boys-pupils regarding municipal and rural schools as well as Slovak regions

Table 9: Statistical evaluation – Popularity of individual sports

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	** p= 3.093 E-05	n p= 0.1214

Legend: statistical significance - p < 0.01= **, p < 0.05 = *, n= statistically insignificant

Boys usually perform physical activities with their friends, for example with those from leisure circles where the response rate of all selected groups was over 60%. Boys attending municipal schools prefer their family members while performing physical activities – 17.71% and regarding Slovak regions the boys from Eastern Slovakia – 16.93%. There is a statistical evaluation shown in Table 10. We consider the results obtained by Peráčková (2008) and Antala et al. (2012) as alarming because they provide evidence that nowadays physical education at schools is the only way many children perform physical exercise.

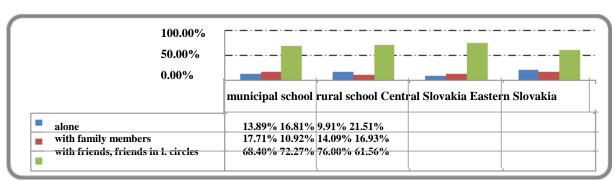|	municipal school	rural school	Central Slovakia	Eastern Slovakia
■ alone	13.89%	16.81%	9.91%	21.51%
■ with family members	17.71%	10.92%	14.09%	16.93%
■ with friends, friends in l. circles	68.40%	72.27%	76.00%	61.56%

Figure 11. The company of pupils while performing physical activities

Table 10: Statistical evaluation - The company of pupils
while performing physical activities

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	* p= 0.012541	** p= 1.747 E-07

Legend: statistical significance - $p < 0.01$ = **, $p < 0.05$ = *, n= statistically insignificant

With regard to the responses the boys provided us (the response rate reached over 50% in all selected groups), parents had the most considerable influence on pupils to make them dedicated to a physical activity. According to Pařízková et al. (2007), if children spend their free time with their parents walking or performing various kinds of sports activities, it becomes natural for them to acquire a positive attitude towards physical activity. Moore et al. (1991) found that parents' influence on the level of activity of their children was more remarkable with active fathers than with active mothers. The most considerable influence was noticed in those families where both parents were physically active, whereby there was a six-fold increase in the difference in comparison with children whose both parents were inactive.

Moreover, the physical activity of the children was also influenced by their friends (the response rate was between 22.09% in the case of the boys from Central Slovakia to 27% concerning the boys from Eastern Slovakia). According to the boys (the response rate did not exceed 16% in any of the studied groups); teachers of physical education and sports have the slightest influence on becoming physically active. It is necessary to remark at this point that the overall stimulation for the pupil's development can be achieved through a wide spectrum of factors such as proven physical activities, influence in the school environment, family, social conditions as well as the influence of a teacher of physical education and sports (Rychtecký-Fialová, 2004). At the same time we have to take into account the fact that after obtaining a university degree with specialization in sports almost 50% of teachers decide to work in different sectors (Jansa et al. 2008; n = 1885) and that there is a shortage of young teachers with practical skills. However, Pacholík (2012; n =55) points out in his study that there is a positive correlation between the duration of acquiring practical skills and the type of temperament of a teacher. It means that teachers with more practical experience showed mostly a phlegmatic behaviour. In the responses the boys provided that considerable differences can be seen just from the aspect of regions at the level $p < 0.01$.
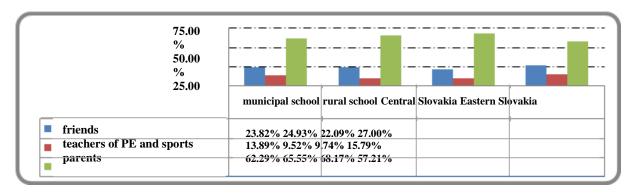

Figure 12. The person who drove you to a physical exercise

Table 11: Statistical evaluation – the person who drove you to a physical exercise

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	n p= 0.13030	** p= 6.95083 E-04

Legend: statistical significance - $p < 0.01$ = **, $p < 0.05$ = *, n= statistically insignificant

The main motivation for the pupils at rural schools (80.11%) as well as those from Eastern Slovakia (67.96%) to perform physical activities is improving and strengthening their health and physical competence. The pupils at municipal schools (45.65%) and those from Central Slovakia are motivated by working on their figure and reducing body weight. Focusing on motivation for people attending fitness centres, Stacke (2008) found from the results of her study that the main motive was reducing their body weight.

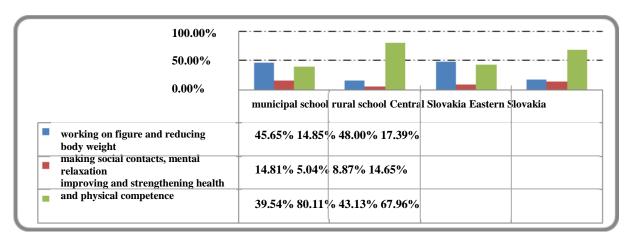|	municipal school	rural school	Central Slovakia	Eastern Slovakia
working on figure and reducing body weight	45.65%	14.85%	48.00%	17.39%
making social contacts, mental relaxation	14.81%	5.04%	8.87%	14.65%
improving and strengthening health and physical competence	39.54%	80.11%	43.13%	67.96%

Figure 13. The main motivation for performing physical activities

Less than 15 % of boys responded that socializing with others and mental relaxation belonged to their main motives while doing physical activities. The study by Tagliaferro et al. (2008) arrived at interesting empirical results that showed that there was a direct relationship between physical activity and reducing the risk of experiencing depression, hopelessness or suicidal behaviour.

Evaluating this question from the aspect of the municipal and rural schools as well as from the aspect of regions of Central and Eastern Slovakia, the responses provided by the boys were statistically significant at the level $p < 0.01$.

Table 12: Statistical evaluation – The main motive for performing physical activities

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	** p= 5.836 E-34	** p= 5.253 E-23

Legend: statistical significance - $p < 0.01$= **, $p < 0.05$ = *, n= statistically insignificant

According to boys in municipal schools (49.62%) and those from Central Slovakia (58.78%), the dominant factor that keeps boys from performing physical activities is a "financial burden". On the other hand, according to the boys attending rural schools (47.34%) and those from Eastern Slovakia, the dominant factor that keeps them from performing physical activities is the availability of space close to their place of residence. Reed and Philips (2006) point out in their studies that students are physically more active if there are sports facilities close to the school they attend or if there is enough sports equipment in the place of their residence.

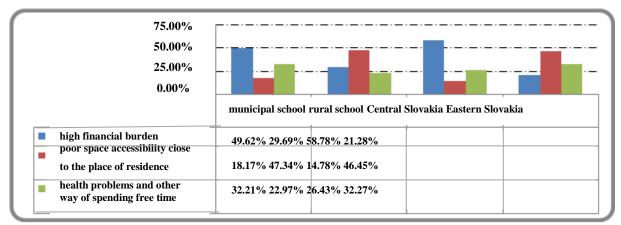Statistical evaluation is shown in Table 13.

Figure 14. The main factor keeping pupils from performing physical activities

Table 13: Statistical evaluation - the main factor keeping pupils from perfomring physical activities

item	municipal school/ rural school	Central Slovakia/ Eastern Slovakia
statistical significance chi – squared test (p-value)	** p= 6.890 E-22	** p= 3.631 E-38

Legend: statistical evaluation - p < 0.01= **, p < 0.05 = *, n= statistically insignificant

Conclusion

Performing physical activities should be an integral part of everybody's lifestyle, bearing in mind age and state of health, of course. Apart from being healthy, physical activity provides many benefits such as higher physical performance, increased self-confidence, awareness of our competences and skills as well as in general giving us a good impression and a feeling of satisfaction. The attitude of adult individuals towards physical activities in the future largely depends on developing opinions and attitudes during adolescence. The survey results on pupils in Slovakia provide the following:

✓ pupils in rural schools perform physical activities during the working week to a smaller extent than pupils in municipal schools – the chi is statistically significant at a level of p < 0.01

✓ during school holidays more than 40% of the boys in municipal and rural schools as well as the boys from Central and the Eastern Slovakia dedicate more than 5 hours to performing physical activities

✓ approximately 44% of boys prefer recreational physical activities and roughly 33% prefer performance activities

✓ boys definitely prefer collective sports (almost 50% in all selected groups) to individual ones

✓ regarding their responses, parents are the ones who have a major influence on performing physical activities (more than 50 % in all selected groups) while the lowest influence is attributed to teachers of physical education and sports – there was no response frequency of more than 16 % in any of the selected groups

✓ the main motivation for pupils in rural schools (80.11%) as well as those from Eastern Slovakia (67.96 %) to perform physical activities is improving and strengthening their health and physical competence. Pupils at municipal schools (45.65%) and those from Central Slovakia are motivated by working on their figure and reducing body weight.

The research results show that from the aspect of health promotion and disease prevention it is important to make active movement a part of today's lifestyle for the entire population. In the context of improving the quality of teaching physical education and sports in regards to healthcare and a healthy lifestyle, an initiative should be taken to analyse or adapt university study programmes preparing future teachers of physical education and sports.

References:
1. ANTALA et al.. (2012). Telesná a športová výchova v názoroch žiakov základných a stredných škôl. NŠC, FTVŠ UK Bratislava: END, spol. s r.o. Topolčianky, 2012, 168 s.
2. BENDÍKOVÁ, E. (2014). Životný štýl adolescentiek z pohľadu vybraných determinantov zdravia. In Zborník „Pohyb a zdravie". Trenčín: Fakulta zdravotníctva, Trenčianska univerzita Alexandra Dubčeka v Trenčíne, 2014, s. 27-36.
3. BEŤÁK, B. (2014). Pohybové a športové aktivity vo voľnom čase žiakov stredných škôl v Poprade. In Telesná výchova a šport v živote človeka : recenzovaný zborník vedeckých prác. Zvolen : Technická univerzita, 2014, s. 76-85.
4. BIDDLE, S.J.H. – SOOS, I. – HAMAR, P., et al. (2009). Physical activity and sedentary behaviours in youth: Data from three central-eastern European countries. European Journal of Sport Science 9, 2009, s. 295 – 301.
5. BOUCHARD, C. Physical Aktivity and Obesity. [online] [cit. 2015-04-2]. Dostupné na WWW: http://www.humankinetics.com/excerpts/excerpts/environments-play-role-in-your-physical-activity.
6. CÍNOVÁ, J., CIBRÍKOVÁ, S., & MROSKOVÁ, S. (2005). Detská obezita – epidémia 3. tisícročia. In Sestra , č. 6/7. s. 8-9.
7. DEWAHL, J., KING, R., & WILLIAMSON, J. W. (2006). Academic incentives for students can increase participationen in and effectiveness of a physical activity program. Journal of American College Health,53(6), 295-298.
8. HAGSTRÖMER M, TROIANO RP, SJÖSTRÖM M, BERRIGAN D.(2010) Levels and patterns of objectively assessed physical activity: a comparison between Sweden and the United States. Am J Epidemiol. 2010; 171: 1055–1064.
9. JANSA, P., KOVÁŘ, K., & DŘEVIKOVSKÁ, P. (2012). Pohybové aktivity a životospráva učitelů základ-ních škol v ČR. Česká kinantropologie, 16(2), 90-105.
10. KOLLÁR, R. (2006). Stav vyučovania futbalu na 1. stupni ZŠ. In: Súčasnosť a perspektívy telovýchovného procesu na školách. Banská Bystrica: UMB PF, 2006. s. 106-112 ISBN 80-8083-227-1
11. MOORE, L. LOMBARDI, D. WHITE, M. CAMPBELL, J. OLIVERIA, S. ELLISON, C. (1991). Influence of parents'physical activity levels on activity levels of young children. Journal of Pediatrics, 1991, 118, s. 215-219.
12. NEMEC, M. (2002). Príprava mladých futbalistov na školách a v oddieloch. 1. vyd. Banská Bystrica : FHV UMB, 2002. 104 strán ISBN 80-8055-707-1
13. NEMEC, M.-ADAMČÁK, Š. (2013). Physical games and education process at the 2nd stage of primary schools. Krakov: Spolok Slovákov v Poľsku, 2013, 183 s.
14. PACHOLÍK, V. (2012). Osobnostní dimenze učitele tělesné výchovy na středních školách. In Soudobé podněty v pedagogice tělesné výchovy (pp. 37-55). Brno: MU
15. PARÍZKOVÁ, J. et al. (2007). Obezita v dětství a dospívaní. Praha: Galen.
16. PERÁČKOVÁ, J. (2008). Režim dňa, voľný čas a telovýchovná aktivita žiačok vybraného gymnázia. In Telovýchovné a športové záujmy v rámci voľno-časových aktivít žiakov. Bratislava: Univerzita Komenského, Fakulta telesnej výchovy a športu 2008, 160 s.
17. PRATT, M., CACERA, C. A., BLANTON, C. (1999). Levels of physical activity and inactivity in children and adults in the United States: current evidence and research issues. In Med, science in Sports and Exerc., roč.31, č. 11, Suppl., s. 526-533.
18. RACZEK J.-MYNARSKI W.-LJACH W. (2002). Kształtowanie i diagnozowanie koordynacyjnych zdolności motorycznych. Katowice.
19. REED, J. A., & PHILLIPS, D. A. (2006). Relationship between physical activity and the proximity of exercise facilities and home exercise equipment used by undergraduate university students. Journal of American College Health, 53(6), 285-290,
20. RYCHTECKÝ, A., & FIALOVÁ, L. (2004). Didaktika školní tělesné výchovy. Praha: Karolinum.
21. SIGMUND, E., MIKLÁNKOVÁ, L., MITÁŠ, J., SIGMUNDO-VÁ, D.&FROMEL, K. (2007). Provází nástup dětí do 1. třídy základní školy výrazný pokles jejich pohybové aktivity? Med. Sport. Boh. Slov., 16(2), pp. 78–84.

22. STACKEOVÁ, D. (2008). Motivace k pohybové aktivitě. Rehabilitace a fyzikální lékařství, 15(1), 22-26.

23. STEM/MARK, (2013). Stav obezity v České republice. Retrieved 25. 2. 2014 from the World Wide Web: http://www.slideshare.net/stemmark/obezita-2013-stemmark-vzp.

24. SUGGS, S. & MCINTYRE, C. (2011). Public Opinion Towards Health Communication Measures to Address Childhood Overweight and Obesity in the European Union. Journal of Public Health Policy, 32(1). 91-106. doi: 10.1057/jphp.2010.44.

25. WORLD HEALTH ORGANIZATION, (2010). Global Recommendations on Physical Activity for Health. Geneva: Author.

УДК 37

Физическая активность учащихся в словацких начальных школах

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Аннотация. В этой работе мы изучали физическую деятельность 1082 учащихся в начальных школах, которые были проанализированы с помощью анкет, а затем оцениваются с точки зрения муниципальных и сельских школ, а также с точки зрения учеников из региона. Полученные результаты были проанализированы с помощью программы TAP, разработанной Компанией в GAMO в Банска Быстрица. Наше исследование показывает, что в течение рабочей недели почти 20 % мальчиков выполняют некоторые физические действия в масштабе времени более 5 часов в день. С точки зрения предпочтений физической деятельности, коллективные виды спорта преобладают над значительно индивидуальными – почти 50 % всех ответов. Спортивные мероприятия, предлагаемые в школах или в месте жительства активно осуществляется у менее чем 14 % мальчиков.

Ключевые слова: физическая активность, ученики, начальная школа.