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Original scientific paper**

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**LIFELONG LEARNING FOR BEST ADAPTATION TO THE  
21.CENTURY CHANGES IN THE WORLD OF WORK**

**Abstract**

Since the lifelong learning has been recognized as a high priority need for the individual, organization and society and many different learning methods, techniques and activities are constantly being created and applied in order to build and develop the necessary knowledge, skills and competences, the question that arises is: what kind of lifelong learning is most adequate for best adaptation to the 21.century rapid changes in the world of work? Or more specific: what do people think and/or expect from the lifelong learning, so it can be considered effective and most appropriate? So for that purpose, this paper shares the findings from a research conducted on postgraduate students on Human Resources Management in the frames of the Institute for Sociological, Political and Juridical Research as a formal type of education and part of the lifelong learning process in the field of organizational/business studies.

**Key words:** lifelong learning; skills and competences; 21.century changes; world of work.

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## 1. Introduction

The world of work in 21 century is in a constant state of flux and change. Technological development is introducing new skills and making others redundant; the high rate of unemployment is demanding new training and retraining; the shift from rural to urban employment requires a change in competencies and life style; migration and the displacement of people around the globe need a reorientation to a different sphere of the world of work: all these, and other factors, demand commitment to and provision for life-long learning. The world of work requires it's participants to have the opportunity for constant personal and professional development. However, life-long learning requires personal commitment and motivation that will only develop when such learning is rewarded. Further, all our efforts to make continuing education a reality in our societies will fail unless people develop the attitudes and values that encourage them to make the commitments necessary to engage in this area of education.

The world of work is experiencing major changes in patterns of production as well as dramatic innovations in technologies in the context of a more competitive global economy. There are major shortages of qualified workers for new industries, the displacement of labour, dislocation of people, reduced unionization, unemployment, obsolescence of skills and production techniques, gender inequalities and precarious employment. An increasing proportion of the working population exists outside the range of mainstream labour market policies, and formal education is able to meet the demands of only a very small proportion of this population. All these changes confront us day after day and reinforce the tremendous importance of lifelong learning as well as explain the growing demand for adult and continuing learning. Acknowledging the changing nature of work and the effects of policies to increase productivity, which result in considerable loss of jobs, we must affirm the importance of the right to work, as well as the role of adult learning which needs to be seen as an investment for better future.

The contemporary concept of the Lifelong learning, as it is defined by the European Commission documents, primary with the Lisbon strategy (March, 2000) understands "*all learning activities undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-*

*related perspective*". The breadth of this definition also draws attention to the full range of:

- formal
- non formal and
- informal learning activities.

The main idea is that, besides the knowledge, everyone has to gain, improve and development eight key competences, according to the European Reference Framework, to be able to cope with the 21. century changes, job tasks, and everyday life responsibilities in all spheres. The key competences for LLL are:

- Communication in the mother tongue
- Communication in a foreign language
- Mathematical literacy and basic competences in science and technology
- Digital competence
- Learning to learn
- Interpersonal and civic competences
- Entrepreneurship
- Cultural expression

There is also, European Qualification Frame of Lifelong learning, with qualifications at 8 referent levels, established with recommendations by ILO.

Actually, the Lifelong learning in its practice should be the best solution for:

- Personal fulfillment and development throughout the life (cultural capital): key competences must enable people to pursue individual objectives in life, driven by personal interests, aspirations and the desire to continue learning throughout life;
- Active citizenship and social inclusion (social capital): key competences should allow everybody to participate as an active citizen in society; and
- Employability/adaptability (human capital): the capacity of each and every person to obtain a decent job in the labour market.

The main priorities for action are: investing/financing in human resource development, corporative social responsibility, bringing closer the learning to the learner, making the education more attractive;

organizational learning; equal educational opportunities for everyone, valorization, certification etc.

This paper makes an effort to investigate the preferences of people for lifelong learning model in order to cope with the changes in the world of work.

## **2. Methodology**

For this research paper primary source of quantitative data was used, which was collected by questionnaire. The collected data was analyzed through descriptive statistics, at univariate and bivariate level. The first level was analyzed and illustrated by frequencies, mean values and standard deviation. And for the second level there were used cross tabs. The collected data was analyzed with the SPSS (Statistical Package for Social Science) and the results are presented by tables, with interpretation and discussion by the authors.

The sample for this research was purposive, consisted of 73 respondents and the criteria for its design was: (a) active students at postgraduate studies (b) in Human Resource Management (c) at the Institute for Sociological, Political and Juridical Research in Skopje. This sample is considered adequate for the research subject as the respondents represent a category of people which have chosen to continue with their formal education in the field of organizational/business studies so they could use their new gained knowledge and qualifications in the world of work.

## **3. Results and discussion**

Initially the respondents were asked: *How well do you cope with the 21st century changes?* In the following three tables we can find the results made by a cross tabulation by three variables: sex, age and working status. The results tell us that there is a significant difference between male and female respondents' answers and the conclusion is that sex as a variable plays an important role on the way of coping with the changes, i.e. women consider that they better cope with the changes. The age is also an important variable, as there are great differences between the results, but a more precise analyze cannot be done, as the respondents from the third age-category are statistically not representative.

Toward the working status as a variable, it brings conclusion that people who work more difficult cope with the changes, than people that don't work. The 27,7% of total amount of respondents answered that they cannot cope in society, 23,3% at work, 20,5% in social relations, and 5,5% in family.

**Table 1. Coping with the changes/cross tabs by sex**

**Sex \* How well do you cope with the 21.century changes? Crosstabulation**

			How well do you cope with the 21.century changes?					Total
			very good	good	average	bad	very bad	
Sex	male	Count	12	5		6	6	29
		% within Sex	41,4%	17,2%		20,7%	20,7%	100,0%
		% of Total	16,4%	6,8%		8,2%	8,2%	39,7%
	female	Count	16	18	8		2	44
		% within Sex	36,4%	40,9%	18,2%		4,5%	100,0%
		% of Total	21,9%	24,7%	11,0%		2,7%	60,3%
Total	Count	28	23	8	6	8	73	
	% within Sex	38,4%	31,5%	11,0%	8,2%	11,0%	100,0%	
	% of Total	38,4%	31,5%	11,0%	8,2%	11,0%	100,0%	

**Table 2. Coping with the changes/cross tabs by age**

**Age \* How well do you cope with the 21.century changes? Crosstabulation**

			How well do you cope with the 21.century changes?					Total
			very good	good	average	bad	very bad	
Age	20-35	Count	19	21	3	3	8	54
		% within Age	35,2%	38,9%	5,6%	5,6%	14,8%	100,0%
		% of Total	26,0%	28,8%	4,1%	4,1%	11,0%	74,0%
	36-45	Count	9	2	5			16
		% within Age	56,3%	12,5%	31,3%			100,0%
		% of Total	12,3%	2,7%	6,8%			21,9%
	46-55	Count				3		3
		% within Age				100,0%		100,0%
		% of Total				4,1%		4,1%
Total	Count	28	23	8	6	8	73	
	% within Age	38,4%	31,5%	11,0%	8,2%	11,0%	100,0%	
	% of Total	38,4%	31,5%	11,0%	8,2%	11,0%	100,0%	

**Table 3. Coping with the changes/cross tabs by working status**

**Working status \* How well do you cope with the 21.century changes? Crosstabulation**

			How well do you cope with the 21.century changes?					Total
			very good	good	average	bad	very bad	
Working status	employed	Count	19	13	5	6	6	49
		% within Working status	38,8%	26,5%	10,2%	12,2%	12,2%	100,0%
		% of Total	26,0%	17,8%	6,8%	8,2%	8,2%	67,1%
	not employed	Count	9	10	3		2	24
		% within Working status	37,5%	41,7%	12,5%		8,3%	100,0%
		% of Total	12,3%	13,7%	4,1%		2,7%	32,9%
Total	Count	28	23	8	6	8	73	
	% within Working status	38,4%	31,5%	11,0%	8,2%	11,0%	100,0%	
	% of Total	38,4%	31,5%	11,0%	8,2%	11,0%	100,0%	

On the question: *Do you think that your last completed formal education gave you the required knowledge/skills for your employment/job?* respondents' answers show the mean of 2.84 (1 - very much; 5 - not at all), which says that the last formal education maybe wasn't too much satisfactory for the needs for employment/job, but it is considered enough, i.e. useful in general.

**Table 4. Formal education and employment/job**

**Descriptive Statistics**

	N	Minimum	Maximum	Mean	Std. Deviation
Do you think that your last completed formal education gave the required knowledge/skills for your employment/job?	73	1	5	2,84	1,106
Valid N (listwise)	73				

According to table 5, the competency at work is at a high level, as most of the respondents consider that: *My job tasks very well correspondence with the skills I own – 19,2%* and/or *I have the competence to cope with more complex job tasks – 38,4%*, and only 9,6% who answered with: *I need extra training to cope with my job tasks.*

**Table 5. Competency at work**

**Which of the statements best describes your competency at work?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	I need extra training to cope with my job tasks	7	9,6	9,6	9,6
	My job tasks very well correspondence with the skills i own	14	19,2	19,2	28,8
	I have the competence to cope with more complex job tasks	28	38,4	38,4	67,1
	I'm not employed	24	32,9	32,9	100,0
	Total	73	100,0	100,0	

The results (table 6.) show that both, the formal and the nonformal education are considered equally helpful for better coping with the changes.

**Table 6. Formal or nonformal education for better coping with the changes**

**Do you think that the formal/nonformal education can be helpful for better coping with changes?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes, but more the formal education	12	16,4	16,4	16,4
	Yes, but more the nonformal education	10	13,7	13,7	30,1
	Both, in different way	49	67,1	67,1	97,3
	No	2	2,7	2,7	100,0
	Total	73	100,0	100,0	

The respondents were also asked what do they find as most prevailing when choosing their formal/nonformal education. And the results are ranked as: (1) quality/renomee with 57,5%; (2) educational program with 26%; (3) price with 13,7% and (4) location with only 2,7%.

**Table 7. Criteria for choosing a type of lifelong learning**

When choosing your formal/nonformal education, what do you find as most prevailing?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Location	2	2,7	2,7	2,7
Quality/renomee	42	57,5	57,5	60,3
Price	10	13,7	13,7	74,0
Educational program	19	26,0	26,0	100,0
Total	73	100,0	100,0	

The respondents had to answer do they prefer to use their working time, time for leisure throughout the week, or free time for weekends, for educational purposes (table 8), and from the results, it can be concluded that most of them, 75,3% would like to use their time for leisure throughout the week. This is very important fact for the work vs. private life balance, i.e. for the total quality of working life.

**Table 8. Spending time for lifelong learning**

For education purposes, you prefer to use:

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid My working time	4	5,5	5,5	5,5
Time for leisure, through the week	55	75,3	75,3	80,8
My free time, at the weekends	14	19,2	19,2	100,0
Total	73	100,0	100,0	

About the issue of participation and finance investment in nonformal education/training program, the respondents were asked what do they prefer – either them to choose the training program, either their employer, and also – who to take on the costs for that. The results show that most of the respondents – 63% prefer to choose the training program by themselves, but that to be paid by the employer. It is a positive fact that even 27,4% are willing to choose and finance the training by themselves, and only 9,6% would rather let the complete decision to be made by the employer (table 9).

**Table 9. Choosing and financing the lifelong learning****When choosing nonformal education, what do you prefer?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid To choose and finance the training program by yourself	20	27,4	27,4	27,4
To choose the program by yourself, financed by the employer	46	63,0	63,0	90,4
To get the traing that is chosen and financed by the employer	7	9,6	9,6	100,0
Total	73	100,0	100,0	

The results about the benefits and expectations from the current formal education (postgraduate studies in HRM), could be ranked in the following order: (1) Personal satisfaction/realization of personal aspirations/self fulfillment; (2) Opportunities for new employment; (3) Gaining knowledge, skills and competencies required for the job (4) Opportunities for career development/new, better position at work; (5) Active citizenship and social inclusion; (6) Keeping the job. At the question: Would you use your student status for educational mobility in EU, most of the respondents answered with yes – 42% (table 10).

**Table 10. Educational mobility****Would you use your student status for educational mobility in EU?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid yes	42	57,5	57,5	57,5
no	13	17,8	17,8	75,3
don't know	18	24,7	24,7	100,0
Total	73	100,0	100,0	

The valorization of the certificate/diploma from the formal/nonformal educations turns to be a significant issue for working - mobility outside the country opportunities, as most of the respondents – 52% had a positive answer toward the question.

**Table 11. Working mobility**

**How much the valorization of the certificate/diploma from the formal/nonformal education is important to you for working mobility outside your country?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid very important	32	43,8	43,8	43,8
important	6	8,2	8,2	52,1
important and unimportant	16	21,9	21,9	74,0
unimportant	8	11,0	11,0	84,9
unimportant at all	11	15,1	15,1	100,0
Total	73	100,0	100,0	

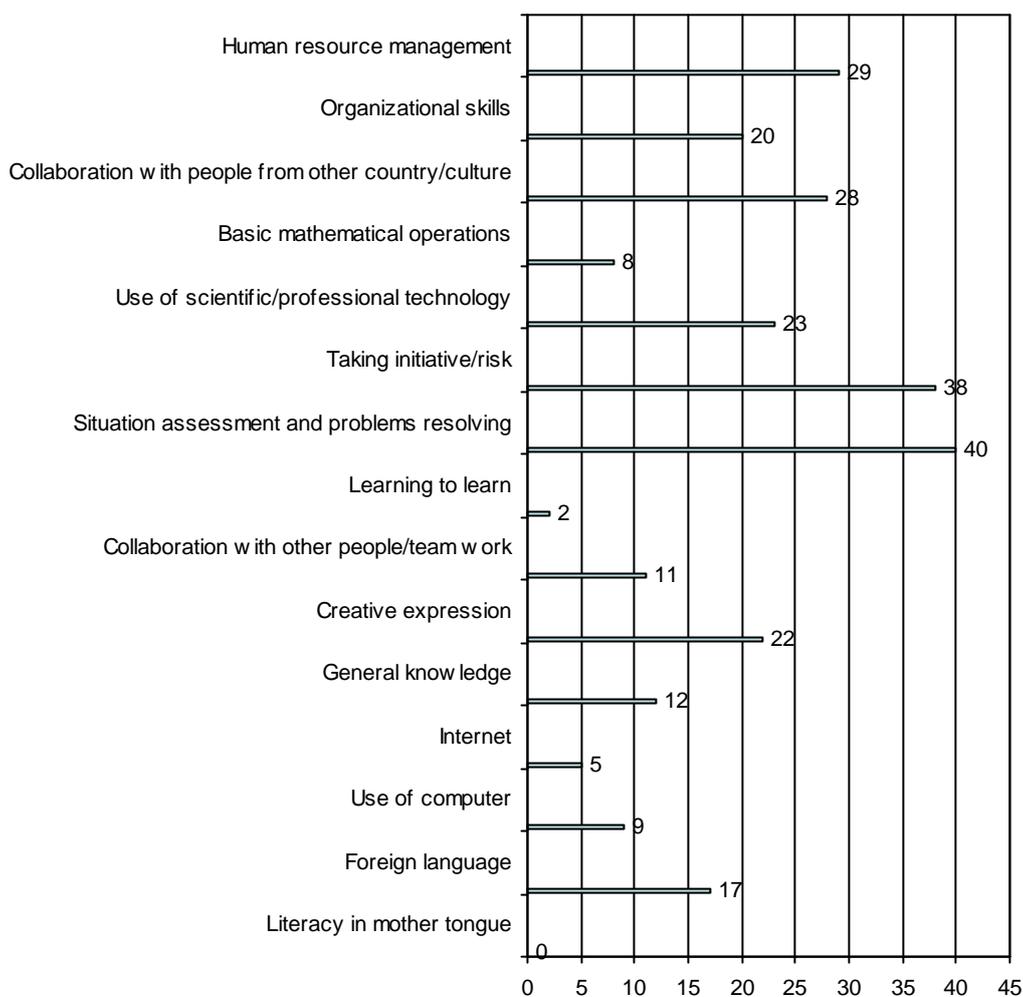
There is a distribution of positive answers in percentages of the respondents (table 12) about each of the key competence for LLL (through some extra sub-competences), which they personally find it necessary to gain or to improve.

The rank of the most required competences would be:

1. Situation assessment and problems resolving
2. Taking initiative/risk
3. Human resource management
4. Collaboration with people from other country/culture
5. Use of scientific/professional technology
6. Creative expression
7. Organizational skills
8. Foreign language
9. General knowledge
10. Collaboration with other people/team work
11. Use of computer
12. Basic mathematical operations
13. Internet
14. Learning to learn
15. Literacy in mother tongue

This should be accepted as meaningful information for the curricula development for the educational study programs. And it also shows the recognized need for entrepreneurial competences development.

**Figure 1. Required LLL competences**



And for that purpose, in order to improve/gain these competences, most of them – 53,4% would rather choose formal education, 38,4% would choose nonformal education/ training, and only 8,2% consider that the self-learning (by literature, audio-visual devices, internet etc.) would be the most useful way.

**Table 12. Competences development and lifelong learning form**

**In order to improve/gain these competencies, which form of education/learning do you consider the best?**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Formal education	39	53,4	53,4	53,4
Nonformal education	28	38,4	38,4	91,8
Self learning (literature, audio/visual devices, internet)	6	8,2	8,2	100,0
Total	73	100,0	100,0	

The respondents were directly asked, with open question, what would they suggest for improvement of the current educational programs, and the general highlights were: (a) focus on quality; (b) professors'/trainers' approach improvement; (c) less theory, more practice; (d) modernization; (e) learning practical things; (f) redefinition of the low regulative about LLL in the country; (g) verification of the non formal education.

#### **4. Conclusion**

As the results show, people can hardly cope with the 21. century changes in the world of work, but in the sphere of the everyday life also. The respondents have recognized their need for constant improvement and development, and their general opinion is that this type of knowledge, skills and competences could be gained by combining the both of the educational systems: formal and nonformal. As five most required competences they outline: situation assessment and problems resolving; taking initiative/risk; human resource management; collaboration with people from other country/culture; use of scientific/professional technology; from which can be concluded that the priority action should be directed to the lifelong learning for entrepreneurship; people skills development; and using technology.

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