

Czech University of Life Sciences Prague Faculty of Economics and Management

DEPARTMENT OF MANAGEMENT



DIPLOMA THESIS

“Lifelong Learning for People in Retirement”

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Declaration

I declare that I have worked on my diploma thesis titled “Lifelong Learning for People in Retirement” by myself and I have used only the sources mentioned at the end of the thesis.

In Prague on 20.3.2013

Bc. Radka Michalová

Acknowledgement

I would like to thank Mr Richard Selby Ph.D., who supervised me during my diploma thesis writing. My special thanks belong to my family for their support and patience, especially to my father Ing. Karel Michal.

**LIFELONG LEARNING FOR PEOPLE IN
RETIREMENT**

VZDĚLÁVACÍ KURZY PRO SENIORY

Souhrn

Diplomová práce se v teoretické části zabývá prezentací problematiky aktivního stárnutí, současným fenoménem zapojení seniorů do života skrze programy celoživotního vzdělávání. Zároveň se stručně zabývá i přístupem EU k tomuto tématu. Podrobněji jsou zde prezentovány některé programy celoživotního vzdělávání pro seniory a s nimi související univerzity třetího věku s uvedením některých konkrétních atributů politiky aktivního stárnutí v samotné České republice.

V praktické části byl jako příklad integrace seniorů posuzován kurz „Počítačová gramotnost“, pořádaný Českou zemědělskou univerzitou v Praze, provozně ekonomickou fakultou. Tento kurz byl vybrán záměrně jako jedna z variant kvalitnější integrace seniorů do současné společnosti informačních technologií. Průzkum mezi seniory byl proveden pomocí dotazníku. Výsledky šetření jsou pro názornost vyhodnoceny pomocí tabulek, grafů a následně okomentovány, stejně tak, jako položené hypotézy. Cílem bylo získat informace k hlubší analýze osobního přínosu kurzů seniorům, jejich vztahům s okolím a naplněním jejich očekávání o kvalitě kurzu.

V závěru práce jsou shrnuty veškeré výsledky a doporučení. Ta se týkají především zvýšení kvality kurzu a tím také zvýšení spokojenosti seniorů.

Klíčová slova:

Celoživotní vzdělávání, senior, potřeby seniorů, koncept aktivního stárnutí, vzdělávací programy

Summary

Topic of the Diploma thesis is a present phenomenon of lifelong learning programmes as active ageing for elderly people as well as short overview of EU attitude to this topic. There are more specifically presented some lifelong learning education programmes for the elderly and with them associated universities of the third age, indicating some specific attributes of active ageing policies in the Czech Republic itself.

In the practical part is as an example considered integration of seniors course "Computer Literacy", organized by the Czech University of Life Sciences Prague, Faculty of Economics and Management. This course was chosen as one of the alternatives of better integration of older people in today's society full of information technology. The survey was carried among the elderly people by using a questionnaire. The results are evaluated and presented in tables, graphs, figures, and subsequently commented upon, as well as stated hypotheses. The goal was to obtain information for deeper analysis of personal benefits for seniors, their relationship with other participants and fulfilling their expectations about the quality of the course.

Conclusion summarizes all results and recommendations emerging from the Diploma thesis. Those are related mainly to increase the quality of the course and thus to increase satisfaction of seniors.

Keywords:

Lifelong learning, senior, senior's needs, the concept of active ageing, educational programmes

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1 Introduction

Education and training is a lifelong process and it is therefore natural and desirable. Learning and education throughout life is a basic pillar concept of active ageing. The gradual introduction to the social practice aims to quality of life of current seniors and support the functioning and adaptation to changing society. Maintaining mental condition is as important as physical condition. This group of people in retirement is becoming increasingly numerous and statistical data as the population ageing.

Ageing of population presents a number of challenges for our welfare systems and public budget. However, these fears neglect the fact that a growing number of older people are in good health, have valuable skills and experience and are willing to make a significant contribution to society. It is a contribution from which young people can strongly benefit. It is important allowing people to stay active as they become older and they have opportunity continuously contributing to society. It is the key to tackling the challenge of demographic ageing.

On the other hand, today's seniors are becoming increasingly active, independent and able to participate in society in later life. Pensioners often feel underutilized. The vision of the old man as a passive dependent individual who leads a dull life disappears in connection with these changes forever. One of the means of support is just the concept of active ageing and seniors' education as an integral part. The importance of educational activities in the economically inactive age consists mainly in the fact that older people can look on life from other perspectives and angles than what they saw before. The problem is that they do not have possibility to use their leisure time somehow charitable or creative.

Currently, there are several types of courses which might retirees participate. There is a possibility of the Third Age University and other private courses. The theoretical part is focus on general overview perception of seniors' computer courses in worldwide scale, in the European Union and in the Czech Republic. Many seniors in this way can supplement their existing training or to fill their newly acquired leisure time. Important question is, if seniors enjoy the courses, why they opted to attend and whether they are understandable and useful. The aim is to identify and characterize the motivation of seniors in the area of work with information technologies.

2 Aims and hypothesis

2.1 Aims

The aim of this diploma thesis is to analyse the seniors' satisfaction with the Computer literacy course offered by University of the Third Age at the Czech University of Life Sciences Prague provided by Faculty of Economics and Management and benefits for seniors. The research is based on the form of a questionnaire survey and on the basis of its results will be proposed recommendations.

Subtasks that are needed to achieve the goals:

- Definition of terms senior and ageing
- Description of the theoretical background focusing on The Concept of Active Ageing
- University of Third Age (U3V) itself will be introduced
- Creation of a questionnaire
- Evaluation of information collected from research
- Interpretation of results and graphical processing
- Confirm or refute hypotheses
- Design recommendation

The practical part will be based on the evaluation of questionnaires. This questionnaire will be answered by senior students. The obtained data will be evaluated by statistical programmes. In the last part of the thesis will be mentioned possible solutions and confirmation or rejection of the hypothesis.

2.2 Methodology

To obtain these objectives will be used following methodology: Study of related materials and literature, quantitative research, suitable questionnaire, data analysis.

2.2.1 Quantitative research

Quantitative research is concerned with obtaining information on the frequency of occurrence of a particular event. Its main goals are measurable figures. Quantitative research is carried out on a sample which should represent the target group. This type of research is performed by interviewing possibly in the form of personal interviews, questionnaires, telephone or via the Internet polling. (Kozel, 2006; Machková, 2009).

2.2.2 Questionnaire

Questionnaire is the most useful methods for collecting primary data during the research and is consisting of a series of questions relevant to the relevant researched topic. It is based on gathering responses from respondents, which are a good sample to get answers. Questionnaire provides same conditions to each respondent; all respondents answer the same sample of questions. The questionnaire has to be designed that the set of questions will be suitable for each respondent. This may not be an easy task. (Miles, 1994)

2.2.3 Composition of Questionnaire

The questionnaire is a set of questions that are written in a specific form. This method is based on its issues and resembles the method of direct interview. The questionnaire should be designed by setting goals and working hypotheses. Initially but it is also necessary that the researcher studied the issue that he or she wants to explore. In the introduction to the questionnaire should be short text, which asks the respondent to fill it, it explains the reason why the questionnaire will be completed and what the data is used. It is also appropriate to emphasize that if the questionnaire is anonymous. If the questionnaire is not anonymous, it is necessary to obtain the consent of the respondent. (Oppenheim, 2000)

General principles creating questionnaire:

- The questionnaire should be capturing all the problems we are looking for an answer,
- It should include the entire width relevant issues,
- Questions in the questionnaire should be given that arouse curiosity and confidence by the respondent, questions has to be interesting and understandable,

- The questionnaire can also contain so-called independent variables such as gender, age or residence,
- Try to avoid suggestive or misleading questions. In closed questions should be offered all possible alternative answers. (Oppenheim, 2000)

We classify as a big advantage of the survey the possibility of processing data and unambiguous wording of the questions without the presence of emotions in the interviewee. The main disadvantages are the impossibility of additions, repairs or improvements of misunderstanding the question. Important is the length of the questionnaire and its layout. The problem can also be a low return the questionnaire. If we want to return the questionnaire was high, it is advisable to pass the questionnaire personally. Return the number of returned questionnaires to the number of questionnaires distributed. (Oppenheim, 2000)

2.2.4 Types of Questions

In the questionnaire for this thesis are used mainly close-end and open-end questions.

- *Close-end questions:* when are offered to the respondent answers and he chooses the one with which he most agree. Sometimes the respondent does not know how to answer the question so it is necessary to include options and alternative d) do not know or I can not to this comment. Close-end questions are the most common questions in the survey. In the survey is the respondent asked to choose from a number of alternative answers. These given answers can help the respondents form their own opinion and it is much easier to process.

In this thesis are mostly used the simple-dichotomy questions, which means that only two answer are available, respondents has to choose only one of them; usually can only be answered 'yes' or 'no'.(Zikmund, 2003)

- *Open Question:* questions to which the respondent answers in their own words. These questions offer no alternative answers. Their main disadvantage is too difficult processing. (Zikmund, 2003)

- *Semi – closed questions*: Semi-open questions are the questions to which the respondent answers either offered alternative answers, but if none of offered answers is suitable, respondent can finish using his own words. This option is usually the last of the offered and is labelled as 'other'. (Zikmund, 2003)

2.2.5 Statistical evaluation

For the interpretation and evaluation of the results of the survey are used statistical methods relevant to data processing.

Pivot-table: (Contingency table)

Pivot tables are an integral part of a spread sheet application. It is used for clear visualization of the relationship of two statistical variables. In this work were used the two characters for each variable. So it is in the size of 2 rows and 2 columns. Pivot tables enable test various statistical hypotheses, including the hypothesis of independence of characters.

Formula of Pivot Table:

$$x^2 = \sum_{i=1}^m \sum_{j=1}^n \frac{(f_{ij} - f'_{ij})^2}{f'_{ij}}$$

(Pecáková, 2008)

2.3 Hypothesis

For this research were determined hypothesis. All hypotheses are specifically focused on the course participants and their satisfaction with the course. In the practical part will be tested all hypotheses by pivot table. Every hypothesis will be further transferred to the hypothesis Ho. The hypothesis Ho will show the connection of chosen questions from the questionnaire and there will be tested its dependence or independence. The relationship is tested with the use of either pivot table and the results will either deny or support the hypothesis. In case the hypothesis will be accepted, there will be find out, how strong the relationship among the parameters is.

Stated hypotheses:

- Lecturer is considered as an expert, if he passes on new information to the listener.
- The participant of the course "Computer literacy" can actively discuss studied topic, and this fact is not influenced by the fact, how he got into the course.
- For the participants of the course it is not substantial if they will meet other seniors from the course during their leisure time after they graduate from the University of the Third Age.

3 Review of the Literature

3.1 Ageing

At the beginning will be defined the particular terms that are related to this diploma thesis area. First of all it is important to define relevant terms for a given circuit.

3.2 The Definition of Ageing

Overall ageing of the population is not only an important phenomenon, but also a potential social problem, and therefore are currently issues of ageing in society more discussed. To the forefront gets the trend of active life and the pursuit of the greatest symptoms of ageing. This is because the majority of population does not want to admit that they are getting older.

The definition of a term ageing can be defined according to chronological age (by date of birth of the individual). The WHO (World Health Organisation), divided into three age periods:

- 60-74 years early age,
- 75 to 89 years own old,
- 90 years and more longevity. (WHO, 2012)

However, despite the above definition, we cannot ever determine exactly the start of ageing because every individual person ages individually, depending on how physically

and mentally person feel and take care of himself. The chronological age may not correspond to biological age.

Our society is considering a senior as an individual who has attained the age of 60 years old and more, is automatically gains from the society an economic status "a person in post-productive age", which is equated with the term "senior". But it is only the so-called "administrative boundaries", which is derived from age, which is designated as the retirement age (Kubalčíková, 2006). In this work will be target the target group of individuals who have achieved already mentioned "administrative border" and are retired.

3.3 Definition of the Term Senior

The term "senior" is also discussed by Mr Atchley, which defines the seniors through their functional potential. (Kubalčíková, 2006). The functional potential of individuals includes three components. It is an element of physical, psychological and social.

- The physical part includes the ageing of the organism from a biological point of view, i.e. reduced functionality of bodies, visible external changes (wrinkles, greying hair), a decreased ability of the senses, etc.
- Psychological part contains reduced cognitive ability and looking at himself. This is related to attitude to his new role and his own age.
- Sociological parts are connected with social relations of the individual to the other people in society, also individual's ability to participate in cultural life and the ways looks at other people. (Kubalčíková, 2006)

“Senior belongs in terms of demography as a person over the age of 65 years, i.e. at retirement age, after the stage of the active age. From a sociological point of view is considered the oldest senior member of a team, a family.” (Bauer-Maglin, 2003)

The term retirement is define as *”complete cessation from the labour force, depending on the pension or Social Security of income, reaching a certain chronological age, self-identifications a retiree, or working less than full-time”* (Bauer-Maglin, 2003)

3.4 Current Phenomenon: Ageing Population

At the present and as well prospective in this time the number of seniors is increasing faster than others age groups. As shown P. Rican in his publication on the results of long-term research, there are two main causes of this phenomenon. The first cause is a permanent lengthening human life as a result of technological advances, the development of the field of medicine and improves the quality of life in general. The second and prognostic temporary cause the reduction the birth rate. This does not change the fact that the sixties and seventies become strong and large group that has as all the other members of the population of their demands and needs, which need to be interested and if possible to satisfy them. The challenges of ageing are not only issue of developed countries, but it still visibly manifested in other parts of the world, in developing countries. With regard to current demographic trends, in 2020 (Eurobarometer, 2012) the ratio of seniors to the population of working age and preproductive age is one to two. With this in mind it can be concluded that this phenomenon has already become a global trend. Due to the uniqueness of this historical phenomenon demographers sometimes also referred to as the "longevity revolution". (Bočková, 2000)

The ageing process population is nowadays one of the most debated issues, and it is a problem in long-term period. This phenomenon is presented in connection with the labour market as a social and economic problem. Beneš (2003) also provides political and cultural implications and points to the mostly negative aspects of the trend of population ageing. The increasing number in seniors is related with the increasing number of economically inactive persons, which also exceeded the age limit of sixty.

Rabušić et al. (2004) in this context draws attention to the growing proportion of senior's dependence, i.e. the ratio between the number of economically active and post-active people. In reaction to this social problem and the elderly become objects of interest of science and adult education (Beneš, 2003). Their increasing number has caused a change in the perception of this period of life, which was until recently considered as deficit, and thus caused the attempt to offer some new perspective on life in the form of ever-expanding possibilities and activities to seniors, which certainly include the development of permanent jobs area of educational activities tailored to this age.

In relation to the growing number of seniors is necessary to note the gradual change in the composition of this group in relation specifically to the general development of education and the growing demands of society. Due to this development will grow the level of education older population. This is also affects increased activity of this group or extending the scope of their recreational activities. The society has not yet perceived the ageing of the population as a marginal group. With the growing number of seniors will need to be reconsidered this position. In the future, it has to be included requirements and values of this population between societal priorities as well. This should also apply to the education of seniors who will also need to expand and improve the quality of the educational offer to raise the efficiency needs of the target group. Not only the trend in the number of seniors, but also to enhance their education will mean better and more extensive capacity range of senior education. (Kotýnková, 2001)

During the 70 years of the last century and in 1982 in Vienna was the World Assembly on aging adopted an action program entitled Report on the world assembly on aging. (United Nations, 1982) There was set 62 recommendations for government's rules and approaches to elderly. Government should adopt policies that take into account the needs of the elderly. Necessity respects the needs and interests of the elderly, caring for quality of their lives and deal with the socio-economic consequences of population ageing. The United Nations is as well as an active initiator other projects like European Year for Active Ageing. The United Nations also published some internationally accepted documents such as the UN Principles for Older Persons Act of 1991 or United Nations International Plan of Action on Ageing, 2002 (at Second World Assembly on Ageing 2002 in Madrid), which had established a global long-term strategy for the aging population. (Kotýnková, 2001) (United Nations, 2002)

Another important organization is also a World Health Organization (WHO) with its finished document the Health for the 21st century. The aim of these all documents mentioned above is the focus on the direction of the specific measures for seniors such as supportability, autonomy, participation, dignity and fulfilment. (Šerák, 2009)

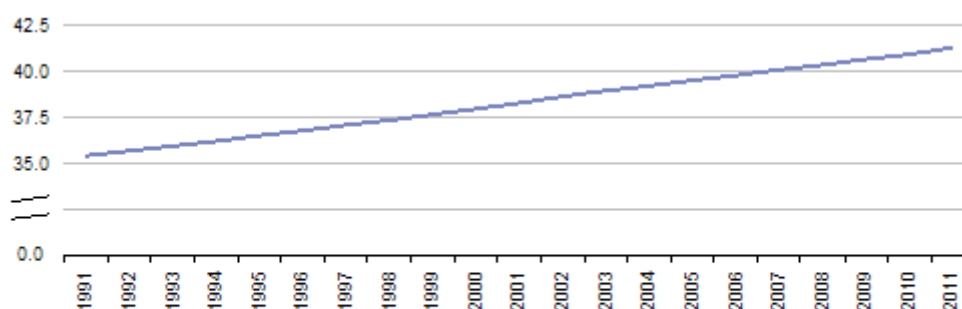
An important role in the field of contemporary European research on ageing has become a social science project SHARE (Survey of Health, Ageing and Retirement in Europe), whose importance lies in an effort to create the first comprehensive set of data on the

general state of the older generation and the whole of the European society. The first data collection of this research was carried out in 2004 in eleven European countries. Data collection is carried out in two year intervals. In each data collection are included more and more countries. Czech Republic joined for the first time in the SHARE project in 2006 and therefore it figures in the second data collection. (SHARE, 2012)

The research ELSA (English Longitudinal Study of Ageing) is another European project, which deals with the ageing population. It was found in in the United Kingdom and its aim is to understand the economic, psychological, social and health aspects of ageing. (ELSA, 2012)

As population ageing is a worldwide trend, there are researches outside the Europe. One of the most famous representatives of foreign long-term projects is American Research HRS (Health and Retirement Study) or South Korean project KLoSA (Korean Longitudinal Study on Ageing) (KLoSA, 2000). The projects have a clear goal. Understand and stop or at least reduce the ageing process and brighten the increasing number of seniors ageing and age to the maximum possible extent. (HRS, 2012)

Figure 1: Median age of population, EU-27, 1991-2011



(1) Excluding French overseas departments before 1998; 2009-2011, provisional.
Source: Eurostat (online data code: demo_pjanind)

Source: Eurostat, Data from October 2012.

The development of the median age of the EU-27 population also provides an illustration of population ageing. The median age increased from 35.4 years in 1991 to 41.2 years by 2011. (European Commission, 2012)

Table 1: Population age structure by major age groups, 1991 and 2011

	0-14 years old		15-64 years old		65 years old or over	
	1991	2011	1991	2011	1991	2011
EU-27 (1)	19.3	15.6	66.8	66.9	13.9	17.5
Belgium	18.1	17.0	66.8	65.9	15.0	17.1
Bulgaria	20.1	13.2	66.5	68.3	13.4	18.5
Czech Republic	21.1	14.5	66.3	69.9	12.6	15.6
Denmark	17.0	17.9	67.4	65.3	15.6	16.8
Germany	16.2	13.4	68.8	66.0	14.9	20.6
Estonia (2)	22.2	15.3	66.1	67.6	11.7	17.0
Ireland	26.8	27.3	61.8	67.2	11.4	17.5
Greece	19.2	14.4	67.0	66.4	13.8	19.3
Spain	19.5	15.1	66.7	67.8	13.8	17.1
France	20.3	18.5	65.8	64.7	14.0	16.7
Italy	16.3	14.0	68.6	65.7	15.1	20.3
Cyprus	25.8	16.8	63.3	70.5	10.9	12.7
Latvia	21.5	14.2	66.7	67.4	11.8	18.4
Lithuania	22.5	14.9	66.4	67.2	11.0	17.9
Luxembourg	17.5	17.6	69.1	68.5	13.4	13.9
Hungary	19.9	14.6	66.6	68.7	13.5	16.7
Malta	23.3	15.3	66.2	69.2	10.5	15.5
Netherlands	18.2	17.5	68.9	67.0	12.9	15.6
Austria	17.5	14.7	67.5	67.7	15.0	17.6
Poland	24.9	15.2	64.9	71.3	10.2	13.5
Portugal	20.0	14.9	66.4	66.0	13.6	19.1
Romania	23.3	15.1	66.2	70.0	10.6	14.9
Slovenia	20.6	14.2	68.6	69.3	10.8	16.5
Slovakia	25.1	15.4	64.6	72.0	10.4	12.6
Finland	19.3	16.5	67.2	66.0	13.5	17.5
Sweden	18.0	16.6	64.2	64.9	17.8	18.5
United Kingdom	19.1	17.5	65.2	65.9	15.8	16.7
Iceland	24.9	20.9	64.4	66.8	10.7	12.3
Liechtenstein	19.0	16.0	71.0	70.1	10.0	13.9
Norway	19.0	18.7	64.7	66.2	16.3	15.1
Switzerland	17.0	15.1	68.4	68.0	14.6	16.9
Montenegro (2)	:	19.3	:	68.1	:	12.7
Croatia (2)	:	15.2	:	67.7	:	17.2
FYR of Macedonia (2)	:	17.5	:	70.8	:	11.7
Turkey	34.7	25.6	60.8	67.2	4.6	7.2

(1) Excluding French overseas departments in 1991.

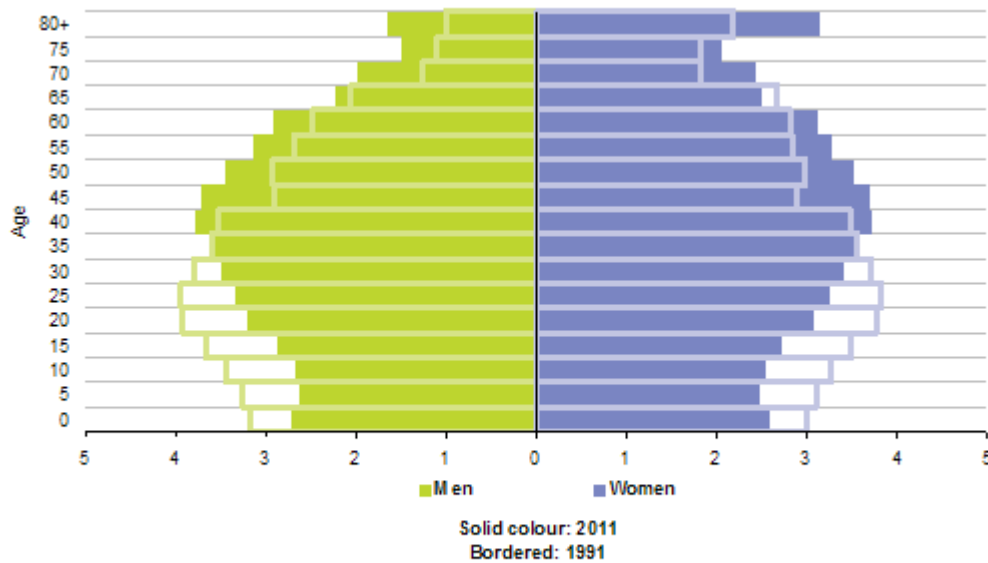
(2) The population of unknown age is redistributed for calculating the age structure.

Source: Eurostat (online data code: demo_pjanind)

Source: Eurostat, Data from October 2012.

Young people (0 to 14 years old) made up 15.6 % of the EU-27's population in 2011, while persons considered to be of working age (15 to 64 years old) accounted for 66.9 % of the population, and older persons (65 or more years old) had a 17.5 % share. (European Commission, 2012)

Figure 2: Population pyramids, EU-27, 1991 and 2011



(1) 2011, provisional.
 Source: Eurostat (online data code: demo_pjangroup)

Source: Eurostat, Data from October 2012.

In the past two decades, the share of the population aged less than 15 years in the EU-27 population decreased by 3.7 percentage points, while the share of the older population (65 years and above) increased by 3.6 percentage points; as a result, the top of the EU-27 age pyramid for 2011 widened (see Figure 1). The growth in the relative share of older people may be explained by increased longevity – a pattern that has been evident for several decades as life expectancy has risen – this development is often referred to as 'ageing at the top' of the population pyramid. (European Commission, 2012)

3.5 The Concept of Active Ageing

According to the organisation WHO (World Health organisation) is Active ageing: *"The process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age. It applies to both individuals and population groups. Active ageing allows people to realize their potential for physical, social, and mental well-being throughout the life course and to participate in society, while providing them with adequate protection, security and care when they need."* (WHO, 2012)

It means continuous participation in social, economic and cultural life. Age should not be the deciding factor. Even seniors can actively participate in society and enjoy life. Year 2012 is European Year for Active Ageing and Intergenerational Solidarity. The aim of this initiative is to highlight the importance of seniors to society, still getting more of life.

Seniors should use its best potential. Therefore, it is supported by this initiation several areas of interest, such as participation in the company, job possibilities and independent way of life. Since the average life expectancy in Europe extends and increases the age for retirement, it is necessary to secure job possibilities. Many people are worried that retirement will not be able to maintain current job or find another. It is necessary to give those people a better chance in the labour market. Retirement does not mean that a person is no longer active. The fact that older people tend to take care of others, especially your own parents, partners or grandchildren or working as volunteers is really often overlooked. The aim of this European Year is to provide seniors more recognition for their contribution to society and make them better living conditions. It is also important to ensure independent living. A seemingly tiny help can improve sick people or disabled. Active aging also assumes the possibility that we can take care of ourselves as long as possible. (European Union, 2013)

Active ageing wants to highlight, that people can be active after they retired and do not participate in the labour force. Older people can remain active contributors to their families. Active ageing aims to extend healthy life expectancy and quality of life for all people as they age. Ageing takes place within the context of friends, work associates and family members. This is why interdependence as well as intergenerational solidarity is important tenets of active ageing. (WHO, 2012)

Ageing is perceived by many as a threat instead of one of our greatest achievements. The growing number of older people is seen as a burden on the working-age population. Allowing people to stay active as they grow older and to continue contributing to society is key to tackling the challenge of demographic ageing. The Year 2012 is European Year of Active Ageing and Solidarity between generations. (WHO, 2012)

3.6 Year of Active Ageing and Solidarity Between Generation

There is a lot to live after 60 — and society is coming increasingly to appreciate the contribution older people can make. That's what active ageing is about — getting more out of life as you grow older, not less, whether at work, at home or in the community. The aim of this initiative is to highlight the importance of the contribution of seniors to society. It is also a challenge for policy makers and relevant stakeholders at all levels to create their actions for better opportunities for active aging and to strengthen intergenerational solidarity. Active ageing means ageing in health and as a full member of society, feeling more fulfilled in our jobs, be independent in daily lives and more involved as citizens.

Age should not be the deciding factor. No matter how old we are, we can still play our part in society and enjoy a better quality of life. The challenge is to make the most of the enormous potential that we harbour even at a more advanced age. The European Year 2012 seeks to promote active ageing in three areas:

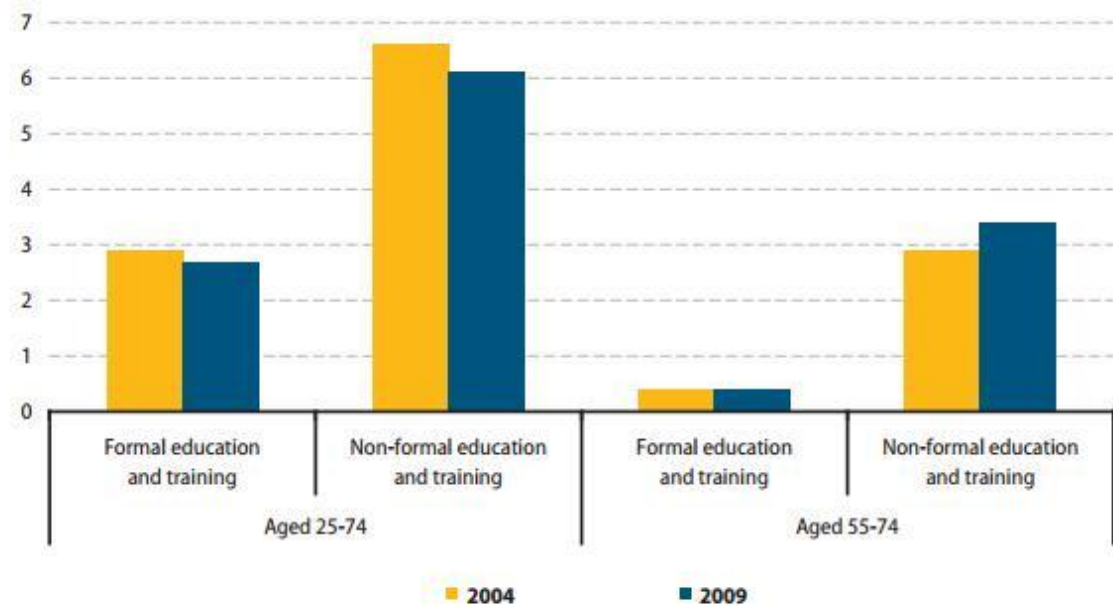
- Employment – life expectancy extends and increases across Europe. Pension ages are rising, but many people fear that they will not be able to stay in their current jobs or to find another job until they can retire on a decent pension. Therefore it is therefore necessary to give older people a better chance in the labour market.
- Participation in society – retirement from one's job does not mean that person ceases to be active. There is often overlooked the fact that older people tend to take care for others, typically their own parents, their own grandchildren or their role as volunteers. The European Year is to provide seniors more recognition of what older people bring to society and create more supportive conditions for them.
- Independent living – our health declines as we grow old, but a lot can be done to cope with this decline. Sick or disabled can improve the life of even a seemingly slight help. Active ageing also means empowering us as we age so that we can remain in charge of our own lives as long as possible. (European Union, 2013)

The European Commission's lifelong learning programme (LLP) aims to enable people at all stages of their lives to take part in education and training. One of its main aims is to prevent the erosion of skills among those of working age – for example, providing

older members of the workforce with the skills that are necessary in order for them to be retained within the labour force.

A strategic framework for European cooperation in education and training was re-launched in 2008 by setting long-term policy goals. These included a set of indicators: one of the targets relates to increasing the participation of adults aged 25 to 64 in lifelong learning to at least 15 % by 2020. An increasing number of older people take-up opportunities to learn about a new subject or to refresh their knowledge in a particular study area by attending courses at universities and other educational institutions. However, adult learning extends beyond employment-related activities to include personal, civic and social skills in formal education and training systems or other settings. It may be the case that, the older that people get, the more likely it is that their participation in education and training activities will be for personal fulfilment or social contact. (European Union, 2013)

Figure 3: Participation in education and training



Source: Eurostat (online data code: trng_lfs_09)

Source: Eurostat, Data from October 2012.

Across the EU-27 some 9.2 % of the population aged 25 to 64 participated (in the four weeks preceding the labour force survey) in education and training in 2009; the share for persons aged 55 to 64 was half the average level, at 4.6 %. Almost one in four (24.4 %) persons aged 55 to 64 participated in education and training in Denmark in 2009. This was

a much higher share than in any of the other Member States, with Sweden, Finland and the United Kingdom the only other countries to record percentage shares that were in double figures. (European Commission, 2012)

3.7 Seniors in Lifelong Learning Programmes

It is widely recognised that people have to continually learn new skills. Lifelong Learning is essential to catch opportunities and to face its challenges. It can bring several benefits, as social well-being of individuals and communities. (Dench, 2000)

Research indicates “*computer teaching does have an effect on the reporting of positive physical and mental health outcomes in older adults*” (Nycyk & Redsellm, 2006)

Of course many technological innovations can bring negative impacts, such as stress for seniors, and it can bring awareness of learning something new. On the other hand, once they overcome their first doubts, they can easily enjoy computer tools and they can improve their quality of life. Use of the computer by seniors should be important for software design developers. Computers should play a useful role for this group of people. Over the years there has been a continual migration of citizens to other cities for work. So it came those seniors themselves to be isolated - living without their families or children or other family members. To avoid depression it is necessary to stay in contact with family members. Seniors need to avoid loneliness so there could be helpful social network, which works over a long distance. Proper training about ICT technology can aid elderly people in being self- sufficient. (Seals, 2008)

Auburn University (USA) decided to found few studies about seniors actively involved in work with computer. A web site was created to provide older people with access technologies to improve their life and to share their knowledge. The name of the Website was SeniorNet and seniors could find there basic user information about e-mail box, touching up photos etc. Computer usage by seniors revealed a few ideas, for instance that seniors prefer a larger font size than the young. In addition, some Web sites were more user-friendly for elder people.

It was found that senior computer training was more effective, when the instruction was broken up into smaller units with specific aims and new information related to the topic.

Seniors need to absorb new information in setting time and teachers need to allow for more pauses for class discussion. It is good to clarify information and ask questions. When new skills are learned it is necessary to practice - especially for seniors more than for young students. It is suitable to work in pairs on specific one-handed activities. (Seals, 2008)

“Seniors are willing to adopt new products and skills where it promotes their self-fulfilment and self actualization, personal enrichment and self- transcendence” (Sederberg, n.d.) (Seals, 2008)

There are two possibilities of the format of such courses. One is regular in-class with an instructor, the second is online.

The first to be mentioned will be the online course.

In 2000 the Department for Education and employment (DfEE created in Norfolk, Virginia, USA) commissioned the Institute for Employment Studies (IES) to explore the impact of teaching the elderly. In particular they investigated their motivation to learn or not to learn, and identify barriers and other aspects of their lives. Among this research they found several results. The most important reasons were intellectual. Participants enjoyed learning new things, they wanted to keep their brains active and they also liked to challenge the study which they always were interested in. Some participants wanted to spend their time in different ways than before. Learning is about a new direction. Not to be overlooked is the desire to keep in contact with teachers and other students. The survey illustrates how learning has impact on the well- being of people, who decided to expand their knowledge. It lead to a feeling of satisfaction, they feel more themselves and are more self-confident. (Seals, 2008)

The second types of project in this research deals with the course led online, and which participants studied from home.

An experimental five-year programme was run for a group of seniors named “ICT for the third age” by The Institute for Educational Technology of the Italian National Research Council (ITD-CNR). It focused on training, which could be independently practiced at home without the assistance of a teacher in a classroom. The big advantage is online examination on related topics. Seniors should learn basic function and advantages of using

the Internet use the e-mail box and Web browsing. The learning environment used is based on social networking tools for easy communication between tutor and student. Time allowed for the learning activity is unlimited, the participant is asked by message to do the next exercise and participants can cooperate. This course is monitored and evaluated by the achievement of expected learning objectives, involvement of participants in the online activities; success achieved in exercises and very important is the degree of satisfaction of participants. This point was evaluated at the end of the course via questionnaire. (Repetto, 2008)

The general attitude of participants of this course was really positive. Lack of familiarity with technology and disorientation radically changed during the course. Students desired to attend similar online course. (Repetto, 2008)

3.8 Ageing policy in the Czech Republic

The implementation of the concept of active ageing will be possible only through cooperation of citizens with different political participants within civil society. State institutions have to work together with the private sector and organizations in the tertiary sector, with voluntary organizations at all levels of governance. (Ney, 2004)

In the Czech Republic is a structural network of institutions which are dealing with ageing, mainly represented by the Ministry of Labour and Social Affairs and the Ministry for Local Development, its specific role has the Ministry of Finance and the Ministry of Health. Further organizations involved are The Czech Directorate of Social Security, The State Employment Directorate and the Research Institute for Labour and Social Affairs.

The main implementers of active ageing policies are government authorities (regions and municipalities) and they have the social policy of the powers delegated by state authorities. A lasting impact on shaping of active ageing policies in the Czech Republic has higher education department, which works on projects for seniors and on assessment of the current socio-economic measures. The Czech academic sphere intervenes in debates over policy issues of ageing. (Rabušic et al., 2004)

The most influential community organizations which represent the interests of seniors is the Union of Czech pensioners, under which it has over more than 20 member

organizations and the Association of Pensioners-Trade Unionists. Those organisations defend the interests of the elderly in the social welfare and health care at local level and in the context of public policy. In its policy statement defines the fundamental problems of the senior population and form of its participation in the solution. The Union of Czech pensioners' focuses on issues of social status of the elderly, the formation of intergenerational relationships and with this associated negative perception of elderly. Today's health and its impact on seniors' population are also negatively evaluated. One attempt to enter into political sphere was the establishment of a political party Pensioners for Life guarantee at the beginning of 1996. For a short time this political entity gained popularity, but failed in the election. Their requirements were focused on the financial support in retirement. Nowadays, many political parties are trying to advantage seniors, but none of them is aimed at them directly. Policy on active ageing is to provision and application of individual dimensions of the concept. It is embedded in institutional frameworks within the public and private sectors. Their priority is to reform seniors and prepare Czech companies for ageing. One of the most discussed areas is retiring, not only determine the age and situation in the labour market, but of course the funding and level of pension. (Rabušic et al., 2004)

3.9 What affect Education

There are several factors which affect education.

- The content
- The way
- People
- Sense

To what extent is it useful the **content** of learning and to what extent it is an effective **way**. The third are **people** who occur around education. There is very import a teacher that allowing and facilitating education. In adult education is the situation is more difficult than in secondary schools or primary schools. Learners are considered as equal partners. Teacher works with them to achieve goals. Very important are contracting entities or mediators of educational programs agencies. The existence of a market does not just offer appropriate and effective products. There are offered as well as the procedures and content

often useless or ineffective. This is associated with the fourth factor sense. Context, awareness of why we want to learn and benefits that we expect from it.

Spontaneous learning is purposeful developing of human potential. Learning is testing a newly-created or imitation behaviour in order to achieve pleasant effects. Desire to experience pleasant feelings are the engine of the learning process. People differ in sensitivity to various forms of content and ideas. It is important to deliberate organized learning, therefore education. (Beneš, 2008)

3.10 University of the Third Age as a Form of Senior Education

As was mentioned in the previous chapter, one way of improving the quality of life of seniors is education. There are several forms of education for seniors. In the Czech Republic, they are special active ageing clubs and the University of the Third Age. In this thesis will be specified only one university of the third age, namely one that is operated by CULS Prague.

3.10.1 Definition of the University of the Third Age

University of the Third Age is the most demanding form of education. According Průcha et al. the University of the Third Age is: *"... specifics form of adult education designed for seniors. It is implemented as cycles of lectures or as a comprehensive study (or more semestral studies) in various fields of humanity, social and natural sciences. Lectures are teaching by university professors and other experts. It does not provide academic degrees; education is primarily a means of fulfilling active life."* (Průcha, et al., 2001)

In the post-war Europe was necessary to satisfy needs of middle-class retirees, because mostly of them lost the opportunity to study as young because there was depression after the Second World War. In this time developed the model of the University of the Third Age: *"University of the Third Age has developed into adult global education success story, spreading to all continents, and amounting to several thousand units with varying structures and programmes"* (Louis, 1995)

Probably the most significant advance at earlier time was the formation in Toulouse in 1973 of the University of the Third Age (U3A). Its defining characteristic being that of older people studying specially designed courses on a university campus, taught by university and with government funding. At the same year University of Toulouse offer summer programmes for retired people, originally named université du troisiemé age (Glendenning, 2001)

The first University of the Third Age in the Czech Republic was established in 1986 in Olomouc city at Palacký University. Organizational security ensured the Czech Red Cross and the Czech Society of Gerontology. The initiator of the establishment of the U3A became MD. J. Vachutka. Initial topics of this university focused primarily on issues of health and its prevention and lectures were led by prominent university teachers. Gradually were established U3V mostly at all universities in the republic, such as in Prague, Zlín, Brno, Hradec Králové, and others cities including U3V at CULS Prague. Generally it can be said that almost all universities of the third age in the Czech Republic were formed on the basis of personal and local initiatives. (Šipr, 1997)

“The main objectives of the University of the Third Age are:

- *“bio-psycho-social” development,*
- *Adaption to the ever changing life and social conditions (technologies),*
- *Cross-generational dialogue” (Jarolímek et al., 2010)*

In this chapter it is important to mention the Association of Universities of the Third Age (AU3V). AU3V was founded in 1993 by a number of volunteers. This association is an unincorporated association of institutions that offer educational activities at the level of university education to the citizens of the Czech Republic in retirement.

AU3V has two main tasks:

- Ensure mutual awareness of its members,

- Provide for AU3V international contacts with leading European organizations, such as AIUTA (International Association of the Universities of the Third Age), EFOS (European Federation of Older Students) and the European Information Network for U3A, led by the University of Ulm. (AU3V, 2013)

4 Practical Part

This chapter is dedicated to University of the Third Age at CULS Prague. Information is obtained from official website of U3A CULS Prague and from printed brochures for future students of this programme. Further information was gained from the study department U3A and coordination centre U3V located at the university campus.

4.1 University of the Third Age in the Faculty of Economics and Management of Czech University of Life Sciences Prague (CULS Prague)

Senior education belongs as a prestigious task to modern universities in developed countries. CULS Prague became one of the institutions providing U3A. First courses for seniors started at the Faculty of Agronomy in 1990, the Faculty of Forestry in 1993, and on the Faculty of Economics started in 1997. According to the official website (CULS Prague, 2012) it is mainly a way to use leisure time actively. Seniors can utilize the opportunity to refresh knowledge and within leading experts can obtain life optimism and new awareness in various topics. It is an opportunity to expose themselves outside of the stereotype of routine days. Group of people in same age, opinions and technically similarly oriented classmates in combination with experienced teachers allow discussion or reflection on the challenges of today's fast-paced world. An important advantage of the study is also the possibility to spend pleasant moment's aside metropolitan tourism in a quiet natural park in university's campus. (CULS Prague, 2012)

Picture 1: U3V at CULS Prague and seniors



Source: Picture available on www.u3v.czu.cz

This form of education is not set to increase professional qualifications. The acquired knowledge and skills are no longer applied in the job but serve to improve the quality of life of seniors, extend their mental and physical activity and to inter-generational dialogue and ultimately has a significant economic effect. (CULS Prague, 2012)

Condition for admission to U3A is:

- Sent application,
- Pensioner status,
- Secondary school-leaving examination. (CULS Prague, 2012)

4.1.1 ICT Course for seniors

Faculty of Economics is providing a course for seniors named “Computer literacy”. This lecture is divided in 4 semesters study. As it was find out from the coordination centre at the Faculty of Economics and Management, one semester of daily study cost 500 CZK. Students can interrupt two years of studies at any time (as long as they need) due to health complications. This advantage is of course appropriate to their age as possible to suited to their age, when might appear unexpected health complications. Duration of the course is two years in total:

Computer literacy

- First semester: PC Control,
- Second semester: Microsoft Office,
- Third semester: Internet – basics,
- Forth semester: Internet – advanced.

Students have in individual programs U3A the opportunity to gain new knowledge in 14 lectures each semester, each week in two teaching hours (90 minutes). Lectures are realized in the new part of the Faculty of Economics and Management in the room IV4. Student attends related practical seminars as well. These seminars are operated in a computer lab in the students’ dormitory F. Experienced lecturer is available to them to help

and give instruction all the time. According to coordination centre of the Faculty of Economics and Management, in the course are generally involved 20-25 students. But when it is lower number, such as 18 students, the course is still open. After completing the programs students drawn up writing tests of presented topics and they will receive a certificate of completion of the University of the Third Age at the Czech University of Agriculture and are officially graduated and received a certificate. (CULS Prague, 2012)

In this thesis could be mentioned related course. In case that a sufficient number of participants are interested, faculty of Economics and Management open another programme “Multimedia use of ICT“.

Multimedia use of ICT

- First semester: Digital Photography,
- Second semester: GPS,
- Third semester: Website creation – basic,
- Fourth semester: Website creation – continuing. (CULS Prague, 2012)

4.2 Virtual ICT course for seniors

The University provides opportunities for verification of multimedia senior education in the region. The third role (so-called new focus of Universities to provide education as a key of life values) of the university is the public role of providing a community service, which is an important mission of universities and their social responsibility. One of the activities is the University of the Third Age (U3A), which has already been established for thirty years. (Williamson, 2000). At present it is estimated in the Czech Republic that more than 400 various programs are offered to 20,000 seniors. Nearly all educational programmes are tied to universities, that means being in regional capital cities. There is practically not available spending retirement time on U3A for seniors in smaller towns because they don't have access to participate. Fast development of Informational Technology makes senior education accessible no matter where they live. (Jarolínek et al., 2010)

At present, The University of Life Sciences Prague is dealing with several projects focused on regions, various forms and methods of both group and individual education are under investigation. Replacing personal contact by electronic is not simply enough. The process requires a substantial change of accustomed, conventional procedures, which can be the most difficult task. (Jarolímek et al., 2010)

The system of the Virtual University of the Third Age (VU3A) as offered since 2008 at the Faculty of Economics and Management (EMN at CULS Prague) provides a tool for verification and multimedia seniors education opportunities in the regions (Jarolímek et al., 2010) Education is provided at university level and it includes programmes of between one and three Years.

According to the coordination centre at the Faculty of Economics and Management, one semester of daily study cost 200 or 300 CZK. Course is provided in 6 Semesters.

How can participate in education senior?

Senior chooses one of the consultation centre suitable for him and he can easy contact an authorized instructor from this consultation centre. (E-senior, 2011)

Participant in the study may be:

- Senior with status pensioner
- Disability retirees regardless of age
- Persons in category 50+ (unemployed or persons waiting for a status pensioner) (E-senior, 2011)

Seniors cannot be perceived as a homogenous age group therefore it is necessary to create a variety of programmes. According to Van de Vord (2010) the Virtual University of the Third Age represents a new alternative of teaching, and is based on the use of the internet, new communication and eLearning. Education development is really fast, and there are new terms such as **media didactics** which deals with the integration of component media into the education process. Another related term is **the media pedagogy** where media theories are used in a practice way. Interactive technologies are more and more used in all types of education. This way of learning has a virtual character, which means lectures are

only in an electronic form, lectures contain of video-sequences from real lectures but they are combined with other video materials, diagrams or computer animations and etc. (Jarolímek et al., 2010)

This type of lecture is focused on education in the regions, and for those who cannot participate in real lectures. The entire learning package (tests, syllabi, study materials etc.) are available on online education portals. Registered participants can repeatedly work through the entire course and they complete tasks and exercises. While filling-in the test they can check study materials without any time limitation. They can also think about the learned topic and can go through the material again after several days. The main didactical advantage of the virtual method is the possibility of repetition. Participants can attend a course in a consultancy centre which provides technical equipment, and can discuss with a contact person the offered course topics and register on those courses which are on interest.

The U3A has been in operation since 2008, and the number of consultancy centres is rapidly increasing: in 2008 there were 8 centres and by 2010 there were 36 centres. This expansion carried with it a proportional increase in the number of seniors involved: in 2008 there were 124 participants which have now increased to 612 students. These figures confirm the interest of the public. (Jarolímek et al., 2010)

There are several courses offered by the Virtual University of the Third Age, but for this Diploma Thesis the most important course is “The Development of Innovation Technologies” (provided by the Department of Information Technologies, Faculty of Economics and Management at CULS in Prague). (Jarolímek et al., 2010)

4.3 Quantitative research

As it is stated in the chapter Nr. 2, a questionnaire was used to obtain the necessary data. Questionnaires were distributed to students visited the full form of study in two semesters. Data are collected from summer semester 2012 and from winter semester 2012. Due the fact that participation in courses U3A is not as widespread as lectures for young students, the sample of interviewees is not so extensive. With the distribution of questionnaire also helped one senior who knew several graduates participants of the course from previous years. All respondents attended the course Computer literacy in the period

2010 until present. Most respondents are current student. There were no preconditions of research that respondents have to already graduate or not.

The questionnaire was given and responded by 56 seniors. All papers were fully fulfilled and from this sample data were gained. Any questionnaire wasn't excluded from further processing.

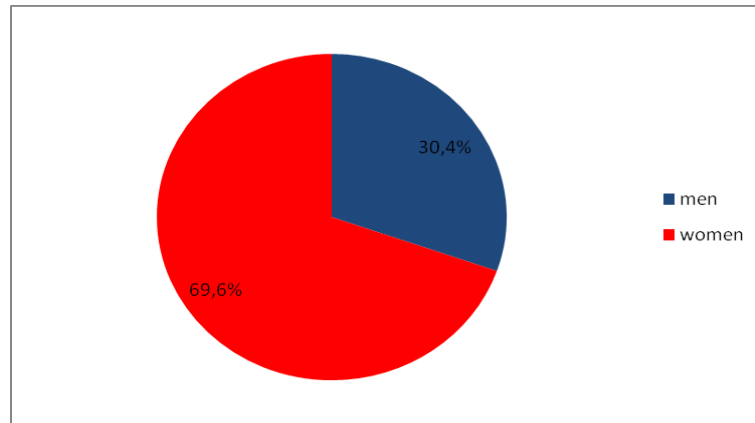
According to University website the participants of U3V courses expect, that the course will help them in the following matters:

- Active use of leisure time,
- Collective of peers,
- Personal development,
- Deepen, refresh current knowledge and mainly gain new knowledge,
- Introduction of development of ICT and the internet to current use of technologies including basic information on e-commerce.(Zikmund, 2003)

4.3.1 1. Structure of participants according to age, education and gender

According to the questionnaire, there will be shown general data focused on participants. In the next section will be shown in graphs gender, age and education of seniors (respondents).

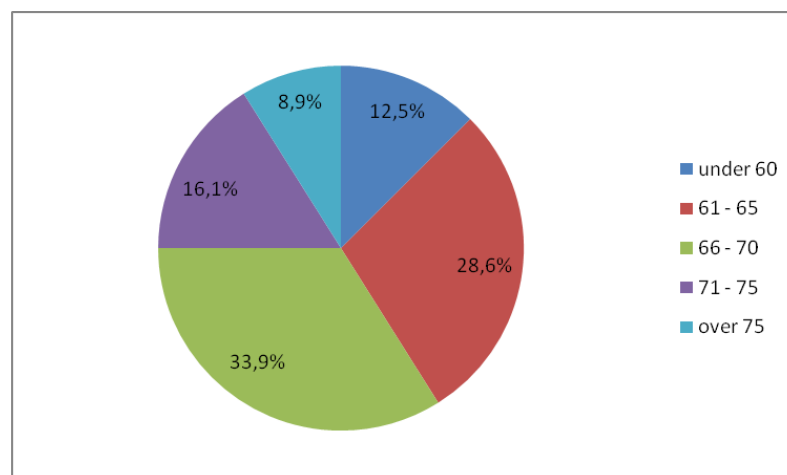
Figure 4: Number of participants according to gender in %



Source: Own data and processing

The number of female participants in ICT course is significantly higher. Out of all 56 responds only 30.4% were male. This result could be estimation, as female in senior age are more interested in education.

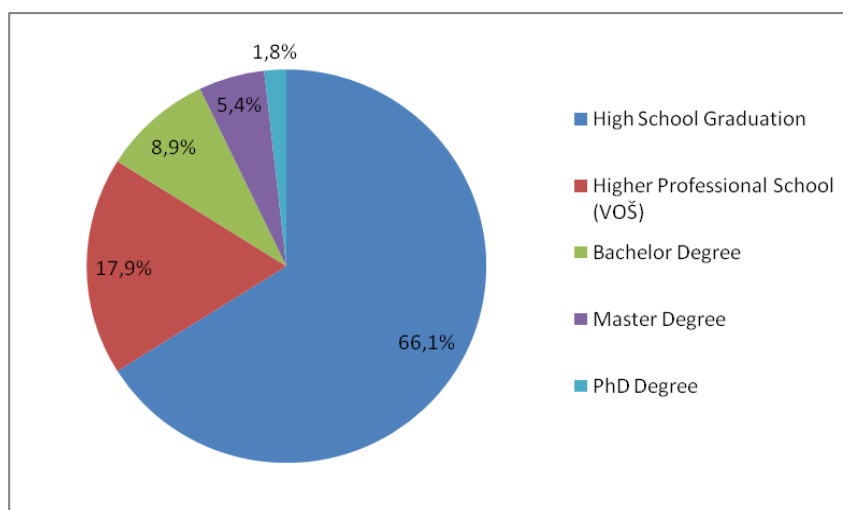
Figure 5: Number of participants to age in %



Source: Own data and processing

The highest percentage includes people who are between 66 to 70 years old, followed by the age group 61 to 65. The group of people between 71 to 75 years old participated from 16.1%, 12.5% of participants are under 60 and the smallest group of students is over age 75. Age is not too important, because activity of individual person depends on the mental and physical abilities.

Figure 6: Number of participants according to education in %

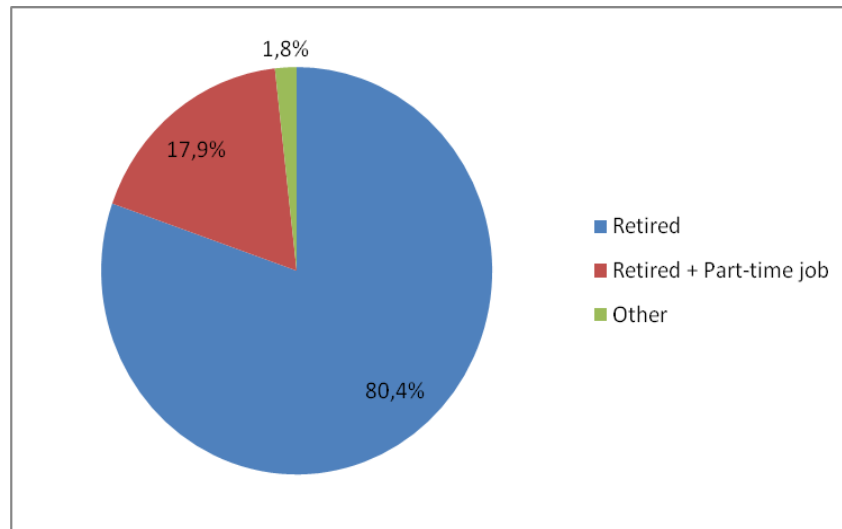


Source: Own data and processing

Most of all responses, over 66%, belonged to people, who completed high school with a graduation. There is a simple explanation for this.

The lowest 1.8% percentage belonged to people, who achieved PhD degree. There was no participant of the research who didn't finish any education. All participants of the course graduated at least on the high school, because one of the preconditions of attendance the course is finished high school. University graduates are included in 14.3% of all 56 responses. Higher professional school finished 17.9%. This type of studies is rated by title DiS. The title DiS. means Qualified Specialist. It is a non-academic title awarded its graduates on higher professional schools (HPS, in the Czech Republic known as VOŠ).

Figure 7: Current employment status



Source: Own data and processing

According to answers, 91% seniors are retired. Some of them answered, that they have part time job. It may be assumed that they are able to attend this course because they have free time.

4.3.2 Evaluation of questions

There were 20 questions in the questionnaire including previous evaluation described in chapter 4.3.1.1. All of them were close-end questions. According to types of questions was the questionnaire focused on basic information (gender, age, and education), followed by series of questions focused on benefits of the course and evaluation of the course.

Benefits of the course

Question Nr. 1: Who signed me into the course?

- Own Initiative
 - 71.4% of seniors said that the signed up into the course from they own initiative.
- Signed up after advice from family members, friends

- Only 28.6% of senior was signed into the course by their friends, their children or grandchildren.

This question has more investigated character. It shows that seniors participate voluntarily. The attendance at these lectures and seminars is completely voluntary and additional questions should determined, what kind of seniors personal aims were important for them.

Question Nr. 2: How advanced are your computer skills?

- Beginner
 - 5.4%, relatively small group of respondents stated that they don't have experience with computer.
- Intermediate
 - 75% of respondents stated that they had already some computer skills before they started attend this course.
- Advanced
 - 19.6% of respondents expressed that they are advanced in computer skills. Nevertheless they feel the need to attend the course.

The following series of questions were tasked by respondents to award preference of agreement and disagreement. Answers I agree and rather agree are positive, rather disagree and disagree are considered as negative responses.

This question is important, because it tells us, whether the participants are using their new knowledge and skills actively or not.

Table 2: Question 3 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
I learned a completely new Information	57.1%	32.1%	7.1%	3.6%

Source: Own data from Questionnaire

89.2% of seniors voted positive answers that they gain in the course new information and knowledge. It shows that the course is evaluated positive and they consider it to be beneficial. Students are attracted by university website precisely in order deepen

knowledge. Only 7.1% don't rather agree and 3.6% don't agree, those answers are probably connected with students, which already had some experiences with PC before this course.

Table 3: Question 4 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
I found new social contact, friendship	10.8%	44.6%	37.5%	7.1%

Source: Own data from Questionnaire

In this question the positive and negative responses are close to balance. 55.4% of seniors answered that they obtained in the course new social contacts and thus new friendships. This bonus may contribute to the satisfaction of the course. Social interaction is unmistakable benefit for pleasant learning surroundings. On the other hand, 44.6% of seniors do not consider classmates as friends. However, this evaluation is also affected by every personal character. It depends if the person is friendly and open to surroundings or not. Also whether senior is willing to communicate with people or is purely interested in studies.

Table 4: Question 5 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
Fulfil leisure time	48.2%	32.1%	14.3%	5.4%

Source: Own data from Questionnaire

In this answer was fulfilling the assumption that seniors have enough free time to visit leisure time activities. It does not matter if they are retired or have a part-time job or some form of extra job. 48.2 % agree this ICT course fills them and 32.1% rather agree. Only 14.2% rather disagree and 5.4% totally disagree with this statement.

Table 5: Question 6 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
It gave me the feeling I accomplish something important	12.5%	32.1%	39.3%	16.1%

Source: Own data from Questionnaire

On this issue, it is not clear leadership predominant answer. 12.5% of seniors agree with the statement and 32.1% rather agree. On the other hand, 39.3% rather disagree and 16.1% disagree. It can be judged from the sample that for these seniors course does not have such

an existential weight. In the proportion 44.6% of positive answers and 55.4% of negative answers prevalent more negative perception of this opinion. Therefore it can be assumed that participants of the course are attending the course more likely for other reasons.

Table 6: Question 7 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
Better orientation in a present time	32.1%	42.9%	17.9%	7.1%

Source: Own data from Questionnaire

This question may explain previous negative review. According to the responses, 75% of the overall respondents (which is 42 respondents) agree with the statement. Computer skills are an inseparable part of the present time. It is unquestionably, that older people choose this ICT course to have common communication topic with 3rd generation. One of the main enticements of the U3A for seniors in retirement is the proposal of the simplification process to better understanding the modern technology.

Only 17.1% answered rather disagree and 7.1% absolutely disagree with the statement which is the least numerous group, specifically only 4 respondents.

Table 7: Question 8 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
Course helps me to improve the memory	32.1%	44.6%	16.1%	7.1%

Source: Own data from Questionnaire

On this question were expected positive responses, as it was fulfilled. 76.6% exactly 43 seniors agree that thanks learning of new skills is the primarily aims to improve their memory. As it was mentioned in theoretical part it the chapter 3.5. The Concept of Active Ageing, for the individual and also for the society it is important to maintain good mental ability of individual.

Table 8: Question 9 with answers in %

	Agree	Rather agree	Rather disagree	Disagree
I am able to actively talk with family or friends about using the computer	39.3%	46.4%	10.7%	3.6%

Source: Own data from Questionnaire

This question connects seamlessly with Question Nr.7. In total, 85.7% of respondents judged this statement positively and agreed. They are able to actively talk with

grandchildren or friends about computer skills. In contrast, only 14.3% expressed their disagreement with the statement. Rather disagree 10.7% and only two respondents represented by 3.6% expressed their absolute disagreement.

It indicates that after completing the course the seniors become more confident in this issue.

Evaluation of the course

It is indisputable, that the quality of the course is an important factor for participants, because it influences people's future and personal satisfaction. Quality of the course influent students further possible interest in next courses. There are many requirements which have an impact on student's satisfaction. In case of senior's satisfaction, it might be possible future participation in follow-up course. The following course named "Multimedia use of ICT" was already mentioned in the chapter describing the U3A providing by CULS Prague.

Education could bring positive change and thus increase people's satisfaction. Seniors are also able to choose course in other education field. The quality of the course is undoubtedly important for potential future students. There are several characteristics which could evaluate course quality:

1. Qualified and experienced lecturer,
2. Comprehensibility of the course,
3. Equipment including study materials and technical equipment such as computers with appropriate software etc.

Table 9: Course evaluation quality, Questions 10-15

	1	2	3	4	5
Comprehensibility of the course	51.8%	33.9%	14.3%	0.0%	0.0%
Content of lectures	41.1%	32.1%	26.8%	0.0%	0.0%
Instructor is willing to help and friendly	62.5%	35.7%	1.8%	0.0%	0.0%
Qualified and experienced lecturer	51.8%	35.7%	7.1%	3.6%	1.8%
Study material	14.3%	28.6%	53.6%	3.6%	0.0%
Equipment in classrooms	21.4%	44.6%	30.4%	1.8%	1.8%

Source: Own data from Questionnaire

Evaluation guide: 1- excellent, 2- very good, 3- good, 4- satisfied, 5- unsatisfied

To evaluate all followed question was chosen to use a scale from 1 as excellent to 5 as unsatisfied. There was no option to choose average value for evaluation as it is more useful to know, whether the participants evaluate course either good or bad. The number 1 means

that senior is completely satisfied with provided course and on the other side there is number 5 means absolute dissatisfaction.

In the next section will be discussed questions from the above inserted Table 9. In the table are labelled strongest preferences of respondents.

a) Comprehensibility of the course

In the teaching process exists a high number of methods of how to pass the information to the listener. According to Skalková (1999) an important determinant in choosing methods are real resources that the teacher offer to listeners, such as schools and class equipment, goal of education, etc. The most widely used method of knowledge transmission is a lecture. This method places great requirement on seniors' attention. Elderly have also decreased ability to receive large amounts of information. It is required a good preparation of the teacher. Of course lecturer has to prepare specifically for older group of listeners. If there are spaces available, the lecture is not so difficult to organize and lecturer can communicate with greater number of listeners.

Most of the participants evaluated the comprehensibility of the course as excellent (51.8%), followed by very good (33.9%), and good (14.3 %). Nobody rated the course as satisfied or unsatisfied. Since the most of the answers were on scale from 1 (excellent) to 3 (good), the content of the course is designed to understand even for students who have little experience with the lectured topics.

b) Content of the lecture

This question is closely related to the previous one and it could be expected similarly evaluation. 41.1% of respondents though that the content of the lectures is excellent. It's clearly score of the course that is suitable for them. 32.1% said that course was very good. Altogether it gives us strongly positively sentient group of participants. It is sharply obvious that the course is perfectly adapted on students (in specific age, skills and knowledge) and it can be assumed that experts who designed this course took into consideration their age and sensibility. When were added to this group of responses seniors that content of the courses was evaluated as good (26.8%), none of the students label this category negatively.

c) Instructor is willing to help and is friendly

The highest evaluation was excellent with 62.5% of all respondents, exactly 35 seniors rated instructor as friendly and willing to help in the lecture. Willingness of teacher is considered as a very important indicator for the satisfaction of participants and its absorption of new knowledge. 35.7% participants are very satisfied with kindness of teacher. Only 1 participants of research marked good value, which is positive answer as well. None of the respondents consider willingness of an instructor poor or inadequate. This means that no student marked an answer satisfied and unsatisfied.

d) Qualified and experienced lecturer

In this question most of seniors answered positively. 51.8% agree with a statement that a lecturer is qualified and experienced as well. They marked excellent value. The second biggest group in size 35.7% evaluated lecturer as very good qualified. In total, positively answered sample of respondents in size of 94.6% (summarized value 1, 2, and 3), they perceive lecturer as excellent and professionally prepared.

Only 3.6% of respondents expressed as satisfied (value 4) and 1.8% (in total only 3 seniors) unsatisfied (value 5) with a qualification and professionalism of lecturer. Although negative perception of this criterion is low, it would good to work on the preparation of the lecturer.

e) Study material

In this question were seniors querying how satisfied they are with the study material (textbooks for home practice). The most numerous responses were good (value 3) with 53.6% of all respondent samples. In addition, 28.6% of respondents replied that study material is very good and 14.3% expressed that they have opportunity to study from excellent material. Only 2 senior's marked low evaluation through marked negative value satisfied. However, none has responded they would consider material as unsatisfying but still there is a place for improvement of study materials.

f) Equipment in classrooms

The widest number 44.6% expressed as very good, 30.4% of seniors as good and the smallest set of answer reflects 21.4% as excellent. One listener commented facilities of classrooms as satisfied and one was unsatisfied. Overall, the average expressed medium positively about facilities of classrooms.

5 Analysis and practical implications

Second part of practical part provides recommendations based on evaluation of the course “Computer literacy” on the University of the Third Age at CULS Prague. For the interpretation of the results were decelerate three hypotheses. These hypotheses should notice some relations between asked issues. All relations were tested by using a statistical method Pivot table. For simple and accurate processing there was use online website calculator recommended by student of statistics. Obtained data are further rewrite in Microsoft excel tables for better understanding and orderliness. The relationship between questions was used programme (software) which was created by Milan Kabrt (milankabrt.cz, 2012)

In every table are connected two questions from the questionnaire.

5.1 Analysis of results

To give deeper meaning to the results of questionnaire, that not only interpretation of answers, question has to be asked to gain confirmation or refute hypotheses. Investigated hypothesis have been modified to make visible coherence of individual questions from the questionnaire.

We assume that high effectiveness of the course "Computer literacy" regarding knowledge, promotion of the University and motivation of seniors was enabled due to high quality of the course as it is shown by the following association tables and calculation. It was necessary to merge positive (1-3) and negative (4-5) evaluation of the course otherwise it would not be possible to use the association tables. For the following evaluation was used formula connected with the pivot table.

1st Hypothesis

Stated hypothesis:

“Lecturer is considered as an expert, if he passes on new information to the listener.”

Reworded hypothesis for statistical test:

H₀: „If the attendees of the course consider lecturer as an expert is independent on whether they agree, that they will receive absolutely new information.”

Used questions:

- Qualified and experienced lecturer
- I learned a completely new Information

Table 10: Knowledge and quality

	YES	NO	Total
Good lecturer	46	3	49
Wrong lecturer	4	3	7
	50	6	56

Source: Own data and processing

Test criterion: G= 8.64

Critical value: $\chi^2_{(-\alpha);df} = 3.841$

$\chi^2 < \chi^2_{0.05(1)} \Rightarrow 8.64 > 3.841 \Rightarrow$

On 5% relevance level we deny zero hypotheses (H₀) about independence of particular attributes and we accept H₁ that says that particular dependency exists.

Accepted alternative hypothesis H₁: “If the attendees of the course are considering the lecturer as an expert depends on whether they agree, that they will receive absolutely new information”

This test confirmed the 1st stated hypothesis.

2nd Hypothesis:

Stated hypothesis:

“The participant of the course "Computer literacy" can actively discuss studied topic, and this fact is not influent by the fact, how he got into to the course.”

Reworded hypothesis for statistical test:

H₀: Whether the attendees of the course are able to actively discuss about using PC after the lessons is independent on who registered them for the course.

Used questions:

- Who signed me into the course „Computer literacy“
- I am able to actively talk with family or friends about the use of computer

Table 11: Initiation and self-satisfaction

	YES	NO	Total
Own initiative	34	6	40
Signed up by family members, friends	14	2	16
	48	8	56

Source: Own data and processing

Test criterion: $G = 0.06$

Critical value: $\chi_{(-\alpha);df} = 3.841$

$\chi^2 < \chi_{20.05(1)} \Rightarrow 0.06 < 3.841 \Rightarrow$

On 5% relevance level we don't deny zero hypothesis (H₀) about independence of particular attributes.

Accept answer: On 5% relevance level we don't deny zero hypothesis (H₀) about independence of particular attributes. Applies a statement, that 48/56 of participants able to actively discuss about usage of PC and it doesn't depend on who registered them for the course.

This test confirmed the 2nd stated hypothesis.

3rd Hypothesis:

Stated hypothesis:

“For the participants of the course it is not substantial if they will meet other seniors from the course during their leisure time after they graduate from the University of the Third Age.”

Reworded hypothesis for statistical test:

H₀: „Statement: Whether the attendees of the course registered themselves to fill in free time is independent on, if they will continue to meet other attendees after the course.

In following table were summed answers "yes" and "rather yes" into one category as a positive answer "yes". The same process was conducted in a negative answer “no”, they were summed response "rather no" and "no".

Used questions:

- Will you meet with the participants after the course?
- I joined the course because I want to fulfil leisure time

Table 12: Motivation and self-satisfaction

	YES	NO	Total
To meet other students "YES"	38	3	41
Do not meet other students "NO"	7	8	15
	45	11	56

Source: Own data and processing

Test criterion: $G = 14.703$

Critical value: $\chi^2_{(-\alpha);df} = 3.841$

$\chi^2 < \chi^2_{0.05(1)} \Rightarrow 14.703 > 3.841 \Rightarrow$

On 5% relevance level we deny zero hypothesis (H₀) about independence of particular attributes and we accept hypothesis H₁ which says that there exists particular dependency.

Hypothesis H₁ says that there exists a dependency between attending of Third Age University at CULS Prague with the aim to fulfil free time and socialising with other seniors with same interest.

“For the participants of the course it is not substantial if they will meet other seniors from the course after they graduated on the University of the Third Age at CULS Prague.”

5.1.1 Other analysis according to gender preferences

Table 13: Participants according to men’s and women’s evaluation of selected statement

Statement: Course helps me to improve the memory

	Agree	Rather Agree	Rather Disagree	Disagree	Total
Men	2	4	8	3	17
Women	16	21	1	1	39

Source: Own data and processing

In the table Nr. 10 above is analysed how men and women evaluated the statement bellow:

Statement: Course helps me to improve the memory.

There were 17 men and 39 women participated in the research. With this statement agree 2 men, 4 men answered rather agree, 8 of them rather disagree (which is a biggest group) and 3 men totally disagree with the statement.

In the evaluation of women is the most marked response rather agrees with a number 21, 16 women responded that absolutely agree with the statement. There were only 2 women that rather disagree and totally disagree.

Overall, this review tells us that more women positively perceive the participation in the course to improve their memory, because a total number of 37 women positively agree with this statement. The ratio 37/39 of women is higher visibly than the ratio 6/11 of men.

Table 14: Participants according to men's and women's evaluation of selected statement

Statement: Better orientation in a present time					
	Agree	Rather Agree	Rather Disagree	Disagree	Total
Men	7	7	2	1	17
Women	11	17	8	3	39

Source: Own data and processing

In this question are analysed responses of men and women (likewise 17 men and 39 women) who responded to the statement below:

Statement: Better orientation in a present time.

At first glance, it is obvious that in this question answered predominantly positively men. 14 of 17 men commented that rather disagree and agree with the statement. If we compare the answers of women, there expressed 28 positive of 39 women (which is a ratio lower than male positive answers). This answers positively selected more men gender. In addition, 3 men expressed rather disagree and disagree with the statement and 11 women will have expressed the rather disagree and disagree.

5.2 Result, discussion, and recommendations

For the relevant recommendations for the University of the Third Age at CULS Prague have to be considered benefit of the course for senior.

In many cases it was proven, that quality of the course plays an important role in the seniors' life, and it has further impact on their personal life. One of the facts is that seniors participate in the course voluntarily and the motivation comes from inside impulse. Even though would be expected the main motive to desire computer literacy, it turned out in the research, 75% of seniors responded are intermediate in computer skills. Smaller group, 19.6% of respondent expressed that they are advanced in computer skills. Although it is not the most numerous group, it can be expected that in next several years this number will increase. In the Czech Republic is currently arising the generation of pensioners who already were working in their professional life with the computer. Computer has common means of communication for them. Their computer literacy and in the future particularly will be substantially higher. It can be expected that this fact will be a significant for

participation in U3A "Computer literacy". This type of course would be no longer required or not absolutely necessary needed. Seniors will have a better experience with computers than the current generation of seniors. The upcoming generation of seniors will have completely different desire to gain new knowledge. In future, the University should extend the offer in the interest of incoming seniors.

Therefore, one of the recommendations for the future could be the adaptation of supply of ICT courses for advanced skilled seniors as well. Courses could be specifically focused on various advanced computer area. It would be suitable oriented from general level user to higher advanced user level and focus in specific advanced tasks.

Based on the set of questions evaluated by seniors "Evaluation of the course", there can be suggested some recommendations as well.

Significant proportion of respondents (53.6% rated value 3) consider the study materials not quite suitable. Therefore can be recommend to the U3V department devote the quality of study material in two areas, the form and the quality as well.

To improve satisfaction with study materials could lead survey among students, what materials would be further possibly added. For example, it could be workbook, higher proportion of discussion in seminars, practical exercises, individual tasks etc.

Other recommendation for the improvement of the quality is dealing with the equipment of classrooms. One of the main problems can be the room IV4 where lectures are provided. As older listener with specific needs, seniors may have problems with sense of hearing. Not surprisingly, classrooms equipment has to adapt for a specific group of visitors and it is necessary to provide adequate facilities.

Based on the above survey and recommendations, it would be suitable to inspect some areas in deeper extensive research.

6 Conclusions

The purpose and objective of this diploma thesis was to analyse the seniors' satisfaction with the ICT courses offered by University of the Third Age at the Faculty of Economics and Management CULS in Prague and its personal benefits for seniors. The analysis itself can be considered as the main contribution of this thesis together with the recommendations regarding quality improvement.

The first theoretical part described most of the topics, which are related the Concept of Active Ageing, to lifelong learning education for seniors, current phenomenon ageing population was described and the attitude of the European Union as well. Furthermore, the work described the policy of this issue in the Czech Republic, the active organization related to seniors' education and especially important actors in this sphere for the education of seniors.

In the second practical part was describing the University of the Third Age at CULS Prague. Specifically, there was chosen the course "Computer literacy" provided by Faculty of Economics and Management. This section was followed by the questionnaire. The questionnaire were firstly evaluated, and then followed by a deeper glance into relationship among different factors. The number of participants U3A is significantly lower than the number of students of common universities. Therefore, selected sample of respondents is not so extensive. Overall, 56 participants were contacted. Most of the participants were females (39), there were 17 men. All of respondents filled all answers, the questionnaires were 100% evaluated.

All seniors finished the high school; another 34% received furthermore higher education. All participants of the course were retired. And 19.7% has also part-time job or some voluntary activity. The highest percentage proportion includes people who are between 66 to 70 years old, followed by the age group 61 to 65. The group of people between 71 to 75 years old participated from 16.1%, 12.5% of participants are under 60 and the smallest group of students is over age 75. Age is not too important, because activity of individual person depends on the mental and physical abilities.

In the second parts of questionnaire were seniors asked what kind of benefits brings them this course.

One of the questions was who signed them up into this course. This question is related with social background of their family and surrounding. Most of seniors answered (71.4%) they signed up into the course from their own initiative. It can mean that they want to learn new information and additional information in the computer field. This assumption can support fact, that most of the asked seniors are intermediate in computer skills. 75% of respondents stated that they had already some computer skills before they started attending this course. Even so, 89.2% of seniors voted positive answers in question, if they gain in the course new information and knowledge. It is thus seen that the course was beneficial.

Other benefit to seniors' self-satisfaction is that course offered an opportunity to create new social contacts. However, the results show that the main motive is not searching for a new social group, but really desire for education. Large proportion of students studying computer literacy conceived activity to fulfil their leisure time. 48.2 % agree this ICT course fills them and 32.1% rather agree. Only 14.2% rather disagree and 5.4% totally disagree with this statement. Nevertheless seniors consider the statement too serious "It gave me the feeling I have accomplished something important". In the proportion 44.6% of positive answers and 55.4% of negative answers prevalent more negative perception of this opinion. Therefore it can be assumed that participants of the course are attending the course more likely for other reasons. According to the responses, 75% of the overall respondents (which is 42 respondents) agree with the statement: "Better orientation in present time". Computer skills are an inseparable part of the present time. It also implements that older people choose this ICT course to have common communication topic with 3rd generation. Only 17.1% answered rather disagrees and 7.1% absolutely disagrees. According to results, seniors agree that learning of new skills helps them improve memory and keeps them mental active. Exactly 43 seniors agree. It can be consider as a very important consequence of the course, whether they are actively able to talk with family or friends about the use of computer. In total, 85.7% of respondents judged this statement positively and agreed. This outcome is considered as a very favourable.

Overall, seniors answered mostly positive and the course is highly beneficial for active ageing.

Regarding the quality of the course, seniors rated this category in series of question positively. Still, there is a space for improvement, for example in the category study material and classrooms equipment.

Regarding to the participation in the course can be deduced the following conclusions.

From the women's point of view, their participation in lifelong learning programmes is more reflected by the human factor, creation of social contact, maintaining mental condition. On the other side, men's prefer better orientation in present time and actual technical development, and the ability of keeping awareness in modern time.

Overall, the main motive of participation in lifelong learning programmes is not only short-term impulse. It has more permanent character and it can be expect the demand on this type of education in the future.

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12 Supplements

12.1 Questionnaire in Czech

Vážení respondenti,

dovolte mi, abych Vám předem poděkovala za vyplnění tohoto dotazníku, který bude sloužit jako podklad pro moji diplomovou práci na Provozně ekonomické fakultě (Česká zemědělská univerzita v Praze). Dotazník je zcela anonymní a bude sloužit výhradně k vypracování mé závěrečné práce.

Cílem dotazníku je zjistit, jak jsou návštěvníci kurzu Počítačová gramotnost na Univerzitě třetího věku spokojeni s průběhem výuky, z jakého důvodu se rozhodli kurzu účastnit a jaký má pro ně tato aktivita přínos. Předpokladem je, že respondent je studentem zkoumaného kurzu.

Vámi vybranou odpověď, prosím, označte pouze jednu odpověď.

Děkuji za spolupráci.

1) Pohlaví:

- Muž
- Žena

2) Vyberte prosím svoji věkovou kategorii:

- do 60
- 61- 65
- 66 – 70
- 71 - 75
- 76 a více

3) Jaké je Vaše předchozí dosažené vzdělání: S maturitou

- Vyšší odborná škola
- Vysoká škola – bakalářský titul
- Vysoká škola – magisterský titul
- Vysoká škola – doktorský titul

4) V současnosti:

- Jsem v důchodu
- Jsem v důchodu, ale pracuji na částečný úvazek, brigádně apod.
- Jiné

5) PC dovednosti:

- Začátečník
- Středně pokročilý
- Pokročilý

6) Kurz „Počítačová gramotnost“ navštěvuji, protože:

- Vlastní iniciativa
- Přihlásili mě členové rodiny, známí

7) V kurzu se dozvím se zcela nové informace:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

8) V kurzu jsem získal/a nové přátele:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

9) Do kurzu jsem se přihlásil/a za účelem vyplnění volného času:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

10) Kurz mi dal pocit, že mohu něco dokázat:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

11) Díky učivu z kurzu se lépe se orientuji v nové /moderní době:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

12) Studium mi pomáhá zlepšovat paměť:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

13) Díky učivu z kurzu jsem schopen se aktivně bavit s rodinou o užívání PC:

- Souhlasím
- Spíše souhlasím
- Spíše nesouhlasím
- Nesouhlasím

14-19) Na základě Vašich zkušeností prosím ohodnot'te jednotlivé kategorie:

Hodnocení: 1- výborné, 2- velmi dobré, 3- průměrné, 4- podprůměrné, 5- špatné

	Výborné	Dobré	Průměrné	Podprůměrné	Špatné
Srozumitelnost kurzu	1	2	3	4	5
Obsah jednotlivých hodin	1	2	3	4	5
Lektor je ochotný a vstřícný	1	2	3	4	5
Materiál ke studiu	1	2	3	4	5
Odbornost lektora	1	2	3	4	5
Vybavenost učeben	1	2	3	4	5

20) Budete se setkávat s účastníky i po kurzu?

- ANO
- SPÍŠE ANO
- SPÍŠE NE
- NE

12.2 1. Questionnaire in English

1) Gender:

- Men
- Women

2) Please select your age group:

- under 60
- 61- 65
- 66 - 70
- 71 - 75
- 76 and more

3) The highest level of education:

- High School Graduation
- Higher Professional School (VOŠ)
- Bachelor Degree
- Master Degree
- PhD Degree

4) Present status:

- Retired
- Retired + Part-time job
- Others

5) PC skills:

- Beginner
- Intermediate
- Advanced

6) Who signed me into the course „Computer literacy“:

- Own Initiative
- Signed up by family members, friends

7) I learn completely new information:

- Agree
- Rather agree
- Rather disagree
- Disagree

8) I found new friends in the course:

- Agree
- Rather agree
- Rather disagree
- Disagree

9) I joined the course because I want to fulfil leisure time:

- Agree
- Rather agree
- Rather disagree
- Disagree

10) The course gave me the feeling that I can accomplish something:

- Agree
- Rather agree
- Rather disagree
- Disagree

11) Thanks new knowledge I am better orienting in a present time:

- Agree

- Rather agree
- Rather disagree
- Disagree

12) The course helps me to improve the memory:

- Agree
- Rather agree
- Rather disagree
- Disagree

13) I am able to actively talk with family or friends about the use of computer:

- Agree
- Rather agree
- Rather disagree
- Disagree

14-19) **Based on your experience, please evaluate each category:**

Evaluation guide: 1- excellent, 2- very good, 3- good, 4- satisfied, 5- unsatisfied

	Excellent	Very good	Good	Satisfied	Unsatisfied
Comprehensibility of the course	1	2	3	4	5
Content of lectures	1	2	3	4	5
Instructor is willing to help and friendly	1	2	3	4	5
Study material	1	2	3	4	5
Expertise of instructor	1	2	3	4	5
Facilities of classrooms	1	2	3	4	5

20) **Will you meet with the participants after the course?**

- YES
- RATHER YES
- RATHER NO
- NO