THE BENEFITS AND LOSSES OF ONLINE LEARNING IN THIRD-AGE UNIVERSITIES DURING THE COVID PANDEMIC

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Abstract: Due to the pandemic situation, the online form of education has become widespread in all its spheres. The education of seniors, which is provided, among others, at universities of the third age, has been no exception. Prior to the global pandemic, universities of the third age mainly provided full-time education. However, the new situation has brought new challenges. Third Age Universities have either decided to provide online education or have temporarily ceased their activities. In this paper, we focus on online education during the pandemic at a particular third age university. Based on the results of a questionnaire survey, we present the experiences of seniors with online learning, specifically, identifying the advantages of online education for seniors and the disadvantages of this form of education for this target group. To achieve these objectives, a quantitative research survey was conducted among seniors who participated in online learning at the University of the Third Age in question.

Keywords: University of the third age, senior, interest-based education for seniors, IT technologies, online education

1 Introduction

It is a well-known fact that European society is ageing dynamically. But what does this mean? Simply put, fewer children are being born and the average life expectancy is increasing. The improving health status of the population is leading to more and more people surviving to old age, and therefore to an increase in their numbers (Rabušicová, Kamanová & Pevná, 2010). Both absolute and relative increases in the number and proportion of the population defined as "old" can be observed (Adamec & Kamanová, 2021). The analysis of the age structure of the population from the implemented 2020 census shows a continued increase in the 65+ age group. It has already exceeded one fifth, i.e., one person in five of the population of the Czech Republic was over 65 years of age and the absolute number of seniors has thus exceeded 2.1 million. which is half a million more than in the previous census of 2011. The medium variant of the Czech Statistical Office demographic forecast also shows that in 2030 the number of people aged 85 and over will be 2.4 million, i.e., about a quarter of the population, and in 2050 even 3 million, which will be a third of all people living in the Czech Republic. At the same time, by 2050 the number of people aged 85 and over will triple to almost 0.6 million, which will represent about 6% of the population (Strategy for preparing for the ageing of society 2019-2025).

The trend described above is now widely discussed across the scientific community, not excluding the social and educational sciences. The so-called demographic panic (Vidovićová, 2008), i.e., an expressed fear of the future development of society in relation to its demographic structure, is also discussed in professional sources. But as Petrová Kafková (2013) points out, currently the key response to population ageing is the concept of active ageing, which was developed in the 1990s.

According to the World Health Organization (2002), active ageing is a process in which opportunities for improving one's health, participation and activities aimed at enhancing quality of life during ageing can be optimised. Thus, in this concept, we can talk about living life to the full in older age and having a responsible attitude towards health, living with dignity and safety, and opportunities to participate in social events (Holczerová & Dvořáčková, 2013). According to Haškovcová (2010), at the same time, the concept of active ageing comes with the idea that it is possible to improve the quality of human life in addition to prolonging it. Active ageing also includes respect for the rights of older people to equal opportunities and to participate in social responsibility, e.g., through decisions about community life, etc.

According to recent findings, life expectancy is influenced not only by biological (genetic) factors, but also by social and economic factors. Specifically, these include living and working environment, lifestyle, as well as taking care of one's own health and the level of health care (Wilkinson & Marmot, 2003). Lifestyle includes housing options and quality, daily habits, quality and duration of sleep, substance use, level and duration of stress, physical exercise, as well as dietary habits (Čevela, Kalvach & Čeledová, 2012). The intensity of an individual's physical and mental activity also appears to be important. This area includes sports, hobbies, reading books, visiting cultural institutions or time spent with friends or close persons. Research shows that the listed physical and mental activities help an individual to have proper brain function, which ensures their well-being (Williams, Higgs & Katz, 2012), which could further influence their functioning in old age. Subsequently, other studies conducted demonstrate the link between life satisfaction and well-being as well as education and learning in later life (Formosa, 2014). The results of these studies reveal that seniors can find meaning and satisfaction in their lives through learning (Field in Rute, Porcarelli, 2019). It is the processes of learning that can build networks, trust, reciprocity, and social ties - in general, they can facilitate the socialization of seniors. Seniors' participation in learning activities also appears to increase their physical, intellectual, and social health (Formosa, 2014) and, consequently, their quality of life (Jacob in Rute, Porcarelli,

Avramov and Mašková (2003) highlight four areas of focus in the discourses of active ageing. The first is prolonged participation in the labour market, followed by active involvement in family life (through housework or caregiving), active involvement in the community (especially through volunteering) and active leisure time (associated with sports or other hobbies). The last area also includes the area of interest-based education.

As mentioned above, the imaginary flagship of senior education is undoubtedly the universities of the third age (Hasmánková Marhánková, 2014), on which we focus our attention in the presented text. The very name of these institutions refers to Peter Laslett's (1991) concept of the third age, which is one of the fundamental ideological inspirations for the development of ideas of successful, productive or active ageing. However, we further narrow down this broad thematic base and focus on the area of online learning. Specifically, we focus on online education in universities of the third age, which has become more widespread in the Czech and Slovak Republics with the arrival of the pandemic situation of 2019-20211 in connection with a significant reduction in the implementation of the fulltime form of teaching in universities of the third age, which until then completely dominated. This is not an isolated research, the topic of online learning has been addressed, for example, by Švaříček et al. (2020) and Adamec and Šimáně (2022), who focused their research activities to capture, describe and interpret the perceptions of online learning through online tools MS Teams and LMS Moodle among teacher education students.

During this period, there has been a significant increase in the use of information technology in senior interest-based education, both on the part of educators and the target group. In this paper, we explore the experiences of seniors with online learning. We are interested in what benefits online learning has had for seniors and what disadvantages this form of learning has brought to seniors.

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¹ As a result of the Emergency Measure of the Ministry of Health of 10 March 2020 to protect the population and prevent the risk of the emergence and spread of covid-19, the personal presence of students in schools, including the University of the Third Age, has been banned for a significant part of the summer term of the academic year 2019/2020. A similar situation also occurred in the winter semester and partly in the spring semester of the academic year 2020/2021.

The presented paper is dedicated to students of universities of the third age, i.e., seniors. Today, for many reasons, they represent a very heterogeneous group. The heterogeneity of the group of people over 65 years of age, which currently numbers 2 million in the Czech Republic, is not only due to age - the age range can exceed 30 years (Winkler et al, 2016), but also health and the ever-increasing life expectancy, income, level of education attained, place of residence (rural vs. urban), social ties, or one's own activity and life experience play a significant role (Strategy, 2019). Čevela, Kalvach a Čeledová (2012, p. 27) explicitly state that there is no "typical senior". It is worth mentioning that even in our literature or legislation, the concept of senior is not clearly defined. Each of the disciplines concerned with ageing interprets the term senior from different angles appropriate to its needs. Holczerová and Dvořáčková (2013) note that in defining the term senior, sociological aspects are combined with biological and medical aspects, and it is concluded that it is a person in the final stage of life with a specific position in society. There is also no consensus on the age limit for determining the senior age, which varies from the age of 50 in various expert sources. Haškovcová (2010) proposes a consensus on the idea of a roughly 65-year-old citizen. This threshold is also encountered in the outputs of the Czech Statistical Office. For the purposes of this text, the boundary is determined by the age of 50, which is one of the criteria for entry to the University of the Third Age.

As mentioned in the Introduction section, one of the concrete activities that can improve the quality of life in old age is studying. The third age universities, which are part of colleges and universities, are aimed at offering studies to the senior population. Individual universities of the third age usually offer courses of interest that correspond to the areas in which the college or the university has accredited study programmes. It is therefore implicitly assumed that this type of study will reach the university level. Seniors are exposed to the latest knowledge in their respective fields of study. The teaching methods and organisational forms used in the University of the Third Age are the same or similar to those characterising the university.

The university environment is the guarantor of quality in terms of content and methodology. But in the universities of the third age, it is often more than that. It's not just one way to spend time actively and with quality. According to Kalvach and Onderková (2006), a total of six levels of functional fitness can be distinguished in old age, from which different needs arise. Thus, the above mentioned author speaks of elite, fit, independent, frail, dependent and totally dependent seniors. Thus, education at universities of the third age is a kind of imaginary inoculation that tries to keep the senior as long as possible out of the dependent and totally dependent stage. It must also be pointed out that the universities of the third age fulfil the third role of universities, which is now widely demanded. This role is that universities can serve the public very well. In general, the third role of universities includes such activities that aim to improve the educational, cultural, moral, ethical or health level in society.

Research surveys show that the participation of older people in educational activities (not only in the third age universities) is neither high nor sufficient. According to a research survey (Rabušic and Rabušicová, 2008), only 12% of people in the 60-65 age group participated in non-formal education. At the same time, the results of the 2011 Adult Education Survey also indicate that 20.1% of the Czech population in the 55-64 age group participated in at least one non-formal education activity in the last twelve months since the survey and only 5.4% in the 65-69 age group (Dvořáková, 2014). On the other hand, as the data analysis (Stříbrné..., 2021) of the Information System of the Association of Third Age Universities shows, a long-term increase in the number of seniors participating in education at third age universities can be observed. In the period under review, i.e., since the academic year 2010/2011, when the Information System was launched, we can observe annual increases of approximately three thousand students. From 33 607 students in the 2010/2011 academic year, the number of students has risen to 60 193 in 2010/2019. The number of courses offered by the individual universities of the third age has increased by 64 percent over the period under review and the number of classes taught by 72 percent. For these two latter indicators, we can observe a gradual slowdown over the last 5 years, which may indicate that the limits to growth have been reached, due to both technical (e.g., classroom capacity) and personnel (lecturer and organisational capacity) capacity.

The covid period significantly affected these long-term trends. The interest of seniors has declined in most third age universities in the Czech and Slovak Republics. Almost from day to day, universities of the third age had to change their teaching forms and ways of working with seniors.

2 Methodology

In the research investigation we conducted, we focused on online learning that took place during the pandemic period at the third age universities in the summer term of 2021. We explored the experiences of third age university students with online learning. In this paper, however, we address only some of the sub-themes of this research investigation. Specifically, we identify the advantages and disadvantages of online education for seniors.

We set the following research questions:

What are the benefits of online learning for students of the third age universities?

What are the disadvantages of online learning for the third age university students?

For the purpose of the research, a questionnaire was designed by the author, which contained 32 questions. These were close-ended, open-ended, semi-closed and scaled. A battery of demographic questions was included. The questionnaire was distributed online in April 2021 via Google Forms, after the end of the teaching period. It was oriented to the broader issue of online learning among the senior group, their experiences, opinions, etc.

The collected data were evaluated in two ways. Responses to open-ended questions were analysed using content analysis. They were categorized into several areas and then handled by descriptive statistical operations. A similar procedure has been applied in previously conducted studies (Rabušicová et al, 2016; Rabušicová, Kamanová & Pevná, 2011; Adamec & Janderková, 2021). Another part of the data was evaluated through descriptive statistics.

The respondents of the research survey were participants of the online courses of the MENDELU University of the Third Age, who attended the courses in the summer semester 2020/2021. The return rate was therefore 67%. We are aware that we targeted senior students at one particular third age university. Thus, this is a research probe into one distinct environment. The demographic data obtained from the respondents show that the respondents were predominantly individuals from the South Moravian Region and neighbouring regions and seniors studying at multiple third age universities within the region.

If we focus on the basic demographic characteristics of our research sample, it is 87.3% female-dominated (compared to 12.7% male respondents), which is in line with the general trend in gender composition of third-age university students, which is characterized by significant feminization. The age structure of the participants more or less follows the structure of full-time education, with the 62-72 age group being the most represented, namely 66.9%.

Along with the demographic information, it was also ascertained whether the participants had been educated at other third age universities. A full 68% of respondents are graduates of other third age universities besides MENDELU University of the Third Age. At the same time, 62.4% of them are currently participating in other online courses. Thus, we can speak about a group of participants of online courses who are used to being

active in their education and continue this activity despite the change of its form from full-time to online. In addition to the characteristics of the sample, it is important to mention the aspect of the use of IT tools. This area was also investigated by means of several questionnaire questions. We were interested in what devices they used for online learning and whether they had financial costs associated with participating in online learning. The results show that 49.2% of the participants used a laptop for online learning, followed by 37.6% a desktop computer, 9.4% a tablet and the remaining 3.9% a smartphone. It can be assumed that these technologies were overwhelmingly already a common part of their households, as 94% of our respondents had no additional costs associated with online learning. When financial costs did occur, participants primarily associated them with printing the study materials.

3 Main results of the research survey

First, the benefits of online learning for seniors are being presented. It should be noted at the outset that seniors who were registered for the online learning were also allowed to return to the lecture for 48 hours, as a recording of the lecture was made available to seniors. This procedure was chosen with the needs of the target group in mind. In the case of the benefits of online learning, among other things, we asked the open-ended question "What are the benefits of online learning for you?" Respondents were thus free to answer. From the content analysis, the following categories emerged relating to the benefits of online learning for seniors - time availability, physical accessibility, repetition, learning opportunity, and convenience of home.

"Time availability" has emerged as a major benefit of online education for seniors. This was linked to the fact that people saved commuting time through online learning: "The ability to be flexible in daily activities, without losing commuting time." Or "Saving time needed to travel." Making the lecture recording available proved to be a significant advantage. "I could watch the course at any time, not only at the time indicated." or "I don't have to watch the lecture schedule." It turns out that the time flexibility allowed by the set-up of the online system was very positively evaluated by seniors, specifically 31.5% of respondents reported this benefit. Overall, the greatest benefit for seniors is the implemented online learning.

Among the significant benefits of online learning for seniors was "physical accessibility." The following types of statements emerged, "I have hip problems, so having the lectures online was a big advantage for me." Or "Indispensable. I hardly can walk. Dependent to the Internet." Online learning made education accessible to those who, for health reasons, could not attend regular full-time classes at the third age universities. Similarly, there were statements from seniors who were prevented from attending full-time classes by caring for relatives, etc. "Great, or I wouldn't be able to commute anywhere due to caretaking of my husband." In addition to the above, geographical distance to the place of full-time teaching was also mentioned: "I am from the South Bohemia region, so this is a big advantage. Big because I wouldn't be able to commute anywhere." Thus, physical accessibility was an advantage for these seniors, and for some, the cost savings associated with travelling to full-time teaching was associated with this form of teaching: "Financial savings. Otherwise I commute from Ostrava to attend U3V classes." The main benefit of online learning was cited as physical accessibility by 25.4% of respondents.

Seniors cited "the possibility of repetition" as another benefit. This was associated with seniors being able to return to lecture recordings and was mentioned by 16.6% of the respondents. The benefits of this for seniors were multiple: "Ability to play some parts again." and "I could listen to each lecture 2 - 3 times." The ability to replay was also associated with the seniors being able to take notes, etc.: "It is possible to replay the lecture, take notes in peace, etc."

The fourth category was called "learning opportunity". This refers to the fact that online learning allows you to learn and

broaden your horizons: "I can learn even when there is no face-to-face teaching." Seniors also positively acknowledged the learning opportunity itself: "Expanding knowledge." This benefit was emphasized by 11.6% of our respondents.

The last category "convenience of home" refers to some added value of online education: "The possibility to listen to a lecture in the comfort of one's home." For some seniors, this advantage is also associated with a greater possibility of concentration and peace of mind compared to a regular face-to-face class: "I like peace and quiet, and I have that at home with my computer, where I am not disturbed and can concentrate well." This benefit was mentioned by 10.5% of the research participants.

Table 1: What are the advantages of online learning for you?

	Absolute	Relative
	frequency	frequency
Time availability	57	31.5%
Physical accessibility	46	25.4%
Possibility of repetition	30	16.6%
Learning opportunity	21	11.6%
Convenience of home	19	10.5%
None	8	4.4%
Total	181	100.0%

Source: authors' own processing

In the research conducted, it became clear through the analysis of other items in the questionnaire that online learning has other benefits for seniors. In the research we were interested in the IT skills of seniors who participated in online learning, or their assessment of their own IT skills before and after online learning. More than three-quarters of them (87.8%) did not need help to participate in online learning. If participants ever needed help, they mainly asked for help their family members. These were primarily great-grandchildren.

The level of IT skills is also indicated by a question aimed at self-assessment in this area on a traditional school grading scale. One third of the participants (33.2%) rated their IT skills as commendable before starting online education. Participants who rated their IT skills as excellent or good were almost equally represented (25.4% and 28.7% respectively). 11% of participants rated their IT skills as sufficient before starting the online course. The results show that the shift or deepening of IT skills occurred only to a limited extent, with 38.1% of respondents rating their IT skills as commendable, 30.9% as excellent, and 22.7%, or about 6% less, rating their IT skills as good after the course.

The benefit of online learning for seniors can therefore be perceived as the fact that some of the respondents' IT skills improved thanks to more online learning. This may be some added value of online education for seniors.

Table 2: Rate your IT skills (How well can I work on a computer/tablet? and What were my IT skills when the online posting/pandemic started?)

		IT skills - start of	Assessment of current
		pandemic time	IT skills.
Grade 1	N	46	56
	%	25.4	30.9
Grade 2	N	60	69
	%	33.2	38.1
Grade 3	N	52	41
	%	28.7	22.7
Grade 4	N	20	13
	%	11.0	7.2
Grade 5	N	3	2
	%	1.7	1.1
T-4-1	N	181	181
Total	%	100.0	100.0

Source: authors' own processing

In addition to the subjective evaluation of their own IT skills using a grading scale, in the statement part of the questionnaire

we asked seniors if they agreed with the statement "I have improved my IT skills thanks to online learning." 15.5% of our respondents agreed with this statement and 29.8% of them rather agreed. 17.1% of our respondents rather disagreed and 12.8% expressed disagreement. We also asked whether seniors thought they had to learn new IT skills because of online learning. In response to the following statement "I had to learn new IT skills because of online learning. " 12.2% responded with an agreeing opinion and 23.2% responded with a rather agreeing opinion. The other responses expressing a disagreeing opinion, with 22.7% of the respondents stating that they rather disagreed and 24.8% of the respondents stating that they disagreed with the statement, shows that the development of IT skills was not only related to the needs of online learning. It is also related to their willingness and need to learn new IT technologies. When 36.4% of our respondents agreed with the statement "I want to learn something new within IT technologies. " Also, 42% of respondents expressed the opinion "rather agree". Their willingness towards expanding their skills within IT technologies is somewhat related to their needs. With the statement "I have a need to continue learning new IT technologies. " 34% of respondents agreed and 38.1% said they rather agreed. More detailed results are then presented in Table 3.

Table 3: Express your level of agreement or disagreement with the above statements

		Thanks to online learning I have improved my IT skills.	I had to learn new IT skills because of online learning.	I want to learn something new within IT technology.	I have a need to continue to learn new IT technologies.
I agree	N	28	22	66	62
	%	15.5	12.2	36.4	34.2
I rather	N	54	42	76	69
agree	%	29.8	23.2	42	38.1
I rather	N	45	41	21	26
disagree	%	24.8	22.7	11.6	14.4
I disagree	N	31	45	7	7
Tuisagiee	%	17.1	24.8	3.9	3.9
It doesn't	N	23	31	11	17
concern me	%	12.8	17.1	6.1	9.4
Total	N	181	181	181	181
	%	100.0	100.0	100.0	100.0

Source: authors' own processing

Online education for seniors brings with it more than just positives. We were also interested in the disadvantages of this form of education, which seniors attributed to online learning itself. We also subjected the responses to content analysis and categorized them into six categories.

The most perceived disadvantage appeared to be that seniors lacked the personal contacts that regular full-time education allows for them. In online learning, they lacked direct interaction with classmates and the lecturer. The following types of statements were encountered, "I missed direct contact with my friends." Or "It cannot replace direct contact with the lecturer and other participants." This disadvantage was mentioned by more than two-thirds of our respondents, specifically 64.7%. Indeed, online learning denies one important aspect of senior interest-based education, namely the promotion of social contacts.

The second category we named "no disadvantages". Respondents' statements for this category were "none" "don't know about them," or "Given my health problems and the presence of covid, no downside." That online learning has no negatives was thought by 23.2% of respondents.

The other disadvantages mentioned above are marginal compared to the two mentioned above. Some of our respondents (7.7%) mentioned that they would have liked a longer

opportunity to view the recording. They considered the option of 48 hours for possible repeat viewing as insufficient: "Short recording time." Or "I would welcome a longer time span for viewing." Another disadvantage that emerged in the statements was the fact that seniors lacked physical activity if they did not attend full-time classes at the university (3.3% of respondents), and other disadvantages were mentioned by 1.1% of respondents.

Table 4: What are the disadvantages of online learning for you?

	Number of respondents	%
(Lack of) personal contact	117	64.7
No disadvantages	42	23.2
Not enough time for viewing the recording	14	7.7
(Lack of) physical activity	6	3.3
Other	2	1.1
Total	181	100.0

Source: authors' own processing

4 Discussion and conclusion

The above results point to several facts. Online learning has opened up the opportunity to educate a wider group of seniors. Online learning has broken down geographical barriers to learning at the third age universities. Seniors accustomed to learning at a particular third age university were able to take online classes at an otherwise geographically inaccessible third age university. However, the time span availability of online learning through the fact that a recording of the class was also made available was the most appreciated benefit of online learning. More importantly, however, the result points to the fact that time flexibility is essential for seniors due to the fact that they have a large number of other activities. This refers us to the concept of active ageing itself.

More than three-quarters of respondents (87.8%) did not need help to participate in online learning. If participants ever needed help, they mainly turned to family members. These were primarily their great-grandchildren. This result refers to the area of IT skills as an important content component of intergenerational learning not only in the family (Rabušicová et al., 2011). Thus, it is clear that online learning also brought the necessity to learn new IT technologies and seniors were forced to develop their IT skills. Some seniors identified this area as necessary and needed for their further development.

The analysis of the disadvantages of online learning for seniors clearly points to the importance of social contact for seniors that the face-to-face form of education allows. The latter seems to be logically irreplaceable for seniors. Thus, it can be said that online learning for seniors deepens to some extent the social isolation of seniors.

The transition to online learning has enabled the student base of the third age universities to expand significantly. This has enabled seniors to take part in senior education of those who were previously unable to attend face-to-face classes for various reasons - for example, because of time constraints, because they are part of the sandwich generation and take care of their ill partners or parents and/or help to look after their grandchildren, or because of their health conditions. Online learning has also removed a potential geographical barrier arising from the very nature of the organisation of the third age universities. By being part of colleges or universities usually located in larger cities, seniors from smaller towns and villages also had the opportunity to learn. Thus, with online learning, seniors are no longer limited by local availability and can attend an online course originated on the "other side of the country".

What has the covid era brought to senior education? New forms of education have emerged, which until then were taboo in senior education or were used to a very small extent. Seniors who were previously unable to attend face-to-face classes because of a particular barrier were drawn into senior education to a lesser extent thanks to the online form. Such as caring for partners or grandchildren, or their health condition does not allow them to attend full-time classes. Or geographical distance prevents them from attending full-time education at the third age universities. The pandemic era has therefore widened the target group of students attending the universities of the third age.

Based on the conducted research, the question arises whether there will be a further opening of scissors between active seniors who continue their education and do not mind new online forms and other seniors who have not participated in education so far and new forms of education represent an additional barrier for them. This is certainly an area for further research.

One might assume that seniors would have more time for education (or other leisure activities) given the end of the active employment part of their lives, but the opposite is true. Online education gives them more of the time flexibility they need in senior life. This is because they are often still in the position of the sandwich generation - caring for their often already ill parents while helping their (working) children with looking after their grandchildren.

At the same time, the research shows that the universities of the third age do not only play an educational role, but also a social or socializing role for a significant group of seniors. After retirement, many of them lose contacts from their jobs and look for a new social group to belong to. They then find this among their fellow students at the University of the Third Age. However, the pandemic era has greatly reduced this function of the universities of the third age.

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