Communication And Society: Senior Virtual University's Contribution To Sustainability During The Pandemic Period

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ABSTRACT

Lifelong Learning (LLL) and Sustainable Human Development (HDI) are defended by ONU focused on their educational goals and quality of life. Objective: In the pandemic period an attempt was made to evaluate the contributions of the new experience of the Senior Virtual University (SVU): the perceptions and participation in training activities and the correlation between variables. Method: This is a quantitative, cross-sectional, and correlational study involving 86 senior virtual university students, using beyond a demographic questionnaire the USVSOQ scale. Results:The USVSOQ scale has a good internal consistency (Cronbach's Alpha coefficient=0.82). There is a positive correlation (rho=0.6) and statistically significant (p<0.001) between satisfaction with the SVU and the continuity of participation of its students for the next academic year. The SUV offer is inclusive, transversal and covers the whole country. The association between suggestions for SVU improvement to be implemented in the next school year and gender is highlighted (p-value = 0.04). Conclusion: SVU prove to be a contribution to sustainability in education in periods of confinement and emergency, upskilling.

Keywords
COVID-19, Digital, Sustainability, Virtual University.

Introduction

The United Nations Agenda for 2030 and its objectives for sustainable development include education, 4th objective, to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Agenda 2030 brings a plan of action focused on people, the planet, prosperity, peace and partnerships (5P), with the ultimate goal of poverty eradication and sustainable development. Lifelong learning becomes an answer to that offers formal and non-formal educational activitiestowards an integrated approach of educational institutions (Gulmez, Titrek, Ozkorkmaz, 2015;United Nations Organization, 2015;Tvaronavičienė, Shıshkın, 2017; Titrek, Çiftçi, Erot, Toprak, 2017).We consider in health the environmental factors: the wider socio-cultural and geopolitical environment of the family or community, including levels of access to basic goods and services, exposure to prevailing beliefs, attitudes or cultural practices, as well as nationally formed social and economic policies (OPP, 2020;Wang, Pan, Wan, Tan, Xu, Ho, Ho, 2020;Rossi,Socci, Talevi, Mensi, Niolu, Pacitti, Di Marco, Rossi, Siracusano, Di Lorenzo, 2020).

COVID-19 entered in our life despite being a disease in 2019 in China (Rossi, Socci, Talevi, Mensi, Niolu, Pacitti, Di Marco, Rossi,Siracusano, Di Lorenzo,2020; ABC News, 2020;FVG, 2020).In Portugal, the first cases identified emerged in early March 2020 and the first death occurredon March 16th. Although the disease has acquired a truly planetary dimension, regions, institutions and groups require new ways of communicating where the emotional character is feltamong all actors in the process (ABC News, 2020;FVG, 2020; Rosa, 2020;UNESCO, 2020). Also the new role of the upskills development and the teacher with emerging didactic situations around a virtual environment provides a new teaching methodology mediated by technological devices (Kissler, Tedijanto, Goldstein, Grad,

Lipsitch,2020;Carmo, Franco, 2019;Titrek, Çetin, Kaymak, Kaşikç, 2018; Kaendler, Wiedmann, Rummel,Spada,2015). Motivation of teachers, participants and social agents were considered to reflect on new teaching-learning modalities.E-learning is not a new teaching modality, however, only in recent years can we say that this modality is more consolidated, accessible and valued, not only in the educational sphere, but also in the professional sphere.

The virtual resources that the school or university can create and develop give the student the feeling of closeness, transmitting support and confidence to learn with the same quality of classroom education (Camacho, Joaquim, Menezes,Sant'Anna,2020; UNESCO, 2014;Comoglio, Cardoso, 1996).

This pandemic is a major international concern and poses a challenge to scientific community. In 2020 in the face of the COVID-19 by pandemic period the community was far from thinking about the adaptive capacity of theircitizens (Morin, 2011;Chentsova-Dutton,2020;Araújo, Lima, Cidade, Nobre, Neto,2020;Javaida, Haleem, Vaishya, Bahl,Suman, Vaish, 2020;Chick, Clifton, Peace, Propper, Hale, Alseidi,Vreeland,2020;WHOQOL, 1995; Haggerty, Cummins, Ferriss, Land, Michalos, Peterson, Sharpe, Sirgy,Vogel,J, 2001;UNHDP, 2003;Bartlett, Vivrette, 2020;Youth.gov, 2020;Cao, Fang, Guoqiang, Han, Xu, Dong, Zheng,2020;Irawan, Dwisona, Lestari,2020). Education in general and universities in particular from a sustainable perspective have proclaimed the social role of all its stakeholders. For the Dialectical Orientation (life-span development),developmental transitions or crises originate products and sources of influence, which can positively or negatively influence human development, being its main categories of influence an innate-biological,cultural-psychological and natural-ecological nature (Riegel, 1973;Parisi, Rebok, Carlson, Fried, Seeman, Tan, Tanner, Piferi,2009). The development throughout the life cycle refers that the development is not linear, but a constant tension between forces, where the events of life events minor or major.

The adaptive efforts of the individual lead development to a new synthesis (a new development). The Baltes and Baltes Theory of the 90s,Galinha (2019)refers to human development through some principles: development proceeds cumulative processes (continuity) and innovative processes (discontinuity) occurring in all phases; development (which can assume growth and decline at all stages) is a multidimensional and multidirectional process with different forms and directions depending on different people and circumstances; development proceeds through constant balances between gains and losses, there is plasticity in development depending on different contexts (age, historical context, environmental factors) and non-normative, more or less unexpected events that can cause crises.

The psychological model of successful aging, called selective optimization with compensations, based on the dynamics between gains and losses, in an adaptation process results from three elements: selection (progressive restriction of the functioning domains in each person's life), optimization (valorization than enriches the person, maximizing the choices made) and compensation (ability to compensate for the losses suffered). This process allows us to age in a more positive way, selecting the most important, optimizing it and using possible compensations (Oliveira, 2008).

The breadth of the concept of quality of life encompasses in a complex way the individual's physical health, his psychological state, his level of dependency / functionality, his social relationships, his beliefs, the relationship with the characteristics of the context where he is inserted, in alignment with participation, health and safety (WHO, 2002) and recently with the call for monitoring (Direção Geral de Saúde, 2017). The National Strategy for Active and Healthy Aging defined four strategic axes: health, participation, safety and measurement, monitoring and investigation and for each of these axes defined guidelines for action and structured measures. Regarding health, the main objective is to maximize the functional capacity of the elderly and for that purpose, it suggestsa set of actions for two groups of people: those with high and stable levels of intrinsic capacity (physical and mental capacities) and those that have already suffered a reduction in these same capacities, with the objective of increasing or maintaining that level and of stopping, reducing, reversing and managing this situation, respectively.

When cognitive decline is compensated for by gerontological intervention, cognitive changes do not produce many significant changes in daily activities. However, when this compensation does not occur, the elderly's routine may be compromised by memory. Hence it is possible to explain compensated aging (with the performance of tasks and adequate human relations), overcompensated (in the face of less rapid movements), decompensated (pathological) and aggravated (chronicity of the disease; depression, etc.).

According to the WHO (Galinha, 2019;WHO, 2002;Direção Geral de Saúde, 2017) until 2020, depression will be the most disabling disease since

currently, more than 7% of the world population (400 million people) suffer from depression and about 850 thousand people die every year from this disease.

In addition, the concrete data place the following elements on average life expectancy in Portugal: at birth 80.8 years of age (men and women in 2017): 77.8 years of age for men in 2017 (against 60.7 in 1960), 83.4 years old women in 2017 (compared to 66.4 in 1960). In 2018 the crude birth rate was 8.5 ‰ against 24.1 ‰ in 1961. The median age of the population resident in the EU28 in 2018was: 43.1 years old. The median age of the resident population in Portugal in 2018 was 44.8 years old (against 27.8 in 1960). The longevity index in Portugal stands at 48.4% in 2018 (against 33.6% in 1961). The elderly dependency index stands at 33.6% against 12.7% in 1961. In 2018 there was938.8 thousand single people (against 520.1 thousand in 1999) and in 2018 there was508.1 thousand single-person households of elderly people living alone (compared to 327.9 thousand in 1999) (Galinha, 2019; Fundação Francisco Manuel dos Santos, 2020).

Also according to Fundação Francisco Manuel dos Santos (Galinha, 2019;Fundação Francisco Manuel dos Santos, 2020) it is estimated that the number of people in Portugal over 65 doubles in relation to the 1970s, now exceeding two million, with the population over 80 having increased five times. The elderly population itself is aging since this age group aged 80 or more is the one that is most rapidly accentuated and already constitutes 12% of the total number of people over 60.

In view of the above, the proposed theme is relevant at several levels. In short:this research focuses on the characterization of the profile of the new student at SUV and its relationship with satisfaction with the training offered. Positive aging is based on a multidimensional concept composed of objective and subjective measures.

Literature Review

RUTIS - Network of Senior Universities

RUTIS is the Portuguese Network of Senior Universities and the main goals arethe promotion of active aging and the enhancement of Senior Universities-SU (registered name, by RUTIS, as a Trademark registered at the National Institute of Industrial Property), these being the social response, which aims to regularly create and boost social, cultural and educational ativities,

preferably for and over 50 years of age (Jacob, 2020; Jacob, Borgas, 2019).

These socio-educational responses developed by RUTIS that aim to regularly create and streamline activities in the social, cultural, knowledge and social areasin accordance with the 2016 Council of Ministers Resolution that makes the legal framework. This role of SU is framed by the resolution of the Council of Ministers No. 76/2016.

There are two major models of SU organization worldwide.A model associates with formal universities, while other model developed based on non-profit associations or self-organized groups. The Portuguese SU are based on formal self-organized or public non-profit association organizations. SU are an excellent example of volunteering and contribute effectively to improving the quality of life of senior citizens. Educational activities will be on a non-formal basis, without certification purposes and in the context of lifelong training.

TheseSU in Portugal have three fundamental pillars: the promoting entities, the volunteer teachers and the senior students.Most SU are managed by associations (65%) and the remaining 35% are promoted by city councils or parish councils. The SU have, on average, a paid employee and operate mostly in assigned facilities. Among the most sought-after subjects are arts, sports, languages, computers and history. Almost all of the US have musical and theater groups (Jacob, 2020; Jacob, Borgas, 2019).

Subjects such as: Interested seniors can enroll, for example in theoretical classes: Arts, History, English, Spanish, Portuguese, Tourism and Cultural and Landscape Heritage, Myths and Rites of Humanity, Active Aging, Emotional Intelligence, Health and Wellness, Numismatics, Ceramic, Textiles, Mechanics, Dance, Theater, Drawing and Painting, Games, Relaxation and Body Movement, Digital Photography, Informatics and Internet. Study visits, tours and trips abroad, lectures, socio-cultural challenges or competitions between the various universities are also carried out (Jacob,2020).Teachers are of all ages(30% are under 40 years old), mostly holders of higher education, give two hours of classes per week, evenly represented by retired and active people, are very satisfied with their volunteering in the US and their main motivations are related to the I like to teach and help others.SU are mainly attended by women students, aged 65-75 years, retired, married, from all socioeconomic strata and with different educational levels. They attend an average of four subjects a week and go to the SU three days a week.

The positive influence of these organizations in the lives of seniors is well known. Again based on studies carried out: we found an improvement in the perception of physical and mental health status in students, the number of social contacts increased and, consequently, the feeling of loneliness decreased; there was a reduction in the antidepressant medication taken; depression levels are substantially lower than the general population; increased the level of knowledge, essentially in the digital area; self-esteem went up and students feel more active and inserted in the community.Placing subjectivity in the study of human aging allows us to highlight the interest of biographical perspectives based on the symbolic interaction of lived experiences.

According to the World Health Organization, volunteering is an important element in maintaining well-being and quality of life. This well-being is associated with a social, but also economic, cultural, political utility, that is: it is associated with the production of value and positive exchange.

The interest in studying the professors of Portuguese SU arises not only due to its size, more than 5 thousand volunteer professors, but also because the free service of these citizens assumes itself as an important pillar for the functioning of the 348 SU in Portugal registered on the CASES (330 senior universities in effective exercise) and more than 45 thousand seniors students.Each SU belonging to RUTIS has the autonomy to define its pedagogical offer. Usually the classes that those interested can choose are from two theoretical and practical types. Paradigm is a sign of the maturity of a scientific field. The paradigm dimensions determine the conceptual and framework of the educational process (theoretical and practical ones) (Vladescu, 2017).

SU in Portugal have as their model the international experience (Rodrigues, 2012)where in Toulouse the first university of the third age by Vellas in order to enhance the image of the elderly before the society, promoting their active development with more autonomy in cultural and educational activities, within the scope of a policy that promotes the self-esteem, training and socialization of older people. In 1966/67 Miranda contacted the mission of this university concept and in 1978 the first university of the third age in Portugal appears. The first SU in Portugal were created in the early 1980s, but their great growth took place in the first decade of the 2000s. Portugal today has the largest worldwide SU network, with its institutions covering almost the entire national territory. SU are present in practically the entire Portuguese territory and were born from civil society (Jacob, 2020; Jacob, Borgas, 2019; Rodrigues, 2012).

Senior Virtual University concept for sustainability in the pandemic period

In view of the current times, RUTIS created the Senior Virtual University (SVU) to give the possible answer to seniors who are at home. It is a project developed in Portugal in the beginning of COVID-19 period, with several partners to enable seniors who are at home to continue to learn, live and share their knowledge (RUTIS, 2020; Universidade Senior Virtual, 2020).Framing we can mention that there are already some projects of RUTIS online or at a distance, in addition to the SVU created in 2020 in Portugal (RUTIS, 2020; Universidade Senior Virtual, 2020), the Senior Channel of CAUMAS in Spain since 2016 (CAUMAS, 2020), Virtual U3A based in the United Kingdom (Virtual U3A,2020) since 2008 and U3A Online Programe in Australia since 2001 (U3A Online Programe in Australia, 2020). In Australia, the U3A demonstrated that education programs delivered through cyberspace make a considerable difference in the lives of isolated people in particular and, probably, for others as well (U3A Online Programe in Australia, 2020; Swindell, 2000).

Educational activities will be on a non-formal basis, without certification purposes and in the context of lifelong training.This new way of learning with informatics didactic resources requires an integrative mode of the role of emotions in cultural dynamics, covering mechanisms ranging from micro (psychological mechanisms of cultural innovation, selection and transmission in individuals and small groups) to macro (emergence and change of cultural systems).The initiative demonstrated such a positive impact that RUTIS decides to continue to develop virtual distance learning classes, allowing seniors from all over the country and abroad to attend the chairs taught through platform (RUTIS, 2020; Universidade Senior Virtual, 2020).

RUTIS partners in this SVU project are:Senior academies and universities, The Ministry of Labor, Solidarity and Social Security, Cogweb (Project dedicated to the research and development of technologies in the area of neurorehabilitation), The Benfica Foundation, -The Mutualista Montepio Association, CAUMAS (Association of Universities for the Largest in

Spain), AIUTA (International Association of Third Age Universities), The Visão magazine, The Pedro Nunes Institute (Universidade Senior Virtual, 2020).

In view of the current times, SVU gives the possible answer to seniors who are at home. Access to theSVUis completely free and free to anyone, with people currently enrolled.Active seniors at home: SVU is divided into four areas:Daily classes that can be live, via Zoom, or previously recorded; Information: Cognitive stimulation activities, news, helplines and other useful information for the elderly; Hobbies and challenges: Games and contests are regularly sent to participants to make and guess, some with the delivery of prizes and Phone friend: Platform where seniors who feel more alone can receive calls from volunteers to help them during this period.

At SVUseniors can find:- Doing Hobbies and Challenges; -Hear a short story a day; - How to do physical exercise and yoga at home; - Attend courses and classes; - Postgraduate studies in active citizenship; -Diploma of Academic Merit; -Where there are senior universities; -Enroll in SVU; - Do cognitive stimulation exercises; -Hear testimonies and interviews with various stakeholders; -SNS Line; -Knowing the psychological support lines and -Use the Friend Phone. Seniors can also register as a volunteer teacher.Class, It is a class given by volunteer teachers on various topics to a group of interested students. The class can be recorded or live with the participation of students. See also classes from CAUMAS (in Spanish) and UniSer do Brasil, every day at 7pm. -Courses, are a set of classes given by volunteer teachers on various topics to the same group of interested students. See also senior entrepreneurship course. -Post-graduation, The post-graduation in "Active Citizenship" is a post-graduate course for seniors, which consists of the completion of a set of 10 subjects and which gives a certification.-Diploma of Academic Merit, It is the realization of an academic work on atopic chosen by the student and under the guidance of an advisor. This work will later be publicly defended in a higher education institution.

The proposed theme is relevant at several levels.Carmo and Franco (2019), presented a synthesis of skills and knowledge for online tutoring: didactic-pedagogical, mastery of the curricular unit and possibility of its teaching to young adult students through the mobilization of contents and materials in order to promote learning; technological, ability to apply new technologies for dialogue and interaction; linguistic; social; learning; intercultural and tutorial (Carmo, Franco,2019; Titrek, Çetin, Kaymak, Kaşikç,2018; Kaendler, Wiedmann, Rummel,Spada,2015; Camacho, Joaquim, Menezes, Sant'Anna,2020; UNESCO, 2014; Comoglio, Cardoso, 1996; Morin,2011; Chentsova-Dutton, 2020; Kaendler, Wiedmann, Rummel, Spada,2015; Nóvoa, Alvim, 2020). The metamorphoses that are presently placed in an educational context cover various age groups and diverse educational environments, including adult education and training and lifelong learning. The challenges of educational metamorphosis seek in the present scientific time the bases of human development and the new possibilities from COVID-19 (Maldonato, Bottone,Chiodi, Continisio, De Falco, Duval, Muzii, Siani, Valerio, Vitelli, Scand,2020; Fernández-Ballesteros, 2000; Fontaine, 2000; Granjel, 1991; Leme,1996; Llera, 2005).

According to Merizow (1996), learning is a process of using previous interpretations to build a new interpretation or an altered interpretation about the meaning of the current experience for a future action, that is: when conceiving learning within this line, anchored in existing perspectives, the student builds new interpretations (Mezirow, 1996). For Dewey Education is not the preparation for life, Education is life itself (Trindade, 2020).The educational environment influences learning. The curricular construction that meets the wishes and expectations can improve school performance and socialization among students. Students through dialogue and interaction with all those involved in the educational community.We can say that one of the essential factors of learning is culture, as it shapes the subject through its relations with the environment and also the learning causes the subject to change, according to his experience (Almeida, Lameiras, Henriques, 2009).In this new paradigm the role of the trainer is to challenge the existing structures, and, consequently, cause the re-balances through the reconstruction and understanding of the new knowledge. To this end, the trainer must "build bridges" (Arseneau, Rodenburg, 2002). We can say that significant dynamics of promotingdigital inclusion and literacy have emerged in Portugal for various age groups (Coelho, 2017).

On March 11, RUTIS advised in its newsletter nº6 / 2020 its members to suspend normal classroom activities (classes, workshops, exits and rehearsals) virtue of the COVID-19 pandemic that was beginning to be felt in Portugal. Subsequently, on March 19, in its newsletter No. 7/2020, RUTIS suggests that US activities be carried out online so that they can continue to serve and support their senior students and presented some examples of digital activities. On March 22, RUTIS will present its own digital project, the Senior Virtual University, available at

www.seniorvirtual.pt, free of charge and accessible to anyone. This project ended on July 31, to resume in October, and had 1236 students enrolled for an average of 20 weekly classes (Jacob, Coelho, 2020).

Methods

The statistical methodology used was descriptive and inferential and will seek to answer the following research questions:

Q1- Are thereno differences between students' educational qualifications, gender and region, e.g. is therehomogeneity?

Q2- Are male and female students satisfied (agree and totally agree) with the educational offer of the SVU during the pandemic period?

Q3- Is the number of hours that students attend weekly at the SVU not associated with the degree of Satisfaction, e.g.: are the students satisfied and attend the SVU according to their availability and participation in other activities besides from the SVU?

Q4- Is an accordance with the educational offer of the SVU with the global interests of the students for whom is intended (mainland Portugal and Islands)?

Q5- What theoretical classes do students indicate they prefer at SVU?

Q6- What are the practical and technical classes that students indicate as preferred at the SVU?

Q7: What other positive aspect do students indicate they like at the SVU?

Q8- When pointed out "What you liked least" - user difficulties at the SVU, are these residual and transversal and these are not located only in a certain geographic region?

Q9- Is there no relationship between the student's region and their willingness to pay a monthly fee of less than € 5/ month to attend SVU, e.g. the value is fair?

Q10- Regarding the type of suggestions for improvement, are they transversal and aren't they located only in a certain region e.g.there is no relationship between the region of the senior student and the type of suggestion?

Q11- What are main suggestions for improving the SVU for the next school year?

Q12– Is there is no relationship between the male and female gender and the types of suggestions for the continuity of the educational offer of the SVU, that is, there are no differences between the genders and the type of suggestions they present: men and women make different suggestions.

This is a quantitative, cross-sectional and correlational study.

Methodology

The statistical methodology used was descriptive and inferential. The data analysis was performed using R software, version 3.6.1 (R Core Team, 2019). By adopting this methodology, we intend to contribute to a greater knowledge of the theme under analysis.

Data Analysis

The data collection tool used was electronic questionnaires sent at random to SVU students (RUTIS, 2020). The used instrument SVUSOQ (Senior University Satisfation Online Questionaire) was beyond a demographic questionnaire to characterize the students (with 7 items: 1.gender, 2.age, 3.region, 4.academic qualifications, 5.internet acess, 6.type activities/classes that deserved a greater welcome satisfaction of those present, and 7. the initiatives they liked less, less receptivity and /or difficulties experienced during the SVU) the methodological guidelines provided by RUTIS were used in the overall assessment of SVUSOQ Scale (RUTIS, 2020) consisting of questions that sought to gauge the experience of the classes at a distance of all those enrolled in virtual format in pandemic period. SVUSOQ is assessed on a five-point Likert scale consisting of 2 items. The SVUSOQ is a self-registration Likert type 5-point scale (1- Strongly disagree, 2- Disagree, 3- I neither agreenor disagree, 4- Agree, 5- I totally agree). In the evaluation of the internal consistency of the SVUSOQ the Cronbach's Alpha coefficient (Cronbach, 1951) were used. We also tried to determine the existence of a relationship between the two items on the SVUSOQ scale "experience of the classes/activities at a distance promoted by the SVU" and "the continuity of student participation for the next school year" through Spearman's non-parametric correlation coefficient. Given the nature of the information inherent in the various research questions, the choice fell on the use of non-parametric statistics, based on contingency tables, through the chi-square test and Fisher-Freeman-Halton test. The reliability and

validity of the data was ensured by a computer application that disseminated the 86questionnaires to seniors' students, and it was not possible that the same student could fill in more than one questionnaire. As far as the geographical location of the students is concerned, regions in mainland Portugal and islands were considered. The data analysis was performed using R software, version 4.0.2 (R Core Team R, 2020). The results obtained to research questions will be presented below.

Results

This study has as reference a population of 210 seniors who actively participated in the SVU project, which began in March 2020 with a duration of 12 weeks. One of the objectives of the project was to continue the classes interrupted by the COVID-19 pandemic through distance learning. A random sample of 86 participants (41% of the population) was collected by sending an online survey. Regarding the sociodemographic profile, most of the participants are females (67%). Three age groups were considered that had respectively the following weight in the sample: [50;64[years (29%), [65;74[years (56%), ≥75 years (15%).The geographical distribution on the mainland was as follows: Alentejo (7%), Center (13%), Lisbon and Tagus Valley-LVT (64%) and North (14%). The island of Madeira registered 2% of students. No students were counted in the Algarve region and on the island of the Azores.The senior's academic qualifications were distributed as follows: 50% had a higher education; 30% had attended secondary school and 20% had attended basic school (6% - first cycle; 14% second and third cycle). When asked how they accessed the Internet during the project, 44% of senior students said it was exclusively through a computer; 9% exclusively through a smartphone and 47% using both devices.

Regarding the activities/classes that deserved a greater welcome and satisfaction of those present, they stand out in decreasing order of preference: all (36%); "Virtual" conviviality between colleagues and teachers (26%); History/Philosophy/Economics (9%); Informatics (8%); Creative Writing/Languages and Literature (11%);Photography and Gardening (5%) and with

less expression (1%): Yoga/Gymnastics; Asynchronous classes and Theatre.

There was the same concern in identifying the initiatives they liked less, less receptivity and /or difficulties experienced during the SVU project, which are now listed: 20% specific subjects; 16% short classes with little flexibility of schedules and short range of subjects; 13% difficulties in accessing the internet and mastering the devices; 2% the virtual model prevents the socialization of stakeholders.

Later on we tried to measure what the students thought of the SVU: Only 5% were "Disagree" while the overwhelming majority (95%) were at least satisfied, with 71% being satisfied at all (I totally agree). No "Strongly disagree" and "I neither agree nor disagree" were registered. The frequency with which the students participated actively in the SVU classes/courses was as follows: 66% said to have an attendance between one to three hours per week; 20% between four to six hours per week and 14% more than seven hours per week.

Table 1 summarises the results concerning the relationship between the variables under study according to the questions mentioned above. A significance level of 5% was considered.

Table 1. Results of study of variables under study SVU

Variables	Statistical Test	p-value
Association		
Suggestions for improvement for the next school year and genders	FFH	0.04
No association		
Students' educational qualifications and student's region stratified by gender	FFH	0.22: female 0.19: male
Gender and educational offer	CS	1
Number of hours attended weekly and degree of satisfaction	CS	1
Educational offer (practical and technical classes) and student's region (mainland Portugal and islands)	CS	0.73
"What you liked least" and student's region.	FFH	0.16
Willingness to pay a monthly fee and student's region	FFH	0.35

Type of suggestions for SVU improvement and student's region.	FFH	0.40

CS: Chi-square Test; FFH:Fisher-Freeman-Halton test.A significance level of 0.05 was considered.

Table 2 summarises the degree of satisfaction with the SUV *versus* the categories of variables under study.

Table 2. Degree of satisfaction with the SVU *versus* categories of variables

Variable	Categorie	%	disagree	Agree	totally agree
initiatives they liked less, less receptivity and /or difficulties experienced during the SVU project	virtual model	2%	0%	60%	40%
	internet access and devices	13%	0%	29%	71%
	short classes; flexibility of schedules; short range of subjects	16%	0%	11%	89%
	specific subjects	20%	0%	27%	73%

Table 2(cont.). Degree of satisfaction with the SVU *versus* categories of variables

Variable	Categorie	%	disagree	agree	totally agree
Gender	Female	67%	5%	22%	72%
	Male	33%	4%	29%	68%
Age (years)	≥75	15%	0%	54%	46%
	[50;64[	29%	8%	20%	72%
	[65;74[	56%	4%	19%	77%
Region	Alentejo	7%	33%	33%	33%
	Center	13%	9%	9%	82%
	LVT	64%	2%	24%	75%
	Madeira	2%	0%	50%	50%
	North	14%	0%	33%	67%
academic qualifications	Secondary school	30%	4%	31%	65%
	Basic school	20%	12%	29%	59%
	Higher education	50%	2%	19%	79%
Internet access	Computer	44%	3%	26%	71%
	Smartphone	9%	0%	25%	75%
	Both	47%	8%	23%	71%
activities/classes that deserved a greater welcome and satisfaction	Yoga/Gymnastics	1%	0%	0%	100%
	Asynchronous classes	1%	0%	0%	100%
	"Virtual" conviviality	26%	5%	16%	79%
	Creative Writing, Languages and Literature	11%	0%	50%	50%
	Theatre	1%	0%	0%	100%
	Photography	1%	0%	0%	100%
	History,Philosophy, Economics	9%	0%	0%	100%
	Informatics	8%	0%	17%	83%
	Gardening	4%	0%	33%	67%
	All	36%	4%	22%	74%

Table 3 shows that the items have a high average score, translating into a high agreement/satisfaction with both the SUV classes (4.62) and their continuity of studies in the next school year (4.67).

Table 3. Item Statistics

	Mean	Standard deviation
Item 1	4,62	0,72
Item 2	4,67	0,83

Discussions

The SVUSOQ scale showed a good internal consistency with a Cronbach's Alpha coefficient=0.82. Spearman's correlation coefficient verified the existence of a positive

correlation (rho=0.6) and statistically significant (p-value<0.001).We can observe that there is no association in the following set of variables: students' educational qualifications, gender and student's region; gender and educational offer of the SVU; number of hours attended weekly at the SVU and degree of satisfaction; educational offer (practical and technical classes) and student's region (mainland Portugal and islands); user difficulties at the SVU and student's region; willingness to pay a monthly fee and student's region; type of suggestions for SVU improvement and student's region; type of suggestions for SVU improvement and student's gender.

Regarding the variables present in Q12, it was found that there are suggestions for improvement for the next school year are different in terms of gender (FFH, p-value = 0.04).

When faced with the item "I think the SVU project should have continuity for the next school year" 86% of the students "totally agree" in favor of continuity; 5% "disagree" while 9% are undecided ("neither agree nor disagree"). As an epilogue, students were asked "would you be willing to pay less than 5 euros/month to access the SVU?", 67% revealed this availability, 9% opposed it and 23% were undecided.

From the research questions formulated whose results are shown in Table 1, we emphasize that the offer is inclusive, transversal and comes to the students of the SUV that covers the whole country. The association between suggestions for improvement to be implemented in the next school year and gender (p-value = 0.04) is highlighted. Table 2 seeks to summarize the degree of satisfaction experienced by students of the SVU with the classes/activities at a distance considering the variables presented in the research questions. In this table no answers were recorded in the "Strongly disagree" and "I neither agree nor disagree"levels of the Likert scale, and this information does not appear.The results now obtained in this research go in the direction of the works of ONU and educational perspectives (United Nations Organization, 2015; Tvaronavičıenė, Shıshkın, ,2017; Titrek, Çiftçi, Erot, Toprak, 2017; OPP, 2020; UNESCO, 2020; Carmo, Franco, 2019; Titrek, Çetin, Kaymak, Kaşikç,2018; Galinha, 2019; Jacob,2020; Jacob, Borgas,2019; Vladescu, 2017; Rodrigues, 2012; RUTIS, 2020; Universidade Senior Virtual, 2020; CAUMAS, 2020; Virtual U3A, 2020; U3A, 2020; Swindell,2000).

Consulting Table 2 allows us to identify some interesting values, namely: younger and more literate students are more satisfied with the classes in the non-presence format and this may be due to their greater appetite for digital literacy skills, their greater mastery of technologies and the fact that they have greater access to the internet. In terms of class types, there is greatersatisfaction with a more practical and technical training offer (Camacho, Joaquim, Menezes,Sant'Anna,2020;UNESCO, 2014; Javaida, Haleem, Vaishya, Bahl, Suman, Vaish, 2020; Irawan, Dwisona, Lestari, 2020; RUTIS, 2020; Universidade Senior Virtual, 2020; CAUMAS, 2020;Virtual U3A, 2020; U3A Online Programe in Australia, 2020; Swindell, 2000). The aspects in which there was less satisfaction are related to: (i) the short duration of classes/activities, i.e. students are receptive to classes lasting more than 50 minutes; (ii) little flexibility of schedules and subjects since they are available to attend the SUV in other schedules and suggest a wider range of training offer although they are satisfied/totally satisfied with the current format. Considering the two items that make up the SVUSOQ scale, their mean values and respective standard deviations are found in Table 3.

Table 3 shows a positive correlation (rho=0.6) and statistically significant (p-value<0.001) between satisfaction with the SUV and the continuity of student participation in the next school year is noted, or whatever the higher the satisfaction, the higher the adhesion.

Conclusion

The present data may prove to be a contribution to sustainability in education, particularly in periods of confinement and emergency (Gulmez, Titrek, Ozkorkmaz, 2015; United Nations Organization, 2015; Tvaronavičıenė, Shıshkın, 2017; Titrek, Çiftçi, Erot, Toprak, 2017; OPP, 2020; Wang, Pan, Wan, Tan, Xu, Ho, Ho, 2020; Rossi, Socci, Talevi, Mensi, Niolu, Pacitti, Di Marco, Rossi, Siracusano, Di Lorenzo, 2020; ABC News, 2020; FVG, 2020; Rosa, 2020; UNESCO, 2020; Kissler, Tedijanto, Goldstein, Grad, Lipsitch, 2020; Carmo, Franco, 2019; Titrek, Çetin, Kaymak, Kaşikç, 2018; Kaendler, Wiedmann, Rummel, Spada, 2015; Youth.gov, 2020; Cao, Fang, Guoqiang, Han, Xu, Dong, Zheng, 2020; Irawan, Dwisona, Lestari, 2020; Riegel,1973; Parisi, Rebok, Carlson, Fried, Seeman, Tan, Tanner, Piferi, 2009; Galinha, 2019; Oliveira, 2008; WHO, 2002; Direção Geral de Saúde, 2017; Fundação Francisco Manuel dos Santos, 2020; Jacob, 2020; Jacob, Borgas, 2019; Vladescu, 2017; Swindell, 2000; Nóvoa, Alvim, 2020; Arseneau, Rodenburg, 2002; Coelho, 2017; Nakamura, Csikszentmihalyi, 2000; Diener, Lucas, Oishi, 2002). The maintenance of the confinement period reinforces the need to invest in this type of pioneering project in Portugal of distance learning, allowing an active training of

students at home. Human nature alone constantly challenges individual learning and formative processes, these two issues being the concerns of the scientific community, both for cognitive and for volitional motivations (Nakamura, Csikszentmihalyi, 2000; Diener, Lucas, Oishi, 2002; Erikson & Erikson, 1998; Fernández-Ballesteros, 2011; Long, 2004).

Limitations and Future Studies

Suggestions for future studies: in the face of a longer time horizon, continue in the subsequent school years to profile the SUV students and find out whether the implementation of new measures based on the suggestions of the students will lead to an increase in satisfaction. We also suggest a comparative study with other countries with similar education initiatives (Australia, Brazil, Spain, and United Kingdom). Currently, demographic aging is a huge worldwide phenomenon. Satisfaction with learning and thelearner's profiles constitute an enormous scientific domain, of the educational level and of the technological advance.

Acknowledgement

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