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Preface

The seventh issue of *Pro Edu. The International Journal of Education Sciences* (June 2022) covers several educational subjects, starting with *online teaching, learning and evaluation*, continuing with its *impact on students' learning results*, and ending with *representations* - important issue in the actual primary education. The final work includes a consistent review of the work "*The Inhuman Technicization of Life*", written by Assoc. Prof. PhD. Habil. Adrian LEMENI, from Faculty of Orthodox Theology "Justinian the Patriarch", University of Bucharest.

The first paper of the volume - written by Elena Daniela SALIH KHIDIR, Monica STĂNESCU, Farooq ABDULAZIZ, Suzan SAYEGH and Aura BOTA - tries to evaluate the effect of the online messaging intervention and walking program to engage adults from Qatar community in physical activities. In this oriental country, there have been introduced a series of programs that promote physical activity among the population, with the aim to achieve a higher level of awareness of the regular practice of physical activity and its benefits, aligning such policy to global practices.

The next paper, signed by Elena Ancuța SANTI, Gabriel GORGHIU and Laura Monica GORGHIU, illustrates an investigative research with the view to identify the students' perception concerning the efficiency of teaching activities in the online environment, and how the students' autonomy and motivation for learning has contributed to a quality educational process during the Covid-19 pandemic. In the same context, the following article, having two authors - Denisa-Georgiana NISTOR and Ioana STĂNCESCU - offers an analysis of the university students' opinions related to online lectures and seminars, taking into account the vertical/ horizontal educational relations, teaching strategies, access to supporting materials, emotional feelings, students' motivation and difficulties encountered during that challenging period. Even the next paper, signed by Xolisa JIBILIZA, underlines on the impact of Covid-19 pandemic in an under development environment, addressing the influence on health, education, but also on the socio-economic environment, in general, and in a South-African community, in particular. More, the paper proposes a pastoral care approach as a conceptual framework, and introduces several recommendations for such communities. In the fifth paper of the volume, Florina BĂLAN offers - from the pedagogical perspective - several considerations regarding the learning and assessment in the online environment. In this respect, the author concludes clearly that learning through digital technology is different than the one made in traditional format, including a massive exploitation of the technical support, but having particularities based on shared learning and cooperation between teacher and student.

Considering the theme of representations in primary education, Daniela PAHOME proposes an analyzes oriented on how teachers' representations can be changed focusing on reading and repeatedly retelling the text of one most famous Romanian tale - "*The Bear Tricked by the Fox*", by Ion Creangă. The analysis is made taking into account the effect of applying the *Pre-reading - Reading / Re-reading - Post-reading* model, starting from the tale illustrations and using specific didactic methods. The seventh paper of the volume - written by Gabriel BULANCEA - makes a foray in the symphonic dramaturgy of Gustav Mahler, who lined the premises of the musical language of the 20th century, by a profound involvement of platitude and originality, banality and genius, lyricism and monumental, mundane and cosmic, individual and universal, sacred and profane.

Finally, Cosmin SANTI introduces and performs a deep presentation of a remarkable volume: "*The Inhuman Technicization of Life*", written by Assoc. Prof. PhD. Habil. Adrian LEMENI, published by Basilica Publishing House of the Romanian Patriarchate (Bucharest), a book full of theological and scientific values, critical and analytical issues, where are brought together actual themes of today's world, visions and empirical research assumed by famous people from the area of technology, emphasizing on the ambivalence and non-neutrality of new technologies.

June 2022,   **Prof. Ph.D. Gabriel GORGHIU,**
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EFFECT OF ONLINE MESSAGING INTERVENTION TO ENGAGE ADULTS FROM THE QATAR COMMUNITY IN PHYSICAL ACTIVITY

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ABSTRACT
In Qatar, physical inactivity amongst 18-64 years old adults is at risk of NCD diseases (obesity (41.4%), high cholesterol level (21.9%), diabetes (6.7%), low participation in physical activity (63.3%), with annual mortality due to physical inactivity of 9. 3% and 36.8%. not meeting current national physical activity recommendations. This study evaluates the effect of online messaging intervention and walking program to engage adults from Qatar community in PA. The concept of online messaging intervention as motivation and awareness of PA in Qatar is explored. Randomized pretest-posttest experimental study method with a follow-up period of 16 weeks was applied to a total of 299 healthy adults (18 to 64 years) in SIH community settings (143 adults control group, 156 adults experiment group, 68 (22.7%) adults IPAQ participants). Evaluation of PA levels and daily steps from pedometers and mob app classified into categories. Evaluation of IPAQ results calculated as MET minutes per week. The walking program combined with online messaging motivated a percentage of 22.7% of adults to continue an active lifestyle, at 16 weeks of follow-up. Self-rated PA level similar to data reported by pedometers demonstrates that adults in the IPAQ group (68 (22.7%)) have a good PA awareness. The statistical findings demonstrate that walking in combination with online messaging programs implemented among adults in the Qatari community can increase awareness of the health benefits of physical activity by forming the basis of an active lifestyle.
Keywords: *awareness; IPAQ; physical activity; step count; Qatar;*

INTRODUCTION

Worldwide exists an increasing interest at governmental, stakeholder and individual levels, to enhance efforts to promote and acquire a healthy lifestyle through physical activity among healthy adults aged 18 - 64 years old, while an active lifestyle is endorsed by strong scientific evidence as a great factor to obtain health benefits (Haskell et al., 2007), (WHO, 2019. GAPPA 2018-2030).

Globally, even though the benefits of physical activity are well known, evidence illustrates that the levels of inactive lifestyle amongst adults (31% of the world's population do not participate in enough physical activity) and the habit of spending a lot of time sitting are frightening, hence this situation creates among healthy adults (18 - 64 years) the risks of developing many types of non-communicable diseases (6-10% of major noncommunicable diseases such as obesity, overweight, cardiovascular disease, diabetes, high blood pressure,

high blood cholesterol globally are associated with lack of physical activity). (QNPAG, 2021) (Kohl et al., 2012), (Hallal et al., 2012), (Boutayeb & Boutayeb, 2005)

In the Eastern Mediterranean Region (EMR) obesity is a major health problem, particularly amongst adolescents and women while the physical inactivity levels fluctuate in the 22 countries between 14.1% (in Sudan) and 82.1% (in Saudi Arabia). (WHO, 2019)

In Qatar, the percentages of the 18-64 years old adults that face noncommunicable diseases caused by physical inactivity refer to obesity (41.4%), high cholesterol level (21.9%), diabetes (6.7%), low participation in physical activity (63.3%) (QNPAG, aspetar.com, 2021), annual mortality due to physical inactivity (9. 3%) (GoPA, 2020) not meeting current national physical activity recommendations (36.8%). (QNPAG, aspetar.com, 2021)

Evidence recommends combating the pandemic of physical inactivity through the implementation of effective public health interventions that address physical activity awareness, knowledge, commitment to an active lifestyle, capacity building in the field, and allocation of adequate resources for community support. (Pratt et al., 2020)

1. CONTEXT AND REVIEW OF LITERATURE
Benefits of Regular Physical Activity

Physical activity performed at the recreational level have many functions such as training, entertainment, relaxation or disconnection, rehabilitation, etc. while exercising on a long-term basis, the results consist in improved health. The benefits of physical activity for health represent a complex theme that refers to humans and their ability to be active from an anthropological, anatomical, physiological, biomechanical, psychological, sociological, etc. perspective (Epuran, M., 1992). Enhanced health benefits through practicing physical activities are obtained when the exercises are personalized to adults' needs, gender and age, but also by the risk factors to which the population is exposed (Dumitru, Gh., 1997). Healthy adults aged 18 – 64 years are recommended to participate in moderate-intensity exercise for at least 150 minutes per week, or vigorous-intensity aerobic exercise for at least 60 minutes per week or 60 - 150 minutes per week combination of moderate with vigorous intensities. Examples: brisk walking, jogging, swimming, kayaking, football, handball, etc.(Sayegh et al., 2022)

Some of the benefits of regular physical activity on health are stated in the scientific evidence as following: enhanced heart performance, increased amount of blood in the vessels, boosted air per minute ventilation in the lungs, increased strength, endurance and power, support to lose fat, decreased total fat mass and fat around the viscera, increased muscle ability to extract glucose from the blood, improved ability of the immune system to respond to microbial aggression, improved intestinal transit, eliminating constipation, improved movement coordination and balance, improved speed of reaction responses to various stimuli, improved self-image, professional effectiveness, family behavior , well-being and joy of living (Dumitru, Gh., 1997). Regular physical activities alleviate the problems of obesity and overweight, high blood pressure, anxiety and depression. (Bota, A., 2006)

Walking performed as form of physical activity brings extensive benefits on human health. Regular and prolonged walking reduces systolic blood pressure and diastolic blood pressure, resting heart rate, body fat, body mass index, total cholesterol, depression and increases VO2max. (Hanson, S., & Jones, A., 2015)

The implementation of different health promotion interventions, programs and campaigns targeting different communities in Qatar, such as community public, universities, and public places, motivates the population to follow the physical activity guidelines (Stănescu, M., et al., 2021). The levels of physical activity and self-reported gait increases through walking while the population is motivated by online messaging and makes use of steps tracking devices such as pedometers and mobile applications for step counting. (Joseph-Shehu et al., 2019). A combination of pedometer-based interventions with e-mail communication has the potential to enhance physical activity levels. (Vetrovsky et al., 2018)

The Importance of Physical Activity Awareness

Awareness of physical activity among adults can improve physical fitness, weight management, cognitive function and quality of life as well as reduce the risk of injury.

Physical activity levels of adults are classified into active population, (those who meet the WHO physical activity recommendations), partially active population, (those who carry out a heavy work activity without reaching the level of physical activity recommended by the WHO during their free time), and "sedentary population" (those with sedentary work activity, who do not reach the level of physical activity suggested by the WHO guidelines). At the same time scientific evidence mentions that adults who overestimate their level of physical activity do not intend to change their behavior to improve the level of physical activity, a situation that makes awareness a potential barrier in promoting physical activity. Lack of time and motivation are barriers that prevent adults from becoming active; these are factors that denote a poor health benefits of physical activity awareness. A solution investigated in this study is to include interventions that improves physical activity recommendations dissemination amongst adult population aiming increased awareness levels on this topic. (Palermi et al., 2020)

Messaging methods such as social media are highlighted as an appropriate, applicable and well-resourced modality (eg: educational, motivational, instructional information through videos, infographics, graphics, billboards, mass media), in inducing awareness and knowledge to increase levels of physical activity and motivation. (Williamson et al., 2019)

The regularly physically active adults that are motivated by their own intrinsic state aim to achieve relaxation, fun and socialization which results in higher life satisfaction compared to inactive adults. (Jetzke, M., et al., 2020)

Effective knowledge transmission interventions take place when the type of communication used is based on the target audience needs. (Stănescu, M., 2005)

Phone and email messaging during pedometer-based interventions are feasible and have the potential to enhance physical activity levels. (Vetrovsky et al., 2018)

In U.S. community-based walking intervention programs can help adults meet national physical activity guidelines. It is important to assess whether such approaches can be effective among the Qatar community (Sisson et al., 2008)

Solutions to Tackle Physical Inactivity in Qatar

The 2022 year is of great significance for Qatar since the FIFA World Cup Qatar 2022 is planned to take place. On this occasion the World Health Organization (WHO), the State of Qatar through Ministry of Public Health and FIFA signed a three-year partnership, entitled Healthy 2022 World Cup: Creating Legacy for Sport and Health. This partnership is based on 3 pillars, to deliver pre, during and after the World Cup joint activities to promote a healthy lifestyle, health security and physical and mental well-being. One of the pillars of

this partnership focuses on promoting physical activity and nutrition as means to improve health, as safe health and sports interventions will continue the World Cup itself. Through this pillar, interventions will be implemented by which people can improve the physical activity awareness levels. (Bull F, et al., 2022)

The high levels of obesity, lack of physical activity, and the negative impact of COVID-19 pandemic are some of the barriers for which the Qatar government came in support of tackling the case through documents, plans, and strategies: Qatar National Vision 2030 (QNV 2030); Qatar National Health Strategy (QNHS 2018 - 2022); Qatar National Physical Activity Guidelines (QNPAG); Qatar National Sports Day (QNSD); Healthy 2022 World Cup: Creating a Legacy for Sport and Health; Step into Health (SIH).

It is recommended to raise awareness of the physical activity guidelines and promote behavior change among those considering health enhancement. (Piercy, K. L., et al., 2020), (Van Sluijs, E. M., et al., 2007)

2. METHODS

Study Objective

This study evaluates the effect of online messaging intervention to engage adults from Qatar community in physical activity implemented as walking intervention. The concept of online messaging intervention as motivation and awareness of physical activity in Qatar is explored. Pedometers, mobile application and IPAQ questionnaire are used as measurement tools. Physical activity levels are assessed against the goal of 10,000 steps/day.

Research Question

The research question addressed in this study is: "to what extent the walking programs in combination with online messaging implemented among adults from Qatar community can increase awareness of the health benefits of physical activity as a starting point towards forming an active lifestyle?"

Research methodology

This paper is a randomized pretest-posttest experimental study method with a follow-up period at 16 weeks after intervention completion. The eligible population has been randomly assigned to experimental group and control group and at 16 weeks after intervention, they were invited to complete online the International Physical Activity Questionnaire (IPAQ). The study population, pedometers and mobile applications users, were invited to participate in an 8 weeks physical activity intervention based on walking daily 10,000 steps and more. During this time, the experiment group received 16 messages through email and 16 phone SMS, twice a week, containing educational messages related to Qatar National Physical Activity Guidelines. (QNPAG, aspetar.com, 2021). After the intervention, the research population was not contacted for 16 weeks; afterwards, the research team invited participants for a period of 4 weeks to complete the short form of IPAQ questionnaire. The 7 questions investigated the types of physical activities people do as part of their daily lives and the time spent as physically active in the last 7 days.

To evaluate the physical activity intervention through online messaging, the number of daily steps is classified into the following categories: less than 5,000 steps per day - sedentary lifestyle index, 5,000-7,499 steps per day - low active, 7,500- 9,999 steps per day, active, more than 10,000 steps per day - active, more than 12,500 steps per day - very active. The average of steps uploads to the system is also calculated. (Tudor-Locke et al., 2013), (Tudor-Locke et al., 2018), (Tudor-Locke, 2002).

To evaluate the awareness of physical activity the IPAQ results are reported in two forms:

a. categories of physical activity (high, moderate and low level) or

b. continuous variable MET – minutes of physical activity per week. MET minutes represent the amount of energy expended to perform physical activity. A MET is energy expended at rest. Therefore, 2 METS is energy expended twice as much as at rest. Walking is valued at 3.3 METS, moderate physical activity is valued at 4 METS and vigorous physical activity at 8 METS.(Bauman et al., 2009), (Kim et al., 2013), (IPAQ Research Committee, 2005)

A daily number of steps was measured using two types of equipment. One method is the Omron HJ-324U pedometer (Manual OHIOPH-Uu, 2012) with an USB connection to the SIH web database. The second method to measure the daily accumulated steps is through the mobile application synchronized to the SIH program website, and compares steps achievements to the average healthy standard of 10,000 steps per day.

The IPAQ results as MET minutes per week are calculated as follows: the given MET value (walking = 3.3 METS, moderate activity = 4METS, vigorous activity = 8METS) is multiplied by the minutes in which the activity was performed and the number of days in which it was performed that activity. Ex: walking for 30 minutes a day, over a period of 5 days a week = 3.3 X 30 X 5=495 MET minutes a week. The MET minutes achieved in each category (walking, moderate activity and vigorous activity) were summed to obtain the total MET minutes of physical activity per week.

Data collection for pedometers steps, mobile application steps and IPAQ questionnaire was completed by using the SIH system supported by IT implications. Data has been prepared using the Excel program, and imported into the SPSS program for analysis while the results were displayed through graphs and tables. The quantitative statistical analysis of this research was done through the IBM statistical package for social sciences (SPSS version 21.0, IBM Corp., Armonk, NY, USA). Descriptive statistics (mean ± SD and frequencies) were established at the group level. Subgroup analysis of the classified categories of physical activity levels was conducted making use of the following tests: the arithmetic mean (X) to estimate the central predisposition of the series; the standard deviation (SD) to form a point of view on the homogeneity of the sample.

The study complied with all requirements to receive the ethical approval from the Ministry of Public Health in Qatar through the Aspire Zone Foundation Institutional Review Board (AZF IRB) with the following registration and insurance numbers: MoPH Registration: IRB-AOSM-2020-007, MoPH Assurance: IRB-A-AOSM-2020-0036.

Target population

The sample size enclosed active members of different SIH community settings (SIH Qatar Community, SIH Campuses, SIH Workplaces) with a total of 299 participants (143 adults control group, 156 adults experiment group, 68 (22.7%) adults IPAQ participants). The research population represents healthy adults in the Qatar community conforming with the inclusion criteria of 18 to 64 years old, women, and men, of different nationalities registered and active members of SIH program which consented their participation to the study and currently have pedometers or the steps measurement app on their mobile phones. Exclusion criteria for study population referred to adults with chronic diseases, those who refuse to sign informed consent and those who report less than 1,100 or more than 65,000 daily steps as outliers or erroneous measures. Registered participants have the option to

withdraw from the SIH web database at any time. The sample population was randomly selected from all SIH registered members from the beginning of the program to the present.

Targeted adults received educational content through online messaging simultaneously with a walking intervention as per the rules of randomized control trial research and invited after 16 weeks to complete IPAQ questionnaire for a duration of 4 weeks. Once the intervention was completed, the number of daily steps performed by the subjects and the questionnaire data was analyzed.

3. FINDINGS

The IPAQ results related to the general characteristics of the study population such as group distribution, demographics and levels of physical activity deployed that from the total study population of 299 (100%) adults, 68 (22.7%) of them participated in completing the questionnaire, while 231 (77.3%) of them did not respond to the invitation (Table 1).

Table 1. Total study population distribution

Distribution of the total study population		
IPAQ Group n (%)	Non-IPAQ Group n (%)	Total Group n (%)
68(22,7)	231(77,3)	299(100)

The results related to the study population's demographic characteristics presented the following findings: men (control group 31(83.7%) / experimental group 29 (93.5%)) participate in physical activities in greater numbers than women (control group 6 (16.2%) / experimental group 2 (6.4%)); adults aged 35-55 years (control group 24(64.8%)/experimental group 21(67.7%) and adults with BMI 26 – 30 kg/m² (control group 17 (45.9%)/experimental group experiment 14(45.1%) are more numerous in practicing physical activities. Participants of non-Qatari nationality (control group 31(83.7%)/experimental group 25(80.6%)) engage in physical activities in greater numbers (group of control 6(16.2%)/experimental group 6(19.3%) than those of Qatari nationality, and adults who are part of the Qatari workplace community (control group 24(64.8%)/experimental group 21(67.7%) participate in greater number in physical activities to improve health (Table 2).

Tabel 2. Demographic characteristics of the IPAQ sample

Group Variables		Control n (%)	Experimental n (%)	P value
Gendre	F	6(16.2)	2(6.4)	0,213
	M	31(83.7)	29(93.5)	
Age (Years)	<= 35	0(0)	0(0)	
	35 - 55	24(64.8)	21(67.7)	0,999
	55+	13(35.1)	10(32.2)	
BMI (kg/m²)	<= 25	12(32.4)	9(29)	
	26 – 30	17(45.9)	14(45.1)	0,909
	31+	8(21.6)	8(25.8)	
Steps Measuring Device	Mobile app	17(45.9)	12(38.7)	0,548
	Pedometer	20(54)	19(61.2)	

Nationality	Qatari	6(16.2)	6(19.3)	0,735
	Non-Qatari	31(83.7)	25(80.6)	
Communities in Qatar	Universities	3(8.1)	1(3.2)	
	Workplaces	24(64.8)	21(67.7)	0,662
	Public	9(24.3)	9(29)	

During the 8 weeks walking program and online messaging intervention the step count results of the IPAQ sample adults (68 (100%)), measured by pedometers and the application on mobile phones, placed this group in the somewhat physically active category (7,500-9,999 steps/day). The maximum median of 10357.5 steps/day was recorded in the 1st week of intervention and the minimum median of 7434.0 steps/day in 7th week. The experimental group registered the highest average number of steps per day in the 1st week of the intervention (course 1 = 11078.6 steps/day) compared to the highest value of the average number of steps per day of the control group in the last week after the intervention (fast 6 =10127 steps/day) (Table 3).

Table 3. Weekly evolution of IPAQ Group steps during the online walking intervention period

Weeks	IPAQ Total Group		IPAQ Groups (Steps Mean)	
	Steps Mean ± SD	Median	Control	Experimental
Pre 1	8937,4±4652,2	9108,0	8350,7	9601,1
Pre 2	9259,5±4893,4	9384,0	8216,6	10402,7
Pre 3	9222,8±5276,1	9292,5	8826,3	9641,3
Pre 4	9594,3±5370,4	9813,0	9034,3	10212,7
Pre 5	9618,1±5355,2	9694,0	8898,7	10337,5
Pre 6	9093,7±4868,5	9482,0	8695,6	9515,1
Pre 7	8768,6±5265,6	8381,5	8343,2	9234
Pre 8	9537,8±5991,5	8752,0	8582,1	10729
During 1	10234,9±5120,8	10357,5	9491,1	11078,6
During 2	9697,9±5259,1	9328,0	8796,7	10798,7
During 3	10102,8±5085,4	9668,0	9771	10477,1
During 4	9784,6±5083,0	9937,0	9706	9877,7
During 5	9155,8±5288,9	8629,0	9264,6	9058
During 6	8504,0±5230,0	7437,0	8569,4	8444,5
During 7	8390,6±5387,8	7434,0	8141	8635,7
During 8	8685,9±4589,7	8867,0	8706,3	8665,8
Post 1	8689,5±4957,3	8280,0	8913,3	8434,4
Post 2	8835,0±5082,2	8303,0	8578,2	9127,2
Post 3	8836,8±4758,7	8685,0	8523,9	9205,5
Post 4	9353,6±4975,5	9080,5	8998,5	9804,4
Post 5	9635,7±5178,9	9447,0	8477,7	10903,5
Post 6	9672,5±5542,9	9895,0	10127	9184,8

After 16 weeks from the intervention, the IPAQ Group (68 (100%)) adults recorded the highest participation in vigorous intensity physical activities (control group 22 (59.4%)/experimental group 15 (48.3%)) followed by moderate-intensity physical activities (control group 9 (24.3%)/experimental group 12 (38.7%)), and the fewest adults were

identified in the low-intensity physical activity category (control group 6 (16.2%) /experiment group 4 (12.9%)). (Table 4, Figure 1).

Table 4. Physical activity categories IPAQ Group

Variables	Physical activity categories	Control n(%)	Experimental n(%)	p Value (Pearson Chi-Square)
IPAQ Group 68 (100%)	Low	6 (16.2)	4 (12.9)	
	Moderate	9 (24.3)	12 (38.7)	0,441
	Vigorous	22 (59.4)	15 (48.3)	
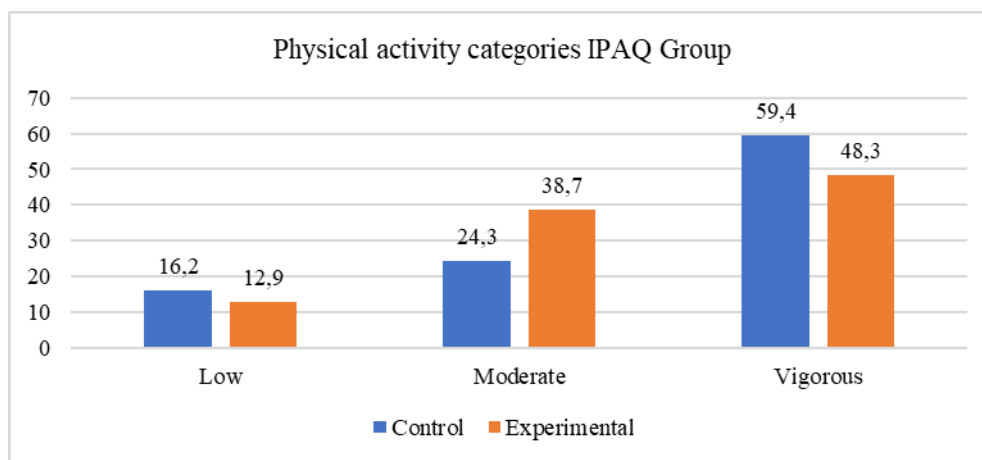
Figure 1. Physical activity categories IPAQ Group

The results of the physical activity categories of the IPAQ Group, with comparison amongst the control and experimental population, were found according to the following independent variables: gender, age, community, BMI, pedometer, and nationality Statistically significant differences were observed in the following situations:

- Men in the experimental group reported a higher Mean ± SD of total days of recorded activity (6.7±1) compared to the control group (6.2±1) and a p value = 0.037 (Table 5)
- In the category of adults aged >55, the control group accumulated a total physical activity of 183.9±127.3 (min/week) compared to the experimental group which achieved a total physical activity of 134.5±60.4 (min/week)) with a p-value of 0.029. All these adults of the control group believe that they practice physical activities at vigorous intensity 1975.3±2436 (MET- min./week) in a greater amount than the experimental group 624±1320.3 (MET- min./week). (Table 6)
- Adults from the university community participated in the questionnaire in a very small number (control group 3 adults (7±0 total days of activity) and 1 adult (7±0 total days of activity) in the experimental group; Although the adults from the experimental group in the public community marked a higher number of total days of recorded activity (6.7±0.7) compared to the control group (6.1±1.9) and a p value = 0.007, the control group recorded a physical activity vigorous in greater amount 2097.6±2672.4 (MET-min/ week) than the experimental group 1163.8±1628.2(MET-min/week) and a p-value of 0.033. Control group adults in the workplace community

marked a significantly greater difference (p = 0.036) of total days of recorded activity (7±0), compared to the total days of recorded activity of the experimental group (6.4±1.6), the experimental group of the workplace community reported a significant difference (p= 0.029) higher of the total number of MET- min./week. = 5647.9±6344 than the control group with only 3338.4±2132.1 (MET- min./week) (Table 7).

- The p value = 0.035 is observed in the group with BMI 30+ where the total number of activity days recorded by the experimental group is higher (7±0) than the control group (6.3±1.7). (Table 8)
- IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) according to the pedometer did not report any statistically significant value. (Table 9)
- Adults of Qatari nationality, although they completed the questionnaire in a very small number, their control group reported a vigorous intensity physical activity 800±1959.5 (MET- min./week) compared to the experimental group with 80± 195.9 (MET- min./week) and p value = 0.049. (Table 10)

4. DISCUSSION

From a statistical point of view, the non-significant p-values obtained from the comparisons of each variable (gender, age, BMI, measuring device, nationality, community in Qatar) between the control and the experimental group denote that both groups are equally representative and it is less likely that there is a bias towards erroneous situations in the population distribution (Table 1).

The results of Table 2 highlighted that a walking program with online messaging with a follow up at 16 weeks after intervention has a significant impact on the physical activity awareness levels of the adults with the following demographic characteristics: men (control group 31(83.7%) / experimental group 29 (93.5%)) participate in physical activities in greater numbers than women (control group 6 (16.2%) / experimental group 2 (6.4%)); adults aged 35-55 years (control group 24(64.8%)/experimental group 21(67.7%) and adults with BMI 26 – 30 kg/m² (control group 17 (45.9%)/experimental group experiment 14(45.1%) are more numerous in practicing physical activities. Participants of non-Qatari nationality (control group 31(83.7%)/experimental group 25(80.6%)) engage in physical activities in greater numbers (group of control 6(16.2%)/experimental group 6(19.3%) than those of Qatari nationality, and adults who are part of the Qatari workplace community (control group 24(64.8%)/experimental group 21(67.7%) participate in greater number in physical activities to improve health. (Table 2)

The results displayed in Table 3 emphasized that the walking program and the online messaging intervention positively influenced the experimental group during the intervention period, hence they managed to uphold a higher interest in the daily walking activity, and increase physical activity levels (Table 3).

Chi-square statistical analysis of the IPAQ group data shows a p-value (0.441) which does not denote differences large enough to conclude that the control and experimental groups are associated with each other. The hypothesis that the experimental group has a higher level of physical activity 16 weeks after the end of the intervention than the control group due to prior participation in the walking intervention with online messaging is not confirmed (Table 4, Figure 1).

The results of steps per day of the adults who completed the IPAQ questionnaire (68 (22.7%)) oscillated during the walking program between the "somewhat physically active" category (7,500-9,999 steps/day) and the "physically active" category with 10,000+

steps/day, while the self-reported results in the questionnaire state that participants oscillated between the "vigorous" and "moderate" physical activity categories. The assessment of their own level of physical activity similar to the data reported by the step measuring devices demonstrates that the adults in the IPAQ group (68 (22.7%) have a good awareness of their own physical activity. At the same time, the long-term participation, of the 68 (22.7 %) adults, (September 2021-July 2022) in physical activity both, during and after the walking program, indicates active behavior. Walking program combined with online messaging has the effect of engaging Qatar community in physical activity after 16 weeks since the program stopped on a percentage of 22.7% adults of the total study population while 77.3% of them stopped reporting their physical activity performance or using the step count devices.

Tables 5 – 10 of this paper provide an overview of the physical activity categories of the IPAQ research population, where it is observed that regardless of the population variables, physical activity is most commonly reported as vigorous, followed by moderate and the fewest adults reported engaging in low-level physical activity. The p values reported in Table 10 are not significant when referring to the differences between the control and experimental groups.

Table 5. IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) according to gender

Gender		F			P		M		
Group		Control		Experimental	Value		Control		Experim
Surveillance physical activity	n	Mean ± SD	n	Mean ± SD		n	Mean ± SD	n	Mea
Total days activity	6	14.8±4.1	2	8.5±4.9	0,773	31	11.1±5.8	29	1
Total days recorded activity	6	7±0	2	6±1.4	0	31	6.2±1.7	29	6
Total activity (min./week)	6	284.1±193.3	2	172.5±116.6	0,42	31	165.5±191.4	29	201.
Total activity (min./week)	6	231.6±124.5	2	172.5±116.6	0,782	31	150.5±132.6	29	173
Vigorous (MET- min./week)	6	2420±2042.7	2	1440±2036.4	0,828	31	1738±2487.8	29	1688.
Moderate (MET- min./week)	6	1233.3±820.6	2	360±509.1	0,524	31	748.3±925.2	29	1023.
Walking (MET- min./week)	6	1963.5±1775.8	2	1485±0	0,043	31	1168.5±964.7	29	1522.
Total (MET- min./week)	6	5616.8±2903.3	2	3285±2545.5	0,781	31	3654.9±3926.6	29	4234.

Table 6. IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) according to age

Age		<= 35				35.1 - 55				>55	
Group		Control	Experimental			Control		Experimental	P		Control
Surveillance physical activity	n	Mean ± SD	n	Mean ± SD	n	Mean ± SD	n	Mean ± SD	Value	n	Mean ± SD
Total days activity	0	0±0	0	0±0	24	11.8±6.1	21	11.8±4.9	0,271	13	11.5±5
Total days recorded activity	0	0±0	0	0±0	24	6.1±1.9	21	6.6±1.2	0,097	13	6.8±0.5
Total activity (min./week)	0	0±0	0	0±0	24	185.2±224.7	21	230.9±236.4	0,834	13	183.9±127.3
Total activity (min./week)	0	0±0	0	0±0	24	153.9±139.6	21	191.6±138.3	0,899	13	181.6±123.5
Vigorous (MET- min./week)	0	0±0	0	0±0	24	1780±2443.7	21	2171.4±3029.3	0,573	13	1975.3±2436
Moderate (MET- min./week)	0	0±0	0	0±0	24	775±981.1	21	1028.5±1131.6	0,715	13	923±811.4
Walking (MET- min./week)	0	0±0	0	0±0	24	1225.1±1138	21	1439.4±1137.4	0,811	13	1430.9±1180.4
Total (MET- min./week)	0	0±0	0	0±0	24	3780.1±3970	21	4639.4±4752.6	0,406	13	4329.3±3640.2

Table 7. IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) by community.

Communities Qatar		Universities			Public						
Group		Control		Experimental		Control		Experimental		P Value	Control
Surveillance physical activity	n	Mean ± SD	n	Mean ± SD	n	Mean ± SD	n	Mean ± SD			n	Mean ± SD
Total days activity	3	14.6±5.1	1	10±0	25	11.4±6.2	21	11.7±5.1	0,196	9	11.6±4.3
Total days recorded activity	3	7±0	1	7±0	25	6.1±1.9	21	6.7±0.7	0,007	9	7±0
Total activity (min./week)	3	383.3±200	1	60±0	25	173±211.5	21	199.2±213	0,751	9	151.1±94
Total activity (min./week)	3	278.3±91.1	1	60±0	25	154.4±145.5	21	165±99.4	0,082	9	151.1±94
Vigorous (MET- min./week)	3	1120±1939.8	1	480±0	25	2097.6±2672.4	21	1163.8±1628.2	0,033	9	1400±1767.7
Moderate (MET- min./week)	3	1406.6±773.6	1	0±0	25	808.8±1024.8	21	1119±1056.4	0,900	9	684.4±572.8
Walking (MET- min./week)	3	3234±1600.4	1	0±0	25	1080.6±957.6	21	1433.9±919.4	0,744	9	1254±954.7
Total (MET- min./week)	3	5760.6±3124.9	1	480±0	25	3987±4353.8	21	3716.7±2655.8	0,100	9	3338.4±2132.1

Table 8. IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) according to BMI

BMI		<=25				25.01-30.00						
Group		Control		Experimental			Control		Experimental			Control
Surveillance physical activity	n	Mean ± SD	n	Mean ± SD	P Value	n	Mean ± SD	n	Mean ± SD	P Value	n	Mean ± SD
Total days activity	12	13.5±6.4	9	11.7±5.7	7,000	17	11.1±5.5	14	11.2±5.3	0,493	8	10.3±4.7
Total days recorded activity	12	6.3±2	9	6.4±1.6	0,855	17	6.4±1.3	14	6.6±0.9	0,408	8	6.3±1.7
Total activity (min./week)	12	212.9±271.6	9	171.6±153.4	0,540	17	165.6±137.7	14	255.7±261.7	0,344	8	183.1±179.(
Total activity (min./week)	12	174.1±157.6	9	171.6±153.4	0,956	17	163.8±134.8	14	196.7±117.7	0,261	8	147.5±100.:
Vigorous (MET- min./week)	12	2683.3±3074.6	9	1528.8±3281.8	0,745	17	1814.1±2157.4	14	2014.2±2805.2	0,833	8	670±1249.5
Moderate (MET- min./week)	12	948.3±1156	9	1064.4±1347.1	0,718	17	720±801.6	14	998.5±1194.3	0,228	8	872.5±833.
Walking (MET- min./week)	12	1381.8±1127.1	9	1578.5±1453.5	0,231	17	1198±1123.5	14	1736±878.7	0,563	8	1381.8±1330
Total (MET- min./week)	12	5013.5±5057.3	9	4171.8±4938.5	0,970	17	3732.2±3445.9	14	4748.8±4427.6	0,887	8	2924.3±2068

Table 9. IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) according to pedometer

Steps measuring device		Mob App				Pedometer			
Group		Control		Experimental			Control		Experimental
Surveillance physical activity	n	Mean ± SD	n	Mean ± SD	P Value	n	Mean ± SD	n	Mean ± S
Total days activity	17	10.1±5.5	12	11.3±4.4	0,5337	20	13.1±5.5	19	11.7±5.4
Total days recorded activity	17	6.1±1.6	12	6.7±0.8	0,246	20	6.6±1.5	19	6.6±1.2
Total activity (min./week)	17	143.5±156	12	262.9±283.8	0,157	20	219.8±219.3	19	159.9±11'
Total activity (min./week)	17	125±112.4	12	194.1±127.7	0,135	20	196.5±143.1	19	159.9±11'
Vigorous (MET- min./week)	17	1061.1±1671.4	12	1500±2894.7	0,609	20	2518±2759.5	19	1781±261(
Moderate (MET- min./week)	17	615.2±726.4	12	1280±1231.5	0,079	20	1007±1035.5	19	791.5±105
Walking (MET- min./week)	17	1216.1±1312.4	12	1442.3±948.4	0,615	20	1366.5±1002.6	19	1569.2±114
Total (MET- min./week)	17	2892.6±2752.1	12	4222.3±4662.6	0,343	20	4891.5±4389.9	19	4141.8±38(

Table 10. IPAQ scores expressed as metabolic equivalent of activity units (MET minutes/week) according to nationality

Nationality						Qatari						Non- Qatari			
Group		Control		Experimental		P Value	Control		Experimental		P Value
Surveillance physical activity	n	Mean ± SD	n	Mean ± SD			n	Mean ± SD	n	Mean ± SD	
Total days activity	6	7.3±5.1	6	7.5±2.7	0,427	31	12.6±5.4	25	12.5±5	0,497
Total days recorded activity	6	5.5±1.9	6	6.1±1.3	0,453	31	6.5±1.5	25	6.8±1	0,234
Total activity (min./week)	6	78.3±110.9	6	81.6±53.3	0,281	31	205.3±201.1	25	228.1±213.6	0,913
Total activity (min./week)	6	78.3±110.9	6	81.6±53.3	0,281	31	180.1±132.2	25	195.1±122.6	0,750
Vigorous (MET-min./week)	6	800±1959.5	6	80±195.9	0,049	31	2051.6±2461.7	25	2054.4±2860.5	0,805
Moderate (MET-min./week)	6	560±979.7	6	260±482.4	0,143	31	878.7±911.3	25	1153.6±1181.6	0,209
Walking (MET-min./week)	6	508.7±567.4	6	816.7±756.3	0,228	31	1450±1166.2	25	1688.9±1059.9	0,892
Total (MET- min./week)	6	1868.7±3314.4	6	1156.7±783.5	0,109	31	4380.4±3818.4	25	4896.9±4232.1	0,668

CONCLUSIONS

Qatar has many strategies and programs to promote physical activity among the population through which it wants to achieve a higher level of awareness of the regular practice of physical activity and its benefits. Qatar's efforts in this direction are aligned with global practices. The long-time participation of the 68 (22.7%) adults, (September 2021-July 2022) in physical activity both, during the walking program and after its completion, indicates an active, efficient and acquired behavior; the walking program combined with online messaging motivated a percentage of 22.7% of adults to continue an active lifestyle, at 16 weeks after the end of the intervention. Self-rated physical activity level similar to data reported by pedometers demonstrates that adults in the IPAQ sample (68 (22.7%)) have a good awareness of their own physical activity. The statistical findings demonstrate that walking in combination with online messaging programs implemented among adults in the Qatari community can increase awareness of the health benefits of physical activity by forming the basis of an active lifestyle.

The Qatari community has a high preference for using mobile phone walking apps compared to pedometers,

The present work highlights that the population that prefers this type of physical activity and seeks participation in organized walking programs are adults between the ages of 35-55. Significant research results demonstrate that the walking program with online messaging intervention improves physical activity in overweight adults (BMI 25.01 - 30.00 kg/m2).

The research population representative of the Qatari university community met Qatari national physical activity recommendations and responded effectively to walking programs with pedometers tending to remain in the active population category (10000+ steps/day).

The current study reinforces previous scientific evidence that walking interventions in Qatar conducted during autumn/winter increase participants' step count when weather conditions favor outdoor activities.

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STUDENTS' PERCEPTION OF PERSONAL AUTONOMY, MOTIVATION AND EFFECTIVE LEARNING IN THE ONLINE ENVIRONMENT

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ABSTRACT

The onset of the Covid-19 pandemic changed the global society and generated mutations in all areas of activity, strongly impacting the education system as well. The solutions for the continuation of the educational process-imposed adaptations, changes, rethinking and restructuring of the way in which the instructive-educational approach was carried out until then. The traditional school imported methods, techniques, tools, resources and moved to the virtual space, on educational platforms. In this new context, the resilience, flexibility and creativity of teachers have proven to be fundamental skills for maintaining a satisfactory quality standard, conditioned, however, in many situations by teacher-independent factors: internet connection, appropriate devices or even students' motivation for learning. Education continued, but the differences between the social categories of students deepened. In the online environment the teacher's authority is lower, the efficiency of some methods is lost, communication is altered by contextual, environmental factors, students' interest and motivation are difficult to maintain. Specialists in the educational field state that human interaction in the online environment is artificial, not authentic and does not have the same formative valences as in the physical space of the classroom. After two and a half years of pandemic, in which education took place in the online environment, alternating with periods when teachers and students returned to class, there are both obstacles and opportunities to integrate modern technology in the educational process. The pandemic has shown that today's school needs to change, to be open to the outside world and to take on viable models and paradigms that meet the current and complex needs of students. In higher education, a number of advantages of online learning can be highlighted, as students generally have independently developed study skills, autonomy and the ability to organize their own training and development process. This investigative research aims to identify the students' perception regarding the efficiency of teaching activities in the online environment, how their autonomy and motivation for learning has contributed to a quality educational process, despite the obstacles encountered, and to identify useful landmarks for teachers in achieving an education that integrates the online component effectively. The sample of the study included 83 higher education students from Valahia University of Targoviste, Romania.

Keywords: *autonomy; motivation; online learning; effective learning; students;*

INTRODUCTION

The last two years have been a major challenge for education systems around the world, as the Covid-19 pandemic has forced teachers, students, parents and decision-makers in education to find the best solutions for the educational process to continue. Teachers have adapted quickly and sought internal and external resources to maintain high quality standards in education and to remain close to their students. Teachers experienced online teaching using synchronous and asynchronous platforms, modern methods and innovative resources, practiced multiple roles, were attentive to the needs of their students, were creative and tried to motivate their students to learn and maintain their psychological well-being even when they were isolated.

At the level of higher education, the educational process was transferred to the online environment, highlighting the opportunities to capitalize on digital skills, student's engagement, self-regulation of learning, commitment, flexibility, efficient organization of internal and external resources, also the creativity, innovation and adaptability of teachers.

Teaching-learning online is not a new concept in the university environment; in addition to the limitations of online education: ineffective communication and relationships, limited cooperative dimension, difficulties in achieving objective assessment and feedback, in monitoring and stimulating performance, in individualizing and personalizing learning (Botnariuc, 2020, p. 47), a number of advantages can also be identified: access to educational opportunities in a flexible way in terms of time and place (Arkorful, 2014; Farrell & Brunton, 2020); scalability of institutional resource (time and money) and low travel costs for students; access to relevant digital resources; valuing the individual differences of learners (abilities, interests, the pace of cognitive acquisition, learning styles and learning needs); increases satisfaction and decreases stress (Arkorful, 2014).

The literature reveals a number of interdependent factors that affect the quality and efficiency of online learning: the support provided by teachers, students' study skills and digital skills, time management skills; ability to balance work, family with study and relaxing time; learning autonomy; self-motivation ability; course design elements; support from the institution or group to which it belongs (Blackmon & Major, 2012; Buck, 2016; Farrell & Brunton, 2020).

The Evaluative Research Report on Online School (Botnariuc et al., 2020) shows that strictly academic and methodical skills are not sufficient in the context of online education, the teacher must also take on tasks of learning counseling, psycho-pedagogical and personal counseling, helping students to adopt meta-cognitive strategies, self-observation and self-guidance strategies in relation to learning.

1. CONCEPTUAL FRAMEWORK

Learning autonomy represents a valuable competence for students and a goal of *prospective education*, in the context of rapid changes in all areas of life, which impose the need for *lifelong learning*, updating knowledge throughout life. Autonomy or self-regulation are factors or conditions that facilitate success.

In the field of Educational Sciences, autonomy is a frequently encountered concept, correlated especially with lifelong learning skills. First used by Henri Holec in 1981, this term is associated with different meanings - as *a personal human trait* or as *an educational movement* - being considered either as *a means* or as *a goal* in education (or even both). According to Holec (1981, p. 3) autonomy is "the ability to take control of one's own learning". Dickinson (1987, 1994) states that autonomy implies taking responsibility for all

decisions related to one's own learning and their implementation. There are various terms connected to learner autonomy: *learner independence*, *self-direction learning*, *independent learning* and ability to control personal learning experiences (Masouleh & Jooneghani, 2012). In this approach, learners take the responsibility of their own learning, learn at their own pace and use their own strategies.

Among the essential characteristics associated with autonomous learning Philip C. Candy (1991) identifies over 100 attributes associated with autonomy in learning: methodical, disciplined, logical, analytical, reflective, self-aware, motivated, curious, flexible, independent, responsible, persistent, adventurous, creative, self-efficacy and self-confidence, skilled in seeking information, learning style, self-assessment ability, etc. There are over 2700 papers (Reinders, 2016) that refer to the concept of autonomy, most studies being in relation to the process of learning in general, language learning or in relation to digital competence development (Bakar, 2007).

There are also studies that address the relationship between autonomy and motivation (Dickinson, 1995), emotions (Dunlop, 1986), metacognition (Haque, 2018), self-esteem (Hill, 1991) etc. Reeve, Bolt & Cai (1999), Benson (1997), Hurd, Beaven, & Ortega (2001) and Thanasoulas (2000) states that teachers have the central role in developing students' autonomy, can support them and motivate them to learn effectively, by creating a learning environment in the classroom that supports independent assumption and responsibilities for one's own their learning.

David Little (1991) argues that autonomy is a psychological relationship of the learner (student) with the learning process and content, a capacity for detachment, critical reflection, decision making and independent action. For Tassinari (2012, p. 28) learner autonomy represents a "meta-capacity", a "complex construct, a construct of constructs, entailing various dimensions and components":

- a cognitive and metacognitive component (cognitive and metacognitive knowledge, awareness, learners' beliefs);

- an affective and a motivational component (feelings, emotions, willingness, motivation);

- an action-oriented component (skills, learning behaviors, decisions);

- a social component (learning and negotiating learning with partners, advisors, teachers).

An important feature of the student's autonomy is represented by his/her ability to activate the interaction of the components and to maintain a balance between them, in different contexts and learning situations.

Tassinari (2012) presents a complex dynamic model of learner autonomy (Fig. 1), in which each component has a set of specific macro-descriptors and micro-descriptors for the abilities, behaviors and attitudes subsumed in learning autonomy.
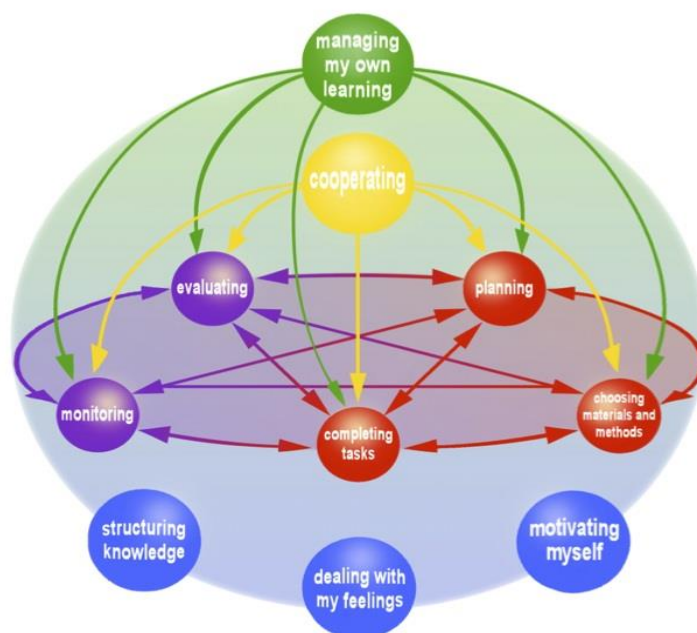
Figure no. 1. *The dynamic model of learner autonomy (Tassinari, 2010, p. 203)*

Dickinson (1995) stated that autonomy and motivation are closely linked. Motivation is the set of internal motives that determine the choice of a certain activity, shows how long individuals are willing to persist in it and what effort they invest (Dörnyei, 2001).

Motivation is one of the key factors that influence the success of an activity. In the educational context, motivation is the process that generates the main impulse to initiate learning and, at the same time, motivation also provides the necessary strength to support the effort required in the learning process. Gardner & MacIntyre (1993) argued that there are three important elements in the structure of motivation: the desire to achieve a goal, the effort made in this regard and the satisfaction felt with the task performed. Gagne & Deci (2005) stated that intrinsic motivation is the key element in independent, autonomous learning.

2. RESEARCH METHODOLOGY

This study **aims**:

(1) to determine the effectiveness of online learning from higher education students' perspectives;

(2) to highlight the relation between students' autonomy and motivation for learning, in online education, in pandemic context;

Sample

The purpose of this research study was to find the general attitudes of Romanian higher education students towards compulsory digital and distance learning university courses amid Coronavirus (COVID-19). The sample of the study included 83 higher education students from Valahia University of Targoviste, Romania - all of them enrolled in

the *Teacher Training Programme* - level 1, the third year of study). The students participated in the online courses during the two and a half years of the pandemic.

Survey

An online survey technique was used to gather data about the perceptions of Romanian higher education students regarding online teaching. A special created 38-item questionnaire with open and close items was used to assess the effectiveness of online learning. The distribution of the items was done on a Likert scale with 5 steps, from *strongly disagree* to *strongly agree*.

3. RESULTS AND ANALYSIS

Related to the students' autonomy in online learning, the items of the questionnaire aimed to identify the students' perception concerning their own abilities/ skills/ competences (*knowing how*) to use technology for multiple educational purposes: to send content to others, to download pictures or movies, to access informational content, to use computer for online classes, for learning, for using educational applications and online platforms with reasonable effort. Figure 2 illustrates that students greatly appreciate that they have developed skills that involve accessing informational content, downloading pictures or movies and sending content to others. According to *The dynamic model of learner autonomy* (Tassinari, 2010, p. 203), it can be appreciated that students are able to **perform various tasks** in the online environment, which means that they have developed a significant degree of autonomy in using technology.
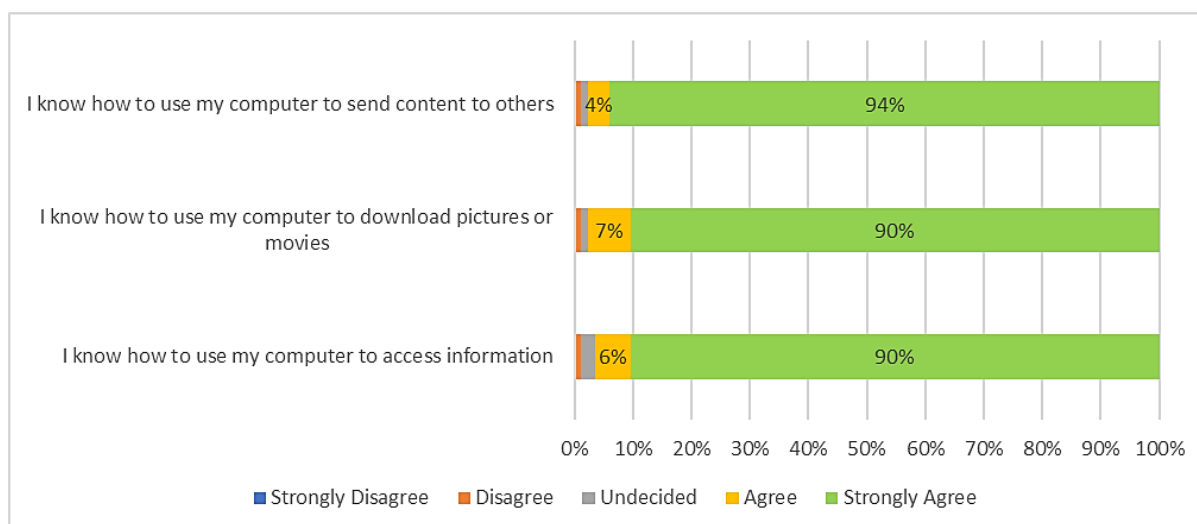
Figure no. 2. Students' abilities to access informational content and to send it to others

Regarding the students' perception about their own abilities to use the means of modern technology in learning, figure 3 shows that they can use educational applications on their computer, they are able to use the computer for learning and they are confident in the ability to use the computer for online classes, so they are **able to manage** their own learning process.
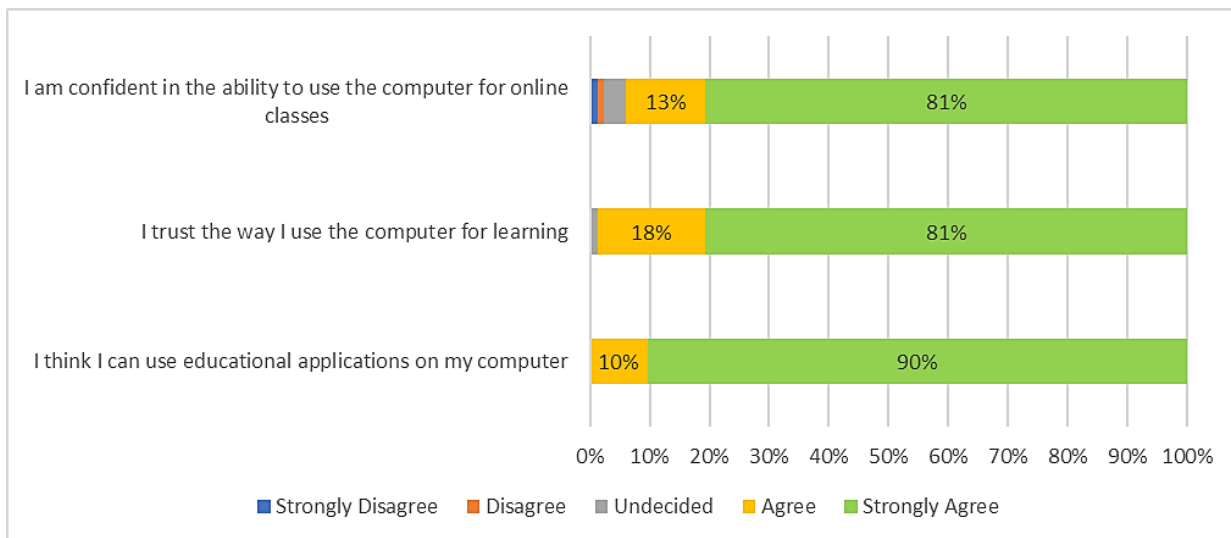
Figure no. 3. Students' abilities to use the computer for learning

In the university environment, educational platforms were used even before the pandemic, but the sudden move of the entire educational process in the online environment imposed the exclusive use of educational platforms for synchronous and asynchronous activities. This approach has generated multiple challenges/ difficulties for students, for teachers and even institutions. Figure 4 indicates that students appreciate they can **use online platforms without considerable effort**. The self-confidence given by the success of the activities contributes to the increase of the self-esteem and to the motivation for the use of those online means.

The ability to perform various tasks in the online environment, to manage their own learning process and to use online platforms easily are important elements of autonomy
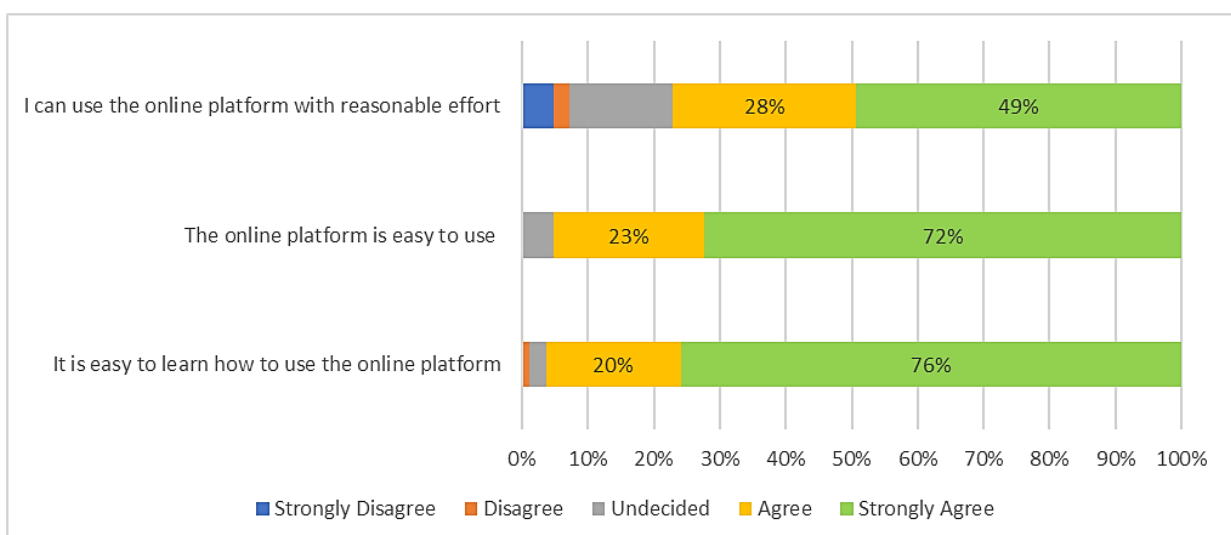
Figure no. 4. Students' perception related to their personal ability to use the online platforms

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Figure 5 shows how students appreciate / evaluate their own ability to understand and learn through online platforms. The distribution of answers indicates that, although they

appreciate that they have the necessary skills to achieve effective learning, they still do not make the most in the process of acquiring knowledge. Lack of motivation or metacognitive skills or a low level of them could be one of the factors that contribute to blocking the learning process. As other research state (Botnariuc et al., 2020) authentic, face-to-face relationship is essential in the educational process. Communication and interaction mediated by devices lose their relevance, distracting factors from the environment appear, the feedback is not real and immediate due to the placement in the virtual space.
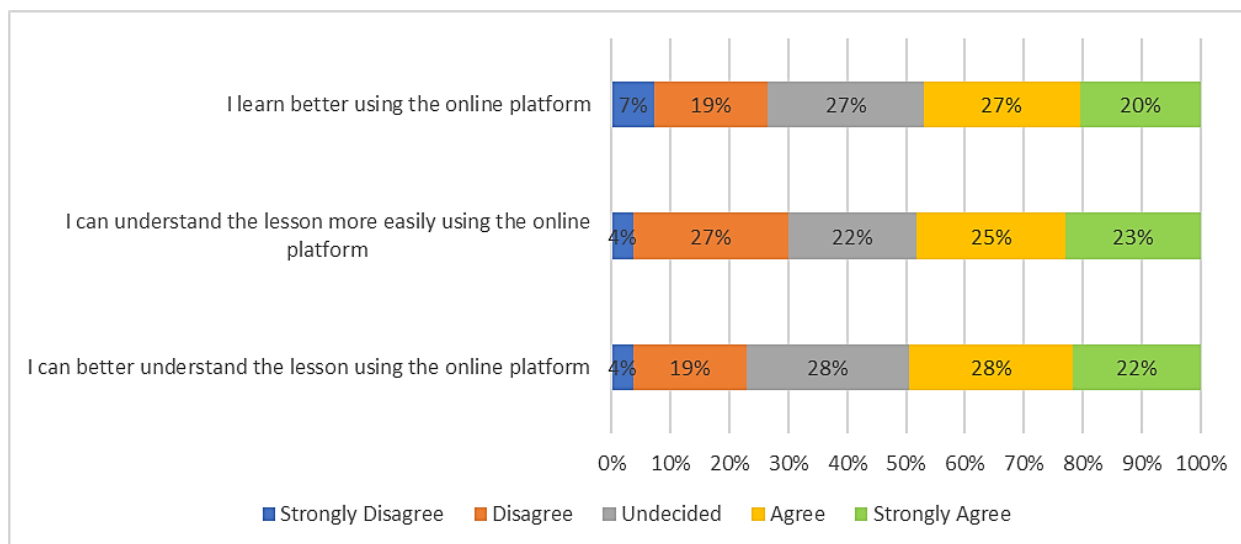
Figure no. 5. Self-assessment students' performance in learning

Although there are many difficulties and challenges related to online teaching-learning, there are also clear advantages. As can be seen in Figure 6, students appreciate that online platforms bring advantages in learning, in improving academic work and school performance. According to Arkorful (2014) and Farrell & Brunton (2020), students can have access to educational opportunities in a flexible way in terms of time and place, can access to relevant digital resources, value the individual differences of the learners: abilities, interests, the pace of cognitive acquisition, learning styles and learning needs.

Observing the students' answers to all the items, the share of *strongly disagree* answers is very low, which indicates a small number of students who have a negative perception of their own autonomy in learning in the online environment. According to Dickinson (1995), autonomy and motivation are closely linked. A high level of personal autonomy contributes to increased motivation for learning. And the optimal level of intrinsic motivation, supports the effort needed to overcome obstacles in learning.

Figure no. 6. Students' perception related to the advantages of using online platforms in learning

CONCLUSIONS

Online learning is a form of independent study, even if there are teachers who guide and facilitate this process; therefore, in online academic learning, autonomy and intrinsic motivation are the elements that ensure success.
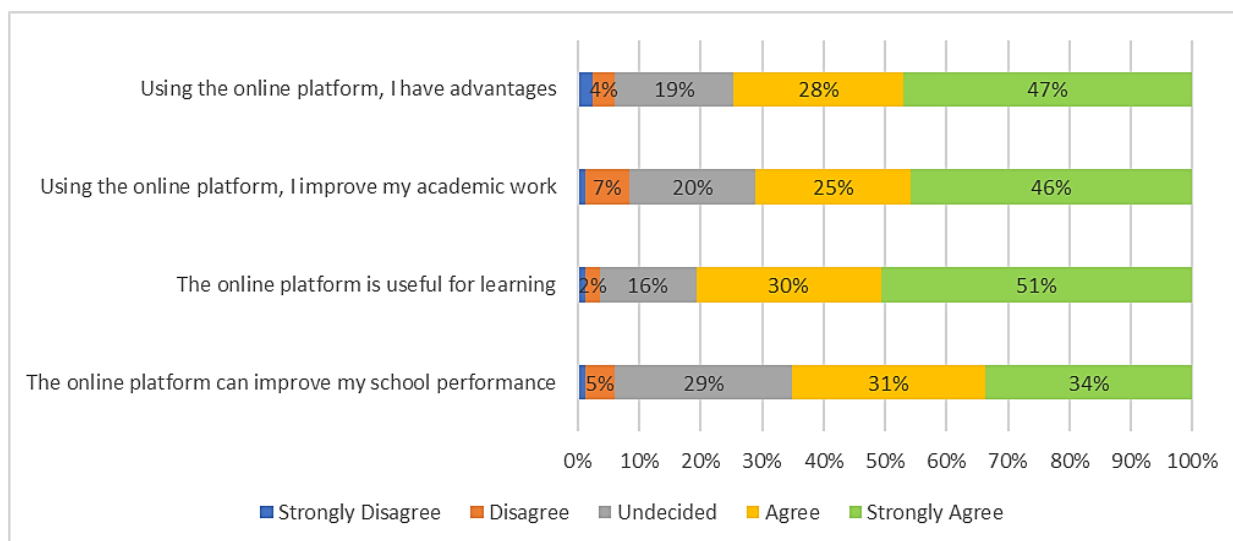
Autonomous students are more successful learners, they have more effective learning outcomes (Albert, 2007).

Motivation is the key to contributing to learning success. Although they have developed skills in using online platforms, learning autonomy must also be supported by the strength and vigor of motivation. The relationship between autonomy and motivation in learning is one of interdependence. The development of learning autonomy must be a priority goal of prospective education, but it must be supported by the art and skill of stimulating student motivation. In pandemic or post-pandemic context, this is one of the fundamental roles of the teacher today.

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ONLINE SCHOOL BETWEEN PROBLEMS AND SOLUTIONS. THE STUDENTS' PERSPECTIVE

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ABSTRACT

The pandemic situation brought significant changes regarding the teaching activities, led to the emergency transition to the online system and with it, multiple challenges, both for teachers and students. The students, the main beneficiaries of the online lectures and seminar activities, understood that they have a greater responsibility in learning than before they had and that if they are not fully involved in teaching activities, they will not be able to achieve the desired results. In this context, we considered it necessary to identify and analyze the students' perspective in relation to their experience related to the online school. Thus, a micro-research was carried out, the purpose of which is to analyze the students' opinions regarding the lectures, respectively the online seminars during the pandemic, related to the following aspects: the vertical and horizontal educational relations; the teaching strategies used during classes, the seminars; the students 'access to support materials, the emotional feelings and students' motivation, the difficulties encountered during the period in which the lectures and seminars took place online. The main research method was the questionnaire survey. The target group consisted of students from Valahia University of Targoviste, Faculty of Political Sciences, Letters and Communication, from all years of study, undergraduate and master's degree programs. The results show that students are aware of both the limits of online teaching activities (stress, numerous tasks and homework, connection issues, etc.), but also their benefits (quick and easy access to information resources, development of digital skills, participation in teaching activities from the comfort of your own home, etc.).

Keywords: *the online school; the student perspective; the online school challenges; the benefits and limitations; the educational relationships;*

INTRODUCTION

The current global situation has brought significant changes in the development of teaching activities, so that the act of learning becomes a responsibility with a much greater share among students. The instructive-educational activity involves the interaction of both the student and the teacher with digital, electronic means connected to the Internet, as well as numerous platforms and applications that contribute to the projection and development of educational activities and are indispensable elements in the online educational environment. In the teaching activities conducted in the online environment, both synchronously and

asynchronously, the teacher must exercise multiple roles, among which the most important are those of guide, counselor, couch, mentor for his students.

Students should also look for information sources on their own and post work assignments on educational platforms in a timely manner.

The pandemic brought significant changes in the conduct of teaching activities, caused the emergency transition to the online system and with it, multiple challenges, both for teachers and students. Also, the students - the main beneficiaries of the lecture and seminar activities carried out online, understood that they have a greater responsibility in learning than before they had and that if they are not fully involved in teaching activities, they will not be able to reach to the desired results.

Apparently, at the beginning of the pandemic, technology facilitated the continuation of distance learning activities during the period when the lecture were suspended, but the reality showed that a large part of the activities carried out face to face is impossible or almost impossible to achieve in the online environment.

Then, „we cannot ignore the major benefit of this period: the integration, even if forced, of technology in tertiary education, respectively in formal education in Romania, in general" (Drăghicescu, Stăncescu, 2021, p.53)

Studies show that technology is increasingly present in human life in the educational process. Therefore, online teaching activities plays a key role in developing digital and language skills for students and teachers and helps them in their subsequent professional life.

Also, the online environment stimulates the teacher to carry out the activity in various ways by using various teaching aids, which maintain interest, curiosity and increase extrinsic motivation and student involvement in teaching (Pânișoară, 2020).

Another important aspect is the fact that „the specificity of online teaching requires the adjustment of the material to the psychological characteristics of the students. This implies a more differentiated structuring in order to individualize and assimilate the material easily (and quickly)" (Gonța, Tripon, 2021, p. 88).

The transfer of educational activities in the online environment mainly negatively affects only laboratory and seminar activities that involve a higher degree of interaction between the student and the teacher. Thus, the interaction is diminished, which is not lead to the development of a quality socio-affective climate.

Students find that work tasks and homework are more numerous in the online environment, and this is due to the teacher's tendency to monitor the student's progress and ensure that he is well prepared for summative assessment, through lifelong learning. However, the use of digital resources in the act of learning is perceived positively by students, because media tools are not foreign to the current generation.

Emergencies and crises are a generator of social change. This change can be interpreted as a destabilization of the functional social state, and in this case, an essential feature of the change is the process of permanent actions whose main purpose is to obtain a new functional state. It is known that social change brings permanent or long-term changes in terms of culture, society, social behaviors, etc. Moreover, the changes come along with a psychological tension that every member of society, the group, feels. A consequence of the current pandemic crisis is that the interaction, communication between the members of the educational act is deficient, which influences other aspects of the social being, respectively of the institutionalized education.

1. ONLINE SCHOOL - BETWEEN BENEFITS AND LIMITS

Online schooling is achieved through individual learning experiences or coordinated by the teacher, in asynchronous or synchronous environments, using multiple devices, such as smartphones, computers or laptops, all of them having internet access. Subjects have the opportunity to participate and learn from anywhere, thus being spatially independent and at the same time connected in the act of learning and interaction with their teachers and colleagues. (Singh,Thurman, 2019).

After a period of accommodation with the online educational system, a good part of the students and teachers are currently advocating for the online school, to the detriment of the traditional school, physically carried out, in the educational institutions. On the other hand, there is a very large number of subjects of the educational act who consider that the online school is only an emergency measure and that they are pro-physical school, summing up various reasons. Regarding this issue, we propose for analysis a set of advantages and limitations of the school imposed by the pandemic situation, not at all favorable to the high quality educational act (Marcu, Panțică, Simionescu, 2020).

Some of the benefits of online schooling are:
- ✓ The immediate or quick verification of information, respectively of answers;
- ✓ The quick access to various adjacent educational means, conducive to actively maintaining the student's attention;
- ✓ The online communication is a communication preferred by the young generations;
- ✓ The diversification of online teaching and evaluation forms;
- ✓ A uick access to information both among students and teachers;
- ✓ A favorable climate, from the comfort of your own home;
- ✓ The improving or acquiring digital skills;
- ✓ The use of specialized and authorized e-learning platforms;
- ✓ Using the multitude of open educational resources and tools, online applications dedicated to the interactive learning activity;
- ✓ An increased integration of online educational tools in face-to-face activity.

In contrast to what I mentioned above, I also identified some limitations of online schooling, such as:
- ➤ The aggravation or rising of health problems;
- ➤ The endangering of the horizontal and vertical communication;
- ➤ The copyright infringement regarding the electronic writing of seminar topics, papers etc.;
- ➤ Replacing the handwriting with the typed one;
- ➤ A poor interpersonal relationship for beginners;
- ➤ Obtaining hard feedback from the student body;
- ➤ A poor nonverbal communication and paralanguage;
- ➤ The differentiated work with students is affected;
- ➤ A difficult monitoring of the student's learning pace;
- ➤ A lack of technological support / poor internet connection;
- ➤ One of the students aims is to "check" attendances.

2. THE RESEARCH METHODOLOGY

This research involves an analysis of the online school, as it was felt and experienced by students at the Faculty of Political Science, Letters and Communication, the specialization Romanian Language and Literature - English Language and Literature.

The purpose of the micro-research is the analysis of students' opinions regarding the lectures, respectively the online seminars during the pandemic, related to the following aspects:

- The educational relations vertically and horizontally;
- The teaching strategies used during classes, seminars;
- The students' access to support materials;
- The students' emotional feelings and motivation;
- The difficulties encountered during the period in which the lectures and seminars took place online.

In this context, it is very important to create a socio-affective climate meant to facilitate the vertical and horizontal socio-human interaction and to motivate the student to learn, to actively participate in lectures and seminars, to research, to deepen (Hattie, 2014).

That is why we have set the following aims of micro-research:

- The analysis of the main coordinates of teaching activities carried out in the online environment (teaching strategies used - methods, teaching aids, forms of organization; horizontal and vertical educational relationships, motivation and emotional feelings of students);
- The identification of the benefits and limits of the teaching activities carried out in the online environment;
- The analysis of the opportunity to coordinate some of the teaching activities online, in the post-pandemic period.

The main research method used is a questionnaire-based survey. Through this method, concrete data were obtained regarding the facilities and difficulties that the students experienced during the online school. The questionnaire, which was applied online in Google Forms consists of 27 questions (closed and open), aimed at the following dimensions:

- o teaching strategies used in online activities (methods, means of education, the form of organization of student groups);
- o sources of guidance / support from which the students benefited;
- o educational relations vertically and horizontally;
- o the students' motivation;
- o the emotional feelings of the students, correlated with the didactic activities carried out in online system;
- o the benefits and limits of the teaching activities carried out in the online environment;
- o the opportunity to carry out some course / seminar activities in online system, in the post-pandemic period.

The target group of this micro-research was made up of 45 students from the University of Valahia University of Targoviste, from the Faculty of Political Sciences, Letters and Communication, who follow the courses of the bachelor's and master's degree programs. 93% of the respondents are female and 7% male. Also, 36% of the first year, 40% are students from the second year of study, and 24% students from the final year. Regarding

the age, we can observe from the second fig. that most of the participants in our study (76%) are between 18 and 23 years old.
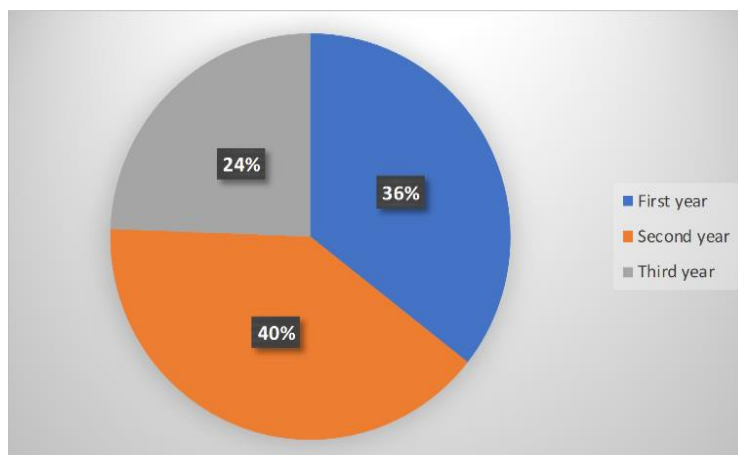
Figure no. 1. The distribution by years of study of respondents
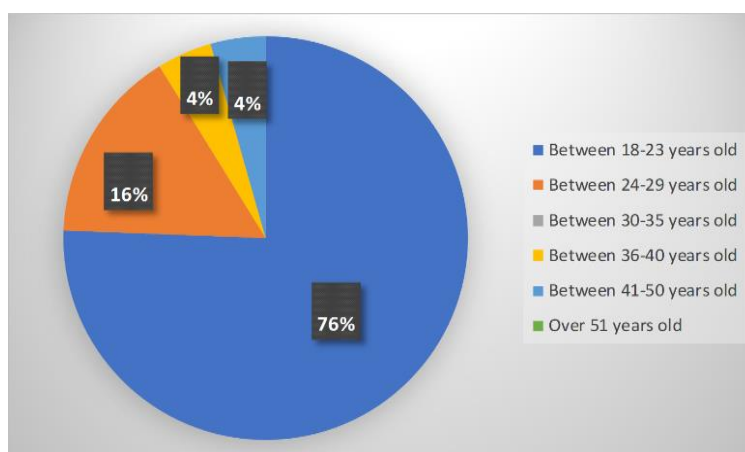
Figure no. 2. The responding students' age range
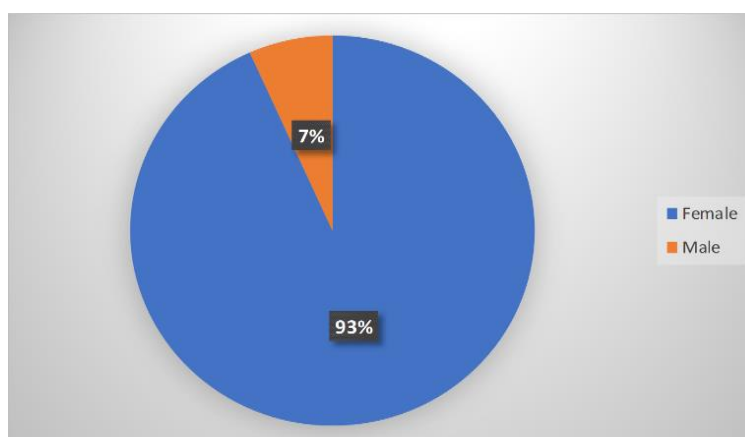
Figure no. 3. The gender of the respondents

3. RESULTS AND DISCUSSIONS

In the following paragraphs, there are presented the most important results of the micro-research, accompanied by relevant analyzes and interpretations.

One of the items of the questionnaire was to investigate the students' opinion about *the extent to which they participated in the lectures and seminars conducted online.*
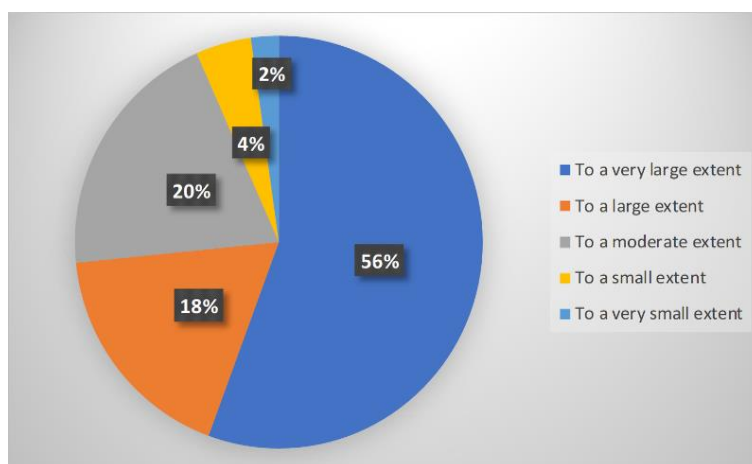
Figure no. 4. The extent to which students participated in online courses and seminars

As we can see from the figure above, 56% of students answered that they participated to a very large extent, 18% to a large extent, 20% to an appropriate extent, and 6% answered that they participated to a small or very small extent in online courses and seminars. This result leads us to the conclusion that the online environment was favorable for participation in courses and seminars among students, attendance at classes having the benefit of a positive interaction between members of the educational act and the acquisition, respectively the exercise of important skills.

Another item of the questionnaire refers to *the main sources of guidance / support / that students had during the courses / seminars online.*
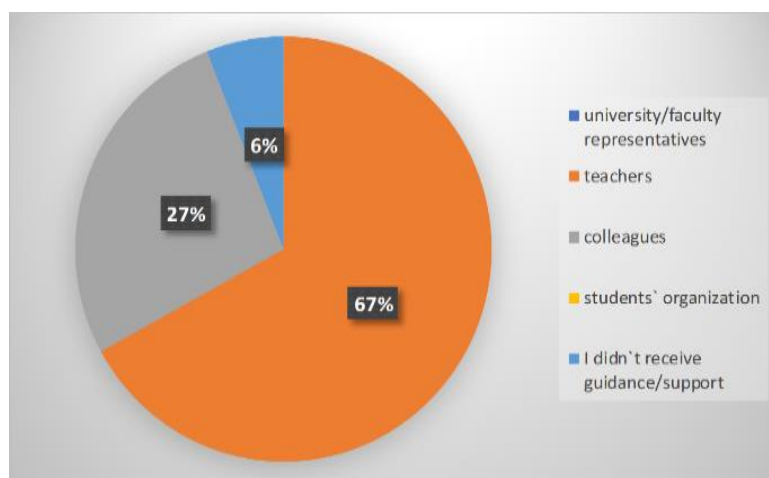
Figure no. 5. The main sources of guidance / support / that students had during the courses / seminars in the online system

67% of the students participating in the study claim that the teachers are the main source of guidance / support they had during the online school, while 27% of the students claim that the other students, group colleagues / year they provided support and guidance. The fact that a very high percentage of students, state that they have found in their teachers the main source of guidance / support demonstrates that the relationship established between the both categories of educational acts is a solid one, based on trust and is the premise for overcoming obstacles in online school.

Regarding the main sources of teaching support that students received and used most often, the answers varied, which indicates their diversity, having a positive impact on teaching.
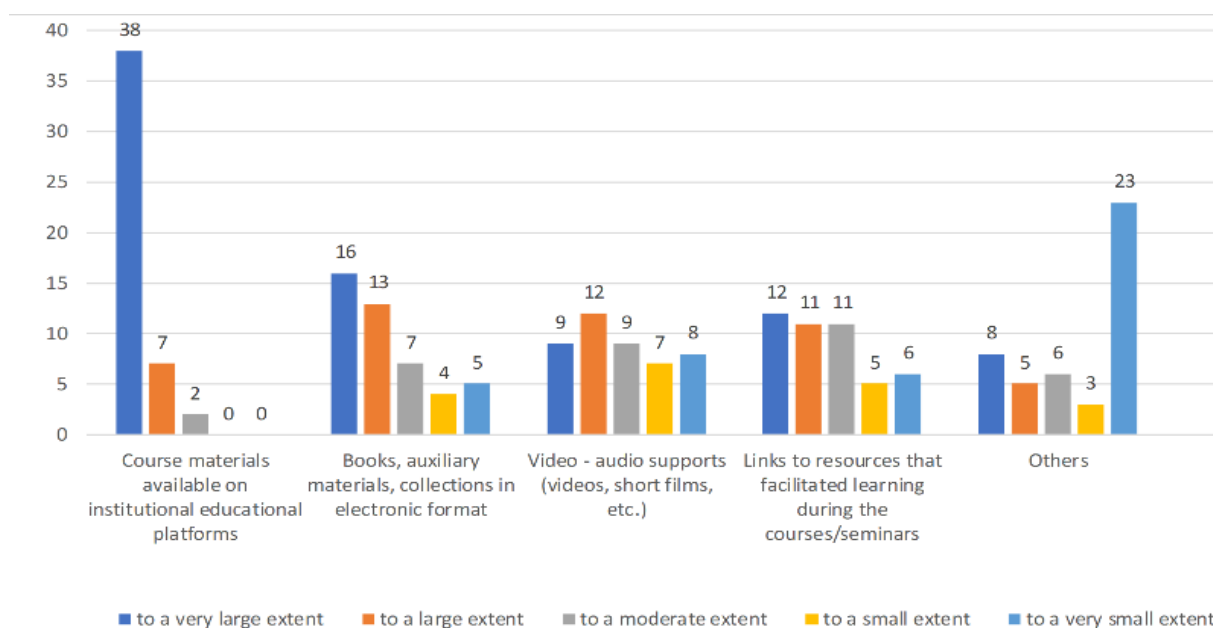
Figure no. 6. *The main sources of teaching support that students received and used most often*

The main sources of teaching support that the respondent students benefited most often are the support of information provided on institutional educational platforms, followed by links to resources rich in theoretical and applied content that facilitate student learning in seminars or lectures. This result demonstrates that the first source of information that students seek and access is the support / guide that the teacher provides on the university's educational platform.

Another item of the questionnaire was *the participation in the online activities carried out in groups, within the seminars / laboratories / lectures / extracurricular activities / workshops / conferences.*
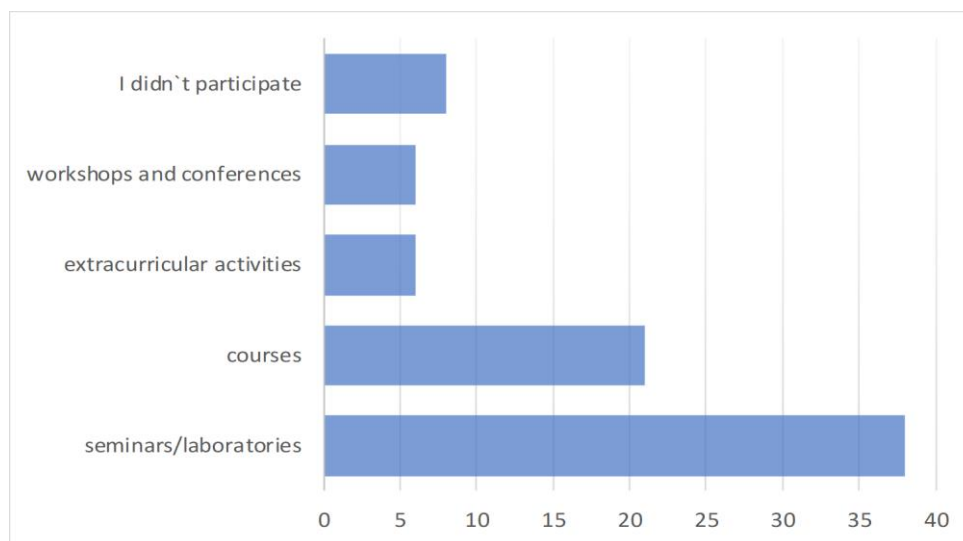
Figure no. 7. *Online activities carried out in groups within seminars / laboratories / courses / extracurricular activities / workshops / conferences*

Most of the respondents mentioned that they participated in the online activities carried out in groups, within the seminar activities, respectively in the laboratories.

Also, a good part of the educators, claims that the work in groups took place during the courses. It is necessary to mention that the ways to group the students are limited depending on the platform used. For example, in the seminar activities carried out on the Teams platform, the application allows the distribution on groups either automatically or manually, made by the teacher. In the opposite direction, the Zoom platform limits this option depending on the package - offer accessed. Moreover, platforms such as Skype are not updated with this option, so they do not allow the use as a form of organization, within the teaching strategy, of group work.

Another very important aspect that micro-research has addressed is *the main learning difficulties that students have encountered during online schooling.*
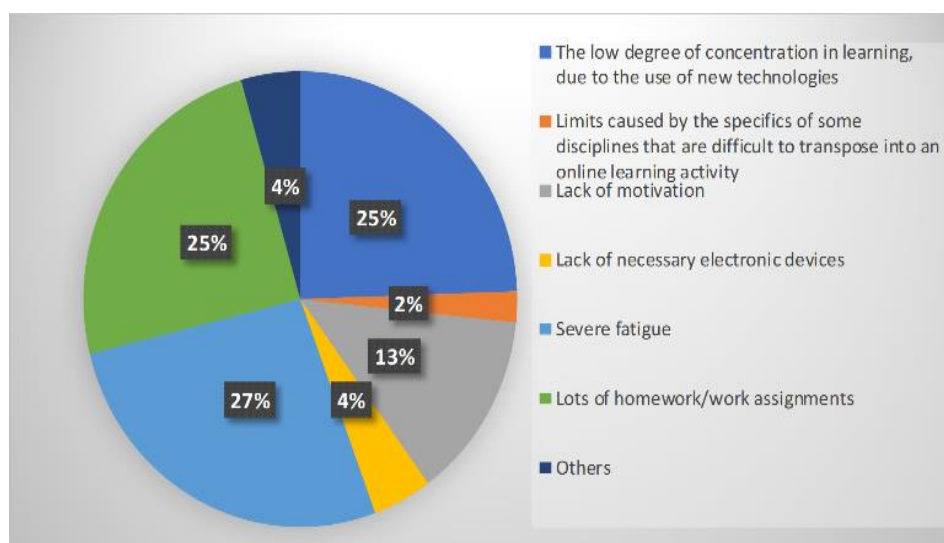
Figure no. 8. *The main learning difficulties that students encountered during online schooling*

Asked to mention the main learning difficulties they encountered during online schooling, 27% of students said that they had experienced severe fatigue. In second place in the opinions of students, with a percentage of 25%, students said that they felt a low degree of concentration in learning caused by new technologies and that they had numerous homework / work tasks. 13% of the responding students faced the lack of motivation in the educational act. We can conclude that the main factor that favored fatigue, low concentration, lack of motivation is the tool used to conduct online classes - the computer. The effects of its long-term use are well known, so they have made their presence felt among students, and on the other hand, among teachers.

Very important in the learning act is *the students' motivation during the teaching activities carried out in the online environment.*
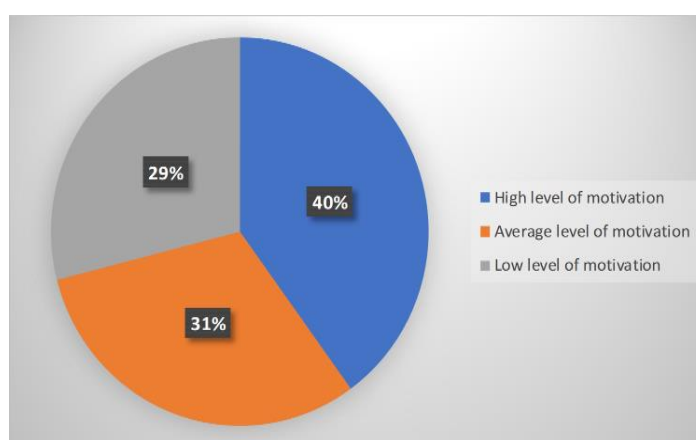
Figure no. 9. *The level of motivation of students during the teaching activities carried out in the online environment*

The diagram presented above shows that 40% of students had a high level of motivation during online schooling, while 31% had an average level of motivation and 29% had a low level of motivation. This reveals that the students' motivation was maintained for a generous period of time, thus indirectly ensuring the vertical and horizontal interaction of the participants of the educational act, and implicitly, ensuring compliance with all teaching principles.

Another item of the questionnaire focused on *the factors that influenced the students' motivation during the teaching activities in the online environment, those that contribute a lot in the instructive-educational act, generously influencing the expected results.*

Tabel no. 1. Factors that influenced students' motivation during online teaching activities

The factor	The intensity of its influence
- the pandemic situation	Very high
- a low level of concentration due to: 　o new technologies;	High

o the adaptation with difficulty to the new way of carrying out the didactic activities; o the relationship with the people involved in the educational act;	Moderate
- monotonous lectures; - the monotonous teaching activities in seminars.	A little

The statistics in Figure 10 show that students' motivation during online schooling was largely influenced by the pandemic situation, followed by the low level of concentration due to new technologies or monotonous activities. To a large extent, the motivation was influenced by the adaptation with difficulty to the new way of carrying out the didactic activities, by the relationship with the people involved in the educational act. The external factor that influenced the students' motivation to a small extent is the monotonous teaching activities. In other words, the pandemic situation has influenced not only the way in which subjects of school education normally carry out their activity, communication and interaction between them, but also has intrinsic effects, which can be accentuated (in this context, positively) by the activity of the teacher and the ability of everyone to adapt quickly and efficiently to the new conditions. At the same time, during the online school, the emotional feelings that the educators felt were different.
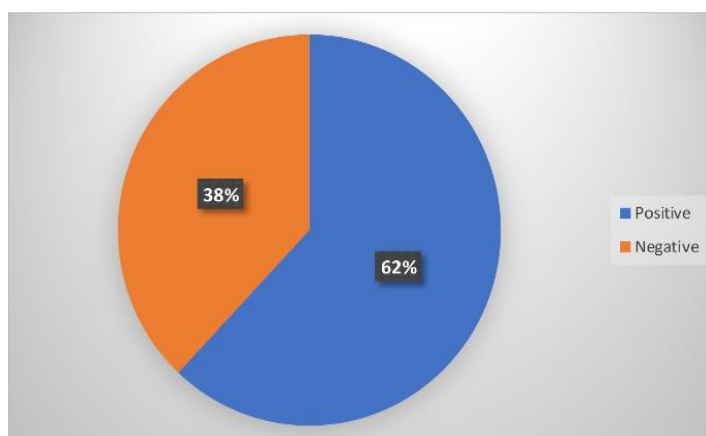
Figure no. 10. The emotional feelings that students felt in a big measure during the online school

The emotional feelings that the students felt in a share of 62% during the online school were positive, and in a share of 38% they were negative. The emotions that students and teachers experience in school are defining for their personal and professional success and lead to the systematic fulfillment of the goals of intellectual education and beyond. The fact that emotional feelings are predominantly positive strengthens the correctness, clarity and relevance of all the results analyzed above.

Factors that have hindered learning or participation in online courses play an important role in teaching and influence the conscious and lasting participation of students in instructional-educational activities.
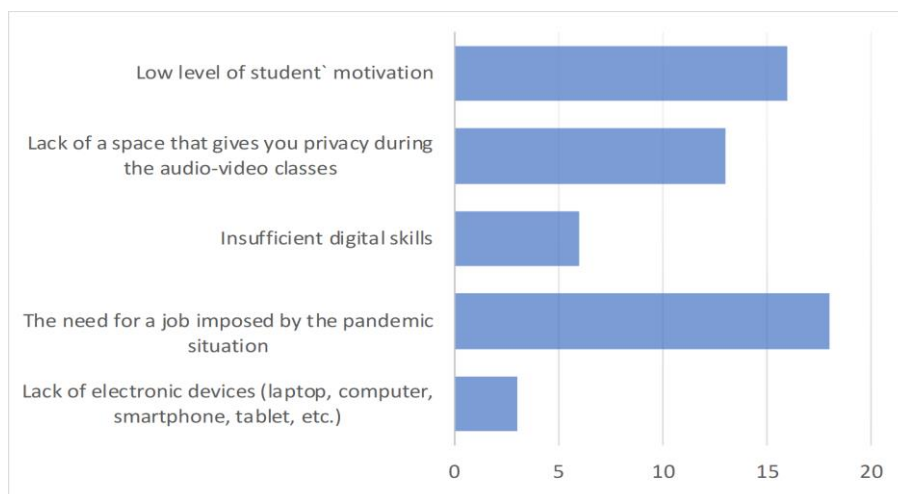
Figure no. 11. Factors that have made it difficult for students to learn or participate in online courses

A total of 18 students say that the need for a job imposed by the pandemic situation has made it more difficult to learn or participate in online courses. Sixteen students argue that their low level of motivation is the factor that has most influenced their learning and participation in courses, followed in order of frequency by factors: lack of space to provide privacy during online classes, insufficient digital skills in terms of students, and finally, the lack of electronic devices (laptop, computer, smartphone, tablet, etc.). At the academic level, there are often cases in which students work. Both online and physically, the time and activities that each student's service requires make it difficult for them to participate continuously and actively, influencing the formation and exercise of professional and transversal skills pursued by each academic discipline. As for the motivational factor, as is well known, it can be fed extrinsically and intrinsically. We can consider that the unforeseen and not at all unusual changes imposed by the pandemic were the basis for the decrease of the students' motivation to participate in the online classes and seminars.

The questionnaire also included items related to the technical difficulties encountered during the online activities.
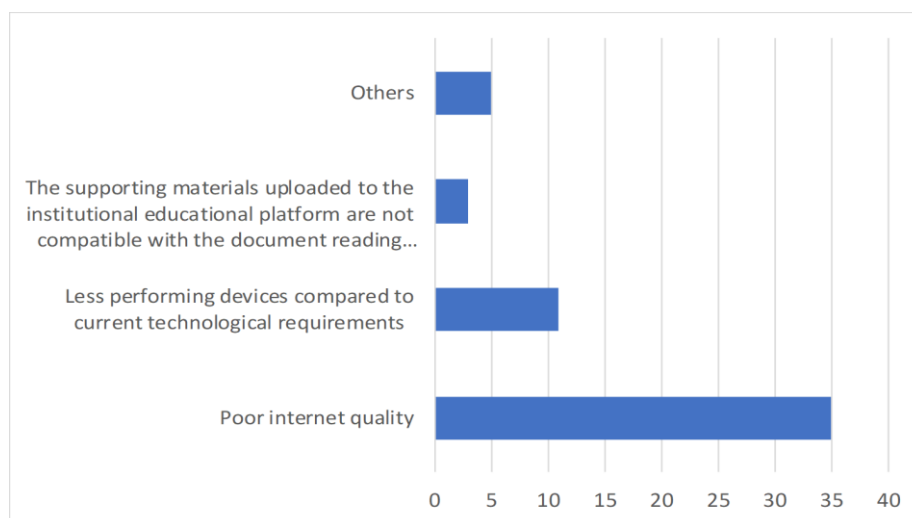
Figure no. 12. Technical difficulties encountered by students during online activities

Below are the technical difficulties encountered by students during online classes. Among them, in order of their frequency, we list: poor internet quality, less efficient device in relation to current technological requirements, support material uploaded on the educational platform incompatible with the device that the student uses. Poor internet quality is a factor that often did not depend only on the student. Given that the internet and educational platforms were used and requested by most students, this resulted in poor internet quality and difficult use of institutional platforms. From another point of view, the less performing devices or their lack can be eliminated, because the university has provided a generous number of devices to facilitate learning and participation in online classes, as well as teacher-student, student-teacher interactions.

Essential in the didactic activity is the relationship with the teachers during the development of the didactic activities in the online system. The teacher-student relationship can be a strong factor that influences the motivation of the subjects participating in the learning act.
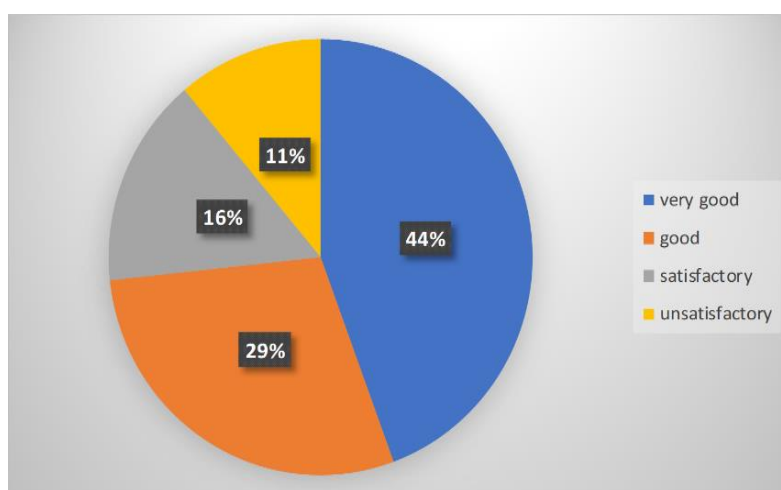
Figure no. 13. The relationship of students with teachers during the development of teaching activities in the online system

Regarding the relationship with teachers during the teaching activities in the online system, in proportion of 44%, students said that it was very good, 29% said it was good, 16% said that was satisfactory and 11% unsatisfactory. It is clear that vertical interaction is an essential and even decision-making factor in some cases for each student. The very good and good teacher-student relationship predominated, which increased the students' motivation and facilitated the efficiency of the online teaching, especially as the teacher acquires new values and roles, being a guide and support in many ways for students, but also main factor that can alleviate or eliminate any unforeseen problems that have arisen during online schooling.

Equally relevant is *the relationship with students (especially with the group colleagues, or the year ones), during the online teaching activities*.
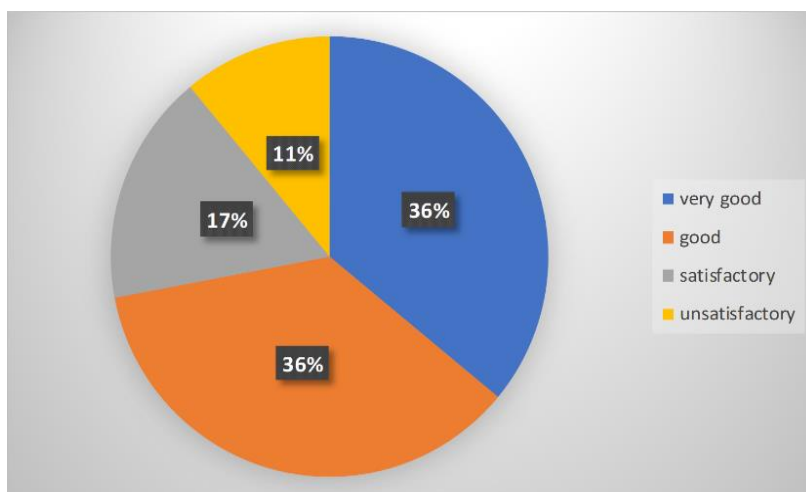
Figure no. 14. *Relationship with students (especially with the group colleagues, or the year ones), during the development of teaching activities in the online system*

From the point of view of the horizontal relationship (especially with the students in the group or in the year), in an equal percentage of 36%, the students mention that the relationship was very good and good, while 17% of them say that the relationship was unsatisfactory, with 11% remaining to claim that the relationship was not satisfactory. The relationship between students was greatly influenced by the measures of isolation and social distancing imposed by the pandemic, so for the final years the interaction between students was predominantly online, which implies a weaker establishment of emotional connection, collegiality and self-help, collaboration. In other words, for the beginner years, the student-student relationship will be better consolidated after returning to the faculty benches, creating a united team and an efficient communication that brings with it a united team. Also, the return of the first year students to the desks can be a new beginning for them. However, the students collaborated to a large extent very well, and this was due to the teachers and the predilection of the younger generations for socializing online.

The research items also targeted open-ended questions, the answers to which varied. One of these items required students *to specify at least one advantage and at least one disadvantage of online schooling*. The results obtained for this item are summarized in the table below, having as a criterion for ordering their frequency.

Table no. 2 - The benefits and limitations of online schooling

THE BENEFITS	THE LIMITATIONS
Comfort / convenience;	A lack of motivation to participate in lectures / seminars;
Development of digital skills;	A severe fatigue;
A numerous attendance at courses / seminars;	A low concentration;
A decreased transportation / dormitory	A difficult understanding of scientific content;

costs;	
Time economy;	A lack of access to technology / technical failures;
A flexible schedule;	A poor internet connection;
A harmonious merging of service with faculty;	A long time spent in front of the screen;
The possibility to participate in courses from anywhere;	Overload regarding seminar assignments / topics;
The teaching support posted on the institutional platform.	A difficult assessment of time pressure;
Improving digital writing in terms of word processing;	It simulates increased anxiety.
Attractive classes in terms of new technologies;	
Registration and participation in classes of students from several counties of the country;	
Socialization through digital means, preferred by current generations.	

From the students' perspective, the benefits of online school are, in terms of frequency: comfort and convenience, development of digital skills, numerous attendance at teaching activities, reduced transportation and dormitory costs, saving time and flexible time, flexible program in terms of merging the service with school, the possibility to participate in courses from anywhere, the teaching support posted on the Moodle institutional platform, the improvement of digital writing from the point of view of word processing, the attractive classes due to the use of new technologies, the enrollment and participation of students from several counties and the social media preferred by current generations.

Regarding the limits, the students claim that the biggest limitation is the lack of motivation to participate in courses and seminars, followed by increased fatigue, difficult understanding of scientific content, poor internet connection, overwork on seminar tasks, difficult assessment on time pressure.

An overview of table no. 1 surprises that students have found multiple advantages of the online education system, advantages that cover several perspectives: time management, space management, respectively distance, a financial perspective, a personal one (by developing digital skills), but also an educational one (related to the adaptation of classes

and seminars in the online system, the facilities of the institutional platforms, of the didactic resources).

Thus, there are the limits that refer to the student's own abilities to maintain concentration, to self-motivate and to manage his emotional feelings so that the positive ones predominate. However, there are also limitations related to the technical sphere (the internet speed, the performance of the device that the student owns).

The degree to which students have adapted to return to face-to-face teaching activities varies and it depends on the particularities of each person.
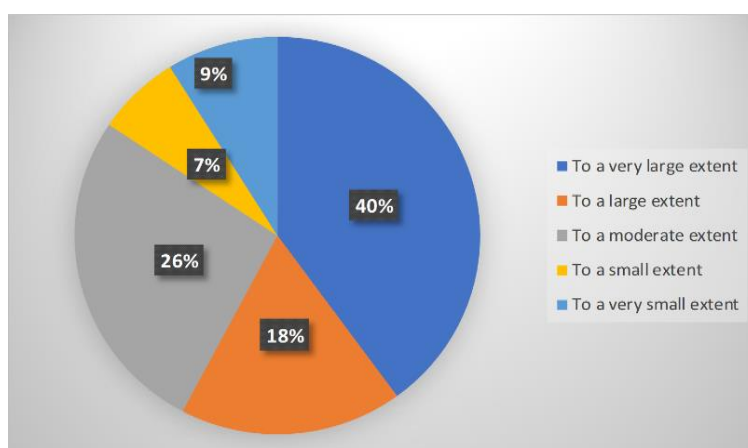
Figure no. 15. The extent to which students have adapted to return to face-to-face teaching activities

In a percentage of 40%, the students adapted to a very large extent to the return to the activities carried out face to face, 26% to a moderate extent, 18% to a large extent, 7% to a small extent, and 9% to a very small extent. It is found that the return to the face-to-face system enjoys a significant percentage (84%) of students who have adapted to a moderate extent, large and very large. The return to "normal" is embraced by most students, highlighting the natural need for a complete socio-affective climate, with face-to-face interaction. Moreover, the activities carried out in the physical system are known by the subjects, so that the need to participate in teaching activities carried out in an official setting, in an educational institution is pronounced, which is evident from the results presented. Although the online school as a whole had a positive impact among the target group, the school physically „runs" in full conditions and norms of the educational system is the one that prevails in the preferences of students, given the large number of respondents who claim to have adapted very quickly to what most people call "normality."

Another item of the questionnaire refers to *the students' opinion regarding the further development of the course or seminar activities in the online system, even if the pandemic situation no longer requires it.*
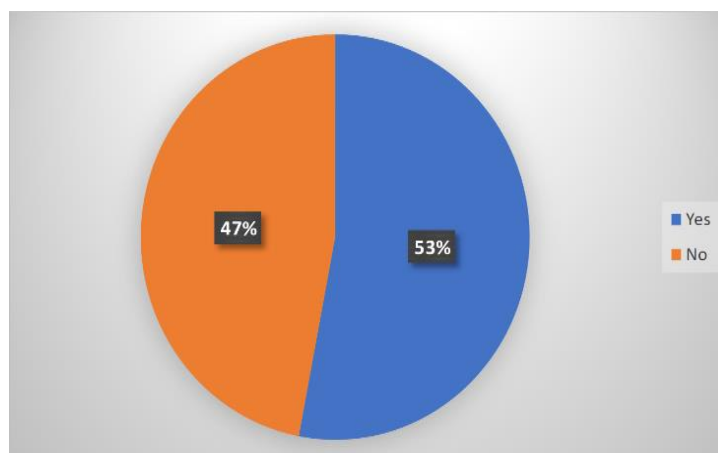
Figure no. 16. *The students' opinion regarding the opportunity to continue conducting the lecture or seminar activities online, even if the pandemic situation no longer requires it*

The opinion of the students regarding the opportunity to carry out some lectures or seminar activities online, even if the pandemic situation no longer requires it is 53% in against and 47% favor this fact, therefore, the school physics takes precedence among students' wishes. The opinion of the majority is noticeable, this being pro-physical school if the pandemic environment does not require it. However, the difference of 6% between the two opinions of the students demonstrates their ability and flexibility to adapt to all events and changes that occurred "overnight".

So, referring to the expressed needs of students on this issue, a possible change at the university level is not to be neglected, „by promoting an innovative teaching approach, based on a mixed format, in which direct activities, of rigorous guidance and directing of learning, to alternate with those that offer a high degree of independence and autonomy to students, being mediated by ICT" (Drăghicescu & Stăncescu, 2021, p.70).

CONCLUSIONS

Considering the results presented and analyzed previously corroborated with the study of the literature, we can formulate the following ideas with conclusive value.

The online environment stimulates the teacher to carry out the activity in various ways by using various means of education, which maintain the interest, curiosity and increase the extrinsic motivation and the student's involvement in teaching.

Most of the students prefer physical classes because socialization with teachers and colleagues is increased, the assessment is conducted in objective conditions, known to all, the concentration and motivation are increased, and the teaching process is no longer disrupted by poor internet connection;

A consequence of the current pandemic crisis is that the interaction, the communication between the members of the educational act is deficient, which influences other aspects of the social being, respectively of the institutionalized education.

Therefore, after two and a half years of pandemic, although the conditions were harsh, it is found that the instructive-educational activities were carried out in an optimal manner, being rich in seminar tasks designed to strengthen the theoretical content, educational platforms were used and digital means of education. Also, for today's students, online learning has become a common education option.

Moreover, the online school has shown that both teachers and students have created a mechanism that worked even when resources were minimal or the crisis situation took us by surprise, forcing us to adapt overnight to a new reality of the surrounding and educational world.

Well-being and balance are fundamental to a harmonious teacher-student relationship, and last but not least, students report that work tasks and homework are more numerous in the online environment, and this is due to the teacher's tendency to monitor student progress and ensure that he is well prepared for summative assessment through lifelong learning.

The use of digital resources in the act of learning is perceived positively by students, because media tools are not foreign to the current generation.

All these challenges have been fully realized in successes, such as: quick access to information, cultivating predominantly positive emotional feelings, socializing online as a favorite act of the new generations, acquiring digital and linguistic skills required by technical devices, adapting to success in the online system and capitalization of teaching materials through educational platforms.

In conclusion, the online school demonstrated that both teachers and students created a mechanism that worked even when resources were minimal or the crisis situation took us by surprise, forcing us to adapt overnight to a new one. realities of the surrounding world and education. Well-being and balance are fundamental to a harmonious teacher-student relationship (Szekely, 2020, p. 64).

In the whirlwind of adaptation to the new context, this perfect aspect has been transferred to the background, with alignment, recommendations following reports being paramount. Thus, the student's well-being is in fact the key to a successful quality teaching activity.

In order to carry out lectures and seminar activities in the online system, both teachers and students had to use platforms dedicated to the educational act, such as: Moodle platform, e-learning, Google Classroom, but also a multitude of applications meant to facilitate the communication and presentation of theoretical content, such as: Zoom, Microsoft Teams, Skype, Google Meet. On the other hand, the teaching aids used were mostly digital (e-books; educational sites - e-learning, Mentimeter, Mindmaps; audio-video videos).

All those aspects contribute to the motivation of students and offer the possibility to work in teams / groups, which increases the cohesion of the group of students and promotes interpersonal interaction.

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THE POSSIBLE IMPACTS OF COVID 19 IN A DEVELOPING CONTEXT

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ABSTRACT

This paper sought to reveal the impact of Coronavirus in the developing environment. The study, from which this paper is derived, was informed by a qualitative approach using a case study design. The study also used interviews complemented by focus group discussions as data collection methods. The study comprised 22 participants who remained anonymous and the researcher used pseudonyms on the names of the participants, furthermore, the researcher gave an emphasis on the history on how Coronavirus entered in this country and where it started. Also, the research paper will address how people became impoverished during this Covid-19 pandemic era. Moreover the research also revealed how the pandemic relates to people's lives. This paper revealed the following thematic findings: The impact of Covid-19 on communities and livelihoods, the use of the development framework and assets-based community development. Furthermore, this paper employed a pastoral care approach as a theoretical or conceptual framework and will be made the recommendations.

Keywords: *Coronavirus; The impact of Covid-19; community development; the educational relationships*;

INTRODUCTION

The focus of this reflection paper will be on the impact of Covid-19 in a development environment. It will briefly address the Corona Virus's influence on health, education, and the socio-economic environment. This research will attempt to focus on the virus's influence in relation to three community development frameworks: global crises, the deprivation trap, and Assets Based Community Development.

1. THEORETICAL FRAMEWORK

This paper sought to use the Gerkin's shepherding model on pastoral care as the theoretical framework in which the research use as lenses for the impact of Covid-19 in a developing context. This theory or method was deemed apt for this research as it is relies on a triangular shape in its function. Gerkin's (1997: 23) biblical traditional method of shepherding involves the trialogical structure of priests, prophets, wise men and women and is based on an understanding of the way in which these individuals collectively took authority in shepherding God's people in the Old Testament.

Gerkin's approach focuses both on individual and family needs. He points out that pastoral care involves both the care of the Christian community and the care of persons:

individually, in families, and in large group relationship (1997: 113). This is in contrast to the psychotherapeutic pastoral care model common in America and Western pastoral care. Gerkin's approach to pastoral care has been advanced by many African scholars. For example, Tapiwa Mucherera argued that therapy or counselling, as taught in the West, will not always suffice in indigenous contexts since these theories tend to promote and focus on individuality, autonomy and independence (2009: ix).

2. RESEARCH METHODOLOGY

The researcher used one of three types of research approaches, which is the qualitative research method. Researchers skilled in the use of quantitative research methods/designs face challenges when called upon to use or teach qualitative research (Stallings, 1995: 31-32).

Qualitative research entails a generic approach to research where the research takes as its exit point, the insider's perspective on action (Babbie, 2010: 229). Quantitative research, on the other hand, entails specifically measuring variables and testing hypotheses linked to general informal explanations (Mouton, 2008: 70). The mixed research method combines qualitative and quantitative research methods (Corbin 2008: 50).

Researchers have long debated the comparative value of qualitative and quantitative inquiry (Patton, 1990: 1189). Qualitative research uses a naturalistic approach that seeks to understand phenomenon in context-specific settings (Patton, 1990: 1190 a).

The quantitative research approach is crucial in the evaluation of the impact of a programme. In the qualitative approach, one collects numerous forms of data and examines them from various angles to construct a rich and important picture of a complex situation. The qualitative component of the research which involves re-telling and analysing data from members that are interviewed is helpful because it is, in fact, these people who gave the researcher an opportunity to examine strong features of Practical Theology especially on the Pastoral Care approach in the context of people's life experience during Coronavirus pandemic era. The research opines that the qualitative research method on this paper will give think and dense information on how he is researching. Therefore the qualitative research method is selected as the research methodology for this paper.

3. HISTORICAL BACKGROUND

The Coronavirus (COVID-19) is a new lung illness found during an epidemic investigation in Wuhan, China, but has since spread to other parts of the world, including the United States. The idea of an airborne virus that may be spread from one person to another and end in death was unheard of until a tone of dread and anguish, death and misery could be heard from the city of Wuhan in China's Hubei Province.

It was in December 2019 that the world became aware of a deadly sickness, Corona Virus, when individuals became afflicted and died in Wuhan as a result of the disease. At first, the world assumed that this was a Chinese problem. As people died and disease spread, the world remembered that China had experienced the predominance of SARS (Severe Acute Respiratory Syndrome) between 2002 and 2004. (Gwaxaza 2020: 13)

As infections and deaths rose, the illness began to spread across China. As more and more patients were turned away from hospitals, the infrastructural problems became clear. China had made advances to prevent the spread, but the expanding tourist business provided a challenge, as many people from all over the world had travelled to China for the Chinese

New Year, one of the most important calendar events in the Chinese tourism industry. As the illness progressed from epidemic to pandemic, the event provided a chance for it to spread to other regions of the world. The virus swept around the world in less than three months and was labelled a worldwide pandemic by the World Health Organization (WHO) on 11th of March, 2020. (Gwaxaza 2020: 13)

People are thought to be most infectious when they are ill; however, recent research suggests that COVID-19 can be transmitted by individuals who are ill but do not display symptoms. Coronavirus proved that everyone is a potential victim, regardless of race, colour, gender, or financial status. People who tested positive for the coronavirus were isolated and treated for their symptoms. The 14-day quarantine was designed to show that the virus's spread could be controlled. (Gwaxaza 2020: 14-15)

The virus may also persist for extended periods of time on some surfaces, making it possible for people to develop COVID-19 if they come into contact with contaminated material and then touch their mouth, nose, or eyes. As a result, it is important to take preventative steps to avoid being unwell. So far, the ongoing epidemic has severely damaged the world's most industrialized countries and poses a serious threat to low- and middle-income countries.

The present COVID-19 epidemic has the potential to have a significant impact on Africa's poorest, who are the most vulnerable to infectious diseases. However, the number of cases continues to rise globally, posing a serious threat to public health.

COVID-19 is causing havoc on a number of countries throughout the world, with Africa being the most recently affected. Africa, on the other hand, is expected to be the most vulnerable continent, with the development of COVID-19 having a substantial influence (Moore, Gelfeld, Okunogbe, 2020). The event gave an opportunity for the sickness to spread to other parts of the world as it moved from epidemic to pandemic. According to Gwaxaza (2020: 14), the virus began spreading to Europe, with three confirmed cases in France and the United Kingdom investigating suspected cases.

The officers were entrusted with locating around 2000 people who were alleged to have flown from Hubei to Britain. Surprisingly, the most of COVID-19 cases in Africa have been reported to have been imported from Europe and the United States, rather than China, the original COVID-19 centre (Ruth, 2020).

Precautionary methods include social isolation, isolation and quarantine, communal imprisonment, national lockdowns, and travel restrictions. So far, these measures have helped to limit and reduce COVID-19 spread, but they have also had a negative influence on the world economy, driving nations into recession (Counterpoint 2020). South Africa's economy is already in trouble, and the COVID-19 throws the country even deeper into a slump, increasing the problem.

Coronavirus has become a worldwide monster, and South Africa's President has been obliged to take drastic measures to stop the virus's spread. The country was also placed under lockdown, with residents instructed to remain indoors; all business, school, and non-essential functions were suspended, with the exception of crucial services. "The goal of the shutdown was to prevent the disease from spreading" (Gwaxaza 2020: 14).

4. RESULTS AND DISCUSSIONS

Data Analysis
Table 1 Demographic information for the Respondents

Pseudonyms	Age	Gender	Marital Status	Level of Education	Socio-economic Status
Mathebula	45	Male	Married	Tertiary	Employed
Malungi	46	Male	Single	Tertiary	Employed
Matyata	26	Male	Single	Tertiary	Employed
Langa	60	Male	Married	Tertiary	Employed
Zoleka	61	Female	Widow	Secondary	Pensioner
Zolisani	47	Male	Married	Tertiary	Employed
Simamkele	35	Female	Single	Secondary	Unemployed
Zondeka	29	Male	Single	Primary	Self-employed
Sinenhlanha	37	Female	Married	Secondary	Employed
Nosisa	55	Female	Widow	Primary	Unemployed
Avumile	18	Male	Single	Secondary	Unemployed
Achuma	18	Male	Single	Secondary	Unemployed
Sikhona	17	Female	Single	Secondary	Unemployed
Zingce	16	Male	Single	Secondary	Unemployed
Elethu	18	Female	Single	Primary	Unemployed
Nonjabulo	16	Female	Single	Secondary	Unemployed
Naledi	17	Female	Single	Primary	Unemployed
Ezethu	17	Female	Single	Primary	Unemployed
Sonke	18	Female	Single	Secondary	Unemployed
Sinako	16	Female	Single	Secondary	Unemployed
Olona	16	Female	Single	Secondary	Unemployed
Sisonke	18	Female	Single	Primary	Unemployed

Study findings

Theme & Sub-theme No.	Theme description
1.	The impact of Covid-19 on communities and livelihoods
2.	The use of the development framework
3.	Assets based community development

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5. THE IMPACT OF COVID-19 ON COMMUNITIES AND LIVELIHOODS

South Africa was on the edge of a main socio-economic disaster as a result of the COVID-19 epidemic. In a country where around 18% of the population already lives below the poverty line, the extent to which COVID-19 has escalated the poverty issue is still developing. To control the spread of the epidemic, a countrywide lockdown was imposed in April 2020. This had a negative impact on the South African economy, which was already in a fall. Not alone is the COVID-19 pandemic causing havoc in the country; a developing poverty epidemic is also posing new problems. (Teressi. N.d.)

Covid-19 has prompted extended shutdowns and increased the economic consequences of the pandemic, raising current estimates of extreme poverty in South Africa. Because low-income employees are more likely to lose their jobs as a result of COVID-19, low- and middle-income communities have been hit the hardest by extreme poverty. The impact of COVID-19 on extreme poverty in South Africa (Mahler, Laknerr, Aguilar, & Wu,

2020). Poverty and inequality in the social development sector have increased in the context of COVID-19. The World Bank has performed a series of analyses and studies on the impact of COVID-19 on global extreme poverty, the most recent of which was in June 2019 (Mahler, Laknerr, Aguilar, & Wu, 2021). This tragedy has led in a food security dilemma in the surrounding area. Some personnel were employed on a contract basis at work; however, as a result of the outbreak, the contracts are no longer in force. Time poverty is frequently more severe than money poverty, because the poor in any society have insecure frameworks within which to live and work, surviving from day to day or week to week, with little time or energy to prepare for and invest in their own, their families, or their community's future (Mullainathan, & Shafir, 2013). Many companies that were forced to close due to the lockdown were unable to reopen, leaving millions of breadwinners without a source of income.

The coronavirus has compelled them to devote more time to their families. On the other hand, it has led many families to go through the anguish of removing the parents and abandoning the children. Because both parents are no longer there, some children assume responsibility for household management. Poverty, unemployment, loss of livelihoods, and gender-based violence are some of the negative effects, suggesting that there is a significant deprivation trap, which is still a huge problem that we may face in the future. As a result of the corona virus outbreak, worldwide poverty has grown. Covid-19 has had a significant impact on communities, daily lives, and livelihoods in developing countries.

The pandemic might have three main effects on family food security. The first is that the food supply chain looks to be reasonably steady; the second is a decline in food purchasing power and job opportunities. Food instability and nutritional insufficiency are pandemic concerns on the rise, posing a threat to the South African diet's protection, particularly for vulnerable immigrant groups. School closures may have increased the number of meals that parents had to prepare at home when they would otherwise have depended on food programs. Meanwhile, many African immigrant women work as domestic servants and may get one or more meals each day at the homes of their customers. Because of the socio-economic situation, many food sources are no longer available (Teressi, N.d.).

The International Labour Organization anticipated worldwide employment losses of around 305 million in April 2020, with an estimated 1.6 billion jobs in jeopardy for the "most vulnerable within the labour market." According to Simone Schotte of the Chronic Poverty Advisory Network, the pandemic's shock will not be transitory. The pandemic's long-term impacts considerably burden the function of job acquisition within the South African economy, which Schotte contends may be a major issue in upward mobility for those attempting to escape poverty. (Teressi, N.d.)

The South African government's underestimate of the cruelty and validity of COVID19 led in a weak pandemic response strategy and a delayed response. Since the World Health Organization designated COVID19 an infectious illness, preventative and timely intervention has been substantially enhanced universally. To minimize the impact of COVID19, South African authorities implemented lockdown limitations in the form of physical distance, self-isolation, and shutdown of non-essential services, schools, travel restrictions, and recursive national lockdowns. (Teressi, N.d.)

The South African health system is struggling and under enormous strain as a result of a lack of personal protective equipment (PPE), rising death rates, status issues, abuse, and the return of Non-Communicable Diseases. International border closures, a worldwide demand breakdown, supply interruptions, and a severe reduction in human and industrial

activity during the lockdown all contributed to socio-economic difficulties. The continuous effects and impact of the lockdown on psychosocial support and non-physiological assistance resulted in outbursts of uncertainty, acute panic, fear, depression, obsessive behaviour's, social unrests, stigmatization, anxiety, increased cases of gender-based violence, and discrimination in the distribution of relief food aid. (Mbunge, 2020)

6. THE USE OF THE DEVELOPMENT FRAMEWORK

David Korten introduced us to the notion of threefold global crisis, which proved to be quite beneficial. This framework suggests ways to give support for everything; it is a supporting structure; it is a structural framework. We've reached a moment in time where the community is worried about the Covid19. The David Korten framework has assisted us in gaining a better understanding of the circumstance we are in. The impact of what mankind has done through processes centred on economic development and expansion, as well as wealth generation and manufacturing, has placed a significant load on the Earth. This mental condition has nothing to do with the proper and sustainable management of the environment in order for natural regeneration to occur. Profits and power are at the centre of all development attempts that culminate in a three-fold global crisis. These include an alarming rise in poverty, social disintegration, and ecological degradation. (Korten, D. 2001)

This paradigm assists us in comprehending the devastation caused by Covid19 to the community. The community is having a tough time dealing with this issue. Covid19 has introduced fear into the lives of the community, and it is impacting individuals all over the world. The devastation inflicted by this epidemic is immense in terms of the community's ability to cope. One of the most serious repercussions of the pandemic is poverty. Unable to go to work meant no income for many workers and their families. (Mbuge, 2020). A large number of companies that were closed due to lockdown were not able to re-open, leaving millions of breadwinners without a source of livelihood.

Korten framework addresses two types of poverty which is absolute and relative poverty. Covid19 is a contributing factor of poverty in our society nowadays. Covid19 has brought doubts to many people about their workers' salaries, position, and working conditions whether will be improved after the COVID-19 crisis has passed. The vast inequities that such circumstances highlight have had a negative impact on society, weakening trust, raising anxiety and sickness, and encouraging excessive consumerism. It is apparent that in more unequal nations, whether wealthy or poor, results are considerably poorer across a wide variety of health and social problems like crime, violence, GBV, parent death, and child well-being. (Wilkinson, 2009)

Social cohesiveness and communal life as we know it have to be addressed differently or entirely transformed. Poverty is at the foundation of some of Covid-19's negative consequences, particularly for women and children in our societies, who experience higher levels of marginalization. According to De Beer and Swanepoel (2016), women and children feel intimidated by the males on whom they rely for a living. As seen in the deprivation trap, there are five clusters of disadvantage connected with poverty. Poverty, Physical Weakness, Isolation, Vulnerability, and Powerlessness are examples of these.

Poverty and inequality are highly complex and multi-dimensional, typically resulting in multiple forms of deprivation, including the concept of relative poverty, which leads to exclusion from the mainstream and inability to participate in normal community/locality activities, even in developed countries. Because they are living hand to mouth, the family is vulnerable. Job loss increases the risk of not being able to support

oneself. Families are vulnerable to exploitation by the affluent because they lack political clout to influence laws in their favour. They are deeply reviled in their society (De Beer and Swanepoel, 2016).

7. ASSETS BASED COMMUNITY DEVELOPMENT

As a church, we must prioritize empowerment and community development. The world is facing a Covid19 problem; what can we do to help people grasp the situation? Rather of focusing on the problem and requirements, the ABCD framework is used to apply viable solutions that will push the community out of the dilemma. Covid19 and poverty are long-term issues that will affect our community indefinitely. The ABCD framework will help us identify the problem, but first we must follow the procedures outlined below.

Collection stories
Organising a core group
Mapping the capacities and assets of individual association and local institution
Building a community vision and plan
Mobilising and linking assets for economic development
Leverage activities, investment and resources from the outside of the community.

This framework must instil confidence in people's abilities and motivate them to take action. To solve the issue of unemployment, we should all work together as a community to assist the unemployed in finding work. Too many social and economic programs address poverty and inequality by focusing exclusively on increasing the poor's "agency" through training and so-called "empowerment," rather than tackling the fundamental reasons that impede the poor from making the most of their own efforts. Technology must be carefully integrated into both conventional and creative activities in order to support current and enable new kinds of social development (Millard, 2017).

CONCLUSION AND RECOMMENDATIONS

The addressed the impact of Covid-19 in a development environment. The paper also discussed the Corona Virus's influences on health, education, and the socio-economic environment. This paper attempted to focus on the virus's influences in relation to three community development frameworks: global crises, the deprivation trap, and Assets Based Community Development. Those frameworks helped to analyse the insights of the respondents that were interviewed as Covid19 contributed a lot in disadvantaging us. We have learned many things during the lock down and experienced bad and good thing in that process. We are still learning even now, the Covid19 taught us to love each other while we living because it takes few minutes for a person to die.

The researcher recommends that people should observe the Covid19 restriction and be serious on them for the safety of their lives. People must take care of the gift of life because it takes seconds to die in these days. We as South African people we need to work hard in fighting against the immoral and unethical acts that has been done by government stewards during this period. The Church have a huge responsibility of encouraging people to go back to God and the Church should come up with strategies to give people courage of fear and anxiety that they have in a process.

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LEARNING AND ASSESSMENT IN ONLINE ENVIRONMENT. A PEDAGOGICAL DIALECTIC

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ABSTRACT

In a traditional, classical approach, learning can be perceived as a continuous, logical and reasoned progress on a well-defined topic. It is obvious that learning through digital technology has a different aspect, mainly using technical support, focusing on shared learning, but also on cooperation between teacher and student.
Keywords: *learning assessment; online; technology; pedagogy*;

INTRODUCTION

The rapid development of communication and information technologies and implicitly the progress towards an information and knowledge society have generated changes that have an indisputable reflection in the educational area. With the evolution of technology there has been an explosion of interest and controversy about distance education, driven by the potential applications of computer-based interactive technology, which is often viewed as a new field of study. However, technology, new or old, is only one part of the distance learning system, and a relatively simple part compared to the pedagogical, organizational and content development components.

This article addresses the valorization of teachers' opinions regarding various curricular dimensions of learning and assessment in the alternative space (hybrid and online). Some of the arguments that confirm the actuality, implicitly the necessity of this topic, consist in the identification of the advantages and opportunities that online training offers, the analysis of the main educational challenges in the implementation of learning and evaluation contents in the alternative environment, the need to develop digital skills, the identification of didactic methods, strategies of assessment used by teachers in order to capitalize on school success in the alternative space, as well as validating the difficulties teachers face in this environment.

Teaching staff are practically forced to find the most suitable form of carrying out the activities, so as to transform the material taught in the traditional environment, into contents that can be accessed, posted, in other words, used via the Internet, not only by merging the characteristics of the two learning environments, traditional and online, because simply including both does not necessarily create a successful learning environment. Obviously, the learning process that takes place online is student-centered. This environment will inevitably give rise to discussions about the difference between this type of learning and traditional learning. For some this is an inconvenient, for others it opens up new perspectives. The specialized literature offers an overall perspective that the alternative environment highlights about learning activities, respectively evaluation.

Most researchers who have looked into online teaching-learning, however, appreciate that no form of technology, however cleverly or sophisticatedly designed, has the

capacity, by itself and in itself, to change existing practices but it actually motivates the possibility of creating an advanced form of practice through a multilateral design (expertise, theories, etc.), a design aimed at the curriculum (pedagogical and didactic design), resources (information and communication sciences), participatory structures (interaction) and the surrounding space.

The term online learning (or as it is often referred to, "distance learning") includes a number of computer-assisted instructional methods. Two approaches to online learning have emerged: synchronous and asynchronous learning. Synchronous learning is training and collaboration in real time, via the Internet; it usually involves tools such as: live chat, audio and video conferencing, data and application sharing, shared whiteboard, virtual hand raising, joint viewing of multimedia presentations. Asynchronous learning methods use the delayed functions of the Internet; usually involves tools such as: email, information groups, attached files, etc. The terminology specific to technology-related school performance assessment is quite varied in the specialized literature: electronic assessment, technology-enriched assessment, digital assessment, online assessment, computerized assessment, computer-aided assessment, web assessment, e-assessment. Such terms do not indicate a fundamental transformation of the scope of assessment through the use of technology. The specialized literature does not suggest completely new evaluation methods and tools for the online environment, but certain innovative solutions adapted to technology.

1. FROM TRADITIONAL TO ONLINE. BRIEF HISTORICAL PERSPECTIVE ON ASSESSMENT

An objective verification of the specialized literature allows the outline of a complex course of evaluation. Constantin Cucoș (2002, p. 367) proposes a distribution of theories on evaluation in three major periods: the first, with its beginning since the end of the 19th century, is called the test period and refers to the replacement of subjective, individual and random assessment, with objective, standardized tests; the second stage, the measurement period, which begins in 1910, continues to perfect the test batteries and the evaluation period, which begins in 1930 and is under the desirability of broadening perspectives, more precisely the analysis of scoring modes, its variability, subjective factors and objectives that have an influence on grading, as well as the identification of means likely to ensure the objectivity of the evaluation process.

In terms of how technology has influenced school assessment, distinct stages can be identified. It seems that the first uses of the computer in learning activities are marked in the year 1950, when the first simple computers allowed solving games and puzzles. Although the computers of the 1960s and 1970s were not very powerful, several specialists in the field sensed the potential of using computers as learning and assessment tools. Computerized classroom testing systems have been developed and studied since the 1970s. These emphasized the use of computers to create and administer assessments that could be used during the school year as an additional assessment tool. Computers virtually generated different sets of questions using items drawn from item banks developed by specialists, with the ability to provide immediate feedback to students in the form of total scores. Such tests were used by teachers and researchers from the 1970s until the 1990s with the aim of measuring knowledge based on students' correct or incorrect answers to questions (Shute & Rahimi, 2017, pp. 3-4).

Although the use of computer technologies has been a feature of innovation in assessment for several decades, early applications of the technology focused primarily on its large-scale use of tests aimed at improving efficiency and reducing costs.

In the late 1990s, researchers began using computers to assess complex cognitive skills such as problem solving. Over the past two decades, advances in educational science and technology have influenced new thinking and practices related to assessment and learning.

Alison Oldfield, Patricia Broadfoot, Rosamund Sutherland and Sue Timmis (2012, pp. 11-12) list the possible advantages that technology can bring to assessment:

➢ Providing immediate feedback: providing real-time feedback that quickly diagnoses and reduces misconceptions; can lead to improved assessment experience and increased student engagement.

➢ Increasing student autonomy and self-regulation: supporting personalized responses, facilitating self-evaluative and self-regulated learning, better tracking of progress towards learning outcomes and reflection on achievements.

➢ Supporting collaborative learning: providing the possibility of peer assessment, carrying out and tracking knowledge building and sharing activities, co-assessment and social interaction.

➢ Providing authenticity: could present challenging problems and ways to assess complex skills such as problem solving, decision making and hypothesis testing.

➢ A wider range of measurement: Through the ability to create and visualize complex data sets and models that take into account multiple factors, digital technologies can elicit and measure knowledge sets and cognitive processes that were previously difficult to assess.

➢ Flexible and appropriate responses: Digital tools such as simulations offer more modalities and could provide more accessible assessment compared to text-based tests for students with varied learning styles. Regular feedback can also make students feel less anonymous and get them more engaged in their learning. These possibilities may challenge traditional assessment methods and require a rethinking of old practices.

➢ Increasing efficiency and reducing teachers' workload: improves the efficiency of data management such as marking, moderating and storing information, helping teachers to better manage their time and resources.

➢ Improving student performance: evaluations show that e-feedback can improve student performance while also leading to better student engagement.

➢ Integrating formative and summative assessments: Summative assessments tend to be retrospective in that they test previously acquired knowledge without leaving an opportunity for ongoing learning. Digital technologies can integrate assessment and instruction, such as immersive learning environments or programs that monitor how students solve problems on the computer and provide immediate feedback.

➢ Improving the validity and reliability of the assessment.

Some of the assessments used in the online learning environment are conducted asynchronously, where the assessment is completed late, outside of the presence of a teacher, while synchronous assessments can take different forms, from traditional examinations of written assignments to case studies, research projects and multiple-choice exams, to alternative measures such as portfolios, journals, etc. Synchronous assessment models also play an important role in legitimizing the distance education process, as cheating is

minimized and the teacher has continuous management of the testing environment; these models include any form of testing where the teacher and students interact in real time during the assessment. Like any notion intended to express a reality from a field of human reflection and practice, evaluation imposes itself as a challenge for the analytical approach of specialists in the educational field, especially in the current context. Thus, over time there have been marked shifts from a culture of testing to a culture of multiple assessments, from focusing on single behavioral or cognitive attributes to including multiple dimensions of intelligence, from simple measures to incorporating complex measures continuously, from exclusive individual assessment, to whole group assessment, from paper and pencil to authentic assessments.

The recent evolution of school evaluative practices has focused around the following core ideas: the triumph of cognitivism over behaviorism, the co-responsibility of the student in the evaluative process and the introduction of the metacognitive perspective in the evaluative process (Petre, 2014, pp. 21-22). The constructivist view of learning, according to which no matter how hard the teacher tries to convey knowledge through elegant and careful design of the activity, draws attention to the fact that learning remains a personal process managed by students. Therefore, the centrality of the student's role is obvious, and his status as a learning manager imposes him as an equal partner of the teacher in the educational process. Students practically become active participants who take responsibility for their own development and manage their own learning. By doing so, teachers do not lose control or authority, but build a positive relationship together and become partners in achieving the desired goals.

Regarding authentic assessment methods enriched in the virtual environment, it seems that the methods that have a privileged status, being the most mentioned in empirical studies, are the portfolio, the digital project, self-assessment and peer/peer assessment (Popa, 2020, p. 294). According to researchers Martha Cleveland-Innes and Dan Wilton (2018, p. 26) peer assessment can be informal and formative (students respond to each other's work in individual or group tasks, or it can be formal and summative, where peer assessment is used as part of the grade. Self-assessment is referred to by David Boud (1995, p.17) as "the process by which students develop their learning skills. It is not primarily about giving grades or marks to students as it is also to reduce the role of the teacher". At the same time, self-assessment has a special connection with assigning the role of learning to the student himself by transferring responsibility for his own learning. According to Michael Minder (2011, p. 324) self-assessment is an approach that must be explicitly taught and learned, at a double level of its self-correcting and self-regulating behaviors, constituting an assessment modality with broad formative values.

There is a tendency for teachers to focus on the traditional aspect of evaluation, considering that the evaluative activity belongs exclusively to the teaching staff. Self-evaluation has the great advantage of strengthening students' autonomy in relation to their own learning path, facilitating the development of metacognitive skills. The involvement of students in self-evaluation approaches presents significant benefits: the student fulfills the role of an active participant in his own training, at the same time he learns to correctly appreciate the results obtained, he realizes what efforts are necessary to achieve the set objectives, he becomes autonomous and responsible for his own activity. Given the context of controversy and debate, there are no single acceptable definitions or correct ways to make the assessment. For most teachers and students, the term assessment is traditionally associated with the concepts of tests, grades, reports and standards.

The online environment offers the possibility of design, individualized and flexible assessment, rapid feedback, self-paced learning, recursive learning, as well as ease of creating individual learning profiles. Online evaluation also allows for a faster rate of error identification according to predefined evaluation criteria. The challenge for teachers is to opt for appropriate, authentic, reliable online assessment that measures learning, engaging the student, and integrated into the learning process promoting further learning (Hricko & Howell, 2006, p.17).

2. TEACHING AND LEARNING LEAVE THE TRADITIONAL CLASSROOM

In recent years there have been significant changes in online learning. Distance learning today takes many forms, including fully online courses, hybrid or blended courses that contain face-to-face contact time in combination with online delivery, and technology-enhanced courses that take place face-to-face but incorporate elements of technology . The explosive growth of technology has contributed to the implicit increase in the popularity of this type of learning. Virtually online learning now takes many forms, including using technology to enhance a traditional classroom, a hybrid classroom that blends both mediums, and fully online courses. Online courses can be run either synchronously (real-time virtual classes or chat) or asynchronously, meaning that posts are staggered.

Referring to some changes such as the availability and accessibility of information, the involvement of different learning styles, the increased responsibility for teaching-learning, Palloff Rena and Pratt Keith (2007, p. 4) consider it necessary to develop new skill sets for teaching and the need of rethinking pedagogy, redefining learning objectives and even a "reevaluation of assessment".

In general, online learning studies focus more on how course content is delivered, on technology, and pay little attention on how to teach in this environment. There is, however, one important element that differentiates distance/online learning from traditional classroom settings, the key to the learning process being the interactions between the students themselves and the collaborative learning that results from these interactions. Online learning cannot be passive. When teaching, learning and assessment leave the traditional classroom, many elements are implicitly left behind and new expectations arise. Online learning offers a variety of educational opportunities: student-centered learning, the variety of online tools is based on individual learning styles, collaborative learning, teamwork allows students to become more active participants in the learning process, easy access to global resources, experiential learning through multimedia presentations, and new technologies can be used to engage and motivate students.

The online environment is perfect for developing collaboration skills. Students learn to work and depend on each other to achieve their learning goals and improve the outcome of the process. Palloff and Pratt (2007, p. 180) identify other forms of collaboration that can be promoted in this environment in order to extend the level of learning achieved: collaboration between groups, resource sharing and collaborative writing.

In the context of formative assessment, collaboration is a bridge between student progress and teacher feedback on the assessed product. Through collaboration, the approach of critical error analysis takes on a form of mediation. Positive feedback can enhance motivation, while negative feedback, depending on the recipient's perception, can be accepted as a challenge that helps by triggering self-regulation. Wiggins Grant (1998, pp. 59-60) lends further credence to the use of continuous feedback when he states that receiving

and using feedback must be an ongoing, routine part of assessment. The reason feedback is simultaneous with interpretation is that this is the only way students can learn to continuously self-assess and then adjust their intellectual performance. Sustained collaboration for the purpose of developing new knowledge for students is a new educational practice. Regardless of how collaboration is used, it is essential for the teacher to set the stage for the formation of a strong learning community. Although collaboration helps to strengthen the foundation of that learning community, surely the presence of the community helps to facilitate the successful completion of collaborative work.

Collaboration and the ability to foster interdependence are a critical element in forming an online learning community. Consequently, it is important for the instructor of an online course to pay close attention to the ways in which collaboration can be embedded and facilitated throughout the course. Failure to foster collaboration in this environment generally results in low levels of participation, both in two-way teacher-student and student-student interactions, with collaboration presupposing the student's ability to engage in a transformative learning process. As with all other aspects of a virtual classroom, collaborative learning must be intentionally planned and facilitated (Palloff & Pratt, 2007, p. 183).

The need for students to work collaboratively is not only about new ways of learning, updating knowledge, but also about the skills students need, especially in an environment where technology makes its mark. This can be difficult to achieve in large classes, but technology offers a range of opportunities for group assignments.

The learner-centered approach greatly enhances the educational experience. The sharing of resources and the implied extensive bibliography allow students to explore well beyond the limits of the readings assigned to the lesson. Moreover, a virtual library can be created and students can consult it whenever they want. Extending resources in this way encourages students to take greater responsibility for their own learning while allowing the teacher to act as an equal participant.

Over several decades there has been a growing interest in using digital technologies as a means of supporting learning and rethinking how teaching-learning-assessment are configured. Students take on new participatory and collaborative roles in online learning, eager to share their own creations while giving them a high degree of autonomy. Technology in its various forms facilitates the transmission of documents (collaborative writing). Students can work together or with the teacher to complete tasks, usually by passing documents between participants.

By email or by being able to attach documents within the lesson that seem to be extremely useful in online courses, as well as in completing team learning tasks. In addition, whiteboard software in a course allows brainstorming sessions and collaborative work completion by simulating what might occur in a traditional classroom meeting. Asking students to complete papers collaboratively and assessing those papers on a group basis also promotes interdependence.

2.1. FORMATIVE ASSESSMENT AS THE PREFERRED EVALUATION STRATEGY IN THE ONLINE ENVIRONMENT

The evaluation strategies were promoted pedagogically as action models that allow the docimological operations of measurement (quantitative), assessment (qualitative) and decision (managerial) throughout the training activity in the open context of the educational

process, adapted/adaptable to the particularities of each level and educational discipline, of each school year and each curriculum area (Cristea, 2019, p. 75).

From this perspective, the temporal moment in which the evaluation strategy is integrated into the structure of the training process (at the beginning, permanently and at the end) represents a predominant classification criterion.

Although most online courses adhere to traditional practices, there is a particular interest in formative assessment in the online environment, a growing preference for integrating formative assessment into instructional activities, according to studies in the field.

Formative assessment can be conceptualized as consisting of five key strategies:

- clarifying and sharing learning intentions and success criteria;
- effective classroom discussions and other learning tasks that elicit evidence of student understanding;
- providing feedback that makes students move forward;
- activating students as teaching resources for each other;
- activating students as responsible for their own learning.

Through all these aspects, online learning can definitely become a tool that helps to better integrate assessment into the teaching-learning process. In the opinion of I. Radu "evaluation can be considered as a procedure constantly associated with educational action" (2007, p. 52). At the same time, the process of collecting and discussing information from multiple and diverse sources to develop a deep understanding of what students know, understand and can use knowledge as a result of their educational experiences culminates when the results of the assessment are used to improve further learning.

Although V. Shute and S. Rahimi (2017, p. 9) find that in general, assessment of learning tends to be more prevalent than assessment for learning, especially in online compared to face-to-face interactions, it appears that learning in the online environment offers more opportunities to incorporate formative assessment as a tool to increase teacher-student and student-student interactions.

Literature presents a diverse set of perspectives on the nature and value of formative e-assessment. Formative assessment is often presented as simply serial (or repeated) summative assessment and is equally referred to as 'hands-on' assessment, which 'does not judge or rank the student, but compares his performance to a pre-set success threshold" (Meyer, 2000, p. 25).

The fusion of formative assessment with technological insights propagates the idea of online formative assessment in carrying out this fusion. Pachler et al. (2010, p. 716) used the term "formative e-assessment" which they defined as the use of ICT to support the iterative process of collecting and analyzing information about student learning to teachers as well as students and evaluating them against previous achievements and the achievement of intended as well as unintended outcomes. This definition practically incorporates how formative assessment is applied in all e-learning environments, including the complementary part of ICT, as well as online and blended learning environments.

Mușata-Dacia Bocoș (2013, pp. 115-116) carries out an analysis of the specialist studies of some contemporary foreign authors associating some basic characteristics with the formative assessment:

- ➢ focus on the learning process, considered more relevant than the learning product;
- ➢ the systematic and continuous character is manifested by the permanent and

prompt re-introduction of the findings obtained through evaluation in order to take corrective and ameliorative educational decisions in order to trigger the students' self-regulation, as a result of a quick feedback;

➢ the flexible, dynamic and creative character that manifests itself through the adoption of a diversity of methods, means and strategies that students resort to in their own training, which leads to the enrichment of skills;

➢ offers opportunities for continuous progress, avoids stagnation and even openly and directly confronts gaps;

➢ the individualized character, adapted to the psycho-individual characteristics of each student, hence the high degree of student participation in the evaluation procedures (participatory evaluation/interactive evaluation);

➢ verbal interactions or even curricular negotiations between the evaluated and the evaluators in order to have a positive relationship between them;

➢ offers the possibility of prompt correction of errors;

➢ intensifies teaching and learning and ensures increased awareness of assessment practices.

First, no technology-based assessment is formative in itself, but almost any technology can be used in a formative way if the right conditions are set.

This observation is consistent with a socio-technical view of educational systems, which sees technological dimensions (e.g. speed, storage capacity, processing, communication, construction and representation) as inseparable from pedagogical conditions (verbal/electronic/synchronous/asynchronous). In this sense formative assessment in the online environment is extremely complex, as it requires the delicate orchestration of social, pedagogical and technological systems.

CONCLUSIONS

In the current educational context, several concepts specific to learning are identified. The question arises whether we can talk about a change in the profile of human learning under the pressure of technology, about a "death of pedagogy" and implicitly a "new pedagogy", about a "digital pedagogy" or about a transition "from education as pedagogy to education as management"?

Technology is the new term added within the educational process seen as a relationship between teaching-learning-assessment, with several roles being assigned to it: to sustain, improve and support the whole process. Although the use of technology itself to access and communicate course information is an important feature to be reflected in the design of learning activities and assessment practices, specialist studies provide more information about technology, the delivery of the course itself and give very low attention to how to teach, respectively evaluate in this environment. In the online environment, where the teacher is not physically present, the teaching-learning-evaluation processes require new and appropriate practices, built on the relationship between students and teachers, a relationship mediated by technology. Technology needs to remain an important part of our lives, but how we use it and the degree to which we use it makes the difference between threat and opportunity, not giving up on traditional learning, where students assimilate information delivered by the teacher directly, through face-to-face interaction, in a specially arranged space (classroom), in a specialized institution (school, high school) in a limited period of time (class time).

Although it is not yet clear how profoundly digital technologies could transform educational practices, the emergence of interactive technology of various forms offers significant opportunities for more engaging pedagogy and new forms of assessment. Also, online learning not only produces new and dynamic approaches to content delivery, but also offers exciting new ways for students to interact and share learning.

In this context, emphasis is placed on the development of assessment principles that support learning, a growing awareness of the role of feedback as an integral part of the learning process, and assessment, on assessment practices that explicitly serve to promote student learning.

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HOW CAN REPRESENTATIONS BE CHANGED USING DIDACTIC METHODS AND TECHNIQUES?

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ABSTRACT

This study analyses how teachers' representations can be changed based on reading and repeatedly retelling the text of the tale "The Bear Tricked by the Fox" by Ion Creangă, under the impact of some illustrations of the tale and some relating tasks used to propose creative generation of some interpretations and some scenarios placed in the current scenes. Analysis has been made of the effect of applying the Pre-reading – Reading / Re-reading - Post-reading model starting from the illustrations of a tale and the impact of some didactic methods and techniques on changing representations generated through a tale. A trainer and 15 primary education teachers who attended a professional training course have participated to this study. It was found that all methods and techniques used have generated original results, change and diversification of the participants' representations, update of the scenarios and scenes in which the original action of the tale took place. The original results were more numerous when participants were requested to respond to divergent questions, anticipate actions and reflections, explain some actions, identify some traits of the characters and compare as well as summarize them. The conclusion was that the way in which the task was formulated prevailed over the method or the technique in changing representations and obtaining some original results.

Keywords: *static visual material; tale; representations*;

INTRODUCTION

The tale is an instance of the folk epic written in prose (Romanian Academy, 2010). Furthermore, it is an ample text with folk motive which accounts supernatural occurrences, with real or fantastic heroes (Stein, 1982), with imaginary characters fighting evil characters and where the good triumphs (Romanian Academy, 2009), with possible and impossible actions that occur gradually (Romanian Academy, 2010). Timelessness is a feature typical of tales and it is expressed by the introductory formula: „Once upon a time…" (Szekely, 2006, p. 58), „There was a canny fox…" (Creangă, 1999). In this research study, we will look at how a group of primary education teachers successfully use some didactic techniques to change the timelessness of a tale and to place the characters and the actions in present times. Therefore, we will analyze how teachers' representations made on the basis of reading and repeatedly retelling the text of the tale „The Bear Tricked by the Fox" Ion Creangă (Creangă, 1999) change under the impact of some static visual materials (illustrative drawings of the tale) and some relating tasks, through which it is proposed to generate some interpretations and scenarios placed in present scenes in a creative manner.

1. THEORETICAL BASIS

In literature, the concept of representation is attributed to a series of meanings and characteristics. Jean François Le Ny's cognitive psychological definition is useful for this research study. He considers representations to be „pieces of structured, stored information existing essentially in the memory of the subject; norms, meanings of wards, notions or concepts, knowledge seen as classes of representations" (Le Ny, 1987, p. 165). Le Ny argues that the dominant structure of the representations is propositional and that representations may adjust behaviour.

Mielu Zlate challenges this definition considering that it lacks „specific content" and that it corresponds to any mental process (Zlate, 1999, p. 189). For other authors, representation is not a fragment of structured information, but rather a process by which an organism structures its knowledge using the relations with the environment under the form of some internal substitutes (images, indices) or external ones (signals, symbols) (Bronckart, Parot & Vauclair, 1986).

In the psychological literature in Romania, it is noted that Mircea Miclea (1994) abandoned the concept of representation and opted for the concept of mental imagery, whereas Andrei Cosmovici (1996) chose the concept of images. Mielu Zlate (1999) analyses the contradictory nature of the representations according to their origin and extension, functionality, place and role in the succession of the knowledge processes. For this research study, it is important to take into consideration Zlate's attributes relating to the functionality of the representations: they are past, processed, enriched, re-elaborated and then duplicated perceptions. In terms of the place and the role in knowledge, Mielu Zlate (1999) includes representations in the category of cognitive-sensory mechanisms, between sensory and logical.

2. METHODOLOGY

2.1. *Objectives*.

The main objectives of this research are to analyze the effects of using the Pre-reading – Reading / Re-reading – Post-reading model starting from the illustrations of a tale as well as the impact of the methods and techniques in changing the representations generated through a tale.

2.2. *Participants*.

A trainer and 15 primary education teachers were invited to participate to this research. The 15 teaching staff attended a professional training course and they all accepted to have their ideas used in the research provided that they are maintained anonymous and confidential. Age, seniority, professional experience and gender were different from teacher to teacher. However, they all proved to possess a similar volume of knowledge on tales, high level of consciousness, motivation to learn new didactic methods and techniques and teamwork skills.

2.3. *Procedure*.

The activity analyzed in this research study lasted approximately 2 hours. The trainer started by presenting the participants the objectives and the three stages. The trainer also described the steps to take when using the static visual materials and drawings as stimulus materials: displaying the drawings one by one, respecting the chronology of the scenes in the tale, communicating the task, observing the drawing and individually solving the task by each participant, in writing; orally presenting the findings to the group; collecting the findings from each participant and writing them on the flipchart or on a sheet of paper.

The trainer enumerated the requirements for the participants to meet: the tasks proposed will be solved individually and freely and with no constraints; each participant has their own solution/findings with regard to the task presented; solving the task will be strictly related to such task and will follow the topic; the participants will disregard the content of the tale.

The trainer and the participants completed the following stages (Pamfil, 2009):

a. Pre-reading stage. The technique *Key words provided beforehand* was used and each participant was requested to write a sentence using the words *fish, cart, oxen, countryman.*

b. The reading / re-reading stage consisted in conducting activities based on illustrative drawings. One or several didactic techniques were used for each drawing (Table 1).

c. In the *post-reading stage* the participants were requested to fill in Venn diagrams to represent attributes / traits of the fox, the bear and the countryman as well as the characteristics they all have in common (Table 3), to write in the circles the bear's hopes, actions, mistakes and effects of his actions, to write about the fox in a quintet and to highlight the moral of the tale.

3. RESULTS

We have included in Table 1 and Table 2 the teachers' solutions / findings to the tasks   relating to the stage of reading / re-reading of the tale based on the drawings available. Table 3 includes solutions from the post-reading stage.

Table 1. Drawings, didactic techniques, tasks and solutions / findings

Drawing	Didactic technique	Task	Results
No. 1: The fox in front of the tree	The questions star	Look at the drawing and answer the following questions in writing. Take turns and present your answer to these questions.	
		Where does the fox lie?	... at the edge of the forest; next to/under a tree; in front of the tree hollow; in front of the den (4 results)
		When does the fox lie?	... in winter; on a winter morning (2 results)
		What does the fox do?	... stands and looks; rests; thinks; lazes; curls up next to the tree; looks at an object in the distance; lies with her muzzle up in the air (7 results)
		Why does the fox lie there?	... is tired; is starved; waits for an opportunity; watches out for a rabbit; to come up with a strategy, a ruse; being starved saddens her; waits for something; is grieved; is cold; is very sick (10 results)
		What does the fox think about?	... hens; breakfast; food; where to find food; where the prey is; how to catch a hen; friends; her friend; how to trick somebody; who to trick; a warm house; the freezing cold of the night coming (12 results)

No. 2: The fox in front of the cart	The study guide	Look at the drawing and complete the answers to the questions in the study guide.	
		Whom did the fox meet?	... the man; other creatures (2 results)
		Who pulls the cart?	... two cows, two oxen, two oxen (3 results)
		What is the cart like?	... large; brown; roomy; has four wheels; wooden (5 results)
		What colour are the animals pulling the cart?	... white (1 result)
		What does the man look like?	... young, strong, well-dressed (3 results)
		What does the man do?	... looks at the fox; talks to the fox; pulls the cart over (3 results)
		What is there in the cart?	... fish; wood; hens; nothing; everything; food (6 results)
		Where does the cart go?	... on the road; through the forest; by the forest (3 results)
		What does the fox do?	... lies in the sun; curls up in the middle of the road/in front of the oxen; sleeps; fakes a foot caught in the ice, slips and falls; lies (7 results)
		Why did the fox stop in front of the cart?	... to play a trick; to get noticed; she was cold/starved; to get picked up in the cart; pays tricks; she broke her leg; she chased a rabbit and did not hear the cart (8 results).
		What does the man think when seeing the fox?	... the fox could make a nice coat; she is dead/sick/injured/asleep; she cannot move; she was attacked by poachers; I would take her along and, if the police stops me, I would tell them I am taking her to the zoo; what should I do with her?, my wife is waiting for me to have dinner; how to push her away/go around her; she has rabies and will bite him; she is sick (14 results)
	Predictive method	What do you expect to see happening?	... he takes her to the veterinarian; the fox wakes up and leaves; he takes her to the zoo park and gives her to the guard there; he skins her off; she gets caught between the oxen; he replaces the oxen with the fox; the man checks to see if the fox is dead; the man pushes the fox away and leaves; he goes around her; he helps her to cross the road; the man passes by the fox in his cart; the cart turns upside down; the fox gets beat up; the fox gets scared and runs away; the man throws the fox into

			the ditch (15 results).
No. 3: The fox in the cart	Predictive method + Drawing-guided description	Write an individual answer to the following question: *What do you think the fox will do once she gets in the cart?*	- she checks to see if the fish are still alive; she is intrigued by the size of the fish scales; she throws the fish off the cart; she is happy because she finally has something to eat; she looks at the fish and she is happy; she is alone, the man disappeared; she holds a fish between her little paws; she intends to eat all the fish (8 results).
No. 4: The fox and the bear in front of the den	Dramatization: Dialogue between characters	Write four replies of a dialogue between the bear and the fox, with no introduction or conclusion lines.	Table 2
No. 5: The bear's tail is in the water	Creative writing	Write what you think goes on in the bear's mind while his tail is in the water.	Will the fish spot my tail in the water? Why did I fail catching fish? I have never caught fish with my tail before! Having such a long tail is good to use it as a fishing rod! I cannot wait to eat some fish! The fox will not even get one fish! „The bear contemplates: If I spend an hour here, I will catch fish to last me an entire day. If I spend ten hours, I will catch fish to last me ten days." (6 results)
		Write what you think goes on in the fox's mind while the bear's tail is in the water.	Big body, small mind. I have tricked him. The bear looks so good; he seems to be waiting for me to take a picture of him! This bear has no brain! The bear cannot be so stupid! He will turn into an ice statue! Will he catch any fish? I am so smart! Even the bear follows my advice! I wonder how long he will go on staying there. (10 results)
	Predictive method	What do you expect to see happening?	... the fish bite his tail; ... he goes fishing during prohibition time and he will get fined; ... the chief of police station (a relative of the fox) will catch him poaching) (3 results).
No. 6: The bear's tail is broken	Predictive method + Drawing-guided description	What happened? Write the answer to the question *What are the consequences of going fishing?*	... he broke his tail in the door of the store; the tail got stuck to an accessory; a dog bit his tail; he went for a wax session; the fox stole his tail; he was unable to negotiate and the fox got his tail; the fox ate his tail; just like the fox, he fell asleep in the middle of the road and the cart ran his tail over; neither tail, nor fish. The bear ends up starving. The nature punished him: he

			ended up with no tail and no fish either. He took the way home and he is sad thinking about the honey in the pantry (12 results).

Table 2. *Dialogues written by the participants*

Results			
„So much fish! Where did you get it from?" „I went fishing inside the cart of a countryman." „Can I have some?" „Help me carry it in the den and in the meantime I will think about it."	„Let me have some fish, please!" „I can't, bear, but I can tell you how you can get at least one." „Please, do!" „There is a huge freezer in the house over there and it's full of fish. Feel free to help yourself there!"	„Whom have you been fooling lately?" „I am always honest to the others." „How many hens did you steal last night? I saw you lurking around the ranger's house." „I only wanted to ask him for some feathers to make myself a pillow."	„Where did you get all these fish from, dear fox?" „From the village fisherman, bear." „Did you find the money to pay him?" „I did not pay him. I promised I would look after his hens for a week."
„What are you doing here, fox?" „Look, I caught some fish and I cannot carry it to my den." „You should know that the man you stole the fish from is nearby and unless you want to give me some, I will tell on you." „Let's share!"	„Where did you get so much fish from?" „From the store "The Frozen Lake"". „I want to buy some because my fridge is dead empty. I am going there right now." „Wait, I will come and help! I will call my friend Cra-Cra. Go to the back entrance, put your tail in the door frame and she will fill up the bags for you."	„What are you doing, little fox?" „I am taking the fish to the market! I have another cartful of fish at home." „Let me have some for free. And in exchange for the fish I will watch your back when the wolf shows up." „All right."	„How are doing, dear bear?" „Look, dear fox, I am looking for a friend to help me find some food." „I will help you find some food. I will also teach you how to find fish for dinner." „I want honey. I am a vegetarian now."
„I am really starving, dear fox. I see you have some fish. Let me have some." „No! Go and buy your own." „I have no money. I will keep walking, maybe I'll get lucky." „Ha, ha! You must work and not beg."	„Where are you coming from, my friend fox?" „From Vasile's. He invited me to have some fish from his pond. What about you, bear, what have you been up to?" „I have been in the forest where I found a honeycomb in the hollow of an old oak tree. The bees were	„Where did you get the fish from, my dear neighbor?" „From aunt Tania who came to visit me." „Will you give me a few?" „I would, but the winter is long and I need food. But you can go fish your own from the pond."	„I cannot believe all these fish you have, my friend fox! How did you get it?" „I played dead and I fooled a gullible countryman! I ended up in his cart and this is how I have food now." „Unless you want me to turn you in, let me have at least one!" „I will think about it... The chief of the police

	not there so I stayed my hunger." „You have turned into a thief these days."		station is a relative of mine..."
„Where did you get so much fish from, beautiful?" „I bought it from a fishmonger." „Will you give me some?" „I will! But must watch my den while I am out."	„How come you have so much fish?" „I went fishing!" „Let me have some!" „I won't! Go to the river. There are still many fish on the edge of the river. Go and get as many as you wish."	„What have you been up to? I thought you might use some company." „I don't think so. You'd better mind your own business." „Can you tell me where you got all this fish from?" „I went fishing all night last night."	

Table 3. Didactic techniques used in the Post-reading stage, tasks and solutions / findings

Didactic techniques	Task	Results
Venn diagram exercise	Use a Venn diagram to fill in the characteristics of the fox / the bear / their common characteristics.	*Fox*: small, sly, merciless, canny, shrewd, clever, smart, skillful, resourceful, *Bear*: big, fat, sincere, ignorant, silly, dunce, mindless, naïve, gullible, docile, whiny, fierce, greedy, lazy, tricked, angry, upset *Fox-bear*: starved, voracious, mammals, beings
	Use a Venn diagram to fill in the characteristics of the fox / the countryman / their common characteristics	*Fox:* liar, mean, selfish, sly, canny, resourceful, intelligent, lazy, *red* *Countryman*: practical; hard-working; naive; gullible; *Fox - countryman*: beings; they know their best interests; they love fish; they believe they got lucky;
	Use a Venn diagram to fill in the characteristics of the bear / the countryman / their common characteristics	*Bear*: big, lazy, starved *Bear-countryman*: beings, naïve, gullible, tricked *Countryman*: little, hard-working, satiated
Quadrants	1. What did the bear hope? / 2. What were the bear's actions? / 3. What did the bear do wrong? / 4. What were the consequences of the bear's actions?	1. The bear's hopes: he will catch fish; he will have food to eat; he will not starve (3) 2. Actions: he starts fishing; goes shopping; stands in the middle of the road; fishes; puts his tail into the water; pulls his tail out of the water; breaks his tail; waits; thinks; attacks the bear (10); 3. The bear's mistakes: he believes the fox's words; he trusted the fox; he did not use the fishing rod; he did not think; he acts without thinking (7); 4. Consequences of the bear's actions: he runs out of fish; he suffers; he no longer trusts the fox; his self-esteem went down; he has a broken tail (7)

Quintets	Write a quintet about the fox and another one about the bear	Selection of examples:
		Fox Hard-working, sly, Tricking, throwing, collecting. She eats all the fish stolen, Canny.
		Bear Gullible, silly, Believing, holding, freezing, He puts his tail into the pond, Tricked.
Moral of the tale/ lessons	Write what we should all learn from this tale.	"never believe what you are told"; "pay attention to whose advice you follow"; "take advice only from the ones you trust"; "analyse what the others say"; "use our brain"; "the solution is with us and not the others"; "inform yourself"; "think before you act".

Table 4. Solutions of the participants

Stage	Drawing	Technique	No. tasks	Total responses	Answers acc. to drawing	Original responses	
						Nr.	**%**
Reading/ Re-reading	1	Questions star	5	35	29	6	17,14
	2	Study guide	11	55	40	15	27,27
		Predictive method	1	15	1	14	93,33
	3	Drawing-guided description	4	8	6	2	25,00
	4	Dialogue between characters	1	15	5	10	66,66
	5	Creative writing	2	16	2	14	87,50
		Predictive method	1	3	-	3	100,00
	6	Drawing-guided description	1	12	-	12	100,00
Post-reading		Exercise. Venn diagram	3	58	1	57	98,27
		Quadrants	4	27	25	2	7,40
		Quintets	2	2	-	2	100,00
		Moral of the tale /lessons	1	10	-	10	100,00

4. DISCUSSIONS

4.1. Analysis of the *Pre-reading-Reading / Re-reading-Post-reading model* applied.

The trainer aimed to help the teachers to get accustomed to a „didactic scenario model" (Pamfil, 2009) so that they may apply it in class. The literature states that, in the context of the activities structured according to this model, the pupils may develop „behavioral skills defining the autonomous reader" (Pamfil, 2009, p. 210); in addition, they

develop communication skills: the skill relating to reception of both the oral and the written text as well as „text writing skills" (Pamfil, 2009, p. 17).

The pre-reading stage was conducted based on the recommendations made by literature. The technique *Key words provided beforehand* was used and each participant was requested to write a sentence using the words *cart, oxen, countryman*. As far as the teachers were concerned, the goal of this task was to practice a didactic technique, which may be used with pupils in order to „facilitate the access to the text to study vocabulary" (Pamfil, 2009, p. 210). In this case, some words from the text were chosen, words for which the pupils might not have representations as the ox cart is hardly encountered nowadays; there are rather visual representations of such cart (paintings, drawings). The trainer discussed with the teachers on the fact that the pupils should know all the words in the text so that they may be able to decipher the meaning of the text both listened to and read.

In the reading / re-reading stage, the teachers had clear mental representations on the tale used. These representations led them to project activities with a view to exercising some methods and techniques potentially applicable in class, either when pupils study texts that they have never seen before or when the goal is to update the text in a creative way or change the actions of the characters in the tale. To achieve these goals, the text was replaced with six visual representations of the main scenes in the tale. Based on these representations, the participants were proposed to solve some tasks in writing of which solutions should be visible to both the teacher and the other participants.

In the post-reading stage, the participants were invited to solve four tasks correlated to the initial tale. These tasks stimulate the reflection (the quadrants) or aim to identity and compare essential characteristics of the characters (Venn diagram), make a summary (quintet) and draw a conclusion (moral of the tale).

4.2. Analysis of the impact of the methods and techniques in changing the tale-generated representations

In the reading / post-reading stage, use was made of didactic methods and techniques (Questions Star, Study Guide, Predictive Method, Creative Method, Drawing-guided Description) which enabled outlining of tasks in order to generate „the idea searching process" so that thinking „should be divergent" (Dulgheru, Lorin & Carcea, 2000, p. 163), should stimulate productive energy of participants, allow formulation of several original solutions, combine and improve them based on evocation and associations. The trainer informed the participants that they are free to express their opinions and that their productions, solutions and responses will not be subjected to criticism and self-criticism to avoid blocking creativity, these being all principles of brainstorming.

The activity of the text reading was replaced with an activity of drawing analysis. Based on the first drawing, „The fox in front of the tree", the *Questions Star* technique was applied. The questions pursuing to collect the responses formulated starting from the drawing (Where/ When does the fox lie? What does the fox do?) brought about a smaller variety of ideas (2 to 7), compared to the ones which required deductions by the participants (Why does the fox lie? What does the fox think about?). The responses reflect the existence of some permanent representations concerning the fox as usually depicted in tales (the fox „tricks", thinks about a „ruse"), on the one hand, and also some representations in line with the reality („stalks a rabbit"; „to catch a hen"), on the other hand.

Based on the drawing „The fox in front of the cart", the *Study guide* (Vacha & Vacha, 1993) was used. In reference to the eight questions asked, to which the participants

responded by looking at the drawing, the number of the observations made was low (1 to 6) as the participants were requested to describe some components existing in the drawing. The questions requiring the participants to make some assumptions (What does the fox do? Why did the fox stop in front of the cart? What does the man think when seeing the fox?) generated several solutions (7 to 14 variants). Following the trainer's request to the participants to leave the text of the tale and take their responses beyond it, the latter also gave some possible responses: the cart is drawn by the „oxen"; the man „talks to the fox"; the fox „lies in the sun". Two responses indicate the action of the tale placed in the present time: the fox „was attacked by the poacher"; „I would take the fox along and, if the police stop me, I would tell them I am taking her to the zoo". Based on the drawing, the predictive method was also used. As a response to the question „What do you expect to see happing?", 17 variants different from the original action in the tale were provided. The participants offered several solutions adapted to the present time, e.g. the countryman „blows the horn", „will take the fox to the veterinarian", „to the doctor", „to the zoo park". Four responses indicate solutions that are unfavorable to the fox: „gets beat up", „to be skinned" and „to draw the cart".

Starting from the drawing „The fox in the cart", the drawing-guided description was requested. Following the request to write a text as a response to the question: What does the fox do?, the participants provided only 8 results, of which two were truly original. Based on the drawing „The fox and the bear in front of the den", each participant wrote a dialogue between the two characters (dramatization) (Table 2). Of the dialogues produced, ten were highly original. In contrast to the tale where the fox claims that she got the fish by keeping her tail in the pond, in the dialogues created the participants updated the source of where the fish come from. This means that the fox lies when she says that „she bought the fish from the village fisherman", she did not „pay in cash" and „she promised that she would look after his hens for a week"; „aunt Tania" brought it; „she bought the fish from the store „Frozen Lake", „from the market"; „she went fishing". The fox gets creative when she advises the bear: „Go to the back entrance, put your tail in the door frame and she will fill up the bags for you!"; „Go to the river. There are still a lot of fish on the edge of the river and take as many as you wish."; „There is a huge freezer in the house over there and it's full of fish. Feel free to help yourself!" Compared to the actual tale, the participants brought significant changes to the behavior of the bear: he used techniques such as threats, promises and blackmailing: „unless you share with me, I will tell on you"; „Give me some fish and I will protect you from the wolf". These creations indicate an update of the language and adaptive behaviors as well as the existence of some rich representations of the places where fish can be found nowadays (the store; the fisherman; by going fishing).

Based on the drawing „The bear puts his tail into the water", the trainer proposed the participants a creative writing exercise by which they should express their opinions on the thoughts of both the bear and the fox. The participants' representations on the bear's thoughts reflect: optimism („I cannot wait to eat some fish!"), curiosity („Will the fish spot my tail in the water?"), satisfaction („Having such a long tail is good to use it as a fishing rod"), surprise („I have never caught fish with my tail before"), malice („The fox will not even get one fish"), greed and reason (stay long hours to catch several fish). The participants' representations on the fox's thoughts reflect: value judgment regarding the bear („big body, small mind"; „the bear looks so good"; „this bear is mindless"; „the bear cannot be so stupid"), concern for the bear („I wonder how long he will go on staying there?"), some self-appreciations („I am so smart!") and some words to thank herself („I am so happy

I managed to trick him."). Starting from the same drawing, the participants were invited to apply the predictive method. They provided three original responses: „the fish will bite his tail"; „he will get fined for fishing during prohibition time"; „the chief of the police station will catch him poaching".

The result of going fishing is represented in the last drawing: „The bear with a broken tail". Although they use the drawing-guided description technique to produce ideas, the participants are requested to explain why the bear ends up with his tail broken: „he broke his tail in the door of the store", „a dog broke his tail off", „the cart ran his tail over". It is noted that the participants created another storyline leading to the tail being finally broken.

In the post-reading stage, the participants used a Venn diagram to fill in fifteen characteristics of the fox, seventeen characteristics of the bear and six characteristics of the countryman as well as some common characteristics of the three. The richest representations of the participants are the ones concerning the fox and the bear, probably generated by the personification made as a result of reading several literary texts and less as a consequence of the visual representations relating to physical appearance (the fox is beautiful, red; the bear is big, fat). The common characteristics of the fox and the countryman („they know their best interests"; „they love fish"; „they believe they got lucky"; „each wanted what the other had") and the ones shared by the bear and the countryman („naïve", „gullible", „tricked") as pinpointed by the participants, indicate a profound analysis of both the tale and the human behavior as well as the richness of the language and representations.

In the context of the quadrant method, the participants were challenged to reflect on the hopes, actions, mistakes and results of the bear's actions. The participants generated fewer representations of the bear's hopes (3) and more representations of the bear's mistakes (7) of which the most significant are: he believed what the fox told him and he acted before thinking and documenting himself. It is noted that the participants have detailed representations of the bear's actions and extended the effects of these actions to the cognitive, social and emotional level („no longer trusts the fox", „in himself"; „self-esteem went down").

The proposal to write quintets (Steele, Kurtis, Temple, 1998, p. 32) about the fox and the bear aimed to highlight the essential traits of the characters, but in the context of summarizing the content of the tale. The two quintets prove that the participants are able to highlight the quintessence of the attributes of both the characters and their actions. Finally, the activity involves bringing together some lessons that we should learn from reading this tale. The participants consider that the hungry, naïve and gullible bear's experience should teach the readers: „don't believe everything you are told"; „pay attention to whose advice you follow"; receiving „advice from people you trust". Furthermore, the readers should: „be critical when analyzing what other people say"; „use our brain"; „the solution is with us, not the others". The participants think that „it is important to inform yourself" and also „think before you act".

Following the analysis of the results in Table 4, it is observed that the participants offered many original solutions based on the didactic techniques used and after finding some questions, which lead to divergent responses. The teachers showed creativity, seen as „the aptitude to put together original and efficient ensembles starting from pre-existing elements" (Jaoui, 1990, p. 70). They made „new, original combinations of old ideas „which may have a certain value (Boden, 1992).

In Table 4, it is noted that the methods and techniques used triggered some unique responses: quintet (100%), moral of the tale/lessons (100%), predictive method (93.33-

100%), Venn diagram (98.27%), creative writing (87.50%), dramatization / dialogue between the characters (66.66%), which indicate a higher potential of changes in representations. Based on other methods and techniques, fewer creative results were obtained: study guide (27.27%), questions star (17.14%), quadrant (7.40%). By making use of the drawing-guided description technique, it is noticed that there were 25% original results in relation to the descriptive text writing task carried out based on observation, whereas in relation to the explicative text task all results were original (100%).

CONCLUSIONS

In reference to the application of the training model Pre-reading - Reading / Re-reading - post - Reading training model, it is noted that the model was applied in a creative manner, starting from the illustrations of a tale in the reading / re-reading stage. Despite the fact that the participants knew the text prior to taking part to this research and that the six drawings were an accurate representations of the tale, the participants' representations still suffered changes; however, the participants' representations based on the illustrations may be different from the original texts if the readers are not familiar with them.

In terms of the methods and techniques used in relation to the tale and the illustrative drawings, we see that they have all generated original results and also the participants' ability to change and diversify their representations, to update the scenarios and scenes of the actual tale. Formulating some responses to divergent or productive questions, anticipating the actions, reflecting, explaining some actions, identifying some characteristics of the characters and comparing them, summarizing, generated more original responses than the other tasks. We consider that the way in which the task was written prevailed over the method or the actual technique in changing representations and in obtaining some original results.

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THE APOTHEOSIS OF THE SPIRIT - CLIMAXES OF THE MAHLERIAN SYMPHONIC DRAMATURGY

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ABSTRACT

Whether we are talking about opera music or symphonic music, each of these genres develops specific dramaturgies and climaxes, closely dependent on the stage action in the first case, or programmatic intentions in the second case. Between these there can, of course, be influences, similarities, contrasts, etc. The present study proposes an analysis of the existing climaxes in the symphonic music of the Viennese composer Gustav Mahler (1860-1911), to distinguish a certain taxonomy or typology of them, but also to give a broader perspective on them. Mahler stands out due to the mastery with which he constructs his musical dramaturgies of symphonic essence. The post-romanticism that is attributed to him is characterized by a fragmentation of the musical syntax, which stems from the composer's intentionality subordinated to the transmission of a great diversity of ideational meanings. But here we are not only talking about the diversity of ideational meanings, but also about their breadth and depth, and the claim to express them with the help of musical art. The tragic feeling of life, the fragility of the human being, the obsession with death, the desire for salvation, the vision of paradise, the action to change society, the access to the depth of the self, the involvement in personal becoming are some ideas that Mahler tried to translate into music, debated themes in the writings of Dostoevsky, which Mahler often read. The famous phrase that Mahler addresses to the composers of the dodecaphonic school "reading from Dostoevsky is more important than the counterpoint" (Höweler, 1952, p. 475) further confirms this. In this way, the premises of existentialist philosophy and expressionism in art are created, by experiencing an individual freedom and a subjectivism that reaches, at least in the field of musical art, the highest heights.

Keywords: *climax; musical dramaturgy; symphonism; typology;*

INTRODUCTION

Any musical dramaturgy, like a literary dramaturgy, presupposes the existence of at least one climax, meaning by this an emotional culmination that is prepared, affirmed and resolved through the processualism of the musical language. The climax is the moment of maximum emotional intensity, which usually corresponds to the exploitation of a maximum of musical resources and usually precedes a denouement. The reception of any work of art cannot be valued without some of these moments, otherwise a lack of interest would intervene. Also, we cannot live continuously anchored in such a state, otherwise we would become euphoric. And the sudden assertion of the climax would cause adverse reactions of surprise, rejection, fear, rather than contagion with the moment.

In their analysis, we can distinguish in a first phase simple climaxes, which accompany the smallest morpho-syntactic units of the musical form, but there are also climaxes that affect broader formal articulations, without things stopping there. They can expand further, becoming more and more complex, depending in these cases on the macrostructure of a piece of music. The post-romantic aesthetics creates climaxes of such scope that can only be supported by the monumentality of the musical opus. They are those climaxes whose culminations can be prepared during several symphonic sections, their magnitude reaching such heights that they can be translated through the categorical system specific to aesthetics that pertains to the affirmation of the colossal, the sublime, the monumental.

A climax can last from a few seconds to several tens of seconds. Its construction is closely dependent on the sound dramaturgy, there being a direct proportionality between them. An ample climax is prepared by an elaborate musical dramaturgy. In its realization, the musical dramaturgy depends on the musical writing, on the agogic, on the timbral combinations and the effects used, on the harmonic evolutions, without being limited to them. In a diagram of sound intensities, we can note the culminating moments of sound intensities, but the existing sound dramaturgy and climaxes are not limited to this. It would be the simplest way to look at the problem. The same reduction takes place when, through abstraction, the musical form is reduced to its scheme. Indeed, considering its immediate aspects, any sound dramaturgy coincides with this sound dynamic, but surpasses it by the amplitude of the perspective on the musical opus, which implies a visualization in the entirety of the means used, which, moreover, contribute to the stylistic identification of the work. Through its similarities with the literary dramaturgy, it is characterized by "the level of eloquence of temporal units, the degree of theatrical expressiveness of the evolution of musical characters, the more or less explicit nature of affirming the general meaning of the opus" (Vasiliu, 2002, p. 128), musical dramaturgy becoming an important index of stylistic specialization. The 20th century possesses a sense of theatricalization of art that surpasses all the initiatives of previous centuries, found in the programmatic idea, in the emergence of film, film music, and more.

Harmony can build and nuance the feeling of the tragic, a feeling that can only be enhanced by the other components of the musical language. A theme, a rhythm, a combination of timbres, certain technical procedures, a specific tempo or dynamics cannot by themselves achieve the nuance of the tragic but, accompanying the propitious harmony, each can contribute with its specificity to the amplification of this character. Thus, the inner universe of the composer Mahler is transposed into a symbolic form through the musical language of his art. We are witnessing one of the most extensive processes in the history of music that superlatively subjectivizes musical art. Other than this, we only have impressionist, neoclassical and folkloric defensiveness, or the assumption of a meta- beyond which emotion means reconfiguring or giving up a traditional musical language.

1. OVERVIEW OF MAHLER'S SYMPHONIES

In the field of the symphonic genre, Mahler stands out among the composers who assume the greatest freedom in his creation, without turning it into a symphonic poem. Thus, at an overview of his nine finished symphonies, the variability in the number of parts is noticeable:

➢ one of his symphonies has two parts (8th symphony).

> only four symphonies are constituted according to the classical pattern consisting of four parts (symphonies I, IV, VI, IX).
> three of them have five parts each (symphonies II, V and VII).
> and only one has six parts (3rd symphony).

Tabel no. 1. Overview of Mahler's nine finished symphonies

	1	2	3	4	5	6
S_1	Langsam, schleppend	Kräftig bewegt, doch nicht zu schnell	Feierlich und gemessen, ohne zu schleppen	Stürmisch bewegt		
S_2	Allegro maestoso	Andante moderato	Scherzo - In ruhig fließender Bewegung	Urllicht. Sehr feierlich, aber schlicht	Im Tempo des Scherzo. Wild herausfahrend - "Auferstehn"	
S_3	Kräftig, Entschieden	Tempi di Menuetto. Sehr mäßig	Comodo. Scherzando. Ohne Hast	Sehr langsam. Misterioso. Durchaus ppp "O Mensch! Gib Acht!"	Lustig im Tempo und keck im Ausdruck "Es sungen drei Engel einen süßen Gesang"	Langsam. Ruhevoll. Empfunden
S_4	Bedächtig, nicht eilen	In gemächlicher Bewegung, ohne Hast	Ruhevoll, poco adagio	Sehr behaglich		
S_5	Traeurmarsch. In gemessenem Schritt. Streng. Wie ein Kondukt	Stürmisch bewegt. Mit grösster Vehemenz	Scherzo. Kräftig, Nicht zu schnell.	Adagietto. Sehr langsam.	Rondo-Finale. Allegro - Allegro giocoso. Frisch.	
S_6	Allegro energico, ma non troppo. Heftig, aber markig	Andante moderato	Scherzo. Wuchtig - (Trio) Altväterisch. Grazioso	Finale-Allegro moderato-Allegro energico		
S_7	Langsam (Adagio) - Allegro risoluto, ma non troppo	Nachtmusik I. Allegro moderato	Scherzo. Schattenhaft. Fließend aber nicht zu schnell	Nachtmusik II. Andante amoroso	Rondo - Finale (Allegro ordinario)	
S_8	Hymnus - Veni, Creator Spiritus	Slußszene aus "Faust"				

|						
S₉	Andante comodo	Im Tempo eines gemächlichen Ländlers. Etwas täppisch und sehr derb	Rondo-Burlesque. Allegro assai. Sehr trotzig	Adagio. Sehr langsam und noch zurückhaltend		

Thus, if for the romantic composers the observance of the classical canon still has quite a lot of weight, for Mahler it becomes more and more flexible, varying according to the ideas, programming and musical dramaturgy pursued. More than once it happened that he gave up certain symphonic parts or introduced others from the original intention. For the romantics, it is not so much the change of the canon formed by the number of parts in a symphony that is relevant, but rather the changes that take place at the structural level. Mahler, on the other hand, seeks to affirm a dramaturgy of the monumental, without limiting himself to formal pretenses, aiming for the symphony's macrostructure. It results in a great diversity of symphonic idioms, the number of parts of which varies between two and six (with the absence of those consisting of three parts), which create syntheses with the oratorio genre (symphony-oratorio), which insert the lied as a constitutive part of the symphony (as occurs in symphonies II, III and IV) or approaches instrumental soloist moments, sometimes of a concertante type, even if passing, in several of his symphonies. The flexibility of the Mahlerian symphonic canon is also found in the interludes between the different parts. Where we were used to hearing an allegro part, a slow one appears, and vice versa; if the predictions were somewhere in the area of the dancing character, they were circumvented by slow sections, etc. At the same time, the combination of pre-existing musical structures contributes to the monumentality of the opus and to the revelation of a complex musical dramaturgy. But one of the decisive steps towards change lie in the shading and shaping of the initial characters of the various symphonic parts or sections. Thus, the funeral march is an attempt to recover the feeling of the familiarity of death, the ländler becomes an expression of the joy of life, the brass potentiates its solemn or tragic feeling, and sometimes turns into an image taken from the Apocalypse, some instrumental solos become the echoes of a predicted ideal or of a local lyricism, the scherzo can be enriched or tinged with the feeling of the grotesque, the lied can become a kind of forecast of Paradise, etc. Basically, the freedom to signify meanings of a certain depth specific to post-romantic aesthetics, consists in the capacity of the imaginary faculty of the human mind to establish symbols that "constitute models themselves of the mediation of the Eternal in the temporal." (Durand, 1999, p. 119)

2. ABOUT CLIMAX AND MAHLERIAN CLIMAXES

In the context of so many symbolic distillations that can be illustrated by an elaborate symphonic dramaturgy, we will start from a definition of the climax according to which it "appears at the limit peak of accumulations, from where it can no longer evolve into accumulation and, which represents a point of suspension, of tensional temporal freezing, after which, inevitably, there will be a fall, an end to the accumulative tensions..." (Pop, 2000, p. 109) According to this definition, it appears that at the microstructural level, climaxes are constituted by three stages, a stage of accumulation, one of affirmation of the climax followed by the moment of relaxation. At the macrostructural level, things are much more complicated. As I stated earlier, the research framework of this article is the presence of climaxes at the level of an entire part of a symphony and even, but especially, of an entire

symphony. If in classical or romantic symphonies, with some exceptions, of course, the existence of such climaxes is almost nil and some are devoid of any monumentality, in the dramaturgy of a post-romantic symphony an organicity is created that overcomes the structural or conventional barriers of the various symphonic sections. Thus, the fragmentation of the syntax brings with it the fragmentation of the sound dramaturgy that develops a fluctuating dynamic, extremely capricious and unpredictable, with dynamic twitches, sinusoids, contractions and expansion, concentrations and rarefactions of dynamic spaces, amplifications and retentions that sometimes make it extremely difficult to follow their evolution. If we were to make a diagram of Mahler's symphonies, in which we could grasp briefly, in a holistic way, the evolution of the climaxes specifying the number of parts and their extent in relation to each other, then, in a rough form, it would look according to the image captured in figure 1.
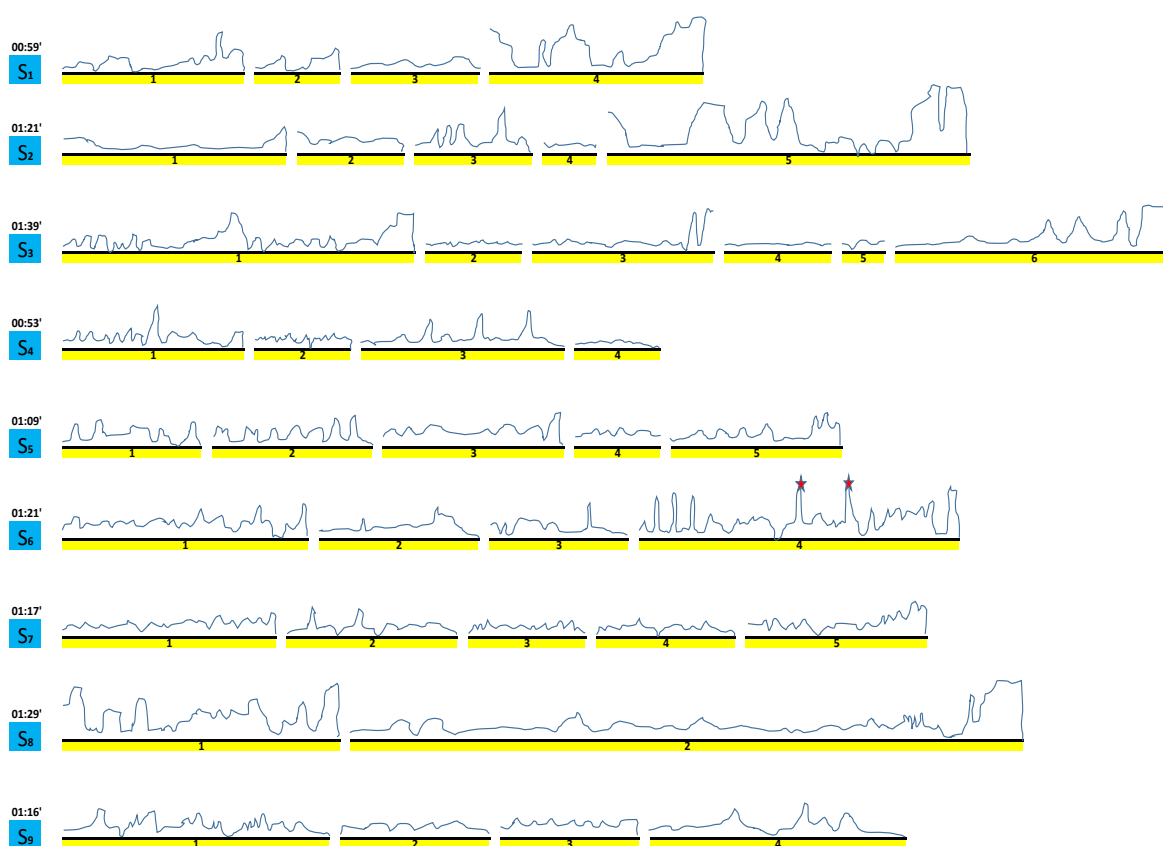
Figure no. 1. *The diagram of Mahler's symphonies containing the evolution of the climaxes, specifying the number of parts and their extent in relation to each other*

As can be seen in the diagram above, the symbol *S1* to the left of it specifies the number of the symphony. Above it, the approximate temporal extent of the symphony is marked by the symbol *00:59'*, and its parts are represented by line segments whose length is directly proportional to their duration. Thus, we can immediately visualize a hierarchy regarding the size of these symphonies, but also the number of parts that make them up. Also, the wavy lines inscribed above each line segment outline, schematically, as we already mentioned, the sound dramaturgy and climaxes existing within the symphonies. Their amplitude is represented by a distance from the zero-position rendered by the straight

segment oriented in a horizontal position, this meaning its location at the lower limit of the audible and, implicitly, the absence of any tension.

An overall analysis of this diagram shows the absence of significant climaxes in symphonies 4, 5, 7 and 9. They are present, instead, in the other symphonies that carry the energy specific to creative youth, referring to the first three symphonies. Also, except for the eighth symphony, none of the other symphonies has a large debut in terms of sound intensity, while their endings, apart from symphonies 4 and 9, bring a significant arsenal of sound means that contribute to the construction of climaxes scope.

If we take the temporal one as the criterion of analysis, then we can note the existence of some *climaxes of plateau formation*, extended for several tens of seconds, but also *climaxes of peak formation*, which are notable for their duration of a few seconds. Plateau climaxes are especially present at the end of symphonies, very rarely at the end of a symphonic part or within it. This is what happens, for example, in symphonies 1, 2, 3, and, especially, 8, the purpose of such a climax being to mediate the experience of aesthetic categories such as the monumental and, above all, the sublime. The non-evolving harmony, the presence of the brass or the choir, the tubular bells, the training of the entire orchestral apparatus, the choral writing contribute to their affirmation.

On the other hand, if we consider the criterion of the accumulations and de-tension of the climaxes, here we have some of the most spectacular situations that contribute to the success of their assertion. Thus, some climaxes intervene without any prior preparation, causing surprise and emotional release, as happens in the sixth symphony, at the beginning of the last part, where three climaxes follow each other at an appreciable distance between them. The affirmative *sforzando* is followed by rebound through the minoring of the C major chord, the climax dissolving into the musical ambience as if it did not exist. Also famous is that B flat minor chord superimposed on a C pedal from the second symphony, which appears towards the end of the third part, and creates a climax whose cry of despair contrasts with the musical ambience that precedes or succeeds it. This reappears at the beginning of the fifth part, or even in the next symphony, towards the end of the last part, thus being invested with a specific symbolic value. Also, most cases of climaxes are achieved through an ascending dynamic, the ramp of which opens the perspective of their affirmation. Many cases are also those in which a climax is the launching pad for another climax, thus constituting a sequence of *gradena-type climaxes*, resulting in a terracing of the emotional discourse. However, there are also situations, and not a few, in which the ascending ramp of the musical discourse is interrupted, having to do in this case with the presence of some *avoided climaxes* that contribute to the realization of a musical dramaturgy that cultivates equivocation, the purpose of which is to the potency of the force of a later climax. And if the tension release of the climax can proceed more or less abruptly, there are also situations, and not a few, in which it intervenes suddenly, thus mediating the presence of some *waterfall-type climaxes*, whose effect is often exploited in post-romantic music. Of course, the post-romantic musical discourse can become excessively complicated, so that a grid of typologies such as those already mentioned can hardly be elucidated. Sometimes the evolution of the climaxes is so complex that, using a metaphor, we can compare the musical discourse to a swirling sea dominated by the anarchic elements of a storm, this image symbolically translating the state of the soul traversed by great existential crises. Thus, the recurrence of climaxes during a symphonic part, within a whole symphony or other symphonies, credits the idea of great historical cycles, echoing both at the level of personal destiny and of eras.

CONCLUSION

Alternating between platitude and originality, banality and genius, lyricism and monumental, mundane and cosmic, individual and universal, sacred and profane, Gustav Mahler traces the premises of the musical language specific to the 20th century. Deeply attached to the Austro-German tradition that cultivates the established tonality and genres, very little open to elements of stylistic renewal that came from other ethnographic spaces, his music will naturally incorporate everything related to the sense of the monumental, the cosmic, and the sublime, without for these to be found so prominently in the currents that precede it. In fact, the contemporary man lacks the category of the colossal because the civilization of well-being and efficiency, of easy access to everything, will often extirpate from his soul the perception of cosmicity, the feeling of dependence on the infinite. The dimension of transcendence, of access to the infinity of a *beyond* will be obnoxious by the feeling of paradise here, a paradise that creates the illusion of infinity of any type - be it temporal, spatial or axiological -, created by man and (in)mastered by him, thus becoming the prisoner of a demiurgic mentality. This is why Mahler's music sees the symptom of his decadence and reconnects the contemporary man to the source of his spirituality, thus becoming more current than ever.

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BOOK REVIEW

TEHNICIZAREA INUMANĂ A VIEȚII
[THE INHUMAN TECHNICIZATION OF LIFE]

Basilica Publishing House, Bucharest, 2022, 584 pages.

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The volume *Tehnicizarea inumană a vieții (The Inhuman Technicization of Life)* (2022, 584 pages), published by Basilica Publishing House of the Romanian Patriarchate (Bucharest), is an original work, representative for the present socio-cultural context, marked by a strong trend of technicization of life and the loss of the authentic moral signposts, human estrangement and uprooting.

Mr. Adrian Lemeni, Associate Professor of the Faculty of Orthodox Theology *Justinian the Patriarch* of the University of Bucharest, Director of the Doctoral School *Dumitru Stăniloae* and the Centre for Dialogue and Research in Theology, Philosophy and Science of the same institution, analyses scientifically, rigorously, the way the present technological system organizes, impacts, and changes the world, transforming it irreversibly.

The work deals with complex, challenging topics, of interest for the specialists in multiple domains, such as transhumanism, robotization of human's existence and mind, modeled by the excessive use of technology, permanently exhorting to reflection, balance, and human's return to the true values. The author confesses - even since the introduction - the fact that he did not make a priority out of the expression of his own convictions and ideas but aimed to bring into light and to the knowledge of the academic environment, remarkable personalities who analyzed the technology from several perspectives. From the most educated scientists in this volume, the author brings into focus Jacques Ellul, a visionary personality, who had the merit of prophesizing in his works the dawn of a technologized epoch, realizing a precise diagnosis of the technicized society, a few decennia ago. Similarly, another outstanding personality presented is Neil Postman, solid American author, educator, media theoretician and cultural critic, who issued pertinent solutions to problems like technoculture and technoscience, showing that the trivialization of the truth relies on the technological environment revolving around the logic of efficiency of technocratic type, doubled by the appanage of entertainment.

The entire work relies on a series of analyses and deep explanations concerning the human personality, the creation of human as a being with a dichotomic structure, with his ontological gift received from the Creator, his freedom and independence from everything that could limit and constrain him in this life, destroy his relation with God and replace it with a substitute or an ideological illusion leading to the alienation of the person: "The environment structured via today's technologies converts everything into calculation, cultivating a logic trusting in the almightiness of algorithms. The divine providence is substituted by a trust in an autonomous power, specific of the technological system. We no longer entrust our life to God but to the computer, which becomes our dominant interlocutor in our own life" (p. 8), so that we forget where we have come from, and we no longer understand where we are going to. The sense of our existence is becoming ambiguous, being compromised, diluted or evaporated by the living of a life that is technicized, screened, mediated excessively, which makes out of man a hybrid, dehumanized being, without the capacity of thinking vividly and living deep feelings. The artificiality and pseudo-existence, invading the human's soul, pushes him away from God, from the state of vivid watchfulness, focus, self-possession, conditions sine-qua-non meant to develop a healthy spiritual life, intrapersonal and interpersonal, by Christic-ecclesial communion.

Realized in a scientific, rigorous and realistic manner, and approaching each problem in a complex way, the studies and research presented and integrated in this volume bring pertinent solutions to the sensitive challenges of today's world's context, offering a topical theological and spiritual answer, regarding the technique, technology and digitalization of human life (technocracy, the challenges of the technological system, the dilution of liberty in the technological aggregate, the technologization of the sacred, the revolution of information technology, the ambivalence of technology, the automatization of thinking and the logic of efficiency, the technological progress and the technicization of man's existence, the technological addiction and virtual existence, and the tehnicization of culture and science).

In this context, the themes approached contribute to understanding the changes, challenges, limits emerged with the transformations taking place worldwide, through the contemporary process of globalization, of technical, economic and social order, by eliminating cultural and national differences, phenomena leading inevitably to important effects in the medium and long run, identified and underlined by the author: "today's technological system integrates models based on a rationality of technical type, expands by obsessively invoking an efficiency legitimating the heavy toll paid in souls and in life, the alienation of life on personal and community level, these being considered collateral losses. What matters has to do with the efficiency of the system, even if man is reduced to an informational sequence, integrated in the network. In this perspective, a logic of a connectionist type, a permissive attitude to what supposes the connection to the technological environments internalizing the spirit of the world are thriving" (pp. 7-8).

In the first part of the volume, entitled "The prophetic lucidity of Jacques Ellul's thinking", the technological system is presented in the light of the present changes and fretting and fussing on the level of the human society, this technological system following "its own logic of self-development, proliferates, extends at an exponential speed, man finding himself in an universe of extremely varied machines and techniques" (p. 25), in a tsunami, devastating for human existence, in all the intrinsic aspects of life, a tsunami which man can no longer detach himself from. Thus, on a social level, the technological system erodes the authentic and political democracy, uniformizing all the civilizations, because,

although the citizen is informed and over-informed, his thinking is alienated. "In a technicized society, what matters has to do with the image promoted in the media; it is no longer man or the consistency of his ideas that matters but the image and the emotional attitude triggered and amplified via the technological environments" (p. 28). The more the citizen is connected to the mass-media, the more limited the freedom of expressing their own options and convictions is, the technical process finally leading to a significant dilution of democracy.

In this complex framework, the technological system is defined "as environment for promoting ideologies and rigorously organizing the insignificant", action leading to formatting a collective mindset, uncertainty, insecurity, by bombing with so much information of total and overwhelming diversity, because the information transmitted via the today's technological environments is instantaneous, polymorphic, kaleidoscopic and fragmentary, taking on the apparel of propaganda and convincing emotionally and by persuasion. "The technological system represents not just an environment favorable to propaganda but is the framework of rigorous organization of the insignificant. All that is profound is [dealt with as if it were] not worth discussing. What is secondary and ridiculous, in exchange, becomes object for discussion (...). The logic of entertainment, specific of the technological system, transforms everything into show. The problem is not to be against having fun, but the fact that absolutely everything is transformed into entertainment, and culture and thinking are alienated" (p. 33).

After a detailed and profound presentation of the notions of technique and technicization, both from a scientific and a theological perspective, the author concludes that "the presence of the Holy Spirit in our heart, the work of the grace are realities that the technological system cannot grasp. The grace cannot be scanned, calculated, and measured by technologies (...) God does not want man [to be] a little robot, the way the technological system favors the mould of robotized existence, man's transformation into an executant and automatized sequence. Ellul mentions that God's efficiency is not measured by success, in terms expressing a comfortable situation in history, but by the faith strengthened in the logic of the Cross" (pp. 135-136).

Next, technology is presented as a religion absolutizing the immanent and the organization of the spirit of this world, turning us into prisoners nailed on the earthly. Technology as religion is aimed at eternalizing the fallen condition, immortalizing on the level of the immanent. Technology as a secular religion, as a global ideology, internalizes the spirit of the world and claims us entirely for this world. By the present technologies, the spirit of the world is internalized also in the life of the Church, and the solution for solving this problem is found as well in Theology, by the spiritual tradition specific of the Orthodox spirituality which indicates consistent signposts on the way to going beyond the spirit of this world.

The author explains the fact that "technology is used to construct the sacred in the spirit of the New Age religiousness. Transcendental meditation and the extension of one's mental capacities by the evolution of the human conscience, so as to acquire by autonomous effort the conscience of one's own divinity, are methods supposing the integration of information technologies" (p. 150). Therefore, by today's technological environments, a gnostic spirit is promoted, manifested via the trend of dematerialization of the existence: "The digital world is disembodied, dematerialized. Digi-utopia presents the virtual environment as a world with unlimited liberty and infinite possibilities. In this utopia, it is believed that it will be possible to reach the moment when the human conscience, equivalent

to digital information, becomes immortal by deliverance from the matter, being transferred on external technological memory" (p. 154).

After having presented Ellul's vision concerning the secularization within Christianity, a deep look is taken at the living of the Christian faith in the context of the present technologies, showing that technology as religion of the technicized society desecrates the world in a manner no ideology has ever managed to desecrate it before, fundamentally alienates the living of a traditional spirituality, including the condition of the Christian faith. The Christians do not need to disdain or neglect in an absolute manner the need for technology but should just have discernment and a state of vivid watchfulness, so as to understand if using a certain technology is really useful, checking the technological need and conditioning.

In the second part, entitled "Signposts from the history and philosophy of technology" subjects specific of the present technological system are described and debated, trying to understand the world and the human in such context, exemplified by the mechanization of the body and the reciprocity man-robot promoted via diverse technologies, but also by the reductionism of the contemporary technological system, which sees the world as if it were a mega-machine. The authors presents perspectives related to the historical context and elements of reference of the industrial revolution, the informational society as a post-industrial society, the nature of technology as a practical application of science or of magic essence, and the ambivalence and non-neutrality of technology, which always offers the new possibilities at a cost, which, more often than not, is imperceptible and leads to the alienation of life, of the powers of the body and of the soul through today's technological environments.

In the third part of the volume is confirmed and debated from multiple perspectives "The technicization of thinking, feeling, life and faith". Here are highlighted valuable ideas on progress and automatization, the automatization of thinking and the logic of efficiency, the accelerated rhythm of the existence and the erosion of empathy, the utopic eschatology of technological progress, the robotization of man's existence via the anesthesia generated by the technological environments and via the technicization of the essence of the existence. In this part is illustrated the modelling of the mind via the information technology, which exerts by the present technological environments an action of scattering of man's mind, effect maintained by the television and by the interaction with the computer. The infantilization of thinking is put in relation with the technological or digital addiction and with the diminution of the experience of inwardness in the virtual environment, an action leading inevitably to a structural modification of the neuronal networks.

The fourth part is called "Transhumanism - utopia of the technological religion" and reunites under this title themes such as: The ideological and philosophical roots of transhumanism; The relation between transhumanism and technology; Transhumanism, dystopia and genetic engineering; Christianism and transhumanism; The utopia of transhumanism, expression of the trust in the autonomous power of the logic of technical type.

"Transhumanism and post-humanism - Assoc. Prof. Dr. Habil. Adrian Lemeni affirms (pp. 527-528) - are aimed at approaches of improvement of the human condition, via radical transformations of the biological organism, by means of technologies and nano-technologies. The result of the interactions with these technologies leads to a post-human entity, perceived either as a new biological species, or a cyborg, or a digital and disembodied being (hyper-humanism)". So, for transhumanism, as religion of the technicized society, a

religious dimension is claimed, promoted by the technocratic elite of the world, which considers the traditional religions as retrograde by the cultivation of a mentality hostile to progress (p. 537).

In relation to this technological environment, the society as a whole needs to realize a series of actions, to assume it, to exploit it, turning it into a support and a supplementary way of learning, filling it with education-favoring stimuli, teaching the young how to "live" in this new environment, how to become critical of and autonomous in relation to this huge flow in which everything is mixed together: value and non-value, necessary and accessory, beneficial and malefic, comfort and danger. Theology needs to offer a viable and efficient alternative to the life based on communication and communion between persons replaced with a robotic behavior based on standardized rules and impersonal procedures. The new technologies changed the world, the way in which we communicate, interact, collaborate, work, get information and learn, yet technology also needs to offer an ontological and providential vision on the human existence, needs to lay the foundations of an applied Christian ethics, relying on the hope in God's work, beyond people's strategies. "History is led by God and is accomplished in the eschaton, beyond the Luciferic pride of those who believe that by the autonomous power of the technological system they will be able to control all. The solution does not consist in a rejection of technology, in an isolation, but in a way of living renewed by the work of the grace, so that by every situation we may give thanks to God, turn everything into a gesture of thanksgiving to God's glory" (p. 135).

With expertise and open vision, Associate Professor Adrian Lemeni is a road-opener and mind-opener and, at the same time, a confessor of the authentic Christian faith, faithful to the teaching and spirituality of the Holy Eastern Fathers, contributing to the understanding of the way in which the contemporary man needs to adapt, to absorb the new, yet remaining anchored in the tradition and finding the best way to reach salvation and deification, by a life lived in the authentic Christian spirit, according to the divine commandments and evangelical advice, in the middle of this digitalized and technicized world.

To conclude, what characterizes the volume *Tehnicizarea inumană a vieții (The Inhuman Technicization of Life)* is, doubtlessly, its theological-scientific value, critical and analytical at the same time, as it manages to bring together topical themes of a tremendous significance for today's world, visions and empirical research of famous people of the domain of technology, which emphasize the ambivalence and non-neutrality of the new technologies, and the present approach remains open, as the author wishes to explain in a future volume in what spirit we can take advantage of technology and of the technical logic putting them in the service of life, without adapting Life to their image.

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