Szkoła – Zawód – Praca, nr 21/2021
DOI 10.34767/SZP.2021.01.09
ISSN 2082-6087

Management courses' students towards distance learning during the Covid-19 pandemic period – their academic engagement and satisfaction (survey report)

Bartosz Seiler

ORCID: 0000-0003-0380-746x
University of Zielona Gora
adres e-mail: b.seiler@wez.uz.zgora.pl

Hanna Bortnowska

ORCID: 0000-0002-7327-7524
University of Zielona Gora
adres e-mail: h.bortnowska@wez.uz.zgora.pl

Aleksandra Noskowska

University of Bath (UK)
adres e-mail: aleksandranoskowska@gmail.com

Keywords: distance learning, Covid-19 pandemic, students' academic engagement, students' satisfaction

Abstract. The development of the Covid-19 pandemic forced rapid and widespread use of distance learning. This mass educational ‚experiment' has given rise to a consideration of students' academic engagement in distance learning, as well as their satisfaction with this form of education. The following research questions were formulated in this paper: To what extent did students of these courses engage in remote education in the analysed period? How did distance learning change their engagement with studying? What meaning did remote education have on their satisfaction with studying? What advantages and disadvantaged of distance learning did the students notice? Did the mode of study (full-time/external) differentiate the students' opinions? The subject

of the study was comprised of 172 randomly selected students of management courses, i.e. Management, Economics and Logistics. The research used an online survey technique, using a categorized and standardized questionnaire (including the UWES-S tool). The results showed that according to more than half of the management courses students who were surveyed, remote learning during the Covid-19 pandemic did not reduce their engagement in their studies. There was a decrease in engagement for 42.44% of those who were surveyed and an increase for one in four respondents (25.59%). According to more than half of the students, remote learning also did not decrease their satisfaction with studying. A decrease of satisfaction with studying was reported by less than half of the respondents (39.53%) and an increase – by 33.72%.

Studenci kierunków menedżerskich wobec kształcenia na odległość w trakcie pandemii covid-19 – ich zaangażowanie akademickie oraz satysfakcja (raport z badań)

Słowa kluczowe: kształcenie na odległość, pandemia Covid-19, akademickie zaangażowanie studentów, satysfakcja studentów

Streszczenie. Rozwój pandemii Covid-19 wymusił szybkie i powszechne zastosowanie nauczania na odległość. Ten masowy 'eksperyment' edukacyjny stał się przyczynkiem do rozważań dotyczących zaangażowania studentów w nauczanie na odległość, a także satysfakcji z tej formy edukacji. W artykule sformułowano następujące pytania badawcze: W jakim stopniu studenci tych kierunków angażowali się w analizowanym okresie w edukację zdalną? Jak nauka zdalna zmieniła ich zaangażowanie w studiowanie? Jakie znaczenie miała edukacja zdalna dla ich satysfakcji ze studiowania? Jakie zalety i wady kształcenia na odległość dostrzegli studenci? Czy tryb studiów (dzienny/zaoczny) różnicował opinie studentów? Podmiotem badań było 172 losowo dobranych studentów kierunków menedżerskich, tj. zarządzania, ekonomii i logistyki. W badaniach posłużono się techniką ankiety internetowej, stosując skategoryzowany i wystandaryzowany kwestionariusz (w tym narzędzie UWES-S). Uzyskane wyniki pokazały, że zdaniem ponad połowy badanych studentów kierunków menedżerskich nauka zdalna w trakcie pandemii Covid-19 nie zmniejszyła ich zaangażowania w studiowanie. Spadek zaangażowania dotyczył 42,44% ankietowanych osób, a wzrost – co czwartego respondenta (25,59%). Zdaniem ponad połowy badanych studentów nauka zdalna nie zmniejszyła również ich satysfakcji ze studiowania. O spadku zadowolenia ze studiowania poinformowała mniej niż połowa respondentów (39,53%), a o wzroście – 33,72%.

Introduction

Distance learning is not an invention of contemporary times. In the Middle Ages, universities and other educational institutions were maintaining epistolary contacts with each other (Fincham 2013). From the mid-19th century, the development of transportation and telecommunication technology has contributed to the boost in the process of distance communication. The agreed on caesura can be the date of the invention of the telegraph (Harasim, 2000). Electronics revolution of the 80's in turn, enabled teaching face-to-face at distance (Keegan, 1996, p. 8).

In the literature, the terms 'distance education' and 'distance learning' are treated as related concepts. According to D. Keegan (1996, p. 8; cf. Moore, Kearsley, 1996), teaching at distance is characterized by the separation of the teacher from the learner, and the learner from the learning group, whereby the interpersonal face-to-face communication is replaced with the communication mediated by technology. D.R. Garrison and D. Shale (1987) proposed 'the essential criteria' to characterize the process of distance learning: 'Distance education implies that the majority of educational communication between (among) teacher and students occurs noncontigously [not touching or in contact with]. 2. Distance education must involve two-way communication between (among) teacher and student(s) for the purpose of facilitating and supporting the education process. 3. Distance education uses technology to mediate the necessary two-way communication'. Distance education can also be conceptualized as 'the family of instructional methods', in which the behaviours related to teaching are separated from the behaviours related to learning, so that the communication between the teacher and the learner needs to be facilitated by print, electronic devices or others (Moore, Kearsley, 1996, p. 197).

The invention of World Wide Web in 1992 became the milestone in the transformations. The development of the online infrastructure has become the catalyst of transformations in the area of education, enabling the development of new ways to transfer knowledge remotely. There appeared terms which were used to describe the new phenomenon of utilizing the Internet in distance education: online learning, web-based learning, or e-learning. Some researchers use them interchangeably, others – emphasise the differences. The broadest concept appears to be e-learning. The development of e-learning is related to the historical transition from analogue to digital technology, which revolutionised resources for learning which can be repurposed, easily reproduced, and

reviewed in a number of different modes via a number of different types of hardware (Andrews, Haythornthwaite, 2007). E-learning can be defined as the use of technologies in learning opportunities, encompassing flexible learning as well as distance learning; and the use of information and communication technology as a communications and delivery tool, between individuals and groups, to support students and improve the management of learning (Higher Education Funding Council for England, 2005, p. 12). It includes both off-line teaching (learning at a separated from the web computer station), as well as on-line teaching (learning based on a computer network) (Tworzyński, 2000). On-line learning uses the Web or computer networks as the primary environment for course discussion and interaction (Harasim, 2000). According to N. Dabbagh and B. Bannan-Ritland (2005), distance learning environments use Internet or web-based technologies. I.E. Allen, J. Seaman and R. Garret (2007) add that online courses have at least 80% of the course content delivered online. These authors also defined blended learning as learning environments where 30–80% of learning/teaching activities are conducted through web-based ICT.

In this day and age, distance learning is strictly connected with the development of the broadband Internet network. On the one hand, the systematic development of distance education is determined by the supply of technologies serving to transfer knowledge (cloud computing, big data, VR – virtual reality, AR – augmented reality, IOT – Internet of Things, virtual educational platforms, applications for teamwork, etc.); on the other hand – by the demand from the educational institutions, including academies, resulting from demographic, cultural and economic transformations (cf. Friedman, Friedman, 2011). Until 2020, changes were progressing evolutionarily. The progression of the Covid-19 pandemic forced rapid and common application of distance learning. As a consequence, many universities, as well as students and lecturers at these universities, came into contact with this form of teaching for the first time. It resembled some kind of mass educational 'experiment'. It led to questions about the engagement and satisfaction of students, including representatives of management courses who suddenly, during the Covid-19 pandemic period, became participants of distance learning. To what extent did students of these courses engage in remote education in the analysed period? How did distance learning change their engagement with studying? What meaning did remote education have on their satisfaction with studying? What advantages and disadvantaged of distance learning did the students notice? Did the mode of study (full-time/

external) differentiate the students' opinions? The aim of the article is to provide answers to these questions.

The article is divided into sections, which are as follows: introduction, literature review, methods, results and conclusions.

Students' academic engagement

The concept of work engagement – a positive, fulfilling, work related state of mind characterized by vigour, dedication, and absorption (Schaufeli et al., 2002b) – concerns the work activities performed by employees. However, this construct can also be applied to the students activities, referred to as academic engagement (Schaufeli et al., 2002a). The academic activities can be perceived as 'work' from a psychological perspective – the students 'are involved in a structured, goal-directed activity that has a coercive nature, such as attending classes and completing assignments' (Tayama et al., 2019; cf. Salanova et al., 2010). Students' engagement requires not only being active but also feeling and sense making (Harper, Quaye, 2009).

The students' academic engagement is characterized by vigour, dedication and absorption. Vigour then refers to high levels of energy and mental resilience while studying, the willingness to invest effort in studying, and persistence even when encountering difficulties; dedication relates to being strongly involved in one's studies and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge; finally, absorption is about being fully concentrated and happily engrossed in what one is studying, where time passes quickly and one finds it difficult to detaching him/herself from studying (Schaufeli et al., 2017). These can be examined using the tool The Utrecht Work Engagement Scale for Students (UWES-S; Schaufeli et al., 2002a) ‑ the students' version of the most widely used instrument to assess work engagement, the Utrecht Work Engagement Scale (Schaufeli, Bakker, Salanova, 2006)[1]. It has already been used to assess students' academic engagement in different countries (e.g.: Chile – Carmona-Halty et al., 2019; Germany – Gusy et al., 2019; Italy – Loscalzo, Giannini, 2019; Japan – Tsubakita et al., 2017; Poland – Kaczmarek et al., 2012; cross-national – Portugal, Spain, Netherlands – Schaufeli et al., 2002a).

[1] Originally, the UWES included 17 items and three dimensions. Later, the UWES was reduced, resulting in a 9–item version (UWES–9) (Schaufeli, Bakker, Salanova, 2006).

The studies on academic engagement have revealed that it has positive consequences for students, e.g., higher levels of wellbeing (Tayama et al., 2019) or greater involvement in their studies (Loscalzo, Giannini, 2019). Some researchers also indicate that there is a relationship between students' engagement and their academic performance (Salanova et al., 2010; cf. Salamonson et al., 2009) / their achievements (Lei et al., 2018).

Students' satisfaction

Satisfaction may be defined as a state felt by a person who has experienced a performance or an outcome that fulfilled his or her expectations (Ilyas, Arif, 2013). According to P. Kotler and K. Keller (2012), it refers to the feeling of pleasure or disappointment resulting from comparing perceived performance in relation to the expectations. In the case of students, it can be perceived as their disposition by subjective evaluation of educational outcomes and experience (Elliot, Shin 2002; cf.: Li et al., 2017) or more broadly – as an 'attitude resulting from an evaluation of students' educational experience, services and facilities' (Weerasinghe, Lalitha, Fernando, 2017, pp. 533–534).

Numerous studies have been conducted to measure the students' satisfaction at the university level (e.g., Burgess, Senior, Moore, 2018; Butt, Rehman, 2010; Elliot, 2002; Mai, 2005; Sojkin, Bartkowiak, Skuza, 2012). For example, S. Wilkins and M.S. Balakrishnan (2013) identified quality of lecturers, quality of physical facilities and effective use of technology as key determinants of students' satisfaction. According to A. Eichelberger and H.T.P. Ngo (2018), students' satisfaction is influenced by class structure, educational activities, curriculum, lecturer competence, and facilities. L. Mai (2005) found that the overall impression of the school, overall impression of the quality of the education, teachers expertise and their interest in their subject, the quality and accessibility of IT facilities and the prospects of the degree furthering students careers were the most influential predictors of the students satisfaction.

The development of distance learning caused interest in the issue of satisfaction from studying in this form as well. Among other things, it was agreed upon that factors which had a positive influence on students' satisfaction from studying online were related to, among others, how confident they were about their communication and learning online skills, as well as how well they understood the requirements set for them (Palmer, Holt, 2009). According to available studies, important satisfaction factors were also the student-instructor and

student-student relationships (Sher 2009). According to J. Kranzow (2013; cf. Brindley, Walti, Blaschke, 2009; Chapman, Ramondt, Smiley, 2005), in this context we should point at the meaning of building a sense of community in the online environment, which requires mutual interaction among students, as well as between students and the instructor. Interaction with components of an on--line course on its own is not enough, creating an atmosphere of open communication and shaping integrity of the group is needed. Satisfaction appears when three core elements of learning communities - social, cognitive and teaching presence – are harmoniously integrated in a way that supports critical discourse and reflection (Garrison, Cleveland-Innes, 2004). On the other hand, J. Gray and M. DiLoreto (2016) proved that both the course structure, and the instructor's presence, had direct impact on students' satisfaction. Interaction between students, according to these researchers, did not have a significant impact on their satisfaction. Let us add that M T. Cole, D.J. Shelley and L.B. Swartz (2014) study demonstrated that students evaluated hybrid courses as slightly more satisfying than the fully online courses. The most frequently mentioned cause of satisfaction was 'convenience', of dissatisfaction – 'lack of interaction'.

Methods

Our own study was conducted in January 2021 and it covered the March 2020 – January 2021 period, in which at Polish universities, including the Faculty of Economics and Management of the University of Zielona Góra, classes were conducted in the form of distance learning. During the summer term 2019/2020 they were pursued using various programmes/applications (Discord, Google Hangouts, Skype, Messenger, e-mail, What's App etc. – depending on the academics' preferences), and the communication between lecturers and students could take place not only in a synchronous way, but also in an asynchronous way. During the winter term 2020/2021, the classes were taking place by means of Google Classroom, a free of charge Internet service for schools and universities, developed by Google, which was aimed at simplifying the process of communication, as well as creating, distributing and marking of assignments in an electronic form.

The subject of the study was comprised of 172 randomly selected[2] students of management courses, i.e., Management, Economics and Logistics. They were asked to assess different aspects of distance learning during the COVID-19 pandemic, including their engagement and satisfaction.

A technique of an online survey was used, practicing a compartmentalized and standardized survey questionnaire, including, among others, 12 questions: closed, half-open, tabular, including research tools UWES-9S. Ordinal and Likert scales were used.

In order to investigate the engagement of students in distance learning, The Utrecht Work Engagement Scale for Students (UWES–9S) was used (Schaufeli et al., 2002a; Carmona-Halty, Schaufeli, Salanova, 2019). The UWES–9S is a nine-item self-report scale grouped into three subscales with three items each: vigour (3 items: 1, 2, 5), dedication (3 items: 3, 4, 7), and absorption (3 items: 6, 8, 9). All items are scored on a seven–point frequency rating scale ranging from 0 (never) to 6 (always). English version was translated into Polish. Before the data collection, the nine items were piloted in a small group of participants to verify their clarity (n = 8). None of the respondents expressed problems with understanding the items. Furthermore, students were asked about their satisfaction with distance learning and about the disadvantages and advantages of this form of teaching.

The following general hypotheses were formulated:

H_1: According to the majority[3] of surveyed management students, distance learning during the Covid-19 pandemic decreased their engagement in studying.

H_2: There are differences between full-time and external management students in terms of their engagement in studying.

H_3: According to the majority of surveyed management students, distance learning during the Covid-19 pandemic decreased their satisfaction from studying.

H_4: There are differences between full-time and external management students in terms of their satisfaction from studying.

[2] The sample size was determined using the formula for sample size in the non-probability sampling scheme (Szreder, 2004, p. 121; cf. Brzeziński, 1999). The size of the sample also depended on the number of students in each field of study: full-time and external studies.

[3] According to the *Wielki słownik języka polskiego* (Żmigrodzki, https://wsjp.pl/index.php?id_hasla=35345), 'the majority' is 'the number of objects that account for more than half the total'.

Statistical analyses were carried out using Microsoft Excel and Statistica. Nonparametric tests were also performed – the Mann-Whitney U tests (with continuity correction). These were proceeded by examining the normality of the distribution of individual research groups – using the Kolmogorov-Smirnov tests with the Lillefors correction, whose results justified performing a nonparametric test.

In the study, there were 172 respondents who were students of Economics (27.91%), Management (21.51%) or Logistics (50.58%). They were studying full-time (54.07%) or externally (45.93%), pursuing undergraduate (63.95%) or postgraduate degree (36.05%). There were more women (65.70%) than men (34.30%). The average age of respondents was: 24.44. More than half of them, i.e. 57.56% were people in the age of 20–23.

Results

In order to investigate the engagement of students in distance learning, The Utrecht Work Engagement Scale for Students (UWES–9S) was used (Schaufeli, Martinez, Marques–Pinto, Salanova, Bakker 2002; Carmona-Halty, Schaufeli, Salanova 2019). Detailed findings related to academic engagement of students in distance learning during the Covid-19 pandemic are shown in Table 1.

Table 1. Engagement of students in distance learning during the Covid-19 pandemic – self-assessment of respondents

Statement	Never	Almost never	Rarely	Sometimes	Often	Very often	Always	Arithmetic mean
	Not once	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	
	[%]							
	0	1	2	3	4	5	6	
VIGOUR								
(2) I feel energetic and capable when I'm studying or going to class.	1,74	15,70	18,02	30,81	16,86	11,63	5,23	3,01163
(1) When I'm doing my work as a student, I feel I'm bursting with energy.	2,91	13,95	22,67	29,07	15,70	11,05	4,65	2,92442

Table 1 (continued)

Statement	Never	Almost never	Rarely	Sometimes	Often	Very often	Always	Arithmetic mean
	Not once	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day	
	[%]							
	0	1	2	3	4	5	6	
(5) When I get up in the morning, I feel like going to class.	10,47	22,67	26,74	22,09	7,56	5,81	4,65	2,29651
								2,74419
DEDICATION								
(7) I am proud of my studies.	5,81	7,56	12,79	25,00	25,00	13,95	9,88	3,37209
(3) I am enthusiastic about my studies.	1,74	9,88	14,53	31,98	22,67	11,05	8,14	3,29651
(4) My studies inspire me.	4,65	11,05	16,86	29,07	22,67	8,14	7,56	3,08721
								3,25194
ABSORPTION								
(8) I am immersed in my studies.	5,23	12,79	15,12	23,84	26,16	8,72	8,14	3,11627
(6) I feel happy when I am studying intensely.	7,56	17,44	20,93	30,23	13,95	6,98	2,91	2,58140
(9) I get carried away when I am studying.	13,95	17,44	22,09	27,91	10,47	4,07	4,07	2,31977
								2,67248

Source: own elaboration based on research.

The surveyed students evaluated their engagement in the subscale: dedication (=3.25194) the highest. However, they evaluated their vigour (= 2.74419) and absorption (= 2.67248) the lowest. To check whether the mode of study (full-time/external) differentiated the respondents' answers concerning 9 expressions included in the applied research tool, the Mann-Whitney U test (with continuity correction)[4] was used. The obtained results are presented in Table 2.

[4] The null hypothesis assumes in the Mann-Whitney U test that the types of distribution of the analyzed samples do not differ significantly from each other, while the alternative – that they differ significantly from each other (for more, see: Rabiej, 2012). If the p-value is below the adopted threshold of significance, there are reasons to reject the null hypothesis (Moczko, 2014).

Table 2. The Mann-Whitney U test results (with continuity correction) (engagement of students in distance learning during the Covid-19 pandemic and type of studies)

	Mann-Whitney U test results (with continuity correction) for the variable: type of studies								
	Rank sum – Group 1	Rank sum – Group 2	U	Z	P	Z adjusted	P	N valid – Group 1	N valid – Group 2
1 ($H_{2.1}$)	7522,500	7355,500	3151,500	-1,60238	0,109071	-1,63906	0,101202	93	79
2 ($H_{2.2}$)	7332,500	7545,500	2961,500	-2,18619	0,028803	-2,23764	0,025245	93	79
3 ($H_{2.3}$)	7446,500	7431,500	3075,500	-1,83591	0,066372	-1,88385	0,059586	93	79
4 ($H_{2.4}$)	7037,500	7840,500	2666,500	-3,09262	0,001984	-3,16200	0,001567	93	79
5 ($H_{2.5}$)	7409,500	7468,500	3038,500	-1,94959	0,051225	-1,99334	0,046225	93	79
6 ($H_{2.6}$)	7568,500	7309,500	3197,500	-1,46104	0,144005	-1,49553	0,134777	93	79
7 ($H_{2.7}$)	7050,000	7828,000	2679,000	-3,05421	0,002257	-3,11333	0,001850	93	79
8 ($H_{2.8}$)	7700,500	7177,500	3329,500	-1,05545	0,291219	-1,07627	0,281806	93	79
9 ($H_{2.9}$)	7782,000	7096,000	3411,000	-0,80503	0,420801	-0,82240	0,410850	93	79

*U - Mann-Whitney test value used for small numbers <20
*Z - Mann-Whitney test value used when number of both groups is greater than 20
*P - significance level for the test for the Z test value
*Z adjusted – test value adjusted for combined weights
*p - significance level for Z adjusted
*N valid – numerical amount of groups
- highlighted results significant at p<,05000

Source: own elaboration based on research.

From the analysis of information included in Table 2, it results that there is no basis to deem that the opinions of respondents studying full-time or externally did not differ from each other in matters of the following expressions (applies to hypothesis H2, in particular: H2.2, H2.4, H2.5 and H2.7):

- I feel energetic and capable when I'm studying or going to class (no. 2; vigour);
- When I get up in the morning, I feel like going to class (no. 5; vigour);
- My studies inspire me (no. 4; dedication);
- I am proud of my studies (no. 7; dedication).

The survey also showed that participants of external studies were displaying behaviours included in the UWES-9S research tool more frequently, which indicates that they evaluated their engagement higher. In the case of each of the mentioned expressions, higher average grades were obtained precisely by external

students (Table 3). The largest differences in the grading concerned the 4th and 7th expressions from the subscale 'dedication'

Table 3. Arithmetic means for statements included in the UWES-9S by the type of studies (students' self-assessment)

Statement number in UWES-9S	Participants of full-time studies	Participants of external studies	|a-b|
	Arithmetic means		
	a	b	
1	2,75	3,13	0,38
2	2,81	3,25	**0,44**
3	3,14	3,48	0,34
4	2,78	3,44	**0,66**
5	2,12	2,51	**0,39**
6	2,43	2,76	0,33
7	3,04	3,76	**0,72**
8	3,03	3,22	0,19
9	2,23	2,43	0,20
Total	2,70	3,11	0,41

Source: own elaboration based on research.

The students were also asked how distance learning during the Covid-19 pandemic changed their engagement in studying (refers to H1). The most people (42.44%, i.e., 29.65% and 12.79%) stated that during the Covid-19 pandemic period, their engagement decreased. Every fourth respondent (25.59%, i.e., 10.47% and 15.12%) expressed a contrary view. A similar percentage (25.0%) deemed that this form of learning did not have an impact on their engagement. Among the respondents were those (6.98%), who did not have an opinion on this subject. U Mann Whitney test did not show a basis to deem that the opinions of respondents studying intramurally or extramurally differed significantly in this respect ($p=0.55>0.05$) (refers to H4), which was confirmed by further analysis of the obtained data. The largest difference concerned the answer: distance learning definitely decreased my engagement in studying, which was provided less often by external students compared to full-time ones (10.13% : 15.05%) (Figure 1).

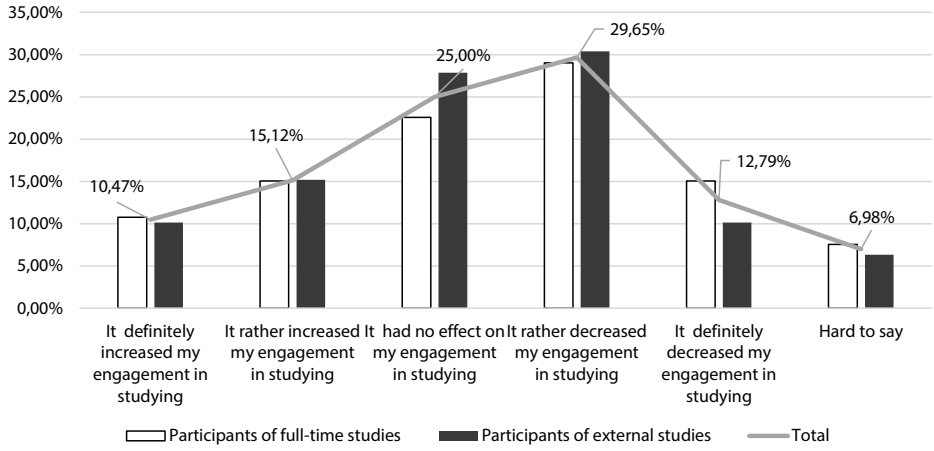

Figure 1. Respondents' answers to the question about the meaning of distance learning realised during the Covid-19 pandemic for their engagement in studying

Source: own elaboration based on research.

The students were also asked about their satisfaction from studying during distance learning realised during the Covid-19 pandemic. U Mann Whitney test did not demonstrate basis to deem that the opinions of respondents studying intramurally or extramurally differed significantly in this respect ($p=0.24>0.05$), which was confirmed by further analysis of the obtained data. The most people (39.53%, i.e., 22.09% and 17.44%) admitted that introduced during the Covid-19 pandemic distance learning decreased their satisfaction with studying, but this opinion was expressed more frequently by full-time students than by external ones (44.09% : 34.17%). Every third respondent (33.72%, i.e. 16.86% and 16.86%) expressed a contrary view – more frequently external students (34.17%) than full-time ones (30.11%). Every sixth (16.28%) participant stated that distance learning had no effect on their satisfaction, and every tenth did not express an unambiguous opinion (10.47%) (Figure 2).

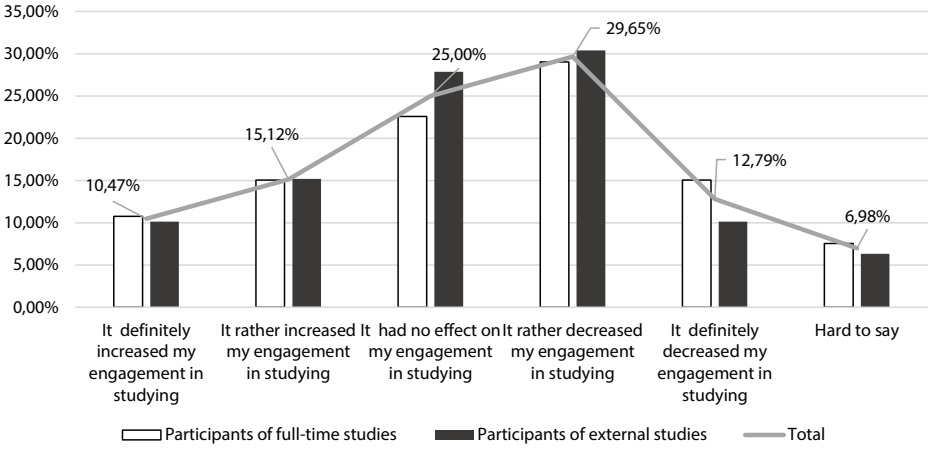

Figure 2. Respondents' answers to the question about the meaning of distance learning realised during the Covid-19 pandemic for their satisfaction from studying

Source: own elaboration based on research.

Half of the surveyed students (50.0%) evaluated direct studying better than the remote one. Almost half as many (23.26%) people had a contrary view. Both forms of teaching were evaluated equally by every tenth student surveyed (10.47%), and every sixth (16.28%) could not perform an unambiguous evaluation.

The students indicated that the most important advantages of studying in the e-learning form were the following: time saving (73.26%), easier balancing of studies with other responsibilities (private and/or professional) (56.40%), money saving (47.67%) and the possibility to study anywhere (44.77%). However, few sensed benefits such as the development of digital competence or the development of experiences in a virtual environment (5.23%), diversion of studying thanks to use of various forms of presentation of the knowledge (5.23%) or improvement of communication among students during classes (3.49%). In contrast, more than half of the respondents indicated that the most important disadvantages of distance learning were: technical problems (61.05%) and/or limited direct interpersonal relations (56.40%). Every third pointed at the significant workload of own work (34.30%) and/or problems with motivation to learn and self-discipline (30.23%). The fewest people pointed at the following as disadvantages of distance learning: costs related to the purchase and/or exploitation of computer hardware (10.47%), the feeling of isolation (11.05%)

and/or teachers' problems with assessing the effectiveness of distance learning, resulting in unjust marking of the students (9.30%).

Table 4. Advantages and disadvantages of distance learning – opinions of surveyed students during the Covid-19 pandemic period

Advantages	[%]	Disadvantages	[%]
1. Time saving, e.g., related to commuting to university.	73.26	1. Technical problems (related to computer hardware, Internet connection, software).	61.05
2. Easier balancing of studies with other responsibilities (private and/or professional).	56.40	2. Limited direct interpersonal relations.	56.40
3. Money saving (commuting, accommodation, xerox copies, etc.	47.67	3. Significant workload of own work.	34.30
4. The possibility to study anywhere.	44.77	4. Problems with motivation to learn and self-discipline.	30.23
5. Greater freedom during classes.	22.67	5. Distracting events during classes.	18.60
6. Easier access to various sources of information during classes.	16.86	6. Limitation of use of some didactic forms (e.g., direct, collaborative performance of tasks).	18.02
7. Mitigation of fear and timidity, which could appear during classes in a direct form.	13.95	7. Psychological resistance related to class participation – turning on the camera, microphone.	15.70
8. The ability to gain additional experiences in a virtual environment, development of digital competence.	5.23	8. Costs related to the purchase and/or exploitation of computer hardware.	10.47
9. Diversion of studying thanks to use of various forms of presentation of the knowledge (films, articles, chat, etc.).	5.23	9. The feeling of isolation.	11.05
10. Improvement of communication among students during classes.	3.49	10. Teachers' problems with assessing the effectiveness of distance learning, resulting in unjust marking of the students.	9.30

Source: own elaboration based on research.

Respondents from both groups pointed at the same four most important benefits from studying remotely, although in a slightly different order (Figure 3). Among the four most important disadvantages of this form of learning were in both cases: technical problems, limited direct interpersonal directions and significant workload of own work. Full-time students additionally pointed

at the answer: problems with motivation to learn and self-discipline, meanwhile external students relatively frequently did not point disadvantages (Figure 4).

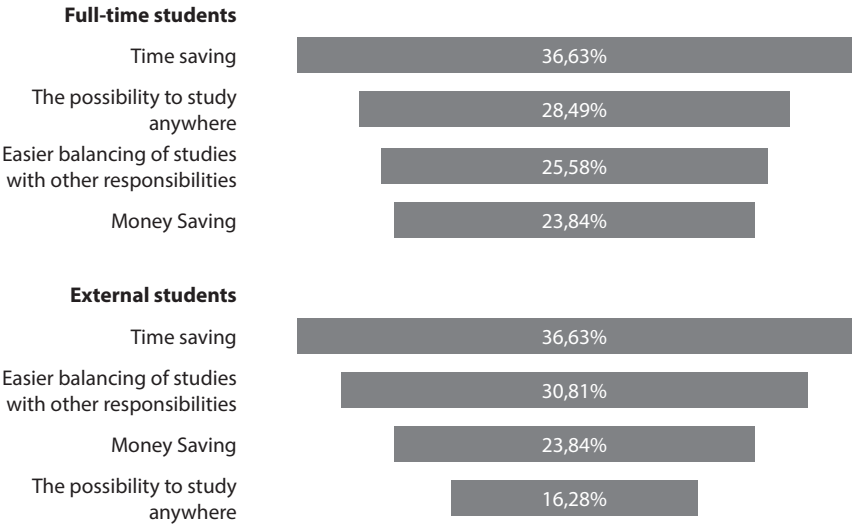

Figure 3. The four most important advantages of distance learning during the Covid-19 period – according to the mode of study

Source: own elaboration based on research

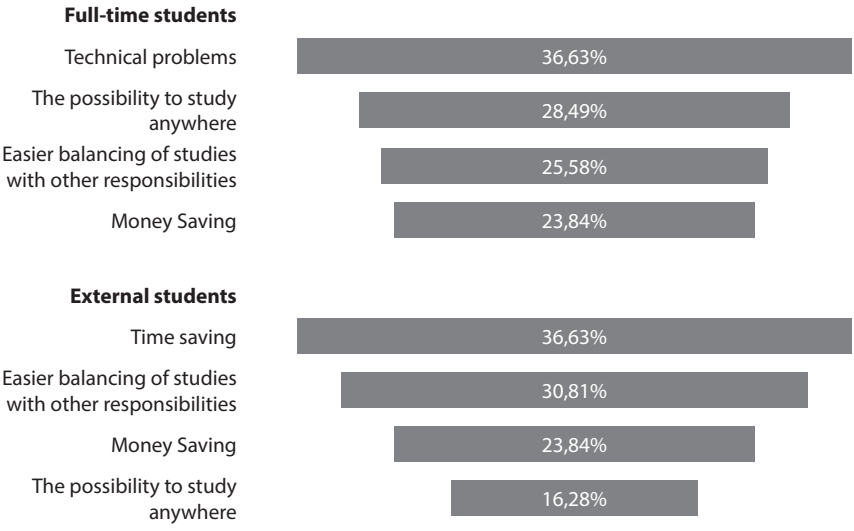

Figure 4. The four most important disadvantages of distance learning during the Covid-19 period – according to the mode of study

Source: own elaboration based on research.

During the research, students were also able to point at three most important professional competencies, which they developed thanks to distance learning. Their answers are displayed in Figure 5.

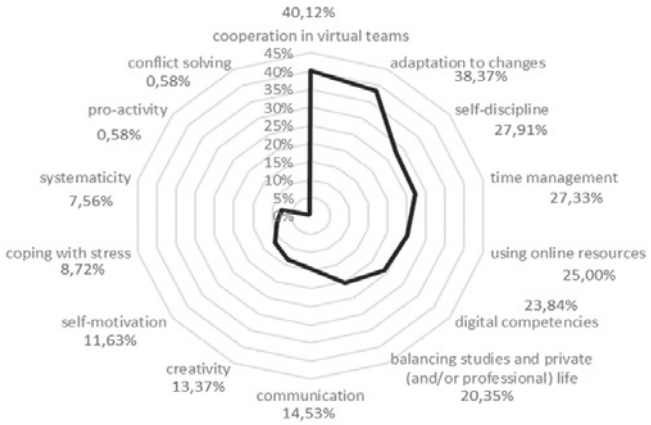

Figure 5. Professional competencies developed by students during distance learning during the Covid-19 pandemic– self-assessment of respondents

Source: own elaboration based on research.

According to the respondents, this form of studying contributed to the greatest extent to the development of professional competencies such as: adaptation to changes (38.37%), self-discipline (27.91%) or time management (27.33%). One in four respondents (25.0%) improved their skills related to using online resources and/or digital competencies (23.84%), and one in five (20.35%) – regarding maintaining balance between studying, and private and/or professional life[5].

Every fourth respondent (23.84%) would like to study solely remotely in the future, a little fewer – solely directly (22.67%). However, more than half of them (53.49%) would prefer to combine both forms.

Conclusion

In the process of conducting research, all research hypotheses were rejected. External students evaluated their engagement in studying slightly higher than full-time students. According to the majority (more than a half) of the surveyed

[5] It should be noted here that respondents were given the opportunity to indicate the three biggest advantages and disadvantages of distance learning during the Covid-19 pandemic.

management students, distance learning during the Covid-19 pandemic did not decrease their engagement in studying (refers to H1). The decline in engagement concerned 42.44% of respondents, and the increase – one in four respondents (25.59%). No significant differences between opinions on this matter among intramural and extramural students were demonstrated (refers to H2). It was concluded that external students reported on decreased engagement slightly less frequently than full-time students.

Similarly, the research did not show that, according to the majority of surveyed management students, distance learning during the Covid-19 pandemic did not decrease their satisfaction from studying (refers to H3). Less than half of the respondents (39.53%) reported on a decrease of satisfaction from studying, and on an increase – 33.72%. Also, in the case of satisfaction from studying, the opinions of respondents studying intramurally or extramurally did not differ significantly from each other. The fall in satisfaction from studying applied slightly more frequently to full-time than to external students (44.09% : 34.17%) (refers to H4).

The obtained results do not give unambiguous deciding. On the one hand, in a substantial number of respondents, engagement and satisfaction from studying remained unchanged or even increased. Distance learning enabled 'convenient' studying. The surveyed emphasised its advantages, related mainly to time and money saving, easier balancing of studies with other responsibilities, the possibility to study anywhere. On the other hand, in a significant number of respondents, engagement and satisfaction decreased. In the second case, it could have been impacted by various factors, lying both on the side of the student (including non-educational – related to stress, resulting from the development of the pandemic and related consequences), as well as related to the organisation of studies – chaos resulting from a sudden use of a different form of studying and a need of implementing ad hoc different technological and organisational solutions. The students were surprised by the events and had to rapidly adjust to changes. The need of hurried adaptation also concerned the lecturers. The hasty change shifted the foregoing order because lecturers had to enter the digital world, in which representatives of Generation Z may feel more comfortable. Therefore, a reversal of socialisation occurred, which may further the loss of authority. Some lecturers who were handling face to face teaching perfectly, suddenly started to have trouble (Cekiera, 2020; Klimowicz, 2020). What is more, distance learning by definition carries certain limits, on which the surveyed

pointed: it forces limited direct interpersonal relations, it increases workload of own work, etc. (cf. Mazur, 2021; Sujkowska-Sobisz et al., 2020).

The Covid-19 pandemic can be seen as an 'accelerator' of changes in education. The changes would occur, but in a much slower pace. As a result of described events, students en masse came into contact with distance learning, and as a result of these experiences, they had a possibility to shape opinions on this matter. It turned out that more than half would like to maintain introduced solutions in the future, but in the form of blended learning (cf. Długosz, 2020).

Finally, let us note that the research carried out by the authors concerned students of one faculty. Besides, it was quantitative, and a better understanding of the analysed problem would require more in-depth qualitative research.

References

Allen, I.E., Seaman, J., Garrett, R. (2007). *Blending in: The Extent and Promise of Blended Education in the United States*. Needham: Sloan Consortium.

Andrews, R., Haythornthwaite, C. (2007). *Introduction to E-learning research*. In: R. Andrews, C. Haythornthwaite (eds.), *The sage handbook of E-learning research*. London: Sage Publication.

Brindley, J.E., Walti, Ch., Blaschke, L.M. *Creating Effective Collaborative Learning Groups in an Online Environment*. International Review of Research in Open and Distance Learning, 3 (10). (2009). DOI: 10.19173/irrodl.v10i3.675.

Brzeziński, J. (1999). *Metodologia badań psychologicznych*. Warszawa: Wyd. Nauk. PWN.

Burgess, A., Senior, C., Moores, E. *A 10-year case study on the changing determinants of university student satisfaction in the UK*. PloS One, 2 (13). (2018). DOI: 10.1371/journal.pone.0192976.

Butt, B.Z., Rehman, K. *A study examining the students satisfaction in higher education*. Procedia - Social and Behavioral Sciences, 2 (2). (2010). DOI: 10.1016/j.sbspro.2010.03.888.

Carmona-Halty, M.A., Schaufeli, W.B., Salanova, M. *The Utrecht Work Engagement Scale for Students (UWES–9S): Factorial Validity, Reliability, and Measurement Invariance in a Chilean Sample of Undergraduate University Students*. Frontiers in Psychology, 10 (2019). DOI: 10.3389/fpsyg.2019.01017.

Cekiera, R. (2020). *Semestr z laptopa, czyli o studiach online*, https://www.miesiecznik.znak.com.pl/semestr-z-laptopa-czyli-o-studiach-online/ (16.02.2021).

Chapman, C., Ramondt, L., Smiley, G. *Strong community, deep learning: exploring the link*. Innovations in Education and Teaching International, 42 (2005). DOI: 10.1080/01587910500167910.

Cole, M.T., Shelley, D.J., Swartz, L.B. *Online Instruction, E-Learning, and Student Satisfaction: A Three Year Study*. International Review of Research in Open and Distance Learning, 6 (15). (2014). DOI: 10.19173/irrodl.v15i6.1748.

Dabbagh, N., Bannan-Ritland, B. (2005). *Online learning: Concepts, strategies and application*. Upper Saddle River: Pearson Prentice Hall.

Długosz, P. (2020). *Raport z II etapu badań studentów UP. Opinia na temat zdalnego nauczania i samopoczucia psychicznego,* Kraków: IFiS Uniw. Pedag., https://ifis.up.krakow.pl/wp-content/uploads/sites/9/2020/06/Raport-Studenci-UP-II-etap.pdf (16.02.2021).

Eichelberger, A., Ngo, H.T.P. *College Students' Perception of an Online Course in Special Education*. International Journal for Educational Media and Technology, 2 (12). (2018).

Elliott, K. *Key Determinants of Student Satisfaction*. Journal of College Student Retention: Research, Theory & Practice, 3 (4). (2002).

Elliott, K., Shin, D. *Student satisfaction: an alternative approach to assessing this important concept*. Journal of Higher Education Policy and Management, 2 (24). (2002). DOI: 10.1080/1360080022000013518.

Fincham, D. *Introducing Online Learning in Higher Education: An Evaluation*. Creative Education, 4 (9). (2013). DOI: 10.4236/CE.2013.49079.

Friedman, H., Friedman, L. *Crises in Education: Online Learning as a Solution*. Creative Education, 2 (3). (2011). DOI: 10.4236/ce.2011.23022.

Garrison, D.R., Cleveland-Innes, M. *Critical factors in student satisfaction and success: Facilitating student role adjustment in online communities of inquiry*. In: J. Bourne, J.J.C. Moore (eds.), *Elements of Quality Online Educations: Into the Mainstream*. Sloan C-Series, 5 (2004).

Garrison, D.R., Shale, D. *Mapping the boundaries of distance education: Problems in defining the field*. American Journal of Distance Education, 1 (1). (1987).

Gray, J.A., DiLoreto, M. *The effects of student engagement, student satisfaction, and perceived learning in online learning environments*. International Journal of Educational Leadership Preparation, 11 (1). (2016).

Gusy, B., Lesener, T., Wolter, Ch. *Measuring Well-Being With the Utrecht Work Engagement Scale – Student Form Validation of a 9 – and a 3-Item Measure of Student Engagement*. European Journal of Health Psychology, 26 (2019). DOI: 10.1027/2512-8442/a000027.

Harasim, L. *Shift happens Online education as a new paradigm in learning*. Internet and Higher Education, 3 (2000).

Harper, S.R., Quaye, S.J. (eds.). (2009). *Student Engagement in Higher Education*. New York and London: Routledge.

Higher Education Funding Council for England (2005). *Strategy for e-learning*. Bristol: HEFCE.

Ilyas, M., Arif, S. *Quality of work-life model for teachers of private universities*. Quality Assurance in Education. 3 (21). (2013). DOI: 10.1108/QAE-Feb-2012-0006.

Kaczmarek, U., Składnik-Jankowska, J., Grzebieluch, W. *Samoocena zaangażowania studentów stomatologii w proces uczenia się w czasie studiów*. Dental and Medical Problems, 3 (49). (2012).

Keegan, D. (1996). *Foundations of distance education* 3rd edition. London-New York: Routledge.

Klimowicz, M. (2020). *Polskie uczelnie w czasie pandemii*, https://centrumcyfrowe.pl/wp-content/uploads/sites/16/2020/10/Raport_Polskie_uczelnie_w_czasie_pandemii.pdf (15.02.2021).

Kotler, P., Keller, K. (2012). *Marketing Management*. New York: Prentice Hall.

Kranzow, J. *Faculty Leadership in Online Education: Structuring Courses to Impact Student Satisfaction and Persistence*. MERLOT Journal of Online Learning and Teaching, 1 (9). (2013).

Lei, H., Cui, Y., Zhou, W. *Relationships between student engagement and academic achievement: A meta*-analysis. Social Behavior and Personality: An International Journal, 3 (46). (2018). DOI: 10.2224/sbp.7054.

Li, N., Marsh, V., Rienties, B., Whitelock, D. *Online learning experiences of new versus continuing learners: A large-scale replication study*. Assessment & Evaluation in Higher Education, 4 (42). (2017). DOI: 10.1080/02602938.2016.1176989.

Loscalzo, Y., Giannini, M. *Study Engagement in Italian University Students: A Confirmatory Factor Analysis of the Utrecht Work Engagement Scale – Student Version*. Social Indicators Research, 2 (2019). DOI: 10.1007/s11205-018-1943-y.

Mai, L. *A Comparative Study between UK and US: The Student Satisfaction in Higher Education and its Influential Factors*. Journal of Marketing Management, 21 (2005).

Mazur, J. (oprac.). (2021). *Nauczanie zdalne. Oswojenie (nie)znanego. Wpływ pandemii COVID-19 na szkolnictwo wyższe*, https://eduhack2021.eu/wp-content/uploads/2021/01/PL-Raport_Nauczanie – zdalne-Oswojenie-nieznanego-Wplyw – pandemii-COVID-19-na-szkolnictwo-wyzsze.pdf (17.02.2021).

Moczko, J.A. *Czy zawsze prawidłowo interpretujemy wyniki statystycznych testów nieparametrycznych*. Przegląd Lekarski, 11 (71). (2014).

Moore, M.G., Kearsley, G. (1996). *Distance Education: A Systems View*. Boston: Wadsworth Publishing Company.

Palmer, S.R., Holt, D.M. *Examining student satisfaction with wholly online learning*. Journal of Computer Assisted Learning, 2 (25). (2009). DOI: 10.1111/j.1365-2729.2008.00294.x.

Rabiej, M. (2012). *Statystyka z programem STATISTICA*. Gliwice: Helion.

Salamonson, Y, Andrew, S, Everett, B. *Academic engagement and disengagement as predictors of performance in pathophysiology among nursing students*. Contemporary Nurse, 1–2 (32). (2009). DOI: 10.5172/conu.32.1-2.123.

Salanova, M., Schaufeli, W., Martínez, I., Breso, E. *How obstacles and facilitators predict academic performance: The mediating role of study burnout and engagement*. Anxiety, Stress, & Coping, 23 (2010). DOI: 10.1080/10615800802609965.

Schaufeli, W.B., Bakker, A.B., Salanova, M. *The measurement of work engagement with a short questionnaire: a cross–national study*. Educational and Psychological Measurement, 66 (2006).

Schaufeli, W.B., Martinez, I.M., Marques-Pinto, A., Salanova, M., Bakker, A. *Burnout and engagement in university students: a cross–national study*. Journal of Cross-Cultural Psychology, 33 (2002a).

Schaufeli, W.B., Salanova, M., Gonzales–Romá, V., Bakker, A.B. *The measurement of engagement and burn out: a two–sample confirmatory factor analytic approach*. Journal of Happiness Studies, 3 (2002b).

Schaufeli, W.B., Shimazu, A., Hakanen, J., Salanova, M., De Witte, H. *An ultra–short measure for work engagement: the UWES–3 validation across five countries*. Euro-pean Journal of Psychological Assessment, 4 (35). (2017). DOI: 10.1027/1015-5759/a000430.

Sher, A. *Assessing the relationship of student-instructor and student-student interaction to student learning and satisfaction in Web-based Online Learning Environment*. Journal of Interactive Online Learning, 2 (8). (2009).

Sojkin, B., Bartkowiak, P., Skuza, A. *Determinants of higher education choices and student satisfaction: the case of Poland*. Higher Education, 63 (2012). DOI: 10.1007/s10734-011-9459-2.

Sujkowska-Sobisz, K., Latkowska, J., Ślęczek-Czakon, D., Piwowarczyk, P. (2020). *Zdalne kształcenie na Wydziale Humanistycznym Uniwersytetu Śląskiego w Katowicach*, Katowice, https://us.edu.pl/wydzial/wh/wp-content/ uploads/sites/15/Nieprzypisane/ ZDALNE-KSZTA%C5%81CENIE-NA-WYDZIALE-HUMANISTYCZNYM-RAPORT.pdf (15.02.2021).

Szreder, M. (2004). *Metody i techniki sondażowych badań opinii*. Warszawa: PWE.

Tayama, J., Schaufeli, W., Shimazu, A., Tanaka, M., Takahama, A. *Validation of a Japanese Version of the Work Engagement Scale for Students*. Japanese Psychological Research, 61 (2019). DOI: 10.1111/jpr.12229.

Tsubakita, T., Shimazaki, K., Ito, H., Kawazoe, N. *Item response theory analysis of the Utrecht Work Engagement Scale for Students (UWES-S) using a sample of Japa-nese university and college students majoring medical science, nursing, and natural science*. BMC Research Notes, 10 (2017). DOI: 10.1186/s13104-017-2839-7.

Tworzyński, J. *Zaprząc sieć do nauczania*. Personel, 21 (2000).

Weerasinghe, I.M.S., Lalitha, R., Fernando, S. *Students' Satisfaction in Higher Educa-tion Literature Review*. American Journal of Educational Research, 5 (5). (2017). DOI: 10.12691/education-5-5-9.

Wilkins, S., Balakrishnan, M.S. *Assessing student satisfaction in transnational high-er education*. International Journal of Educational Management, 2 (27). (2013). DOI: 10.1108/09513541311297568.

Żmigrodzki, https://wsjp.pl/index.php?id_hasla=35345 (15.12.20210).