

Dr Angelika M. Pabian

Uniwersytet Śląski w Katowicach/

/University of Silesia in Katowice

ORCID: 0000-0002-8958-4262

e-mail: angelika.pabian@us.edu.pl

Redefinition of the educational product during the SARS-CoV-2 pandemic: The Polish perspective

Redefinicja produktu kształceniowego w dobie pandemii wywołanej wirusem SARS-CoV-2 — perspektywa polska

Abstract

Polish universities have undergone huge changes over the last 30 years. Traditional academic education in Alma Mater was supplemented by distance learning. However, the strategy for the development of education has never indicated the replacement of face-to-face activities with those online. As it turned out, the environment forced universities to completely change the paradigm of academic education based on mutual contact, exchange of views, or direct discussion. In March 2020, universities moved their activities to the Internet. The article aims to identify the challenges faced by Polish universities in the period of limiting the functioning of universities to counteract the spread of the SARS-CoV-2 virus. The article is empirical — it presents a case study describing the results of an experiment in which students of the University of Silesia in Katowice participated in human resource management. The author will present the survey and observations results regarding e-learning education during the pandemic, assessed in the context of the redefinition of a marketing service product. The main research problem revolved around finding an answer to the question: What are the reactions to distance learning among students?

Keywords

e-learning, distance learning, education platforms, Higher Education Institutions (HEIs)

Streszczenie

Polskie uczelnie przeszły na przestrzeni ostatnich 30 lat ogromne zmiany. Tradycyjne kształcenie akademickie w Alma Mater uzupełniano kształceniem zdalnym. Jednak strategia rozwoju szkolnictwa nigdy nie wskazywała na zastąpienie zajęć stacjonarnych tymi w sieci. Jak się okazało, otoczenie wymusiło na uczelniach zupełną zmianę paradygmatu kształcenia akademickiego, opartego na wzajemnym kontakcie, wymianie poglądów czy bezpośredniej dyskusji. W marcu 2020 r. uczelnie przeniosły swoją działalność do sieci internetowej. Celem artykułu jest identyfikacja wyzwań, przed którymi stanęły polskie uczelnie w okresie ograniczenia funkcjonowania uniwersytetów w celu przeciwdziałania rozpowszechnianiu się wirusa SARS-CoV-2. Artykuł ma charakter empiryczny — prezentuje studium przypadku opisujące rezultaty eksperymentu, w którym wzięli udział studenci Uniwersytetu Śląskiego w Katowicach na kierunku zarządzanie zasobami ludzkimi. Autorka prezentuje rezultaty ankietyzacji oraz obserwacji dotyczącej kształcenia e-learningowego w okresie pandemii, ocenianego w kontekście redefinicji marketingowego produktu usługowego. Główny problem badawczy koncentrował się wokół znalezienia odpowiedzi na pytanie: Jakie reakcje wywołało kształcenie na odległość wśród studentów?

Słowa kluczowe

e-learning; kształcenie zdalne, platformy edukacyjne, szkoły wyższe (uczelnie)

JEL: I23, D83

Introduction

The development of higher education in Poland is associated with the introduction of the Act on Higher Education in 1990. The construction of the new order in the higher education sector ran parallel with the developing market economy in Poland (Pabian, 2018; 2021). Initially, the evolution focused on quantitative changes related mainly to the increased number of universities, which took place due to founding initiatives resulting in the establishment of the first, although mass-emerging, private universities (Pabian & Piróg, 2017).

Problems in the higher education sector were related not only to the functioning of the domestic market but also to the international market. An increasing number of universities made efforts to enhance their internationalization, including motivating employees and students to participate in numerous projects. However, meticulously planned strategies of action in the field of higher education, but also science, did not take into account a certain factor. In March 2020, due to the epidemic threat caused by the SARS-CoV-2 virus, universities suspended their face-to-face activities. Initially, it was supposed to be only a temporary university lockdown. However, as it turned out, the implementation of hybrid education, it was impossible to combine remote and face-to-face classes. Therefore, universities transferred all educational processes to the virtual environment and internships were also suspended. Never before had Polish universities conducted remote education on such a scale. The new conditions for achieving learning outcomes turned out to be a challenge for the ministry, university authorities, teaching and research staff, and students.

The author of the article intends to indicate the changes during the pandemic in higher education. In particular, the focus is on the form of education, which has changed naturally, albeit only temporarily. The study is only an introduction to further discussion and advanced explorations in the context of changes in the needs and preferences of student-clients in the field of the distribution of the service product, which marketing structure has changed. The insufficiently noticed problem of distance learning may, in the future, be an essential factor allowing universities to achieve a competitive advantage in the provision of educational services.

Ways of achieving learning outcomes by HEIs in the time of the pandemic

Initially, in Poland, the law regulating the matters of higher education imposed the obligation

on the competent minister to establish the criteria necessary to fulfill when introducing remote education to the curriculum. According to this provision, the minister responsible for the issued regulations indicated the possibility of implementing e-education at all levels of education and the conditions that the university must meet in terms of infrastructure, software, and staff. In the years 2007–2018, the above-mentioned state of affairs was in force under the Regulation of the Minister of Science and Higher Education of September 25, 2007, on the conditions that must be satisfied for classes in studies to be conducted with the use of distance learning methods and techniques. In 2018, a new law was introduced, the so-called The Law on Higher Education and Science, to address numerous higher education problems. In the new legal act, Article 67(4) indicates the possibility of only some of the learning outcomes from the distance learning mode. However, this situation changed significantly in March 2020, when the ministry was forced to implement restrictions on teaching at universities due to the SARS-CoV-2 pandemic. Universities without prior preparation had to use their potential to maintain the continuity of functioning rather than suspend education. Initially, some classes were held remotely according to the "Recommendation of the Ministry of Science and Higher Education on education conducted using distance learning methods and techniques." The successive waves of the coronavirus determined the further activities of the ministry in terms of the functioning of universities in the new conditions and the introduction of further regulations.

The natural consequence of the restrictions introduced by the Polish government was initially the partial and then full use of remote learning tools and techniques to achieve learning outcomes. Following ministerial recommendations, universities provide the technological infrastructure to enable the conduct of classes, and universities support the use of ICT tools. In turn, a University teacher prepares and makes digital materials available, and the university provides tools for remote education by applicable law.

The introduction of restrictions and the transition to distance learning required universities to undertake activities related to the preparation of procedures that would allow the quality of teaching materials to be verified and detect pathological or undesirable activities. Additionally, due to the limited experience of universities and teachers, it was necessary to prepare instructions for using e-learning platforms or distance learning applications. It was also necessary to organize training for both students and teachers. The 2019/2020 academic year

ended in many cases with the diploma examination via ICT.

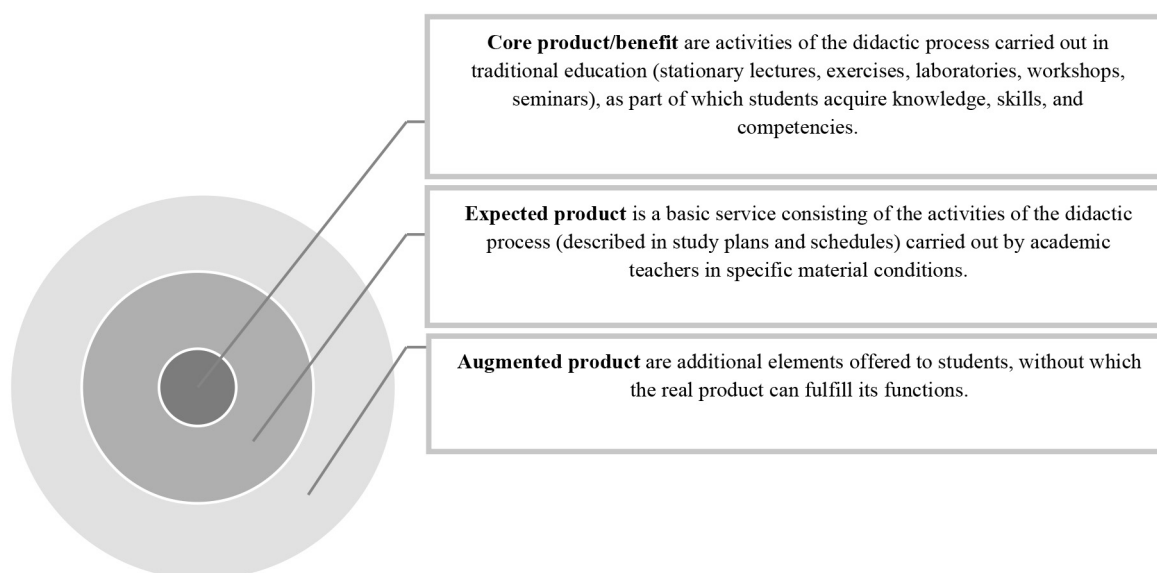
The basis for designing an educational product at the higher level is legal regulations, including the Law on Higher Education and Science and the Bologna Treaty, which provides for the standardization of the product structure. These documents define the fundamental tasks of the university, which reflect its mission (Kulig & Nowaczyk, 2011). When analyzing the education offered by the university based on the Th. Levitt (Figure 1), the educational product can be divided into three layers, namely the core product, the expected product, the augmented product. We can also point to the potential product — something additional for the elements of products structure.

The core of the product offered by universities as part of the studies is the learning outcomes specified in the study program in the form of specific knowledge, skills, and social competences. The core product is made up of university resources involved in the education process such as academics, research and teaching facilities, including lecture halls, laboratories, library, devices, and systems supporting the process of acquiring knowledge (e.g. e-learning classes). The basic product also includes the scholarship system and the rules for collecting tuition fees. The brand of the university and the social trust encoded in it, which the university enjoys, also make up an educational product. From the point of view of the student and his or her study process,

administrative procedures and services are also important. On the other hand, the extended product includes elements that complement and enrich the real product with elements not directly related to the didactic process but significantly increasing the attractiveness of the university offer in the opinion of students. This layer includes the possibility of increasing the qualifications or broadening the interests of students in the form of optional courses, certified training, research clubs, student organizations, sports, recreation, and culture, etc. For many students, internships and internships offered under contracts with companies recognized in the industry are also important. Additionally, as part of the extended product, it is possible to indicate the possibility of implementing part of the curriculum at partner foreign universities (Erasmus+ program). The overall educational offer of a university may consist of many different products. In the overall assessment of the quality of the offer, elements such as an information service administered by universities, a virtual dean's office system with personalized information on the schedule, grades, finances, scholarships, submitted applications, etc., are also important (Pabian, 2015).

It would seem that for students assigned to higher education (19-25), a potential product that could increase the attractiveness of higher education may be the transfer of the didactic process to the Internet. Most students are representatives of Y and Z generations, who feel comfortable in virtual reality and have no major

Figure 1. Structure of an educational product



Source: Pabian, 2015.

problems handling new media. The period of the pandemic seems to be a verifier for such a thesis.

The transfer of classes to the virtual university campus caused by the threat of the

SARS-CoV-2 vortex made it necessary to redefine the educational product. The changes are obvious in the core benefit layer; however, it still consists of activities of the didactic process. Students achieve the triad of goals, and the conditions for implementing these activities are changing. Meetings in lecture halls and laboratories have been replaced by meetings on platforms dedicated to distance learning.

So far, the Moodle platform, which is an extensive e-learning system, has been the most widely used in Poland. By March 2020, it had been used mainly as an additional repository of teaching materials. However, it is a much more comprehensive tool. As part of the created courses, you can prepare tasks and quizzes with the automatic verification of the correctness of answers. Additionally, the built-in chat functionality or discussion forums enable ongoing communication with the teacher. During the pandemic, the Office 365 Online package, which is available to employees and students logging in from university systems, has gained importance. It is a multi-application cloud service. Microsoft Teams is particularly noteworthy here; it is a platform enabling individual and collective communication, including chats and videoconferences. In addition, as part of the team (class group), materials can be placed, and tests and tasks can be prepared that can be verified automatically or by the teacher. In addition (like on the Moodle platform), students can follow their progress on an ongoing basis by analyzing grades (Moodle and Teams). A trend of using the Zoom system was also noticeable among Polish HEIs, which enables videoconferences. However, it does not provide such wide possibilities as Microsoft Teams. The functions complementary to the above-mentioned instruments are performed by electronic mail and virtual dean's office systems, e.g. USOSWeb.

It seems to be very difficult to acquire knowledge, skills, and competencies during the pandemic. Teaching activities require not only specialist knowledge and experience but also digital competencies from teachers. It should be emphasized that they are diverse, which is undoubtedly related to the age variable. Until March 2020, lectures were conducted in the form of lectures, sometimes supported by teaching materials in printouts or the form of a multimedia presentation. Currently, conducting classes requires planning meetings on various platforms, designing tasks, and other activities, which is associated with having appropriate technical

knowledge. In addition, in challenging remote communication, continuous availability of teachers and ongoing consultations are required. There has also been a change on the side of students. They can no longer only come to the lecture hall but must log in to the platform and have elementary knowledge of how to use its functionality. This initial condition allows for the acquisition of knowledge and skills. Therefore, it can be clearly stated that the elements from the expected product layer have been moved to the core benefit. Distance learning has become a base, not an additional option. Additional materials that are part of the expected product have also changed their form. Today, it is impossible to hand overprints to students or send them to the library (due to their temporary closure or limited access to volumes). University teachers are expected to prepare multimedia materials or recordings of lectures and articles, books available in the open access system, etc. As in the case of the core benefit, also in the case of the augmented product, the university must offer the possibility of remote acquisition of optional knowledge (e.g. online courses and training) or internships in the form of the so-called business simulation.

The open question is to what extent the changes implemented in the epidemic emergency will affect the form of the educational product in the coming years. To what extent will teachers' tutorials or training videos become part of academic practice? Will the skills acquired during the pandemic translate into the increased quality and attractiveness of the educational offer at a higher level?

Methodology

Since March 2020, universities in Poland have switched to the remote education system almost overnight. The Ministry of Science and Higher Education issued general recommendations on distance learning, on the basis of which university rectors prepared documents regulating the educational process during the lockdown period. Universities were obliged to use existing resources, including tools, for the remote transfer of knowledge and teaching materials. At universities, support teams were set up in to create e-educational resources, designed to provide assistance to research and teaching staff and students. It is worth emphasizing that rectors gained a lot of autonomy in making decisions related to the selection of e-learning tools. Teachers were also free to choose communication platforms and didactic tools. They chose (from the list approved by the university) those which they

considered the most relevant to the classes conducted.

The conditions in which classes had to be conducted can undoubtedly be called an experiment. In such an approach, this experiment should be treated as a research method that has the nature of an active (provoked) observation (Piwowar-Sulej, 2018), where specific events were triggered (here: suspension of face-to-face classes in the university campus buildings related to the SARS-CoV-2 pandemic and transfer of lectures to the Internet). The course of the process was recorded, and after completing education in a given semester, the members of the experimental group were asked to share their opinions on e-learning studying at the university. The changes recorded by the observer and caused by the experimental factor (independent variable) are treated as dependent variables.

Because the planned experiment takes the form of a study conducted in real conditions, it takes the form of a natural experiment. It "occurs when a particular intervention has been implemented but the circumstances surrounding the implementation are not under the control of researchers." (Leatherdale, 2019). The advantages of natural experiments that emphasize the importance of this research procedure are that "they widen the range of interventions that can usefully be evaluated beyond those that are amenable to planned experimentation; and they encourage a rigorous and imaginative approach to the use of observational data to evaluate interventions that should allow stronger conclusions about impact" (www.mrc.ac.uk/naturalexperimentsguidance).

The experiment in the didactic area with all students in the field of Human Resource Management was conducted in two periods from March 16, 2020 to September 25, 2020 (period 1) and October 1, 2020 to March 30, 2021 (period 2). Its main goal was to find an answer to the following questions:

1. How will students react to the process of distance learning conducted with the use of new media tools, platforms and systems in the context of the obtained learning outcomes?
2. Why does the use of new media in the process of higher education cause dissatisfaction among the representatives of generation Y and Z?

The experimental group consisted of students of Bachelor degree studies. First — year students took part in classes conducted by the author for the first time, while the students of the second and third year of study participated in classes conducted by a given teacher in the previous years. Generally speaking, the experimental group was divided into two subgroups, namely students with experience in higher education and in contact with a given

teacher, and students entering university education.

In the conducted research project, the paradigm of triangulation of methodological approaches was used. Thus, in addition to the main method of a natural experiment in the form of active observation, the methods of e-mail surveys were used by the observer. The integration of various approaches underlying triangulation allows for a broader cognitive perspective and increases the credibility of knowledge built based on the obtained data (Chlipała, 2014). In the literature, the use of this approach is referred to as "the third path" or "the third methodological movement" (Teddle & Tashakkori, 2009). Methodological connections can be different. The type of "within method" was used during the research project where two data-collection qualitative procedures are mixed (Bekhet & Zauszniewski, 2012), called multi-method, mixed-method, or methods triangulation (Joslin & Müller, 2016).

During the lockdown period, the only possible methods of obtaining students' opinions on e-learning were those used on the Internet. The observer chose the e-mail survey because she had the base of students' e-mail addresses. Additionally, this technique reduces the costs of project implementation, its procedure is simple, and the results are automatically counted (Truell, 2003). The most important, however, is that the application of the method made it possible to confront the observer's observations (made with certain limitations, as they only concerned students' online activity) with the opinions of the remote learning beneficiaries. The questionnaire was relatively short and included, *inter alia*, questions about the barriers to implementation of distance learning and questions about the pros and cons of this type of study. Additionally, students could compare the effectiveness of activities conducted before and during the pandemic.

In the first analyzed period, various e-tools and communication platforms were used in the education process. The method of transferring knowledge was selected depending on the specificity of the classes. There were several communication platforms used such as Microsoft Teams 365, Moodle, YouTube, and the teacher's own website, with a built-in didactic section. Some of the classes were held in real time (Microsoft Teams 365), and others using an asynchronous mode (Moodle, website). Students had the opportunity to watch films with the lecture and introduction to the exercises by logging into the section dedicated to the subject at www.angelika-pabian.pl. The section was also enriched with e-didactic materials to facilitate the acquisition of knowledge. Before each class, students received

detailed instructions for classes, in which they were informed about their objectives, learning outcomes, tasks to be performed, and the date and method of their return. The solutions to the tasks were sent to the teacher's e-mail box or via the Moodle platform, and feedback with the assessment was sent through the same channels. Laboratories were conducted similarly. Tutorials were prepared for them, which are a very active form of presenting knowledge, especially when learning how to use the software. Additionally, the scripts were prepared for the laboratories to facilitate the performance of tasks at computer stations. It is worth emphasizing that students used the website www.angelika-pabian.pl earlier (before the pandemic). In the second analyzed period, students took part in classes held only in real time (Microsoft Teams 365), but they also could use some didactic materials.

Results

First, second, and third-year, both full-time (68.1%) and part-time (31.0%) students, participated in the experiment in the first period. In total, all students participating in the activities subjected to the experiment are 119 people. The vast majority of respondents are women; only one in four is a man. In the second period, 66 students participated in the study (72.7% — full-time studies; 27.3% — part-time studies; including 78% of women in both groups), which was caused by the fact that third-year students had already completed their education in July 2020. In addition, first-year students were not invited to the study, which was related to the essence of the panel study, which is conducted periodically on the same group of people. To sum up, students who were students in the first period and continued their education in the second period participated in the experiment and the survey.

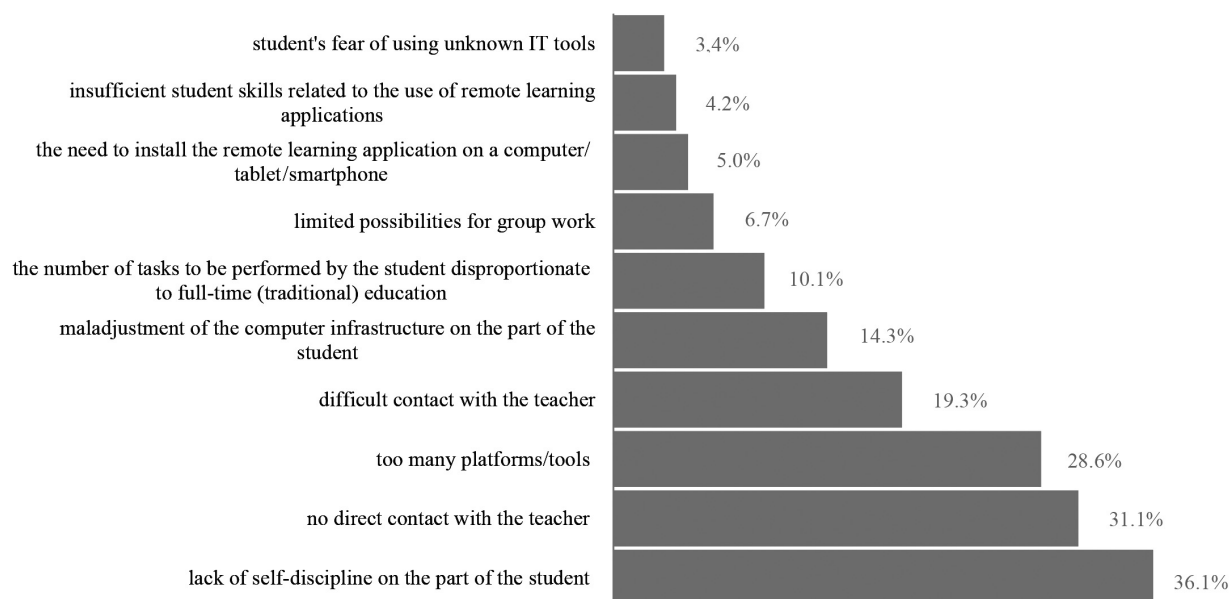
The observations made in the first period show that students approached diligently to the implementation of tasks entrusted to them and to work out the assumed learning outcomes. Students were sending papers on time, but it was noticed that they ask many more questions than in traditional education. Despite the prepared, detailed instructions for performing the tasks and the film with the lecture, the students did not cope with knowledge acquisition. This could be due to difficulties in self-study of some content or technical problems (lack of appropriate equipment or the ability to use communication platforms). The final results for all the subjects were worse than those obtained in previous years. Older, second- and third-year students did much better in

e-learning. There could be various reasons for this. Firstly, they cooperated with the author in previous years and used e-materials as a form complementary to traditional education. Secondly, the result of the experience appeared as part of the cooperation — the students knew teacher's requirements and the way of conducting the classes. In contrast, the teacher knew the students' predispositions.

The observation results seem to be confirmed by the opinions of students obtained during the survey. Among the most important barriers in e-learning education, students usually mentioned the lack of self-discipline (36.1%) and the lack of direct contact with the teacher (31.1%). The multitude of educational tools and platforms that various teachers initially used turned out to be troublesome (28.6%). Over 14% of the respondents confirmed that the technical infrastructure on their side was not suitable for receiving higher education. The least frequent options among students' answers were lack of technical skills (2.6%) and a fear of using new instruments (2.1%). The latter results, however, seem to contradict the observations. Many inquiries and comments received by the author via e-mail concerned technical but not substantive problems. A detailed list of students' answers is presented in Figure 2.

The second period started with introducing top-down guidelines as to the tools for achieving learning outcomes. These activities greatly facilitated the cooperation between students and teachers. Additionally, both sides already gained some experience in distance learning. Learning outcomes turned out to be better than in the previous period compared with those obtained during traditional education in previous years. Undoubtedly, this was due to the implementation of regulations mandating the implementation of e-learning tools using some synchronous communication mode and gaining some experience in distance learning.

Students found that distance learning can only supplement traditional education (54% — the first period; 62% — the second period). It was surprising and satisfactory that over 36% of the respondents in both periods stated that they gained knowledge easily and pleasantly during remote education. Opinions did not change because e-learning can only be an excellent alternative to traditional education (on average, every fourth respondent in both groups). In the first period, nearly 15% of students emphasized that distance learning would never replace studying on the university campus. In the second period, it was a bigger group of about 4.7 p.p. Nearly every fifth respondent in the second period declared that he did not like e-learning (higher by almost 6 p.p. compared to the first period). A group

Figure 2. Barriers to effective e-learning

Source: own study.

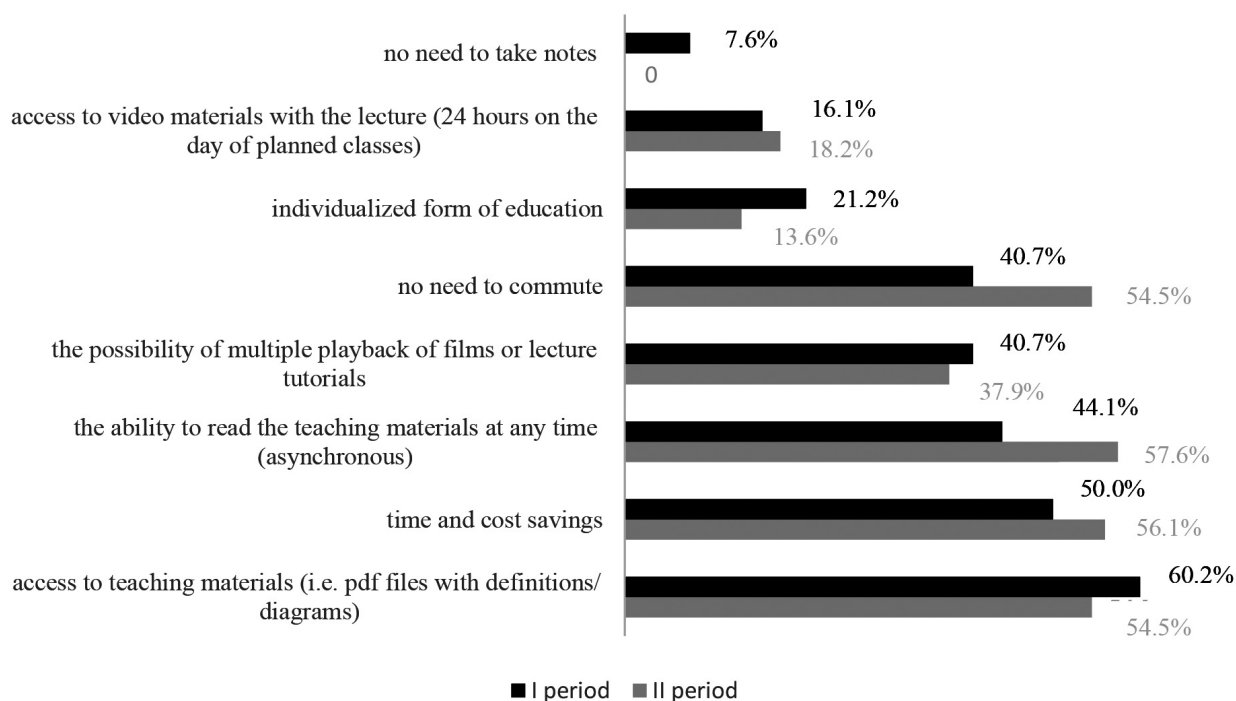
of 12.6% of students found it difficult to acquire knowledge in the first period. A much larger group of people in the second period developed the ability to study remotely (92.4%).

Among the advantages of e-learning, students most often mentioned access to e-materials in the first period. In the second period, this option was indicated less frequently (third in the popularity ranking). During the surveys in 2021, asynchrony, i.e., the ability to study the content of classes at any place and time, was mainly appreciated. A year earlier, this option was ranked third in the ranking of the most frequently indicated advantages. In both analyzed periods, savings in time and costs were indicated by students as the second most important advantage. The fact that there was no need to take notes was the least appreciated, and the individualized form of education was also rarely mentioned. Detailed results are presented in Figure 3.

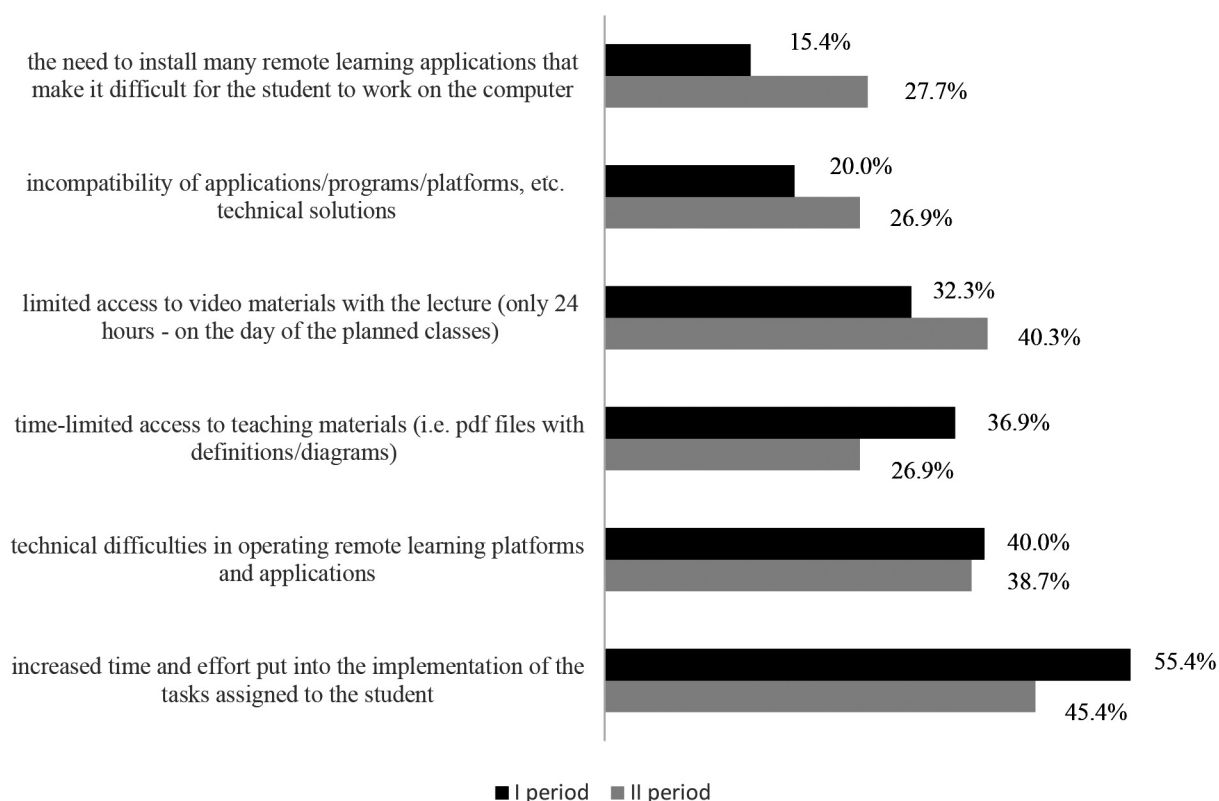
To balance the advantages of e-learning, students were asked about its disadvantages (Figure 4). In both analyzed cases, it was found that the biggest problem of e-learning is the need to involve the student more in the implementation of tasks, and thus the increased time-consumption of this type of education. In the first period, nearly half of the students were of this opinion, while it was a bigger group of 10 p.p. in the second period. In the first period, the second option in terms of the number of indications was the inability to watch the lecture film after the classes (40.3%). At this point, it should be emphasized that during classes

in real-time, students were rarely active and did not turn on web cameras, and thus, there is a suspicion that they were only logged in (and did not participate in them). Hence, there was a need to read the content of the lecture videos at another time. In the second period, this option appeared in the ranking of disadvantages as 4. In both analyzed cases (a group of approx. 40%), technical difficulties related to platform operation were a problem in e-learning.

After the end of the first period of education, nearly 45% of students stated that on a 5-point scale of effectiveness, the conducted e-learning education could be assessed as 4. Every fifth respondent pointed effectiveness to be satisfactory (grade 5), the group of a similar size assessed it as average (grade 3). Distance learning was also assessed as a convenient and flexible form of education (37%). Nevertheless, only 17% of respondents would like to introduce this type of study into the curriculum. A group of over 12% of respondents declared that e-learning was only a good solution in the period of isolation associated with the SAR-CoV-2 virus. Additionally, the observations made grounds for claiming that e-learning can be an equally effective form of transferring and acquiring knowledge but requires an enormous commitment from teachers and students. Polish students and academics were not prepared for such a quick transition from traditional education to that supported by new media. To achieve learning outcomes, it was necessary to conduct many

Figure 3. Advantages of e-learning


Source: own study.

Figure 4. Disadvantages of e-learning


Source: own study.

additional tutorials and significantly extend the teacher's working time. In the long run, this could lead to professional burnout. Similar symptoms were diagnosed in students who were obliged to carry out many written assignments confirming the activities taking place in the network. This mode of education may demotivate them in the long term.

The observations made in the first period and the collected opinions of students contributed to implementing changes in the ongoing education process in the second period. The author introduced much more classes in real mode, using e-learning platforms that provide opportunities for group work and thus bring distance learning closer to face-to-face learning. Effects turned out to be satisfactory. Students working in groups were more motivated, and the results of the work were satisfactory. Communication between the teacher and students was more effective, which seems to be also confirmed in the opinion of the students. Nearly 70% of the respondents believed that the effectiveness of education was higher in the second period.

The observations show that both groups participating in the experiment (teachers and students) quickly adapted to the new conditions, obtaining better results of their work from period to period. Basing the education program on modern communication technologies requires a lot of training by teachers and students. However, most of all, it requires a change in the paradigm of higher education. In the reported experiment, both groups were more often tested, and the effects of mutual work were more often verified. This process created a sense of distrust and adversely affected the motivation to continue working. The goal of studying was not to obtain or transfer knowledge but to provide a service.

Summary

The use of e-learning during the pandemic confirmed the existence of challenges for HEIs, which should be attributed to several areas: the first is related to students, the second to teachers, and the third is a general problem of managing the teaching process in new conditions (Ramakrisnan,

Yahya, Nor Hajar Hasrol & Aziz, 2012). Students still consider the presence of the teacher necessary for the process of their education to be considered effective and efficient. Hence, the following question should be asked: how to attract students' attention during distance learning using new media and how to motivate the representatives of the student community to become more involved in studying with the use of modern methods? The question asked in this way contributes to the teachers' effort to create e-materials that will attract attention, encourage students to read the lecture content, and motivate students to explore the lecture topics further. Additionally, it is important to identify student involvement or motivation in traditional education models and then consider the determinants of student behavior in higher education. Attempting to transform or retrain academic staff into e-teachers is a process in which university employees must be involved. Still, it also depends on the university's management system and the potential of human resources. It determines the success of actions taken in this area. One should also consider the problem of digital exclusion by many academics with rich experience — excellent teachers, but not using new media in the education process, and therefore — the best methods of integrating technology into the teaching process of teaching staff (Nawaz, 2012). The new approach to education will require a change in the work patterns of many teachers (Singh, O'Donoghue & Worton, 2021; O'Neill, Singh & O'Donoghue, 2004), which is likely to be met with resistance as a primary response to change.

The pandemic period has become a kind of experiment in the possibility of implementing full e-learning education. The experiences of many universities in this field are different, which is because earlier attempts to use e-learning in study programs were made and the attitude of authorities to this type of studies as well as the advancement of ICT and the costs of Internet access (Valverde-Berrocso, del Carmen Garrido-Arroyo, Burgos-Videla & Belén Morales-Cevallos, 2020; Edelhauser & Lupu-Dima, 2020). However, it is undeniable that modern universities will sooner or later have to implement strategies involving the redefinition of an educational product. Therefore, it is worth using the current experience to create a better offer.

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Dr Angelika M. Pabian

Doktor nauk ekonomicznych w dyscyplinie nauki o zarządzaniu, zatrudniona na stanowisku adiunkta na Wydziale Nauk Społecznych Uniwersytetu Śląskiego w Katowicach. Specjalizuje się w problematyce zarządzania marketingiem, w szczególności komunikacji marketingowej oraz ukierunkowania rynkowego organizacji o charakterze non-profit. Współpracuje z redakcją czasopisma „Marketing i Rynek” od 2008 roku jako autor tekstów naukowych. Nauczyciel akademicki, który realizuje się również w ramach kształcenia pozaakademickiego prowadząc warsztaty oraz szkolenia, jak również realizując projekty edukacyjne i badawcze wraz ze Studenckim Kołem Naukowym „Progres”.

Dr Angelika M. Pabian

PhD in economic sciences in the discipline of management science, employed as an assistant professor at the Faculty of Social Sciences of the University of Silesia in Katowice. She specializes in marketing management issues, in particular marketing communications and market orientation of nonprofit organizations. She has cooperated with the Editorial Board of the "Journal of Marketing and Market Studies" since 2008 as an author of scientific texts. She is an academic teacher who also carries out non-academic education by conducting workshops and trainings, as well as carrying out educational and research projects together with the Student Scientific Club "Progress".