SECURITY DIMENSIONS
NO. 34; 2020 (22–44)
DOI 10.5604/01.3001.0014.5600

The Challenges of Studying during the SARS-Cov-2 Pandemic

Janusz Gierszewski*
Andrzej Pieczywok**

ABSTRACT

The subject of digitization of universities, online classes and courses, as well as studying via the Internet, has become very urgent and popular due to the SARS-CoV-2 coronavirus pandemic. This forced the implementation or development of appropriate remote learning systems at all universities. There are many doubts and questions concerning not only the organisation of distance learning, but also the quality of verification of learning outcomes; availability of teaching materials; technical skills of students and teachers using ICT tools; access to training and equipment; financial, mental and psychological difficulties, etc. The aim of the article is to analyse the challenges faced by universities that have gone remote during pandemic. The article in its main part consists of three elements: theoretical insight into the problems of distance education, difficulties and challenges concerning

* Assoc. Prof. Janusz Gierszewski, Ph.D., University of Public and Individual Security "Apeiron" in Krakow, Kraków, Poland; correspondence address: Akademia Pomorska w Słupsku, Instytut Bezpieczeństwa i Zarządzania, ul. Kozietulskiego 6-7, 76-200 Słupsk, Poland; email: janusz.gierszewski@apsl.edu.pl
** Assoc. Prof. Andrzej Pieczywok, Ph.D., Pomeranian University in Slupsk, Słupsk, Poland.

the organization of remote studying in universities and the evaluation of students of distance classes. This is the empirical part of the work. The research covered the issues of education using the methods and techniques of distance learning during the coronavirus pandemic. The research was conducted using the diagnostic survey method, survey technique, using a questionnaire. In the second part of the analysis the data found were used.

ARTICLE INFO

Article history
Received: 21.06.2020 Accepted: 24.07.2020

Keywords
coronavirus pandemic, universities, remote education, e-learning

Introduction

The development of higher education, from the first medieval universities until the present, has been carried out using the latest technologies available in a given epoch, and it is open as well as global in terms of the reach of the content provided.

For many years, education and training functioned in a world that used to be sustainable and predictable, and the education process itself was based on assimilating (remembering) more and more information. Meanwhile, presently, according to Bauman, "in our unstable world ruled by rapid and unpredictable change constant habits, solid cognitive frameworks, and stable hierarchies of values – these ultimate goals of traditional education – are becoming ball and chain. Or at least this is how the knowledge market treats them (similar to all markets, markets of all articles), for which all loyalty, inextricable bonds and long-term commitments are a curse – so many obstacles must be removed from the way!".[1]

Bauman's view makes it easier to formulate the thesis that the most modern solutions regarding forms and methods of education must be based on an in-depth reflection on the essence of education as a process reflecting "unity and inextricability, simultaneity and indispensability of international development of knowledge and understanding, the ability to experience higher moral and aesthetic emotions and control negative

[1] Z. Bauman, *Razem osobno* [Together, apart], Kraków 2003, p. 114, translation: authors.

emotions, self-controllability of motivation and the ability to act effectively in various spheres and moments (including critical ones) of personal, social, professional and civic life".[2]

The reflection on the links and dependencies between the study process and distance learning cannot overlook the changes taking place in the technical and technological sphere. It is the sphere that directly influences educational systems and processes. Kozielecki claims that ignoring the achievements of technology can lead to incalculable material and cognitive losses. He also gives the following, very meaningful, historical example: "Between 1500 and 1650, Western countries introduced a new technology for printing books in their schools, using Johannes Gutenberg's invention. Meanwhile, China and Islamic countries rejected it; they continued to rely on calligraphy. Its mastery opened doors to offices and power. With the printed book, Western institutions took a giant step forward and overtook Eastern education for centuries".[3] New information carriers not only replaced the traditional form of paper correspondence, but revolutionised the education system.

Today, however, it is believed that the computer replaces direct contact with the teacher and poses certain threats to culture and humanities as it leads to consumerism and degradation of classical education. Remote (distance) teaching means replacing the traditional, i.e. direct, contact between teacher and student with an electronic form of communication. The teacher has little possibility to use direct motivation techniques, which are replaced by technocratization and dehumanization of knowledge transmitted in electronic form.

The irreversible phenomenon is globalization within which information networks are created on a global scale. On the one hand, it is right to believe that the Internet can contribute to raising the level of university education. "At the same time, this phenomenon causes fear and anxiety, and even hostility and aggression; its intransigent opponents believe that some of the most important human values in the ocean of globalisation, such as diversity, diversity of local cultures, diversity of customs, diversity

[2] Z. Kwieciński, *Przedmowa* [Preface], [in:] *Pedagogika. Podręcznik akademicki*, vol. 1, Z. Kwieciński, B. Śliwerski (eds), Warszawa 2004, p. 11, translation: authors.

[3] See J. Kozielecki, *Psychotransgresjonizm. Nowy kierunek psychologii* [Psychotransgressionism. A new direction in psychology], Warszawa 2001, p. 260, translation: authors.

of languages, will drown in it. The individual differences between people, which – like a rainbow – determined the colour of life, will also diminish".[4]

Recently, information networks and related technical and technological solutions have become the only, rather than an alternative, form of communication in education during the pandemic.

The epidemic, which broke out at the turn of 2019 and 2020 in the Chinese city of Wuhan, turned out to be a greater threat than initially thought. Today, it is already officially considered a pandemic by the World Health Organization (WHO). The coronavirus directly affects not only the well-being and health of millions of people around the world, but also the global economy, education, freedom of movement and daily behaviour.

The occurrence of the coronavirus has also caused numerous disturbances in the education system at all levels of its implementation. This is felt by learners, teachers, educators, and parents alike.

Higher education institutions, like all schools and kindergartens in Poland, have been closed, teaching activities have been suspended, as well as other meetings in larger groups of people. This involved suspended lectures and classes, ban on internships and placements, cancelled student exchange, the freezing of Erasmus+ programme. The suspension of the activities of individual universities does not mean, however, that the didactic process is not organised at all. The universities have moved to remote learning (distance learning, e-learning). The change of the form of education to remote learning has not resulted in any fundamental changes in the implementation of study programmes or learning outcomes achieved by the student. Universities continue to implement all the classes planned in the summer semester[5], in all fields of study, levels and forms.

Facing this situation, many Polish universities could be unprepared to implement the educational process in this form; not only mentally or in terms of competencies, but also technically.

[4] *Ibidem*, p. 262; see also: *idem*, *Internet – społeczne aspekty medium. Polskie konteksty i interpretacje* [Internet – social aspects of the medium. Polish contexts and interpretations], Warszawa 2006; Z. Bauman, *Szanse etyki w globalizowanym świecie* [Opportunities of ethics in a globalized world], Kraków 2007; L.W. Zacher, *Transformacje społeczeństw, Od informacji do wiedzy* [Transformations of societies, From information to knowledge], Warszawa 2007, translation: authors; E. Goffman, *Człowiek w teatrze życia codziennego* [Man in the theatre of everyday life], Warszawa 2010, translation: authors.

[5] In the academic year 2019/2020 (editor's note).

The idea of distance learning

Trying to present a definition of distance education, one comes across many problems with different approaches to this category in the literature. This diversity results both from the desire for accurate translation of English terms and from the desire to put diverse forms of education, linked together by the idea of making education more accessible to as many people as possible, in one category.

The term *distance learning* was used by Wroczyński[6] in his book *Edukacja permanentna* [Permanent Education]. The problem area of remote education is also addressed by Zawadzka in her reflections on adult education. She defines remote education as learning without the presence of a teacher (face-to-face). Its implementation takes place in small stages, previously planned in detail, using various technical means. Distance education is a method of learning that is, by definition, free from the constraints of place and time. The basic features of such education are:

1. spatial and time distance between student and teacher;
2. in contrast to self-education, there is an element of motivation and direction of the student by the teacher, using various media to overcome the distance barrier.

The teaching media in this concept refer to all means of communication. Zawadzka divides them into technical and non-technical, and personal and non-personal. These include textbooks as well as electronic media, but also such educational incentives as encouragement, stimulation, evaluation, and control.[7]

Distance education is characterized in a similar way by Pleskot-Makulska. Noticing the similarity of the meaning ranges of various concepts related to this type of educational activities, she indicates the following characteristic features[8]:

1. the lecturer and the listeners are in different places;
2. it is possible for the lecturer to communicate with the listeners, and for the listeners to communicate with one another;

[6] See R. Wroczyński, *Edukacja permanentna* [Permanent education], Warszawa 1973.

[7] E. Zawadzka, *Kształcenie zdalne* [Distance education], Toruń 1995, pp. 9–10.

[8] K. Pleskot-Makulska, *Kształcenie na odległość w USA* [Distance Education in the USA], "Edukacja Otwarta", 2001, no. 1/2, p. 175.

3. the transmission and reception of information is generally separated by a certain period of time, but it is also possible to exchange information immediately between many participants;
4. modern means of communication are used to transmit the educational content.

Education that has the abovementioned characteristics is defined as: *distance learning*, *distance teaching*, *distance education*, *teleteaching*, *teaching by network*, *telematic education*, *e-learning*, *on-line learning*, *m-learning*. These English language terms are related to dynamically developing techniques of information transfer. *E-learning* in Polish is defined by various terms, the most popular of which are: *e-nauka* 'e-learning', *uczenie się na odległość* 'distance learning' or *uczenie się zdalne* 'remote learning', *edukacja zdalna* 'remote education'. The division depends on the degree of use of information technology. It should also be remembered that this educational area also includes such categories as correspondence education, which in Poland was initiated in 1776 at the Jagiellonian University, which offered correspondence courses for craftsmen and lifelong learning.

Nagórski, perceiving the multitude of ways to define distance learning, indicates that it is a didactic process characterised by a lack of direct contact between the student and the teacher or other educators, and carried out through the use of specific forms of education organisation. The key elements of such organization of education are:

1. specialist teaching materials and aids to be used in the learning process;
2. specific ways in which students communicate with the teacher and among themselves, and monitor the process taught by the teacher;
3. appropriate handling and administration of the training course.[9]

It seems that Kubiak presented the overall problem of distance education, taking into account its main idea and the changing technical conditions of its implementation. He points out that this is a method of conducting the didactic process in conditions when teachers and students are distant from each other and are not in the same place using, apart from traditional ways of communication, also modern telecommunication technologies transmitting: voice, video, computer data and printed materials. At the same time, the author emphasizes that modern technologies also enable direct contact in

[9] R. Nagórski, *Koncepcja wykorzystania i rozwoju edukacji na odległość w Polsce* [Concept of using and developing distance education in Poland], Warszawa 2000.

real time between the teacher and the student by means of audio or video conferences, regardless of the distance between them.[10]

A new form of distance learning is *e-learning*. This concept also surprises with its ambiguity of understanding and diversity of recording. There is no doubt that the term refers to the large-scale use of computers and digital technology in the education process. In the broadest sense, *e-learning* is considered to be the whole of the undertakings consisting in the use of digital technology to achieve educational goals.

Unfortunately, it is more difficult to distinguish the meaning range of this category from the term *on-line learning*. In the broadest sense, *e-learning* is considered to be what is transmitted through digital technology in order to achieve the learning goal. Education is realized through a computer network, local or global (Internet). In this sense, *e-learning* is a term covering *online learning,* web-based learning, and learning supported by modern technology.[11] In another approach, *e-learning* is treated as a type of education in which computer networks are used as a mechanism for broadcasting content or mediating in the transmission. The term *online learning is* usually used to refer to learning solely through the web. In such an organised didactic process there is no face-to-face contact between teacher and student. Students also do not receive any physical didactic materials. There is an increasingly common approach according to which the meaning of the term *e-learning* cannot result from a literal translation of the word (a type of learning by means of electronic devices) and refers to the distribution of materials in electronic form through the network. Such approaches underline the effectiveness of e-education and its ability to stimulate the activity of the participants of the meeting, emphasizing the great possibilities of contact between the student and the teacher, chatting, project work, or videoconferencing.

The literature also uses the terms *teleteaching* and *telematic education*. *Teleteaching* means distance learning using satellite telecommunications, ISDN (*Integrated Services Digital Network*), and satellite television. The term *telematic education* covers a wide range of issues related to the implementation of the didactic process using modern telecommunication means. In its content it refers to the means used in the educational process rather than

[10] M.J. Kubiak, *Wirtualna edukacja*, Warszawa 2000.

[11] See K. Pleskot-Makulska, *eLearning – nowa postać edukacji* [eLearning – a new form of education], "Rocznik Andragogiczny", 2004, pp. 83–84.

the distance between teachers and students. Mobile teaching (*m-learning*) is an interesting proposal that fits into the idea of distance learning. It is a new model of education based on wireless mobile devices.

Attempts to define e-learning are usually based on technological criteria and less frequently on didactic criteria. A mixed technique which involves combining technological means and direct contact with the teacher can be referred to as *blended learning*. This complementary teaching refers to education that combines two or more strategies, for example direct teaching (traditional, referred to as *face-to-face*, or F2F) and distance learning.

The current implementing regulations on the use of distance learning in Polish universities have not had a stabilising effect on the use of this method of teaching, especially in practical education. Complementary teaching is most often used in a situation where e-learning methods are insufficient to achieve a specific learning goal.

Facing the variety of definitions and methods presented, one can treat distance learning as a general educational concept rooted in traditional education. Thanks to the dynamic development of technology, this form of education has come a long way from correspondence education (where printed educational materials were sent at a distance) to education based on satellite and Internet broadcasting. Although distance learning is derived from correspondence education, in fact it is not a form thereof. The difference lies in the fact that the traditional system of correspondence education was dominated by independent learning of listeners, and the contacts between lecturers and listeners were limited and boiled down primarily to the exchange of written materials. In modern distance learning, direct and immediate exchange of information between lecturer and student is possible. Virtual groups are created in which students contact each other and the lecturers via the Internet, and participate in joint discussions, video conferences, chats and lectures.

E-learning uses different ways of communication. Most often these are: content on demand (knowledge banks), video broadcasting, and virtual classrooms.[12] Content on demand communication is based on a content delivery network (CDN). This solution involves the deployment in the network of special devices that store and deliver content. These devices are

[12] Cf. M.J. Kubiak, *E-learning – nowe wyzwania w zdobywaniu wiedzy* [E-learning – new challenges in gaining knowledge], "Wirtualna Edukacja. Czasopismo Elektroniczne", 2003, no. 12.

centrally managed and loaded with content, and the system administrator has full control over the distribution policy.

Video broadcasting requires the teacher and the recipients to meet at the same time. In this form of transmission, it is not possible to distribute the entire training content in advance.

The most similar method of communication to that used in traditional education is a virtual classroom, called synchronous learning or live *e-learning*. Through the use of many modern teaching aids such as guides, discussion forums, *on-line* consultations with the instructor, interactive multimedia libraries of courses, an environment of unprecedented impact has been created. Thanks to modern technology it is possible to create a situation resembling traditional didactic classes. Students have access to the same educational content at the same time, they can work in groups, discuss, hear the group's voices and see each other. This creates the possibility of real interaction.

Depending on the technological advancement of *e-learning*, media can be divided into four categories[13]:

1. databases: this idea is based on the presentation of didactic materials on the web. Appropriate software allows to search resources. This simplest form of *e-learning* can be characterized as moderately interactive;
2. on-line support: this form uses the network in a more interactive way. It offers the possibility of obtaining specialist information in a much shorter time than in the case of using databases. It includes various types of forums, chat rooms, newsletters, e-mails, as well as information message systems;
3. asynchronous training: consists in the fact that after choosing the program and registering, students receive access to the program content prepared by the course organizer and placed on specific websites. Regardless of the method of access, they have the opportunity to learn at an individual pace. Contact with the teacher takes place via e-mail, discussion groups or newsletters. However, this does not take place in real time;
4. synchronous training: these are training courses conducted in real time. They are conducted through a computer network using such techniques as: teleconference, video conference, chat, audio broadcast. The virtual whiteboard technique and tools enabling group work are also used. The training may include a single session or last from several days to several years.

[13] *Ibidem*.

An interesting typology of *e-learning* is presented by Piotr Bołtuć.[14] This division does not so much take into account didactic criteria, but rather refers to organizational conditions affecting the work of the programme administrator. In order to indicate the most functional model of *e-learning* in relation to the needs of higher education, it comprises four main types. These are[15]

1. automated teaching;
2. teaching aimed at maximum analogy with full-time (traditional) teaching, based on a lecture for a large number of students;
3. teaching aimed at a maximum analogy with full-time (traditional) teaching based on the seminar model;
4. seminars at a level difficult to accomplish in (traditional) stationary mode.

Automated teaching is a type of didactic activity characterized by the diligent preparation of the didactic material and its administration in a form fully predictable for the learner. There are two forms of such teaching. The first one is *automated tutorials.* The educational content is developed in a way that enables the learning process without the help of a lecturer. Automated tutorials usually contain a short introductory text, a demonstration combined with questions and answers that will be checked by the computer. The second form of automated learning is the *automated classroom* with the participation of the lecturer. They take part in discussions with strictly defined responsibilities of the programme administration.[16]

In the area of teaching aimed at a maximum analogy with the classroom teaching, Bołtuć distinguishes two types of such analogies. The first one is the so-called *analogy with the lecture* given by the lecturer and classes that are carried out by assistants. The second analogy is called the *analogy with the lecture and classes* conducted by the same person, i.e. the lecturer.[17]

In groups where teaching is used to maximise the analogy with full-time teaching based on the seminar model, students have the opportunity to hold discussions with the lecturer. In this model, two types of education are distinguished: asynchronous and synchronous, the essence of which

[14] Piotr Bołtuć is an Associate Professor and Head of the Department of Philosophy at the University of Illinois in Springfield. He also serves as Chairman of the Senate's Subcommittee on Online Technological Integration of the University of Illinois.

[15] P. Bołtuć, *Edukacja bez dystansu* [Education without distance], "E-mentor", 2003, no. 1, 8, http://www.e-mentor.edu.pl/mobi/artykul/index/numer/1/id/8, pp. 8–9.

[16] *Ibidem*.

[17] *Ibidem*.

has already been presented before. Bołtuć, perceiving the advantages of synchronous education, also notes its limitations. These include the high costs of organising the didactic process, the lack of universal access to broadband connections, which are necessary for the application of the latest telecommunications technologies, and the loss of students' time flexibility, so important for the idea of distance learning.[18]

The fourth type of *e-learning* refers to the use of the Internet as a means of communication between centres of advanced research. Many scientists run discussion groups for doctoral students this way, although participation in these groups does not involve formal exam credits. The author of the typology indicates that there is a need to create an Internet academy enabling research and advanced seminars in narrow specialties, interesting for a small group of people living in different geographical areas. The use of *e-learning* in this area of education seems particularly justified.[19]

The content – the basic element of *e-learning* – is self-learning materials. They are delivered to the recipient by means of electronic information carriers using telecommunications technologies. In modern solutions, *e-learning* enables group work and joint learning. Virtual reading rooms, discussion sites and conference systems are places where students can present their own views and exchange observations with other participants. Cooperation becomes a permanent element of this form of distance learning.

The organization of *e-learning* is greatly improved by *e-learning* platforms. It is a system of tools (special software), which allows for comprehensive management of distance learning. It enables conducting classes and downloading lessons via a standard internet browser. Although the main task of the platform is to enable the publication of classes in electronic form, it should have a number of functions allowing for efficient management of both users and training resources.

The described typologies and categories of education do not exhaust the entire scope of *e-learning* organisation. In practice, one deals with combining different solutions and using different terminology. Among the educational advantages of *e-learning* mentioned in the literature, three aspects are usually highlighted.[20] First of all, it is indicated that education in this form offers the student the possibility to regulate the pace of the learning process, which

[18] *Ibidem*.

[19] *Ibidem*.

[20] Cf. M.J. Kubiak, *E-Learning – nowe wyzwania…*, *op. cit.*

makes it more effective. The second undeniable value of modern *e-learning* education is interactivity. It may manifest itself in various ways. Often it is an opportunity to mark the right answers to questions, turn on the animation of objects, or solve tests consisting in combining the right answers with a question. Students who have not given correct answers can switch to the page with information necessary to correct their mistakes. The effectiveness of the learning process is also greatly improved by interactive games that use the knowledge acquired by students during specific training modules. The supporters of this educational form also point to its high motivation value. The use of animation, games, acoustic and video elements in the didactic process is a factor encouraging the student to educational activity. An important motivational aspect for many learners is also the awareness of the lack of time and place barriers. One can learn at any time and in any place without having to make time-consuming journeys.

Organisation of remote education in higher education institutions

The Journal of Laws of the Republic of Poland published an amendment to the *Regulation of the Minister of Science and Higher Education on temporary limitation of the functioning of certain entities of the higher education system and science in connection with preventing and combating COVID-19*. It provides that since 18 March 2020, employees of the university (both academic and non-academic) will not be obliged to provide work on the premises of the university, except for cases where it is necessary to ensure continuity of the functioning of the university. Under the Ordinance of the Minister of Science and Higher Education of 11 March 2020, due to a situation of epidemic risk, education in universities was temporarily suspended.

All teachers at universities are obliged to carry out their courses remotely (lectures, classes and seminars in a synchronous form; consultations, projects and tasks in an asynchronous form; support for students in their own work carried out via communicators and platforms such as Microsoft Teams, Skype, Clickmeeting, Zoom, Moodle). The universities have also launched a special training and support system for teachers to prepare them for remote teaching.[21]

[21] Ministerstwo Nauki i Szkolnictwa Wyższego, *Kształcenie zdalne na uczelniach*, "Gov.pl – serwis Rzeczypospolitej Polskiej", 27.03.2020, https://www.gov.pl/web/nauka/ksztalcenie-zdalne-na-uczelniach (accessed 23.05.2020).

Students have been given access to dedicated e-learning platforms and receive up-to-date information about the teaching process in their e-mail boxes. Deans of individual faculties are responsible for coordinating the detailed formula of conducting remote classes.

In many universities, in order to maintain the quality of education, special teams have been established (the Remote Learning Quality Team), operating within the University's Educational Quality Committee, whose task is to cooperate closely with the authorities of individual faculties, to monitor the quality of remote education on an ongoing basis, and to respond appropriately in case of any irregularities.

In this new, unforced educational situation many students face many personal, professional and financial problems. That is why the Ministry of Science and Higher Education has decided that during the epidemic there should be no limit of two grants in an academic year: this means that a student can apply for grants at his or her university each time his or her life situation deteriorates, e.g. due to the loss of a source of income by the student or a member of his or her family. Since during the period of suspension of the university's activity there may be difficulties in organising the work of the scholarship committee, the grants are granted directly by the Rector. If there was a scholarship committee and a scholarship appeal committee in a higher education institution, they still retain the right to grant a social grant, a disabled person's grant, and the rector's grant.

Many universities offer various internal support mechanisms. Thanks to the immediate amendment to the Student Benefits Regulations, the fund for one-time support has been increased, where students apply for support for loss of source of income caused by the epidemic. For foreign students who cannot benefit from the scholarship fund granted to the University by the Ministry of Science and Higher Education, many universities create a fund from their own resources.

In addition, in many universities, students may receive a social grant as a result of a significant worsening of the material situation and a low monthly income per family member. Several application deadlines have been set in this respect, depending mainly on the dates of receipt of funds from the Ministry of Science and Higher Education. The obligation for a student whose monthly income per person in the family does not exceed PLN 528 has been abolished. The financial situation of a student is also verified by a university on the basis of other available documents.

In non-state higher education institutions, in justified cases and at the individual request of students, permission to change the date of payment of tuition fees for the summer semester is granted.

In addition to numerous problems with the payment of tuition fees, there were also other problems related to the availability of student dormitories. Here, too, some universities decided to postpone payment or suspend it for a while. Usually, students can still live in the student residence, but it is recommended that they stay in their rooms, and it is often also forbidden to receive visitor from outside.

Depending on developments in connection with the coronavirus pandemic, some universities have decided to prepare student houses for possible sanitation needs. Perhaps in the coming months further steps will be taken to increase the number of vacancies in the dormitories for the sanitary services.

In addition, the authorities of higher education institutions will undertake a number of lobbying activities for additional support for students and those facing a difficult financial situation. The majority of schools have applied to the Minister of Science and Higher Education to increase the percentage of students who may receive the Rector's scholarship. So far, according to the law on higher education, only 10% of the best students of the faculty had the opportunity to receive this benefit.

The functioning of the university in the era of the coronavirus pandemic is not only financial but also psychological support, which is equally important in this difficult period. Universities have created conditions for providing free online psychological support for people seeking help in a COVID-19 emergency. In the universities where Academic Centres for Personal Development and Psychotherapy operate, they have changed their mode of operation. Patients can use the psychological support without leaving home: online (video call via Skype/WhatsApp) or by phone. At the universities where the course of study in psychology is being implemented, the academic teachers teaching the students have additionally decided to work in smaller groups in social media, providing psychological support. The help is provided online through Skype and other communicators (also in English).

It is definitely noticeable in the universities that the authorities have acted consistently to enable students to close this academic year with a set of exams and credits. The necessary procedures have been launched, so that even with the protracted epidemiological situation it is feasible. The

university authorities have decided to allocate additional financial resources from their own budget to ensure the permeability of education and to offer their students educational services at the highest possible level.

Apart from many financial, mental, or psychological problems concerning students and teachers of universities, there are also organizational issues related to the dates of examination sessions. A vast majority of universities try not to apply rigid rules and deadlines for the sessions. They take on a flexible approach, adapted to the specificity and possibilities of particular fields of study.

In some schools, laboratory classes and studios can only be made up once the traditional stationary form has been restored. It has therefore been recognised that the deadlines for completing classes and starting sessions will depend on the current progress of the educational programmes (certain boundary deadlines have been set, but there is a possibility of changing them in particularly justified cases).

Some of the universities decided to hold classes and exams during the summer break with the use of electronic communication means until the end of the semester due to the coronavirus pandemic. The solution recommended by university authorities is to conduct oral exams via audio visual communication in real time and written ones based on the evaluation of works prepared by the students, i.e. essays, papers, answers to open questions, as well as the implementation of project tasks or exams in interactive forms which can ensure that the student works independently.

Assessment of students' own situation during the epidemic

The issue of studying in the era of coronavirus has not been the subject of broader research analyses so far. It is noticeable that these issues are mainly dealt with as part of qualification papers written by students. Collective studies performed by scientific institutions are less common.

One of the studies concerning the assessment of the degree of social security of Krakow's academic youth in the era of coronavirus is the one carried out by Karamon as part of his master's thesis. The research covered full-time and part-time students. In the study, the selection of the student sample was random.[22]

[22] K. Karamon, *Poczucie bezpieczeństwa społecznego studentów w Krakowie* [The feeling of social security of students in Kraków], master's thesis written under the direction of Assoc. Prof. J. Gierszewski, Ph.D., University of Public and Individual Security "Apeiron" in Krakow, manuscript, Kraków 2020.

The questionnaire was transformed into an online form and placed at a public address with a hyperlink. The link to the questionnaire was placed on the social networking site and on the forums dedicated to students. The survey was conducted in April 2020 and covered 130 respondents from various Krakow universities.

The last two questions in the questionnaire referred to the latest developments in the world related to the World Health Organisation's announcement of the COVID-19 pandemic in early March. One of the questions asked students to assess remote learning.

The answers given varied widely. Sixty two (47.69%) students rated lectures and online meetings as well or very well organized. Forty respondents (30.77%) had a very different view of this form of learning, and described it as badly or very badly organized. Twenty eight students did not express their opinion. On the basis of the students' statements, it was noted that there is a large correlation between satisfaction with remote learning and the type of university. Some institutions a really developed and interesting system of organizing this form of learning, and in such cases it was positively received. As far as the assessment of the lecturers in this respect is concerned, according to the students, only some lecturers limit themselves to sending a designated batch of material or pages in textbooks for assimilation. There are some teachers who send out ready-made presentations of lectures.

In the last question, the surveyed students turned out not to be unanimous as well. None of the respondents gave a positive answer to the question about how the financial situation of their households will change in the era of coronavirus. Thirty two people did not expect any change in connection with the COVID-19 pandemic. The majority, as many as 78 (60%) of the respondents did not see the future of their finances as optimistic. They believed that their economic situation would deteriorate to a greater or lesser extent, which would certainly affect their sense of social security.

Cognitively interesting research was presented in Długosz's report.[23] The research was to show the life of Krakow's students during the collective quarantine. It was also supposed to answer the question how the pandemic changed the lives and attitudes of young people living in Krakow.

[23] P. Długosz, *Raport z badań: „Krakowscy studenci w sytuacji zagrożenia pandemią koronawirusa"* [Research Report: "Krakow students in the situation of a coronavirus pandemic threat"], Kraków 2020.

The survey method was used to collect the material. It allowed to conduct research on large number of individuals. The CAWI online survey sent via email was used. Attempts were also made to disseminate a link to the survey by means of social media. The survey was mainly addressed to students of the Pedagogical University of Krakow, because due to the invitation to research sent by e-mail, it was from this university that students filling in the survey were mainly recruited. The sample was selected according to the availability of respondents. The research was conducted on 18–21 March 2020, and resulted in the collection of 3,167 questionnaires.

The first question concerned the level of interest in the issue of pandemic threat. The distribution of answers shows that almost all students are interested in what is happening in a pandemic. Few indicated that this issue did not concern them. The data indicate that the issue of coronavirus is strongly anchored in the consciousness of Krakow's students.[24]

The thesis of mass interest in the coronavirus pandemic is confirmed by the answer to the next question, in which the respondents were to indicate whether they knew the current number of infected people. The data presented show that almost all respondents know what the current state of the pandemic in the country is. This proves that the respondents are interested in the threat. Moreover, in the conditions of mass media coverage of the threat and constant information about new infections, it is difficult to escape from this topic. Perhaps the fact that students follow the development of the scale of infection results from their need for cognitive control over the pandemic. In this way, students can assess the scale of the threat.[25]

The vast majority of respondents believe that the coronavirus is a serious threat to Poles. The data show that students are aware of the threat to life.

The distribution of answers is slightly different when students are to assess the level of coronavirus risk to themselves. According to the data, only one-third of them think that the pandemic can threaten the life and health of the students. Approximately half of them describe the gravity of this threat as low; one in ten of them is not afraid that they will be personally affected by the infection and its consequences.[26]

To get a precise answer about the level of anxiety in the face of the coronavirus pandemic, the researcher also asked students directly whether they

[24] *Ibidem*, p. 11.
[25] *Ibidem*, pp. 11–12.
[26] *Ibidem*, p. 13.

were afraid of the infection. The distribution of answers to this question shows that every tenth student experiences a strong fear of the disease. Similarly, every tenth student examined does not show any fear. Most of the respondents show an average level of fear of the infection. This may mean that young people are immune to the stress associated with the occurrence of coronavirus pandemic. Moreover, young people are inherently optimistic and prone to bravado and risky behaviour. If they fall ill, young people also have the best chance of recovery.[27]

The next questions of the survey concerned the evaluation of the functioning of the state and its services in the conditions of the threat of the coronavirus pandemic. The question about the actions taken by the government and services to protect the country against the coronavirus epidemic was answered moderately positively. Almost half of the respondents considered that the government was doing enough in this respect. One fifth thought that the government and the relevant services were not doing enough. A similar percentage was unable to assess the measures taken to protect Polish citizens from the virus.

According to the respondents, effective measures include: cancellation of all mass events; quarantine of persons coming from abroad; closure of state institutions; closure of galleries, pubs, restaurants, and the borders. Young people consider it effective to separate the country from other countries where the epidemic is ongoing. The respondents also affirm their private isolation and isolation from contacts with others.[28]

Such preventive measures as: frequent washing of hands with soap, avoiding public transport, and maintaining a safe distance between people in public space were widely accepted by the respondents. To a slightly lesser extent, young people considered the use of disinfectant fluids effective in the fight against the pandemic. Less than half of them considered that wearing masks and gloves could effectively minimize the chances of coronavirus infection.

Another issue under examination is the issue of spending free time. With the suspension of classes at universities, and the closure of the service industry in which many Krakow's students are employed, the amount of students' free time has increased. Taking into account the fact that the respondents belonged to the digital generation, it was asked how the youth

[27] *Ibidem*.

[28] *Ibidem*, p. 15.

used the Internet in the current situation: whether it was used solely for entertainment or whether students participated in classes at the university through it.

The data indicate that young people have moved their social activities to the Internet and thus try to satisfy their needs. Respondents spend this way, on average, a minimum of two and a maximum of more than eight hours.[29]

During quarantine, students most often use the Internet to contact their friends using instant messaging and social networking sites. They also use e-mail, read messages and articles. The Internet is also used for education through e-learning courses, contact with the teacher and doing homework. Often respondents use the Internet to listen to music and watch films.

Less often, activity on the Internet boils down to creating one's own photos, graphics, or films. Respondents are reluctant to use digital technologies to play online games, to run their own blog, to participate in discussions, or to shop. To sum up, one can say that young students are more passive than active Internet users. Under the threat of a coronavirus pandemic, they use it mainly for social contacts, education, and entertainment.[30]

The last issue presented in the report is the involvement of young people in helping seniors. This action is promoted and supported by the media. In this context, a question was asked whether students have joined in the activity aimed at helping and protecting seniors from the virus. The results show that more than one third of the students have joined in supporting seniors in these difficult times. This assistance consists of shopping and various official or health-related matters.

Conclusion

Universities faced a change of teaching process "overnight". Empty lecture halls, libraries and laboratories are the image of the winter semester at Polish higher education institutions. The COVID-19 pandemic has radically changed the system of education and verification of learning outcomes.

Studying in the era of the coronavirus pandemic is connected with the health and social security of students, academic teachers, and administration. The transfer of didactics into the digital sphere took place suddenly and did not give the universities time to prepare for such a situation. The pandemic excluded the use of traditional teaching techniques. It turned out

[29] *Ibidem*, p. 21.

[30] *Ibidem*, p. 23.

that there is a lot of software available on the educational market, such as: Microsoft Teams, Google Zoom, Jitsi, Adobe Connect, Skype for Business, Blackboard Collaborate, Testportal.pl and many others.

The vast majority of Polish universities reacted to these difficulties on an ongoing basis, trying to meet the needs of both students and university staff. Noteworthy in this respect are such significant examples of assistance as: postponement or abolition of fees, student benefits, psychological assistance, training in remote teaching, etc.

IT techniques in the didactic process were used in the formula of both asynchronous and synchronous contact (even if the latter was to be implemented as an auxiliary one). The synchronous mode is a "live" class, during which the lecturer and students meet virtually at the same time. The asynchronous mode is a class prepared in advance. The student receives teaching materials at his or her disposal.

The research shows that students are interested in information about the coronavirus pandemic, they keep track of how many people are infected and how many have died. Almost three-quarters of the respondents believe that the coronavirus is a serious threat to health and life of Poland's inhabitants. To a lesser extent, students believe that the virus may pose a threat to themselves. The level of fear of being infected is low among students.

Students positively assess the actions of the government and relevant services in the fight against the pandemic. They accept all solutions introduced by the government to limit the transmission of the virus. They are only opposed to a potential ban on car traffic in cities and isolation of towns and villages, as well as the closure of all shops and service points. They also consider all recommended precautions to protect oneself against infection to be effective. Only the wearing of masks and protective gloves was considered less useful.

Krakow students are mostly satisfied with their lives. They only partially manifest symptoms of psychological stress in the form of perceived tension, reduced mood, nervousness, general apathy and headaches.

Nowadays, the whole didactic process during a pandemic must be carried out in the formula of distance learning. Students who spend most of their time on the Internet do well. They use it mainly to support their social lives, for entertainment, and for their own education. They spend most of their time in their homes reading books, listening to music and watching films. During this time, the entire academic staff must be able to handle

the prevailing packages of different web applications if they want to avoid negative comments from students.

On the basis of the students' statements, it was noticed that there is a large correlation between the satisfaction from remote teaching and the type of university. More than 30% of the respondents describe this form of learning as badly or very badly organized, and this also applies to the lecturers themselves, who mostly limit themselves to sending presentations and giving literature. They also have negative opinions about how the financial situation of their households will change in the era of coronavirus.

The view that *e-learning* should be seen as an educational tool that can be used in different education models, both traditional and distance learning, is becoming increasingly widespread. It can be used to organise the learning process in such a way that it has the strengths of traditional teaching and those of distance learning. This allows the educational process to use the latest technical solutions in software and data transfer. It seems, however, that future development of this form of education will be the result of a better understanding of learning and teaching processes rather than glorification and improvement of information technologies. As in traditional education, the objectives of education will always remain in the first place. It is the achievement of these objectives that determines educational success.

E-learning is a form of study that is increasingly used by Polish universities. This solution means teaching which is free of limitations related to time and place of education. It is very quickly becoming a new paradigm in gaining knowledge and new skills, as it allows for a large reduction of costs, a much faster education process, better availability of knowledge, and better control and management for all participants of the didactic process. One of the most important features of distance learning is the absence of the need to gather, usually limited by local circumstances, the number of people at a certain time and place. In many situations, studying online becomes a better alternative. This is most often the case of inability to participate in regular classes, due to personal, health or professional reasons.

Apart from the visible benefits, the studies on the Internet also have their weaknesses. They reduce social ties between lecturers and students. Since education takes place without direct contact, the motivation and perseverance of both students and lecturers often decreases.

References

1. Bauman Z., *Razem osobno* [Together, apart], Kraków 2003.
2. Bauman Z., *Szanse etyki w globalizowanym świecie* [Opportunities of ethics in a globalized world], Kraków 2007.
3. Bołtuć P., *Edukacja bez dystansu* [Education without distance], "E-mentor", 2003, no. 1, 8, http://www.e-mentor.edu.pl/mobi/artykul/index/numer/1/id/8 (accessed: 20.06.2020).
4. Długosz P., *Raport z badań: „Krakowscy studenci w sytuacji zagrożenia pandemią koronawirusa"* [Research report: "Krakow students in the situation of a coronavirus pandemic threat"], Kraków 2020.
5. Goffman E., *Człowiek w teatrze życia codziennego* [Man in the theatre of everyday life], Warszawa 2010.
6. Karamon K., *Poczucie bezpieczeństwa społecznego studentów w Krakowie* [The feeling of social security of students in Kraków], master's thesis written under the direction of Assoc. Prof. J. Gierszewski, Ph.D., University of Public and Individual Security "Apeiron" in Krakow, manuscript, Kraków 2020.
7. Kozielecki J., *Internet – społeczne aspekty medium. Polskie konteksty i interpretacje* [Internet – social aspects of the medium. Polish contexts and interpretations], Warszawa 2006.
8. Kozielecki J., *Psychotransgresjonizm. Nowy kierunek psychologii* [Psychotransgressionism. A new direction in psychology], Warszawa 2001.
9. Kubiak M.J., *E-learning – nowe wyzwania w zdobywaniu wiedzy* [E-learning – new challenges in gaining knowledge], "Wirtualna Edukacja. Czasopismo Elektroniczne", 2003, no. 12.
10. Kubiak M.J., *Wirtualna edukacja*, Warszawa 2000.
11. Kwieciński Z., *Przedmowa* [Preface], [in:] *Pedagogika. Podręcznik akademicki*, vol. 1, Z. Kwieciński, B. Śliwerski (eds), Warszawa 2004.
12. Ministerstwa Nauki i Szkolnictwa Wyższego, *Kształcenie zdalne na uczelniach*, "Gov.pl – serwis Rzeczypospolitej Polskiej", 27.03.2020, https://www.gov.pl/web/nauka/ksztalcenie-zdalne-na-uczelniach (accessed: 23.05.2020).
13. Nagórski R., *Koncepcja wykorzystania i rozwoju edukacji na odległość w Polsce* [Concept of using and developing distance education in Poland], Warszawa 2000.
14. Pleskot-Makulska K., *Kształcenie na odległość w USA* [Distance education in the USA], "Edukacja Otwarta", 2001, no. 1/2, pp. 175–186.

15. Pleskot-Makulska K., *eLearning – nowa postać edukacji* [eLearning – a new form of education], "Rocznik Andragogiczny", 2004, pp. 83–94.
16. Wroczyński R., *Edukacja permanentna* [Permanent education], Warszawa 1973.
17. Zacher L.W., *Transformacje społeczeństw, Od informacji do wiedzy* [Transformations of societies: from information to knowledge], Warszawa 2007.
18. Zawadzka E., *Kształcenie zdalne* [Distance education], Toruń 1995.

Cite this article as:
J. Gierszewski, A. Pieczywok, *The Challenges of Studying during the SARS-CoV-2 Pandemic*, "Security Dimensions", 2020, no. 34, pp. 22–44, DOI 10.5604/01.3001.0014.5600.