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## **Students' Opinion on Compulsory Distance Learning at the Pedagogical University of Krakow**

### **Introduction**

For thousand years education has been delivered in a traditional way with a teacher and student present in a real space: a school or university classroom. However, since the traditional classes for students were suspended<sup>1</sup> universities have had to promptly adapt to a new situation. The pandemic broke out suddenly and academic education faced the unexpected challenge of a total change of teaching methods overnight. In view of the necessity to adopt emergency measures in an effort to prevent and contain COVID-19 new solutions had to be introduced in schools, educational centers and universities to facilitate teaching in changed organizational conditions and with distance learning methods and techniques.<sup>2</sup>

Were we prepared for that? Honestly – no, either legally,<sup>3</sup> infrastructurally or methodologically. Students were not prepared for those changes either. Education for them in the time of the COVID-19 pandemic was a challenge, Black Swan – an unexpected situation which suddenly fell to them (and also to academic teachers) and took its toll.<sup>4</sup>

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<sup>1</sup> The Regulation of the Ministry of Science and Higher Education of 25th March on temporary limitation of functioning of some higher education entities for the reason of prevention and response to COVID-19 (ammended)/ Rozporządzenie Ministra Nauki i Szkolnictwa Wyższego z dnia 25 marca 2020 r. w sprawie czasowego ograniczenia funkcjonowania niektórych podmiotów systemu szkolnictwa wyższego i nauki w związku z zapobieganiem, przeciwdziałaniem i zwalczaniem COVID-19 (z późniejszymi zmianami).

<sup>2</sup> See: recommendations of the Ministry of Science and Higher Education on education delivered with distance teaching methods and techniques. *Rekomendacje Ministerstwa Nauki i Szkolnictwa Wyższego w sprawie kształcenia prowadzonego z wykorzystaniem metod i technik kształcenia na odległość*. Accessed July 20, 2020. <https://www.gov.pl/web/nauka/ksztalcenie-zdalne-na-uczelniach>. *Kształcenie na odległość. Poradnik dla szkół* (accessed: 20.07.2020).

<sup>3</sup> Pursuant to the Regulation of the Ministry of Science and Higher Education of 27th September 2018 on studies at least 50% of classes shall be completed in a traditional mode not online.

<sup>4</sup> As Nassim Taleb claims, this kind of events (the coronavirus pandemic forced compulsory distance education) although influence the fate of the world, they are not foreseeable. Only after they happen, we can try to rationalize them (Taleb, 2014).

It is worth noting that distance learning in Poland before the pandemic was treated unfairly – as an additional element of minor importance in the proper educational trend. For years only circles of enthusiasts – academic teachers had taken an interest in distance learning. While delivering traditional courses they additionally used distance learning platforms. Generally, in decision-makers' circles on both ministerial and university levels there was distrust toward distance learning which would never be on a par with traditional education because it did not ensure a proper master-student relationship.

It should not be forgotten that the need for the widespread distance learning results from many contemporary social phenomena, including necessity of life – long learning of members of the information society as their knowledge and competencies are getting outdated. Distance learning – blended learning or online education is defined as one of trends, which in the nearest future will influence the teaching, learning and querying of the university education (*Educase...*, 2019; *Educase...*, 2020).

It would be difficult to disagree that the distance learning and experience gained during the pandemic will be a permanent element of university education, certainly not as the only one but an accompanying teaching method. It has appeared that distance learning will be with us and gradually will become a standard. Thus, the Ministry of Science and Higher Education aims to increase a maximum number of points possible to gain for distance learning courses. It means that new students will be able to complete most courses in a form of distance learning<sup>5</sup>. Moreover, for the reasons of the unpredictable epidemic situation (guidelines issued by the Ministry of Science and Higher Education on 18th May 2020) many Polish universities (including the Pedagogical University of Krakow) decided on a hybrid form of courses in the academic year 2020/2021.<sup>6</sup> Practically, it means that since October the students will receive education in a following model: lectures for groups over fifty students in distance learning (in a synchronous interaction), classes, tutorials, seminars, laboratories in a traditional or hybrid forms.<sup>7</sup>

### **Distance learning – the concept and general characteristics**

Distance learning (distance teaching, distance education, tele-education, e-learning) is a method of learning which instead of direct contact of a student – teacher and a student – a group of other students (typical of traditional education) uses indirect contact (e.g.: radio, television, traditional mail, computer screen, ICT,

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<sup>5</sup> The amendment to the regulation on studies prepared by the science ministry changes the rule about number of ECTS points possible to gain for distance learning courses of general academic profile – the limit of 50% is changed to 75% of total number of points necessary to complete studies at a particular level. This entails higher number of courses possible to complete online. This project does not eliminate the possibility to organize traditional classes in a university venue or affiliate.

<sup>6</sup> These rules can change depending on the epidemic situation in autumn 2020.

<sup>7</sup> The detail conditions for organization of classes are defined in the deputy Chancellor's Order (portfolio: education): Zarządzenie Nr RD/Z.0201-5/2020 Prorektora ds. Kształcenia Uniwersytetu Pedagogicznego im. Komisji Edukacji Narodowej w Krakowie z dnia 6 lipca 2020 roku w sprawie organizacji zajęć dydaktycznych w roku akademickim 2020/2021.

Internet). Thus, distance learning involves gaining knowledge independently without attending traditional lessons – a considerable input of own work with limited direct contact with school. Every distance learner sets their goal adjusted to their needs, conditions and lifestyle (Juszczak, 2003: 124).

Distance learning has not started today – its beginnings date back at the turn of the 17th and 18th century – however, a real breakthrough in this type of education was achieved with a common use of the Internet. This new media providing the highest level of interactions and global communication has shaped a new paradigm in education and facilitated the student-student and student-teacher interactions, which considerably influenced the effectiveness of distance learning and the range of teaching impact (Skrzydlewski, Strykowski, 2004: 394–442).

Distance education can be delivered in many ways. Especially the methods and techniques (a catalogue of tools and techniques of distance learning is not completed) can be categorized (Wodecki, 2006: 10):

- 1) By the availability in time:
  - a) synchronous – live learning with digital media, e.g.: a chat, communicator, videoconference, online classes;
  - b) asynchronous – the contact of participants and a tutor is not in real time, information exchange between a lecturer and student is possible via email, chat or forum.
- 2) By techniques used:
  - a) traditional mail, radio, television;
  - b) computer-based learning;
  - c) Internet-based learning (databases, with communication tools).
- 3) By the student-teacher interaction:
  - a) courses delivered by a teacher (asynchronous or synchronous);
  - b) courses without a teacher (e.g.: multimedia courses);
  - c) self-study (with an access to digital information).
- 4) By the relation to traditional learning:
  - a) distance learning as a complementary component of traditional learning, e.g.: virtual camps;
  - b) distance learning replacing traditional learning (for the whole curriculum or the whole particular subject).
- 5) By the degree of formalizing:
  - a) “formal” learning – strictly connected with the university curriculum, structured;
  - b) “informal” learning – not being an integral part of the academic education.

According to the distance learning and teaching theory (at present mainly via Internet) the role of a student and a teacher in a teaching system also undergoes changes. “The learner is a subjective being in that process and knowledge is a dynamic process of his interactions with the world. The process of gaining knowledge involves discovering the rules that govern the reality. Tutor accompanies a learner in a process of exploring the world and helps him/her to understand the objective reality and apply the gained knowledge” (Barczak et al., 2006: 111). This change influences also teaching materials which should stimulate students' high creativity,

diversify learning and match students' capacity. Then, it is worth indicating several basic rules for designing online classes. They are (*Ibidem*):

- motivating students – various communication forms;
- defining the areas of knowledge necessary to gain – planning the teaching content;
- relating to the previously gained knowledge, phenomena and facts;
- presenting the teaching content – activation methods;
- supporting learners – clues helping to understand the content;
- encouraging students to act – environments friendly for various students' activities;
- delivering feedback for students' self-evaluation and progress – guidelines, for example in the separate references/links;
- assessment of the learning process – individual or in a form of project group work;
- inspiring (supporting, encouraging) to consolidate and broaden acquired knowledge and skills – additional reading list, links, glossary.

Along commonly cited advantages of distance learning there are (Siemieniecki, 2005: 14–15):

- individualized learning;
- an access to various information sources;
- flexibility of enrollment for the course;
- the free choice of the learning location, speed and time;
- developing independence and self-discipline;
- eliminating cost of commuting and accommodation in the educational venues;
- possibility for the disabled or single mothers to gain education and qualifications.

The disadvantages of this form of education are as follows: limited human interactions, more time devoted to prepare materials for distance learning, learners' problems with motivation and self-discipline, unequal "vulnerability of subjects to e-learning"<sup>8</sup>, technical problems, high costs incurred by institutions implementing distance learning systems.

It is worth remembering that it is a learner who plays the main role in distance education. The key to successful education of that type is: self-confidence, positive thinking, strong motivation to achieve goals, communicative skills, collaborative learning and ICT literacy.

The teacher here acts as a facilitator who supports learning but does not control it directly – influences the teaching process by motivating students and building their self-confidence, helping (answers questions, steers discussions) providing feedback (commentary, marks), creating atmosphere (inspiration for help and cooperation with other learners) monitoring (observing learners' activities).

As it has been indicated above, so far distance education in state universities in Poland has been treated as an addition of minor importance to the proper educational trend. However, the time of the pandemic has dramatically changed this situation,

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<sup>8</sup> This means that not all subjects are equally suited for distance learning. This term can be used when teaching methods for a particular subject in traditional and distance teaching slightly vary (Potyrała, 2017: 186).

whether the universities wanted to or not, they had to start – practically overnight – moving from traditional teaching to distance teaching. Thus, distance education became a fact. Consequently, the question arises: how the time of “emergency” education during the pandemic was exploited by the academic community, especially by students? Was this time not wasted? What findings should be drawn from that situation? Can it be claimed that university education will be different after the epidemic from the one before?

## Methodology

For the pandemic reason since the 12<sup>th</sup> March in the whole Poland not only in schools and kindergartens the traditional classes, childcare and socio-educational training for children, as well as university education controlled by the Ministry of Science and Higher Education were suspended. Therefore, to limit the negative effects of temporary teaching suspension and a delay of completing course programs, the traditional teaching was replaced with distance teaching under the regulation, even if this form of teaching was not planned in a particular course program. Since 25<sup>th</sup> March distance teaching has become a fact and a duty – universities and schools moved classes to the virtual world. The classes, lectures, students' service including examinations and thesis examinations were delivered in the network. This situation endured till the end of a school and academic year 2019/2020. Since the beginning of September children and the are coming back to school and at the beginning of October students are coming back to universities, although in a slightly different form than before the pandemic. There are indications that since October the lectures will be delivered in a form of distance learning and classes – hybrid, even if some universities consider delivering selected classes in a form of distance learning on regular basis.

During the pandemic the educational practice included such tools as Moodle, MS Teams, Zoom or Hangouts. Using these tools, teachers and students could meet in virtual classrooms to complete classes whereas teaching materials were provided for example on Moodle. How then, as the result of the suspension of the education for universities and consequently for students, was the educational routine in Pedagogical University like? What was students' opinion on distance learning in university “venues”? Did students meet this new challenge? What problems in the time of the pandemic did they have during classes delivered with the methods and techniques of distance learning?

The students of the Pedagogical University of Krakow were asked about these issues and other ones related to commonly delivered distance learning in the time of the coronavirus to verify their opinions. The aim of the analysis was the distance education in the students' eyes and their assessment of distance education.

833 students of the Pedagogical University from almost all faculties, course types and levels participated in the research conducted with the method of surveying – its basic function is to collect data about facts, phenomena, processes or events, i.e.: to canvass respondents' views and opinions (Łobocki, 2006: 243–244). At the turn

of May and June 2020 the respondents were asked – via email<sup>9</sup> – to answer almost 30 questions (excluding questions about basic data about a person – an imprint). The vast majority of respondents appeared to be women (84%) between 21–23 years of age (49%), of full-course studies (75.5%) of the first degree (57.1%).

The survey was in a form of a questionnaire with questions about distance learning divided into several groups (themes). Thus, the questionnaire included – following the funnel approach – closed questions about general aspects of distance education, and then questions drilling down to a more specific point in each, asking for more and more detail at each level, i.e. referring to distance education before and after the pandemic, distance examination session and the assessment of distance learning. Moreover, at the end of the questionnaire<sup>10</sup> respondents were asked an open question: What are your opinions/thoughts/observations about the commonly binding compulsory distance education?

## Analysis of the results

First of all, the respondents were to provide answers about the general issues of distance education. The vast majority (almost 90%) declared that they understand what distance education is about and what are its characteristics and almost 80% of respondents are familiar with its teaching methodology. The answers about distance teaching models were worse – only almost 30% students declared they are familiar with synchronous and asynchronous distance education.

Almost half of the students (47.8%) declares that they participated in various distance learning courses before the pandemic. Mostly these courses were: health and safety training for students (78.4%), library training (67.8%), large lectures (42.5%) and classes to compensate for cancelled ones (24%). The listed classes were delivered on the Moodle platform, as students declared (95.8%) in a form of tests, survey, worksheets to consolidate knowledge and lecture content provided by a teacher through traditional mail or in a cloud (38.8%).

Another group of questions included specific questions related to the general ones. They were about “emergency” education during the pandemic. Students declared that:

- at the time when the compulsory distance education commenced in most cases lecturers ensured that the crucial information about organization of distance learning classes, methods and techniques reach the students (40.2%), 25.5% respondents claim – nobody informed them about that; moreover 84.4% of respondents could not choose the communication channels for online learning (this was decided by lecturers), what is more they used various platforms/tools for distance learning for the courses of their studies (48.5%), although it is not a problem for them;

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<sup>9</sup> The questionnaire form was sent by university email to all students of the Pedagogical University (the accounts with a domain: student.up.krakow.pl were used) with a help from Mss. Edyta Kowalik. The survey was anonymous and voluntary.

<sup>10</sup> The questionnaire form was designed in Google Forms and is available at: <https://forms.gle/ooqHn6YYVqVHajBS6>. The function of answering is blocked at present.

- for the distance learning classes at university they mostly used Moodle platform (87.3%) and a team work center on Microsoft 365 platform – MS Teams (93%), moreover ZOOM Cloud Meetings (26.3%) and Skype (15.7%); among the applications for quizzes and surveys as an activation element of distance learning there were mostly Google Forms (41.4%) and Microsoft Forms (37.2%);
- the forms of classes varied depending on their type – lectures were mostly delivered in an asynchronous form (lecture content sent via email: 51%), similarly classes, tutorials, laboratories and seminars. This does not mean that there were no other forms (quite a considerable number of respondents mentioned classes on Teams, courses on Moodle and videoconferences for lectures); emailing was a predominant tool for consultations with lecturers;
- the number of respondents who experienced during their classes three main activation forms for distance learning is comparatively similar, i.e.: regular contact with a teacher (38.2%), various communication forms (43%) and a feedback (25%), whereas the most often mentioned online teaching methods were: presentation of teaching materials, e.g.: by delivering knowledge in various forms on platforms (43.9%), explaining, informing about the content, e.g.: by communicating goals and presenting the most important terms (39.9%), and relating to the previously presented knowledge, e.g.: references to already familiar rules, phenomenon and facts (33%);
- during distances education respondents encountered problems with: an Internet connection (55.6%) and equipment, e.g.: a camera (42.4%), the lack of feedback from a teacher (41.3%), teaching programs not adjusted to students' capabilities and well-being (39.7%), as well as the lack of preparation for distance learning classes (38.7%); it is worth noticing that 67.9% of respondents faced a problem of spending too much time in front of the computer and educational overburdening (60% of students complained about the overload of self-study materials, complicated or even impossible tasks to do individually);
- this form of education did not meet their preferences, almost half of students had a difficulty with self-organizations, self-esteem and being systematic. They also lack a direct student-teacher contact.

The survey was conducted at the end of the summer semester and therefore, students were asked to assess the approaching examination session. Thus, 60% of respondents expressed their concern about the approaching session which was to be in a distance learning form. Among the most often listed concerns there were: technical problems, stress, keeping deadlines for overload of credit assignments, unclear examination rules, fear if the knowledge gained this way is sufficient to pass examinations in a given subject, which generally means fear of the unknown.

The last theme of survey questions aim to assess the distance education which the students of the Pedagogical University experienced. 34% of students declared that in that situation this form of education worked out and it is a good educational solution during the pandemic. When it comes to assessment of distance education, over 55.5% of students claimed that distance learning classes are worse than traditional ones, and distance education can considerably influence their marks and credits for particular subjects they receive or not, as well as the way they “tackle”

the examination requirements in the approaching examination session (32%). One third (1/3) of respondents believed also that distance education can cause a decrease in their knowledge and progress during the pandemic.

## Summary and conclusions

At present, the experiences lead to the reflections that the world after containing the pandemic will not be the same as before the pandemic outbreak. The necessity to deliver education at distance has proved that distance education cannot be disregarded not only in the time of pandemic and perhaps it should become a permanent element of Polish educational system. And although most universities believe that they have handled the situation it is worth considering what in fact is a “bottleneck” of digital education.

The analysis of the results of the survey leads to several basic conclusions:

- 1) Students in distance learning have a superficial knowledge about the fundamentals of distance education, which is typical of the contemporary generation of young people, the so-called multitaskers. Multitasking causes the brain of people who do multitasking jobs to lose effectiveness and move to a superficial mode of working. Here definitely the deep knowledge (among others cause-effect knowledge) is important and teachers should ensure its development, e.g.: by dexterously organized and managed distance learning environment.
- 2) Effective distance education involves moving from the traditional model of education towards the constructive model, where a learner creates knowledge on their own drawing on experience and own individual or group activity and a teacher steers the learning process. Entering the mode of distance education requires not only different competencies (among others: self-organization, self-esteem, being systematic) from students but first of all proper preparation of teachers. It is necessary to adapt digital teaching methods and search for unconventional application of digital tools which enable a teacher to follow the teaching strategy focused on problem-solving, project work and teamwork, and first of all develop digital competencies. There should be less of teaching with giving methods, which unfortunately dominate, and more with activation methods especially those concentrating on online cooperation. Moving from classes in an asynchronous mode partially (transmission but noninteraction) toward classes in synchronous mode with an audio-video contact and ongoing revision of students' progress. Asynchronous communication can be a key to a successful teamwork. Tasks and comments exchange or emailing (which, however, have a lot of drawback) work out for discussions in which everyone must be familiar with information and, if needed, prepare their answer. So that, everyone is informed but can react when is ready.
- 3) The time of distance education is a difficult time, not only because of new formula for classes but first of all digital overload. Extended screen time, information overload, isolation from friends and the lack of the learner-master contact – i.e. the most often listed drawbacks of distance learning – can be a source of numerous problems, cause the respondents' poor mental and physical well-being. This issue is discussed in the report on the scientific research “Zdalne



nauczanie a adaptacja do warunków społecznych w czasie epidemii koronawirusa” (Ptaszek et al., 2020)

- 4) Distance learning can worsen the education quality and influence the final results of the students who finish the academic year. Perhaps they lack one of the key competencies of the 21st century, i.e.: ability to learn and the knowledge on how to improve our brain functioning to better acquire new information, remember it and effectively use it in the future. This is metacognition which also means meta learning. In other words, “the learning process must be consciously managed to be effective, to engage deep brain structures and give permanent effects” (Zdybel, 2015: 55). Thus, it is necessary to initiate learning, planning strategies to solve, monitoring processes of understanding, evaluating own progress in relation to accepted goals and criteria, modifying plan or the way the task should be completed in case of problems or realizing own educational needs. Perhaps it is high time to not only teach students but also teach them how to learn – which is important form the self-education point of view.

The coronavirus pandemic has accelerated the common use of distance education in Polish schools and universities and almost immediately enforced new legal solutions which consequently permitted new forms of education. Hopefully the developed good practices and tamed new technologies will enable schools and universities to be leaders of digital transformation and not to back on proven analog track when the time of the pandemic finishes.

## References

- 2020 *EDUCAUSE Horizon Report*. Teaching and Learning Edition. Accessed July 20, 2020. <https://www.learntechlib.org/p/215670/>.
- Barczak, A., Florek, J., Jakubowski, S., Sydoruk, T. (2006). *Zd@lna edukacja. Potrzeby, problemy, szanse i zagrożenia*. Warszawa: Wydaw. APS.
- EDUCAUSE Horizon Report*. 2019. Higher Education Edition. Accessed July 20, 2020. <https://www.k12blueprint.com/news/2019-horizon-report-here>.
- Juszczuk, S. (2003). *Edukacja na odległość. Kodyfikacja pojęć, reguł i procesów*. Toruń: Wydaw. Adam Marszałek.
- Kształcenie na odległość. Poradnik dla szkół*. Accessed July 20, 2020. [https://dokumenty.men.gov.pl/Kształcenie\\_na\\_odleglosc\\_%E2%80%93\\_poradnik\\_dla\\_szkol.pdf](https://dokumenty.men.gov.pl/Kształcenie_na_odleglosc_%E2%80%93_poradnik_dla_szkol.pdf).
- Łobocki, M. (2006). *Metody i techniki badań pedagogicznych*. Kraków: Oficyna Wydawnicza „Impuls”.
- Potyrała, K. (2017). *iEdukacja. Synergia nowych mediów i dydaktyki. Ewolucja – antynomie – konteksty*. Kraków: Wydaw. Nauk. UP.
- Ptaszek, G., Bigaj, M., Dębski, M., Pyżalski, J., Stunża, G.D. (2020). *Zdalna edukacja – gdzie byliśmy, dokąd idziemy? Wstępne wyniki badania naukowego „Zdalne nauczanie a adaptacja do warunków społecznych w czasie epidemii koronawirusa”*. Warszawa.
- Rekomendacje Ministerstwa Nauki i Szkolnictwa Wyższego w sprawie kształcenia prowadzonego z wykorzystaniem metod i technik kształcenia na odległość*. Accessed July 20, 2020. <https://www.gov.pl/web/nauka/ksztalcenie-zdalne-na-uczelniach>.
- Siemieniecki, B. (ed.) (2005). *Kształcenie na odległość w świetle badań i analiz*. Toruń: Wydaw. Adam Marszałek.

- Skrzydlewski, W., Strykowski, W. (eds.) (2000). *Media a edukacja. Kompetencje medialne społeczeństwa wiedzy*. Poznań: Wydaw. eMPI<sup>2</sup>.
- Taleb, N.N. (2014). *Czarny Łabędź. Jak nieprzewidywalne zdarzenia rządzą naszym życie*. Poznań: Wydaw. Zysk i S-ka.
- Wodecki, A. (2006). *Po co e-learning na uczelni?* In: M. Dąbrowski, M. Zając (eds.), *E-learning w kształceniu akademickim*. Warszawa: Fundacja Promocji i Akredytacji Kierunków Ekonomicznych.
- Zarządzenie Nr RD/Z.0201-5/2020 Prorektora ds. Kształcenia Uniwersytetu Pedagogicznego im. Komisji Edukacji Narodowej w Krakowie z dnia 6 lipca 2020 roku w sprawie: *organizacji zajęć dydaktycznych w roku akademickim 2020/2021*. Accessed July 20, 2020. <https://www.up.krakow.pl/images/dokumenty/studia/organizacja-roku/Zarz%C4%85dzenie-Nr-RDZ0201-52020-Prorektora-ds-Ksztalcenia-Uniwersytetu-Pedagogicznego-z-6-lipca-2020-w-sprawie-organizacji-zajecdydaktycznych-w-roku-akademickim-20202021.pdf>.
- Zdybel, D. (2015). *Metapoznanie – ukryty wymiar kompetencji uczenia się*. In: J. Uszyńska-Jarmoc, M. Bilewicz M. (eds.), *Kompetencje kluczowe dzieci i młodzieży. Teoria i badania*. Warszawa: Wydaw. Akademickie Żak.

## Students' Opinion on Compulsory Distance Learning at the Pedagogical University of Krakow

### Abstract

The coronavirus pandemic has introduced a number of restrictions. One of them was the closure of schools, educational institutions and universities. Compulsory distance learning has started, including at the university level.

Until now, distance education in Poland has been treated at state universities as an unimportant addition to the mainstream of education. However, the time of the pandemic changed this situation radically, whether the universities wanted it or not, they had to start – practically overnight – the process of transition from traditional to distance education. And, which raises the question: how the time of “emergency” education during a pandemic was used by the academic community. What did the didactic everyday life at the Pedagogical University look like, in connection with the suspension of classes for universities and, consequently, for students? What was the opinion of students about distance learning within the “walls” of our university? Have the students dealt with the new challenge? Finally, what were the most common problems they faced in teaching during a pandemic using available distance learning methods and techniques?

These and other issues related to universal distance education in the era of coronavirus were asked – in order to verify their opinion – students of the Pedagogical University of Krakow. The aim of the study was distance education seen through the eyes of students and their assessment of distance learning.

**Keywords:** distance learning, advantages and disadvantages of distance learning, student and teacher in distance learning, distance learning in a pandemic

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