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Communicators in e-learning – recommendations for teaching practice at the times of coronavirus COVID-19 – report from pilot research

Editorial preface

Transaction analysis is a key and the most characteristic element of the transaction analysis theory. The course of a given conversation is determined by ego states that initiate interactions and ego states that respond to a given signal. The pandemics, home confinement and the use of internet communicators drastically limits the possibility of analysing an interlocutor's non-verbal signals and the right communication course. The interaction process might create a situation where the structure and the way a given communicator functions might influence proper transaction interpretation. The research conducted by Byron Reeves and Clifford Nass shows that the human brain cannot always distinguish a message from media elements. Thus, if an interaction participant has an impression that a communicator is "chaotic", they might unconsciously attribute this feature to the recipient's features. Taking into account the fact how often we use internet communicators at the times of the pandemic, the analysis of their functioning and, what is more important, participants' subjective impressions might constitute an interesting contribution to the analysis of people-to-people transactions.

Zbigniew Wieczorek

Abstract

The text presents an excerpt from qualitative research conducted in the situation of coronavirus COVID-19 at Nicolaus Copernicus University in Torun. 50 students took part in the qualitative research. The aim of the aforesaid research was to determine the ways in which students use Internet

tools for educational purposes at the time of the pandemics and what are their expectations concerning the educational use of Internet communicators by their lecturers. The research was to diagnose the state of e-learning (with respect to the group of NCU students) and, after data analysis, to make recommendations for educational practice. The results obtained show that the majority of students use communicators for educational purposes, especially to work on projects with their colleagues. They also seek help in a group of their friends, whereas lecturers rarely appreciate possibilities of using communicators in education.

Keywords: communicators in education, new technologies in teaching, didactics of new technologies, social tools in education, media in education.

Introduction

The research published in annual *Social Media 2019* shows that the Internet is used by 4.388 billion of users. 98% of them use communicators and social networks. There are 3.484 billion of social networks users in the world. They most frequently choose Facebook (2.271 billion of users), YouTube (1.900 billion), Messenger (1.500 billion) and Instagram (1 billion) (https://socialpress.pl/2019/02/ilu-uzytkownikow-korzysta-z-sieci-i-social-media-w-2019-roku). In 2019, Facebook, Instagram and Messenger were used by 27% of users aged 18–24 (11% of women, 16% of men). Social tools were used by 32% of users aged 25–34 (13% of women, 19% of men). This research shows that young men use social tools more often. There is a smaller percentage of teenagers using social media, 3% of girls and 4% of boys.

The NASK (National Research Institute) Report *Teenagers 3.0* informs that girls interact by means of the Internet more frequently than boys. More often than their male friends they communicate with their schoolmates (F: 71.4%; M: 64.4% – a few times a day), their friends outside school (F: 64.5%; M: 56.0% – a few times a day) (NASK Report *Teenagers 3.0*, p. 26). The authors of the research point out that teenage communication via the Internet concerns in particular their peers (p. 30). Young people communicate via the Internet with their teachers with the following frequency: a few times a week – 4.8% girls and 3.3% boys, a few times a month – 12.5% girls and 9.3% boys, a few times a year 26.5% girls and 21.4% boys, never – 53.3% girls and 63.8% boys (NASK Report 2017 *Teenagers 3.0*, p. 27). It is emphasized that "the frequency of Internet communication grows with the age of the researched, including communication with teachers" (NASK Report 2017 *Teenagers 3.0*, p. 30).

Unfortunately, there are few Polish publications devoted to didactics of new technologies that tackle the issue of using communicators in teaching. I was motivated to focus on the topic of the current state of e-education after conversations with teachers and students who reported various difficulties in realising tasks given to them at the time of the pandemics by the Ministry of Science and Higher Education and the Ministry of National Education. The coronavirus made education face new challenges and teachers from all levels of education, who had occasionally or never used new technologies before, had to seek opportunities of communicating with their groups of pupils (students) and realizing their didactic process.

The research whose results are discussed in this paper was conducted in March and April 2020 and its aim was to determine difficulties, needs and expectations towards e-learning. The data obtained makes it possible to show preferences concerning e-learning tools (including communicators) and their use in teaching in the situation of limitations deriving from the Ministry's recommendations.

The research aimed at developing recommendations and guidelines for teachers and lecturers teaching online at the time of the pandemics.

The data presented constitutes an excerpt of the pilot research results. The text describing the results of the research concerning social media in education at the time of the pandemics was published in the book entitled *Zdalne kształcenie akademickie dorosłych w czasie pandemii* (*Online teaching of adult students at the time of the pandemics*) edited by Jakub J. Czarkowski, Mariusz Malinowski, Marcin Strzelec and Maciej Tanaś (Wydawnictwo DIG, Warszawa 2020).

50 students of NCU took part in the research, 45 women (constituting 90% of the research group) and 5 men (constituting 10% of the research group), aged 19-24 (Table 2 shows the age structure in the research group), one researched person was 42. Table 1 shows the sex structure in the research group.

Table 1
The sex structure of the research group

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	Woman	45	90.0	90.0	90.0
	Man	5	10.0	10.0	100.0
	Total	50	100.0	100.0	

Source: own study.

Table 2
The age structure of the research group

		Frequency	Percentage	Valid percentage	Cumulative percentage
Valid	19	6	12.0	12.0	12.0
	20	16	32.0	32.0	44.0
	21	12	24.0	24.0	68.0
	22	4	8.0	8.0	76.0
	23	6	12.0	12.0	88.0
	24	4	8.0	8.0	96.0
	25	1	2.0	2.0	98.0
	42	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Source: own study.

Table 3

The structure of the research group concerning the faculty and year of studying

		Frequency	Percentage	Valid per-centage	Cumulative percentage
	Pedagogy, Year I, first cycle (BA)	32	64.0	64.0	64.0
	Pedagogy, Year II, second cycle (MA)	4	8.0	8.0	72.0
Valid	Pedagogy Year I, second cycle (MA)	7	14.0	14.0	86.0
	Physics/Mathematics	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

Source: own study.

The research covered Pedagogy students from three different years: Year I first cycle (32 persons constituting 64% of the research group), Year I second cycle (7 persons constituting 14% of the research group), Year II second cycle (7 persons constituting 14% of the research group), and students of Mathematics and Physics completing their pedagogy course (7 persons constituting 14% of the research group). This data is shown in Table 3. The research took a form of an anonymous questionnaire.

The research tool (The questionnaire entitled *Limitations and Potential of Online Education – its Condition and Teaching Guidelines at the Time of Coronavirus COVID-19*) consisted of 26 questions, including: personal information (4 questions), 12 open and 10 closed questions. The questions concerned the ways students look for information with the help of information technologies, types of social tools (portals, communicators) students currently use and their use in the process of learning. Some questions referred to limitations that they encounter in this situation (the pandemics) when they experience full online education (with regard to using offline materials provided by teachers and synchronous education – lectures run by lecturers in real time). Students also evaluated various tools used for video conferences, pointing to their potential and limitations. Some questions included in the questionnaire regarded students' expectations concerning their lecturers' use of IT tools in online education.

The fragment of the research presented aimed at an attempt to determine the ways in which students use Internet tools for educational purposes during the coronavirus COVID-19 pandemics and students' expectations concerning the use of Internet communicators for teaching by their lecturers. The research was to diagnose the condition of online education (with regard to the researched group of NCU students) and to develop recommendations for educational practice on the basis of data analysis.

Research questions

As the research presented is of a practical-diagnostic nature, there is no need to formulate research hypothesis. The research was based on questions.

The research was to find answers to the following questions:

Q1. Which communicators are used most frequently by students for learning purposes in the situation of coronavirus COVID-19?

Q2. How do students use communicators for learning purposes in the situation of coronavirus COVID-19?

Q3. What are students' expectations concerning the use of communicators by teachers for teaching purposes?

Table 4
Qualitative analysis of the answer content to the question: Which tools are used by lecturers working with your group?

Tools used by lecturers providing lectures	Frequency
Facebook	1
Moodle	14
MS Teams	18
Conference rooms	12
Skype	18
Zoom	14
Webex	2
Mail/USOS (University Support System of Studies)	6
Other	10
Messenger	1
Discord	1
Google Disc	1
Slack	1
Total	99

Source: own study.

The students' answers pointed most frequently to MS Teams (18) and Skype (18). The next most frequently lecturer-used tools for online education were Moodle Platform (14) and Zoom (14). Quite a big group of students (12) pointed to a general category, i.e. conference rooms. Some academic teachers used university e-mail. They rarely used Messenger, Facebook, Discord and Slack for didactic purposes.
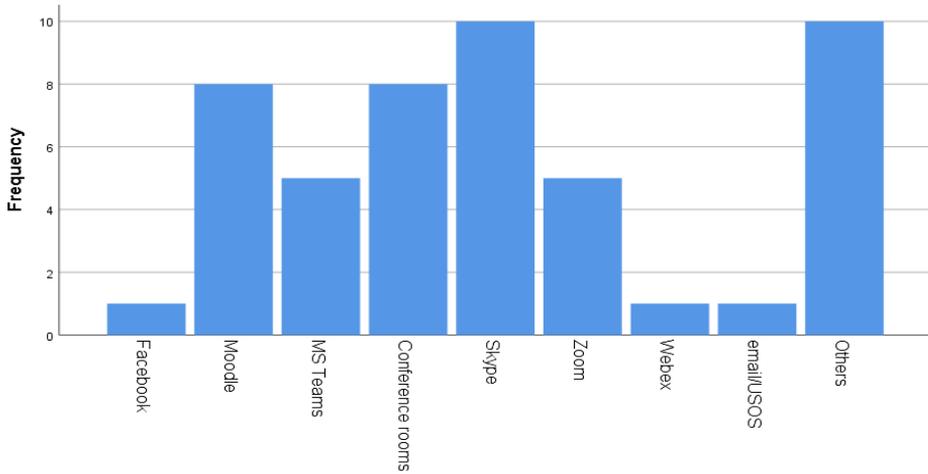
Fig. 1

Qualitative analysis of the answer content to the question: Which tools are used by lecturers working with your group?
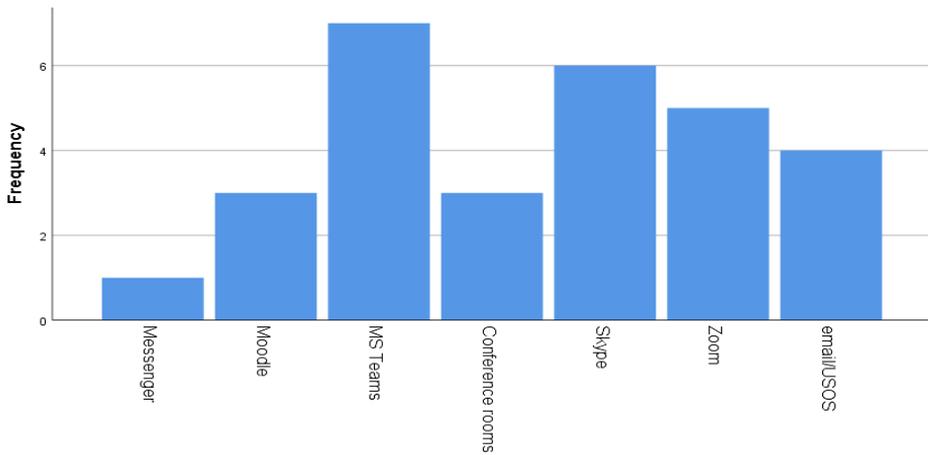
Source: own study.

Fig. 2

Qualitative analysis of the answer content to the question: Which tools are used by lecturers working with your group?

Source: own study.

The students were asked to detail their answers, describing disadvantages and advantages of using tools used by their lecturers in online teaching during the pandemics. The students' answers are presented in table 5.

Table 5

Examples of the students' answers concerning the question: which tools do your lecturers use when they run classes with your group – describe their drawbacks and benefits

Facebook, Messenger, Moodle, Microsoft Teams
Microsoft Teams , only ++++
Various platforms, each of them overcharged.
Conference rooms, Skype, zoom
Skype, Teams, Office, Zoom – no difficulties
Skype, Moodle
We have teleconferences, sometimes technical problems occur (due to a large number of people taking part in a given lecture). It's good that we can discuss a given portion of material in real time and in a way comprehensible for students.
Teams Office is good in case of small groups, it is too chaotic when groups are bigger. Moodle – no drawbacks, a very good platform.
Moodle – very easy to handle (a plus). Sometimes a presentation won't get downloaded (a minus).
Big Blue Button, Zoom, no difficulties, everything works well, and it is good that we can communicate freely with our lecturer, ask them questions, show presentations.
Moodle (Big Blue Button), Skype, MT. Big Blue Button – very good (especially during your lectures). Skype – sometimes the connection gets broken, but you can chat with your lecturer.
Skype, Zoom, Big Blue Button, Microsoft Teams. Difficulties – occasional bad sound quality.
Moodle, Big Blue Button, Skype, Office Teams. A plus is that such lectures actually take place and we can discuss a given topic and understand it better. A disadvantage is being disconnected by the system and no way to log in again.
Zoom, Skype – very easy to operate, no distractions, good sound quality. Big Blue Button – similar to zoom and Skype, easy access, and Microsoft Teams – difficult to log in, frequent interruptions
Zoom – a good option for running online, video classes, Moodle, Office Teams, conference rooms. Generally, everything works well, but each lecturer uses a different communicator and some of them do not run online classes but send many books to read, books we don't always understand, and then one may interpret a given topic in a wrong way.
Skype, Microsoft Teams, videoconference rooms, a plus is contact with your lecturer, a minus is that one has to change a meeting place with a given lecturer.
They use a camera and they show something handwritten on a piece of paper – a disadvantage: the visual quality is often lost. A slide show is a big advantage, though we don't know then what to write down, what to learn. A plus is that they use a chat: what they write is saved and one can come back to it when one wants.
Zoom, Skype, Webex, Slack – they allow for direct contact with a lecturer and explaining doubts, they can show their materials and discuss them. Noises from participants' flats can be disturbing and a few online classes in a row can be very tiring. Materials placed on Moodle or sent by e-mail – getting familiar with them takes much more time than with the help of a lecturer.
Lectures – recorded screen with PDF and sound. A weak Internet connection might be a problem, I can't sometimes play a film in my flat.
We use Webex for most of our classes and I must admit it is quite convenient. I haven't faced bigger difficulties.

Table 5 (cont.)

Some classes are run with the help of various communicators such as Skype or Microsoft Teams, which is a very good solution in this situation. It lets us understand different issues. Some subjects are run with the help of Moodle with recorded comments, which I also find interesting and which gives us an opportunity to comprehend various parts of the material. However, when it comes to Moodle, there is a drawback, i.e. too big material portions are uploaded there at one time. It is very tiring to learn in this way, at least for me.
Skype – positive, Zoom – positive, Teams chat – so-so, one can't run good classes only at the level of a chat
Various tools and that is a problem, there is a big chaos and it is difficult to find tasks to complete.
Moodle. Very chaotic. Hard to operate. Little interaction between a lecturer and a student. Email --> chaotic, many e-mails at the same time. Instead of sending one e-mail with a Google link to a disc with presentations, lecturers send 5 or more e-mails….terrible. Teams is a plus. Very lucid and makes it possible to communicate with a lecturer easily. Clear organization of bookmarks.
Big Blue Button – it is not the worst platform but unfortunately my laptop freezes when I try to use it and I have no possibility to check if it would work on a different computer. We also have classes on Zoom, but one session lasts 40 minutes and after this time the meeting is interrupted and you have to log in again. Skype – it turned out that our group was too big to meet our lecturer and we had to change the tool to Zoom.
Mostly they share presentations and discuss them, which is clear and lets us focus better.
Microsoft Teams, Skype, conference rooms. Problems with the Internet, too many people at the same time, there should be a division into at least 4 groups. Then, it would be easier to concentrate. The way it is now, many people find it problematic and others suffer because of it too.
Big Blue Button. Skype, Microsoft Teams, ZOOM. I've written about the difficulties above. A plus is that an online lecture is more interesting than tasks to complete on your own at home.
Presentations, often short, unclear, not contributing anything new. 2. Word – task description, a plus of the Word description is that a lecturer describes in detail which task to do and how it should be done.
email, teams, Moodle
A pronounced minority of lecturers run online synchronous classes, some send us loads of tasks to do in a given time, and there are also lecturers there is no contact with.
Moodle – all the materials in one place, USOS mail – information comes on an ongoing basis, Skype – it is often impossible to connect with a bigger group of people
Video chats – they help a lot to understand the content, sending texts without any explanation makes them difficult to understand
Presentation – it depends – it is quite clear and it's good to see what a given lecturer is talking about, but slides can change too fast
Skype, e-mail
Moodle and Zoom
Moodle, big blue button, zoom, skype
Skype: a limited number of people that can participate in a lecture at the same time. Moodle: lack of difficulties, everything is clear and there is a very good option of asking questions that we can write e.g. in a Word file without the necessity of using the Internet all the time. Microsoft communicator: I know it is used but it requires quite a good Internet connection.

Table 5 (cont.)

Moodle
On-line lectures, written sources and presentations (material explanations during on-line lectures) – then everything is clear and work goes smoothly.
Skype, Big Blue Button. No benefits, many difficulties.
Moodle, Teams, Zoom
Moodle, Skype, Teams – I haven't noticed any difficulties yet. Thus, a plus is lack of minuses.
I can often see a presentation but later on it won't slide due to overcharging.
Skype – no flaws so far. Both the camera and screen sharing options. Microsoft Teams – failure. Distorted voice, low visual quality. Discord – it was impossible to activate many cameras at the same time.
Zoom – a limited talking time on the communicator but a good chat quality. Big Blue Button – occasional sound problems, but also a good chat quality. Skype – only a small number of people can use it, easy access. Microsoft Teams – problems with logging to the communicator.
Teams, USOS-mail as mentioned before
Microsoft Teams

Source: own study.

In majority, the students positively evaluate the opportunities created by the use of videoconferencing tools. They often talk about difficulties concerning technical problems with the Internet, system errors resulting in being ejected from the group, problems with logging (e.g. Microsoft Teams), sound issues, losing visual quality, weak connection, problems with presentation downloading (e.g. Big Blue Button). The students regard the use of multiple tools by academic teachers (requiring logging to different systems) as a drawback. Frequent sending of too many messages creates chaos in their mailboxes, which makes it impossible to find their tasks; lecturers upload too many materials or they are too simplified (e.g. shortened, unclear information). 40-minute lectures are too long in the students' opinion, and participation in many online classes in a row is tiring for them.

The students' practical recommendation deriving from their opinions is to run classes in smaller groups, to discuss content presented on platforms on an ongoing basis (teachers may use communicators, answer chat questions, record their comments to presentations, use video calls). To understand the students' situation better, it is worth quoting *Larista*'s (F, aged 20) opinion.

> I am very grateful to these lecturers who undertake to run their classes by videoconferencing. However, it is not going to replace face to face meetings. I have noticed I concentrate less on the content during such classes, there are more things that distract me. Nevertheless, I feel great respect for undertaking such activities by teachers. These meetings take place on Zoom or Big Blue Button. Out of 12 classes, 4 are run in this way. Other lecturers send tasks via Moodle or e-mail, and most frequently in order to complete them, one has to read uploaded materials first. Others share texts and presentations on Moodle, giving us a choice if we want to get familiar with them on our own. In this last case – there

is no motivation. Summarising, it is good when we can hear a given teacher's voice. A significant drawback is sending materials only – sometimes too big and presented in a boring way.

Table 6
Answers to the question which communicators students use in the process of learning

Communicator's name	Point average	Point total
Messenger	54.6	2.732
WhatsApp	2.1	105
Viber	1.7	85
Gadu Gadu	0.0	1
Hangouts	0.0	1
Microsoft Teams	16.4	819
Teamspeak	0.0	1
Discord	1.2	59
Other	23.9	1.197

Source: own study.

Choosing a particular tool, the students granted it points from 0 to 100, which were to determine the frequency of its use. In the process of learning the students use Messenger most frequently (this choice got 2732 points), they also mention Microsoft Teams (this choice was given 819 points). These results are confirmed by the data presented in Table 7.

Table 7
Social tools and communicators which students use for learning purposes

		[Messenger] [1-100 points]	[WhatsApp] [100 points]	[Viber] [100 points]	[Gadu Gadu] [100 points]	[Hangouts] [100 points]	[Microsoft Teams] [100 points]	[Teamspeak] [100 points]	[Discord] [100 points]	[Other] [100 points]
N	Valid	49	6	3	1	1	33	1	5	32
	No data	1	44	47	49	49	17	49	45	18
Average		55.76	17.50	28.33	1.00	1.00	24.82	1.00	11.80	37.41
Minimum		5	1	1	1	1	1	1	1	5
Maximum		100	50	76	1	1	100	1	30	85
Total		2732	105	85	1	1	819	1	59	1197

Source: own study.

Among the students, Messenger communicator is the most frequently used tool for educational purposes (49). All the students taking part in the research use it. The next popular tool is Microsoft Teams (33 students use it). However, this choice should be related to the results obtained from the data given in Table 4. This tool was one of the most frequently used ones by teachers so students use it as it is required from them. However, it is worth remarking that teachers rarely use Messenger for didactic purposes. Another popular communicator used by the students is Skype (27) and Instagram (15). Below, there are categories describing activities undertaken by the students and related to education and their use of communicators. The students use communicators to:

1. Communicate in order to get help in solving tasks/ checking their answers
2. Look for inspiration and ideas for undertaken projects and tasks
3. Work together on tasks and share knowledge
4. Look for supplementary information and extra knowledge
5. Look for information concerning their studies
6. Exchange notes, watch didactic materials
7. Get in touch with their lecturer/ participate in videoconferences and online lessons organised by them
8. Keep in touch with their laboratory group
9. Read articles and watch films
10. I don't know/ other.

Table 8 presents detailed results.

Table 8
Qualitative analysis of the question: Describe which activities connected with studying at university you use communicators for

	Frequency	Percentage	Cumulative percentage
Communicating with other students to get help in task solving	15	18.3%	18.3%
Looking for inspiration and ideas for under-taken projects	3	3.7%	22.0%
Working together on tasks and exchanging knowledge	17	20.7%	42.7%
Looking for supplementary information	3	3.7%	46.3%
Looking for information concerning studies	13	15.9%	62.2%
Exchanging notes, watching didactic materials	6	7.3%	69.5%
Getting in touch with a lecturer	16	19.5%	89.0%
Keeping in touch with one's lab group	6	7.3%	96.3%
Other	2	2.4%	98.8%
Reading articles and watching films	1	1.2%	100.0%
Total	82		

Source: own study.

The students use communicators to exchange notes (6) and information (13), to consult their group. They often ask their friends about ideas for task solving or get in touch to eliminate lack of clarity. They look for help in task solving (15), especially for working together on tasks (17). The students also get in touch with their lecturers (16). Table 9 contains the students' answers to the question which activities connected with education they use communicators for.

Table 9
The students' answers to the question which activities connected with education they use communicators for

Contacting the lecturer, sending homework tasks, communication with friends to e.g. work on a group task, sending files, pictures
Exchanging opinions and ideas, looking for information concerning the tasks assigned
Making sure that I haven't missed any information from a given lecturer, assigned tasks and deadlines.
Lectures, doing homework
Supplementing information
Explaining terminology, exchanging information with other students
Lectures – videoconferences
Exchanging/ sending notes between friends, quickly asking a friend about a room, time of a given class
Looking for information on topics I am interested in. I study topics we talked about e.g. during our lectures
Communicating with group/ faculty mates, looking for information on classes, participating in classes
MT – participating in classes
I use communicators mainly to participate in lectures, online chats, but also to talk to my group mates about e.g. a task assigned, we often help each other sharing our remarks on this task.
I use them to look up words I don't understand, to see what something looks like in the picture (I am a visual learner).
None
Participating in lectures and obtaining information
Participating in online lessons, communicating with lecturers and university mates, e.g. to discuss a presentation we are supposed to prepare or consult them on "homework".
Communicating and getting information on tasks, presentations and exams
Keeping in touch with group mates
Communicating with group mates, more information, complementing information on a given topic, e.g. YouTube films, interesting articles or research connected with this topic
Listening to lectures, doing tasks
I use communicators to participate in lessons run via the Internet (online classes), communicating with my lecturers via a written chat (though I'd rather lecturers demanded students to speak out – I, for example, would like to take part in interaction very much).

Table 9 (cont.)

Participating in online classes: listening to lectures, consultation on workshops. What is more, contacting my year mates to solve tasks together and explain to each other issues problematic to us.
I ask about deadlines, participate in online classes, watch materials placed on Moodle.
In majority, taking part in classes run by university professors in the situation we are right now. Apart from this, communicating with university mates, comparing task solutions and helping each other.
Using communicators to communicate within a group, getting to know what was discussed during classes and comparing various task solutions.
Communicating with a lab group
Sending tasks, online consultation, arranging final assignments with lecturers
Communicating with group mates, exchanging information, working together on projects, sending notes, books, sending exam questions, motivating, sending end-of-semester assignments.
I use communicators to get to know when I have classes and which ones and what was discussed on previous classes or what we have to do for a given class.
Working in a group, brainstorming, which helps to solve tasks sent by our teacher
Discussing tasks with other members of my class group
I contact my friends if we do something in a group and have to share this work
Preparing presentations in a group, reading assigned texts together and explaining to each other how we understand given issues, questions to the group if we don't understand a given task or asking for help in completing/ sending/ finding a given task.
I use them most often to ask my friends if I have done a given task well. We also use communicators to talk and solve assigned tasks together.
I use communicators to talk to my university mates about presentations that we have to work on together.
First of all, sharing our thoughts on matters connected with the university, lecturers, year mates and not only, doing tasks, preparing presentations together.
Videoconferences, homework via Moodle
Complementing my knowledge
Communicating with lecturers and people I work with on a given task
Checking tasks, consulting my friends on given tasks and issues
Occasionally I try to solve a mathematical task with my group mates.
Verifying information/ topics in more detail, making presentations
Participating in online classes, assigning tasks to do, task sharing
Communicating with other group members, online classes
Communicating with lecturers
End-of-semester papers
Working on presentations together
Pair and group projects
Doing and sending tasks

Source: own study.

The next question directed to the researched let us obtain the answer to the question how the students would like their teachers to use communicators in teaching. The qualitative analysis rendered the following categories:

1. To interact with students (conversation, chatting, discussions, asking questions)
2. To explain material, terminology
3. To work in small groups
4. To present interesting materials (links, presentations, multimedia materials, films, book recommendation)
5. To run synchronous classes (on-line lectures, e-lessons, streamed lectures)
6. To test
7. Other
8. I don't know.

Table 10 presents overall data (figures) of the qualitative analysis for the answer to the question how the students would like their teachers to use communicators in teaching.

Table 10

Overall data (figures) of the qualitative analysis for the answer to the question how the students would like their teachers to use communicators in teaching

	Frequency	Percentage	Cumulative percentage
To interact with students	14	19.7%	19.7%
To explain material, terminology	19	26.8%	46.5%
To work in small groups	2	2.8%	49.3%
To present interesting materials	6	8.5%	57.7%
To run synchronous classes	18	25.4%	83.1%
To test	1	1.4%	84.5%
Other	9	12.7%	97.2%
I don't know	2	2.8%	100.0%
Total	71		

Source: own study.

Conclusions

The students would like their academic teachers to use communicators for explaining terminology and the material they teach, to run synchronous classes, to interact with students (results in Table 10). The emphasise the need to focus on working in small groups. The students notice drawbacks which are not only technical issues that are caused by a weak connection or software limitations that make a given programme freeze or automatically log out participants if there are

too many of them. They also discern lack of methodological and didactic preparation of their lecturers who, while using distance teaching tools, copy methods and structure of courses run in the classroom (e.g. 40-minute lectures, too much content to analyse individually) during online classes. The research shows that lecturers rarely use activating methods, uploading complex content to be analysed individually by students and forgetting about instructions or explanations concerning tasks assigned. It also happens that the students point to lack of any link between tasks and materials placed on platforms. Education based on the Internet is of a unique character, which was very accurately described by Michał Ostrowicki (2009) who writes, "The idea of online education aims at benefiting from the potential of the electronic environment to such an extent that is not possible in the traditional educational system – it is regarded as a goal in itself and not only a process supporting traditional education. It is treated as a complete educational system – alternative and independent of traditional didactics, self-sufficient and able to teach comprehensively, but based on different rules than traditional education." A starting point for teachers might be getting familiar with the rules of planning and running online classes, described in a paper by Marcin Dąbrowski (2004). Communicators facilitate direct contact with a given group, in this way each piece of information is immediately sent to receivers. Communicators offer contact in the form of a video chat with one or more persons, they are perfect for running synchronous classes. It is interesting that lecturers use systems operated within a given institution (Moodle, Zoom, Office365 Teams), whereas the students use communicators linked with social tools. The students seek help and explanations, addressing their group (on social media portal or on a communicator), not addressing the same question to a teacher who is not present on social media (or their account is private only). The research also shows that the students are interested in materials in the form of YouTube films. Thus, it is worth considering if a teacher's presence on social media, e.g. in the form of a webpage of a given course with uploaded materials (interesting links, multimedia presentations, films, references to literature) is not a better alternative for teaching based on distance teaching systems and teleconferences as it allows them to use the features of social media such as: scope, accessibility, usefulness, interaction, immediate transfer and permanence. Communicators offer direct contact with a given lecturer, which makes it possible to explain issues of the material and tasks that students find problematic. Video connections available in communicators facilitate the individualization of teaching (e.g. running an advanced group or a remedial group for students who do not grasp the material so easily). Concluding, it is worth quoting two students participating in the research, which constitutes a summary of this text:

> Teachers might recommend short films that we can watch e.g. on YouTube. I try to look for such films on my own, but I am often not sure if what I have found is suitable. […] I have only participated in two Skype lectures and I liked it a lot, but I did not feel any

difference between the content presented directly during a lecture and the one presented via the communicator. Such lectures are useful, we can ask questions, like during a traditional lecture, we can write on an available chat and the only problem is that such communicators require quite a big Internet packet. (Marta, F, aged 20).

I would like my lecturer to communicate via Messenger as it is generally available, easy and offers fast communication, sending materials, there are no limits as far as the number of people and time are concerned. (Jabłko, F, aged 19).

I would like to thank all my students who participated in the research and devoted their time to describe in as much detail as they could how they use online education at the time of pandemics.

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Komunikatory w zdalnym kształceniu – wskazania dla praktyki edukacyjnej w sytuacji koronawirusa COVID-19 – raport z badań pilotażowych

Streszczenie

W tekście zaprezentowano fragment wyników badań jakościowych zrealizowanych w sytuacji koronawirusa COVID-19 na Uniwersytecie Mikołaja Kopernika w Toruniu. Badaniem jakościowym objęto 50 studentów. Przedmiotem przedstawionego fragmentu badań była próba określenia sposobów, w jaki studenci korzystają z narzędzi internetowych do celów związanych z nauką w czasie pandemii oraz jakie są oczekiwania studentów w zakresie wykorzystania komunikatorów internetowych w nauczaniu przez wykładowców. Badanie miało na celu diagnozę stanu edukacji zdalnej (w odniesieniu do grupy badanej studentów UMK) i na podstawie analizy danych sformułowanie zaleceń skierowanych do praktyki edukacyjnej. Uzyskane wyniki badań wskazują, że większość studentów wykorzystuje komunikatory do czynności związanych z uczeniem się, zwłaszcza pracy nad wspólnymi projektami, poszukują oni również pomocy w grupie kolegów, wykładowcy zaś rzadko dostrzegają możliwości ich zastosowań w nauczaniu.

Słowa kluczowe: komunikatory w edukacji, nowe technologie w nauczaniu, dydaktyka nowych technologii, narzędzia społecznościowe w edukacji, media w edukacji.