

Pluses and minuses of online learning in the physical students' perception during lockdown period of COVID-19 pandemic (Report of Research)

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Abstract: Results of research on the physical education students' opinion on the pluses and minuses of the online teaching-learning humanistic subjects are presented. This study involved 113 physical education students of the second year of the full-time studies at the University of Physical Education and Sport in Gdansk. There were 38 female and 75 male students aged between 19 and 24 years. A questionnaire in Forms program was used. Totally 320 students' opinions on pluses and minuses of the online learning were achieved (190 "pluses" and 130 "minuses"). It was found the responders most frequently pointed a comfort and organization of the own activities as pluses of the online teaching-learning. Minuses (disadvantages) included mainly the lack of the interpersonal relationship with other student, communication problems due to technical obstacles and difficulties with study subject perception. However, the obtained results revealed more advantages than disadvantages in the online teaching-learning.

Key Words: Online teaching-learning, students' opinion, physical education students.

Introduction

Presented results of the study on the online teaching-learning of the humanistic subjects during lockdown period of COVID-19 pandemic. Majority of the publications and reports on the Polish studies refers to the general education (primary and secondary schools, e.g. Ptaszek et al., 2020 [1]; Zahorska, 2020 [2]; ZSZM, 2020 [3]). OKO-press (2020) [4], being one of the reliable information source, reported disadvantages of online teaching-learning in Poland. This report provides a diagnosis of the school situation online. It was consulted with educational experts and entitled: *Kills boredom, drives in an uncertainty, increases inequality. Report on the online teaching*. English-language publications on online teaching during lockdown period of COVID-19 pandemic and its impact on the online higher education show certain repeating scheme. Authors usually begin with a short description of COVID-19 pandemic, next they present models online teaching models (Mishra et al., 2020) [5], discuss advantages of the integrated online teaching-learning (Ali, 2020) [6], write about using various educational tools for online learning (Pokhrel, Chheteri, 2021) [7]. However, there are no publications directly relating to the physical education students learning online.

Objectives

Aim of this study was finding physical education students opinion on "pluses" and "minuses" humanistic subject remote learning. An answer to the following questions was used to realize the objectives of the present study;

- 1) What "pluses" and "minuses" the students see in the online learning of the humanistic subjects during lockdown period of COVID-19 pandemic;
- 2) What aspects of online teaching-learning the students classified as pluses and what as minuses?

Participants and Methods

Participants

Hundred thirteen students of the physical education second year (3rd semester) of studies at the University of Physical Education and Sport in Gdańsk. There were 75 male and 38 female students aged between 19 and 24 years (M=20.734; SD=1.001). Humanistic subjects were taught generally online during past two semesters of the studies at the Physical Education Faculty – practical profile.

Methods

Diagnostic opinion poll in the form of questionnaire was used in this study. Examined students were asked to describe the most frequent feelings related to the humanistic subjects learned online (pluses and minuses). Used questionnaire included also biographic note with information about sex, age, and taught subject (lecture/instruction).

The study was carried out after two terms of online learning in February 2021. Both lectures and practice were carried out in the real time, using Teams program, twice a week, by the same teacher.

Marks and students opinions concerned only one subject taught in this semester, i.e. "Psychology of the child development and upbringing". Two students participating in this study were foreigners (from neighboring countries) and evaluated other humanistic subjects – Polish and English languages. Therefore, their data were not included in this analysis of the obtained results.

Results

Pluses and minuses of the online teaching-learning in the examined student's opinion

Written answers of the examined students related to both pluses and minuses of the learned humanistic subjects the online were grouped in two registers (Tables 1 and 2). Frequency of the positive (pluses) and negative minuses) opinions, their number, sum and percent are included (table columns 3 and 4). Quality analysis of the examined student's opinions enabled to group them in the appropriate category. It may also be noted that the percentage of the students opinions assign to the defined category is not identical with its frequency, being only general value, relatively to all answers.

Pluses of online teaching-learning

Table I contains opinions of the examined students on "pluses" of online teaching-learning. These opinions were grouped into six categories according their frequency and/or similar description. Hundred ninety opinions were subjectively classified as "pluses of online teaching-learning".

Teaching and learning occupied the first place. Responders as the most frequent positive description of the online learning at home pointed "comfort for both students and teachers". Next they pointed "decidedly less stress and shyness which might appear in the traditional class (works are presented with more distance and self-confidence). The third opinion concerned "possibility to gain knowledge with the aid from the sources found in Web, i.e. right away. It means that the student is always able to give the right answer (has appropriate material right away and cannot it forget). Four answers of the examined students concerned directly to the teacher competitions, and his work according to the rules of "teacher constructivist". Students pointed that the teacher shows "professional attitude to the teaching, creates comfortable learning conditions in the sympathetic atmosphere, aims at receiving student's answer, directing him to the proper answer". Other, less frequent student's opinion on online teaching-learning during COVID-19 pandemic is the following: "chance to receive better marks", "greater participation in the exercises", and "comfortable and easy learning during the sickness". Such opinions exemplified 25% of all answers.

Every fifth respondent (21%) appreciated "comfort of online learning". The most frequent opinions include: "comfort of learning, no need to get up early in the morning, stay at home, no waste of time, no need to pay for the transportation, any study time, and freedom of working", "comfort, sympathetic atmosphere, warm tea, coffee break, temporary rest, possibility to learn sitting in the comfortable armchair, comfortable body position (e.g. lying in bed)".

Similar percentage of responders (20%) pointed easy communication and positive interrelations of students with the teacher. Responders also appreciated "untestable message, accurately discussed topic, a large "rush" of an important knowledge, and "greater freedom of the comments, when answering the question in the front of camera in comparison with answers in the front of the whole class".

The fourth category distinguished because of the answers frequency was "Innovation". Thirty responders (about 16%) appreciated "possibility to record the topic and its playing back, access to the electronic devices, being the next source of the knowledge, and more variety of learning due to the use of multimedia for the prepared material presentation".

The fourth category of the students' opinion enabled to isolate descriptions of "learning organization" and "safety". About 13% of responders online learning "enables to better organize time, better adapt day plan to the lessons, no need to run to the market for meals during breaks"; there is "time for the private life, learning may be combined with the duties, and quick organization of learning at any time"

The last place occupy small group of responders (5%) who paid attention to the "greater security in the actual situation and lower risk of infection, ... both the students and teachers are not exposed to the virus as they may stay at home".

The obtained results are presented in Table I.

Table I. Students opinion on pluses of online learning

Category	Students' opinions (190)	N	%
Teaching and Learning	- comfort for the students and teachers of learning online at home	14	14
	- decidedly less stress and shyness which may appear in the traditional class (we present our works with higher distance and self-confidence)	9	4.74
	- possibility to gain a knowledge with the aid of Web sources "right away", the student is always able to give the right answer (has appropriate material right away and cannot its forget)	6	3.16
	- professional attitude to the teaching, creates comfortable learning conditions in the sympathetic atmosphere, aims at receiving student's answer, directing him to the proper answer	4	2.11
	- comfortable option of learning (it is a good way), it is possible to gain a knowledge in the same way as in the class	3	1.58
	- better exploration of the topics by seeking additional information in Internet	3	1.58
	- chance to receive better marks	2	1.05
	- possibility of the quicker making notes and answering the questions	1	0.53
	- higher engagement of the students in exercises as some presentation the students must prepare themselves; these presentations are also linked with the remaining ones	1	0.53
	- more textbooks at home	1	0.53
	- comfortable and easy learning during the sickness	1	0.53
	- teacher doesn't see whether the student makes notes	1	0.53
	- the student cannot actively participate in the lecture	1	0.53
	- everybody works on his own account; if the student wants he is learning, making notes; if not he doesn't	1	0.53
	$\Sigma=48$	$\Sigma=25.26$	
Comfort	- comfortable for the students, no need to get up early, possibility to stay home, not losing the time to commute to the university, no transportation costs	29	15.26
	- comfort of online learning	11	5.79
	- sympathetic atmosphere, warm tea, coffee break, temporary rest, possibility to learn sitting in the comfortable armchair, comfortable body position (e.g. lying in bed)	3	1.58
	- any working time and freedom during learning	1	0.53
		$\Sigma=44$	$\Sigma=23.16$
Communication	- easy communication with students, a lot of interactions and cooperation, a lot of discussion, possibility to learn other students opinion on the said topic	17	8.95
	- comprehensible lecture, thoroughly discussed a topic, "rush" of important knowledge	8	4.21
	- careful listening, easier contact with the teacher	7	3.68
	- possibility to concentrate on this what the teacher says as it is more individual form of the lecture	4	2.11
	- more freedom of speaking in the front of camera than in the class	3	1.58
	$\Sigma=39$	$\Sigma=20.52$	
Innovation	- possibility of recording the said material and its repeated plying back	8	4.21
	- accessibility of electronic devices being the next knowledge source, access to the higher quantity of information	6	3.16
	- more diverse learning due to the use of multimedia for the presentation of learned material	6	3.16
	- possibility to listen the lecture in any convenient place and time and every remote part of the world, where access to the Web is available	6	3.16
	- higher mobility and students' activity during lessons and possibility to participate in the lesson in every place	2	1.05

		$\Sigma=30$	$\Sigma=14.75$
Learning organization	- possibility to arrange the time, better adaptation of the day plan to the lectures, no need to run shopping during breaks	11	5.79
	- easy learning, time for private life, possibility to combine learning with other duties	7	3.68
	- possibility to organize learning at any hour, possibility of the quick rework of the taught topics	3	1.58
	- possible increase in student/pupil individual work at home, i.e. better self-realization	3 $\Sigma=24$	1.58 $\Sigma=12.63$
Safety	- greater security in the actual situation	2	1.05
	- both the students and teachers are not exposed to the viral infection as they may stay at home	2	1.05
	- possibility to observe sanitarian recommendation in the actual epidemiological situation (COVID-19)	2 $\Sigma=6$	1.05 $\Sigma=3.16$

Legend: N – number; % – percent.

Minuses of online teaching-learning

All disadvantages connected with online teaching-learning were marked with minus sign. Examined students' opinion (N=130) indicated “minuses” and negative experience during online teaching-learning are shown in Table II.

An analysis of the collected opinions, called “minuses” during online learning, enabled to extinguish 6 categories. The first category is entitled “interpersonal relations”. It was found that for about 35% of responders for online learning minus indicated the lack of the contact with other students and difficult contact with the teacher. Responders paid attention at “impossibility to act in the group” and the “lack of meetings with acquaintances”. Every fifth respondent (22%) thought that the “minus” of online teaching-learning resulted from the weak communication – frequent problems with internet connectivity. Some responders as “minus” pointed out “impossibility to discuss with larger group of students”. Lower percentage of the examined students (20%) as “minus” indicated “teaching and learning”. Opinions included into this category were complaints, e.g. “difficulty to concentrate (a lot of “distractors”, like TV, telephone, mother asking whether garbage is thrown away, dinner is ready)”, and “weak concentration, lack of focus on the lesson, many things distracting attention around” also “difficulty with controlling unaided learning, making other things during online lessons”. Not many students “minuses” of online learning connected with teaching. In their opinion, pointed “limited possibilities to present knowledge”; “worse teaching, sometimes lessons are monotonous, sometimes chaotic”, “communication and discussion online means that the students do not train in their public speech, and only are presenting their speech in front of the camera”. Analysis of the examined student's opinion showed that 13% of them experienced depressed mood and unpleasant sensations during online learning. Therefore, category named “mood and other feelings”, including students statements such as “no climate and atmosphere of lessons in the class”, “stationary learning loses its earlier charm during online learning”, “much lower mobility”. One responder directly wrote that he experiences “sadness, sorrow, nervousness, frustration due to the lack of the class presence, and absorb such a quantity of the knowledge as during exercises”. Ten responders (about 8%) directed “minuses” to the teacher (so-called student signalman, who usually see imperfections in the other persons and willingly talk about them). These students indicated that “teacher has no influence on what the students do”, “inadequate teachers training by the university”, and “easier cheating”. Moreover, responders see “laziness, no engagement in learning of some students, who are logged in but not seat at computer”. Some responders (about 5%) admit that online learning decreases their motivation to learn. Following statements show it: “lower motivation to learn and unwillingness to learn because of being at home, mainly sitting in the front of computer, less engagement and conscientiousness while learning”, “decreased curiosity, hunger for the knowledge”.

Detailed students' opinion concerning online learning “minuses” is presented in Table II.

Table II. Students' opinion on the online learning "minuses"

Category	Students' opinions (130 statements)	N	%
Interpersonal relations	- lack of students integration	15	11.54
	- no integration and contacts with other people and teacher	11	8.46
	- lack of integration student-teacher	7	5.38
	- lack of the face-to-face contact with the teacher	5	3.85
	- more difficult contact with the teacher and more limited with other students	3	2.31
	- impossible group activity	2	1.54
	- no meetings with friends	2	1.54
	- impossibility to know each other so well in comparison with normal stationary studies	1	0.77
		$\Sigma=46$	$\Sigma=35.38$
Communication, technical problems	- weak communication, often problems with students' internet connection with the teacher, who do not take it into account	16	12.31
	-technical problems with both computer and internet	6	4.62
	- difficult information, worse communication	4	3.08
	- impossibility to discuss with larger group of students	2	1.54
	- often problem with access to the computer in families	1	0.72
	$\Sigma=29$	$\Sigma=22.31$	
Teaching and learning	- difficulty to concentrate (a lot of "distractors", like TV, telephone, mother asking whether garbage is thrown away, dinner is ready)	5	3.85
	- weak concentration, lack of focus on the lesson, many things distracting attention around	4	3.08
	- limited possibilities to present knowledge	3	2.31
	- possible distraction with technical accessories at home	2	1.54
	- difficulty with controlling unaided learning, making other things during online lessons	2	1.54
	- worse teaching, sometimes lessons are monotonous, sometimes chaotic	2	1.54
	- communication and discussion online means that the students do not train in their public speech, and only are presenting their speech in front of the camera	1	0.77
	- preparation of the taught material in the form of e-learning is more time-consuming in comparison with classic printed educational material, learning is difficult	1	0.77
	- more mobilization to learn, easier to get out of the work mode (members of a household or other duties distract the student)	1	0.77
	- efficiency of such a learning is very low	1	0.77
	- worse knowledge acquisition	1	0.77
	- teaching is mediocre	1	0.77
	- easier cheating	1	0.77
	- laziness, no engagement in learning of some students, who are logged in but not seat at computer	1	0.77
		$\Sigma=26$	$\Sigma=20$
Mood and other feelings	- no climate and atmosphere of lessons in the class	5	3.85
	- stationary learning loses its earlier charm during online learning	4	3.08
	- less mobility	2	1.54
	- sadness, sorrow, nervousness, frustration due to the lack of the class presence, and absorb such a quantity of the knowledge as during exercises	1	0.77
	- possibility of addiction to the computer	1	0.77
	$\Sigma=13$	$\Sigma=10.0$	
Teachers	- no focusing attention on the students' problems	3	2.31
	- teachers do not take into account that the student may have problem with internet connectivity	3	2.31
	- usually the teacher conducts monologue, which no good for	1	0.77

	both of them - the teacher has no an influence on the students' occupation	1 $\Sigma=8$	0.77 $\Sigma=6.15$
Motivation to learn	- lower motivation to learn and unwillingness to learn because of being at home, mainly sitting in the front of computer, less engagement and conscientiousness while learning - less commitment and diligence in learning - decreased curiosity, inquisitiveness	3	2.31
		2	1.34
		1	0.77
		$\Sigma=6$	$\Sigma=4.62$

Legend: N – number; % – percent.

Comparison of percent of online teaching-learning “pluses” and “minuses” (Fig. 1) enable to see the difference in a frequency of their occurrence. It was found that online learning had negative influence on 1/3 students interpersonal relations. Every fifth respondent noticed pluses of online learning (categories: teaching-learning and comfort), the same proportion of responders noticed “minuses” of this form of learning, like technical problems with communication. Comparing frequency of pluses and minuses of online teaching-learning, difference between them was 40%. Such a result indicates more pluses than minuses of online learning humanistic subjects in the opinion of physical education students.

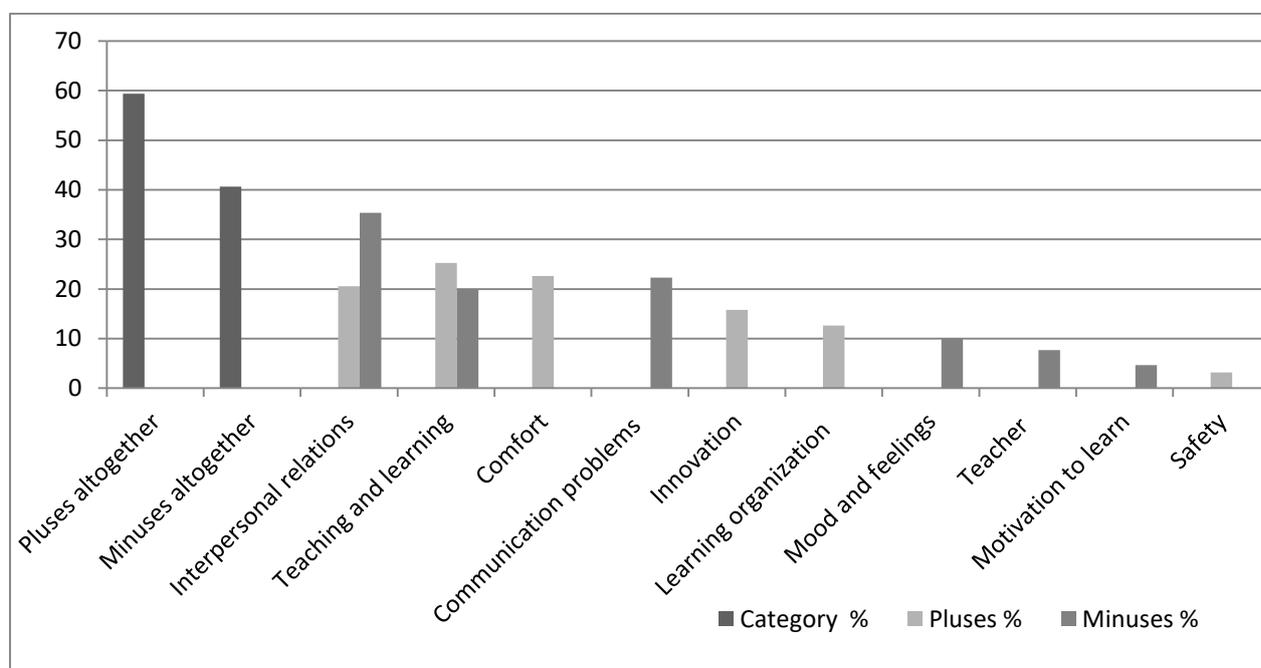


Figure 1. Histogram of both pluses and minuses of teaching-learning humanistic subjects online.

Discussion

First of all, it should be noted that online teaching-learning in higher education institutions in various forms exists in Poland since years. In the past, such learning mainly concerned non-stationary students. Practically, teaching of the humanistic subjects was limited to two hours of so-called introductory lecture. Principles, aims, and main theses of the subject being taught were discussed during this lecture. Next, the teacher sent to the student's respective themes in the written form. At the end of a semester, the students met their teacher to pass the said subject. Similar teaching forms were used in case of the stationary studies but to a lesser extent. In such a case, basic part of the lecture was carried out in the real time, and remaining – lower parts – were sent to the students in the written form¹. Results of such a teaching were generally mediocre. Now, when humanistic subjects (both lectures and practice are taught online) students also see a disadvantage of this form of learning. Dominika Pietrzyk (2021) [8] presents fragments of her talk with Joanna Mazur the author of

¹Such practice aimed and lowering the cost of education as in case of online teaching-learning only ½ of the realized hours were included into the teacher's pensum.

the Warsaw University Incubator report *Online teaching. Taming the (UN)known*. Discussed study was carried out by the Independent Students' Association and included 3.4 thousand students from 100 various Polish universities in March-April 2020. Comparing selected results of this study and own research, it was seen that the opinion of the physical education students on online teaching-learning are the same as their colleagues from other universities. These opinions suggest that the *students prefer such a form of teaching with enables direct contact with the teachers*. For instance, 66.6 % of the students of ArtesLiberales Faculty at the Warsaw University admitted that synchronic meeting online is the best form of online teaching-learning. Students from the Warsaw University stated also that *earlier an advantage of the online teaching-learning was an access to the didactic material at any moment and students have more liberty to use online teaching-learning. In practice, it was found that this form of education leaves so much liberty that the students cannot find time to use this material, ever. Contact with the group and teacher in the real time is perceived as an advantage of studies*, explains Joanna Mazur (cit. Pietrzyk, 2021) [8].

Similar results were obtained in my own studies. It is evidenced by the students opinions included into category "Teaching-learning" online, where the physical education students as plus considered *...comfort of this form of education both for them and the teachers and less stress during presentation of their work and the statements with more distance and self-confidence*. Every fifth respondent stated that online teaching-learning guarantee more comfort and facilitate communication. Responders prized also *...understandable message, precisely discussed the topic, high "rush" of an important knowledge and ...greater freedom of expression in the front of camera than in the class*. Physical education students noticed also online learning innovation. For instance *...possibility to record the said topic and its reply, access to the electronic devices being the next source of the knowledge, and more diverse learning due to the multimedia used during presentation*. JustynaKoc (2020) [9] discussing the statements of the Warsaw University teachers, quotes Professor Niesiołowski-Spano (history teacher), who also *receives the signals from the students who prize possibility to send his presentations to their monitors. In such a way graphic elements are more legible and better digestible, when those projected in the big room*.

Physical education students the highest number of online teaching-learning "minuses" placed in the category interpersonal relations. Their opinions were the following: *the lack of contacts with other students and more difficult contact with the teacher*. For every fifth responder minus of online learning resulted from *weak communication, frequent problems with internet connectivity*. They also complained about low concentration and focusing on the lesson (many distractors), and *difficult controlling unaided learning, making other things during online lessons*. According to some responders *limited possibilities to present knowledge and worse teaching*. Cited minuses of online teaching-learning are similar to those presented in an article *Online studies – advantages, disadvantages, challenge* found on internet page: *Opinion on the universities (2020)* [10]. In this research, the students as disadvantages (minuses) of online teaching-learning listed: *lack of traditionally understandable students life, problems with maintaining motivation to learn, possibility to do other things not connected with the said subject, and technical problems. Meaning both guarantee connection with the Web of adequate parameters and reliable computer*. Quoted opinions of the physical education students and their friends from other universities (Sołdatowa, 2020 [11]; Otuczelnie, 2021 [12]) explicitly indicate both advantages and disadvantages of online teaching-learning.

The results of this research reveal more advantages than disadvantages of online teaching-learning of the humanistic subjects.

Conclusions

1. In the perception of the physical education students, the most frequent pluses of online teaching-learning included comfort of learning and organization of the own lessons.
2. As minuses (disadvantages) of such a studying, responders pointed the lack of interpersonal relations with other students, perturbation with communication resulting from technical problems and difficulties to concentrate during lessons.
3. The obtained results disclosed more advantages than disadvantages of the online learning humanistic subjects.

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