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Comparison of the assessment of teaching components during distance and traditional learning – perspective of academic teachers and students. Questionnaire survey

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Abstract:

The Covid-19 pandemic forced students and academic teachers to start distance learning. Although both sides participated in the same process, its assessment from both sides may differ.

In our study, using a structured survey, academic teachers and students assessed on a 5-point Likert's scale (where 1 = greater in traditional education, 5 =definitely greater in remote education) the effectiveness of 6 key elements of learning such as: student's involvement (1), student's activity (2), contact with the lecturer (3), consistent manner of work (4), timeliness of tasks performed (5), quality of tasks performed (6) and adequacy of grades awarded (7) .

Most of the elements in both groups were assessed as more effective in traditional learning. The average score in the group of teachers in each of the elements was shifted towards greater effectiveness of traditional teaching. The greatest difference in grades between the two groups occurred in the scope of a student's involvement and activity. Students and teachers did not differ in the assessment of contact with the lecturer, although both groups indicated that it was greater in the case of traditional learning.

Lecturers and students differed in assessing the effectiveness of key features of learning during distance and traditional education. It is necessary to continuously adapt curricula in order to improve the overall assessment of the examined elements and to ensure that there are no differences between the two groups.

Keywords:distance learning, remote learning, covid-19, academic education

Introduction

During the Covid-19 pandemic, most universities in Poland had to switch to distance learning in an emergency mode. At some faculties, this condition lasted almost two years. Officially, pursuant to regulation of the Council of Ministers, the state of the pandemic was announced in Poland on 20 March 2020, and it was abolished on 13 March 2022. (1) During this period, 3073 deaths related to COVID-19 per million of population (PMP) were reported in Poland, and 158 818 PMP fell ill. (2) (3) Education and work in the conditions of high morbidity and mortality, with a large percentage of people being in isolation and quarantine presented a challenge for both

lecturers and students. This effect was further exacerbated by the necessity of a quick transition to this form of learning with unadapted educational programs. The staff and students also had to adapt to working in new software environments of e-learning platforms. Over time, the lecturers and students gradually adapted to the new mode of learning.

Today, after the termination of distance learning, we wanted to look at two perspectives, those of teachers and students, on the components of learning and their effectiveness during distance and traditional education.

Materials and methods

We included two groups – academic teachers and students – in the survey. Both groups completed a questionnaire in which, in addition to demographic information, the effectiveness of 5 elements of learning was assessed. The elements subject to assessment were: student involvement (1), student activity (2), contact with a lecturer (3), consistent manner of work (4), timeliness of tasks performed (5), quality of tasks performed (6) and adequacy of the grades awarded (7). The assessment took place on the five-point Likert's scale; the scale points were described as follows: 1 – definitely greater in traditional education, 2 - greater in online education, 3 - the same in traditional and online education, 4 - greater in online education, 5 - definitely greater in online education. Thus, the scale median denoted an ambivalent ratio, values close to 5 supported greater effectiveness of a given element in the case of remote learning, while results close to 1 favoured greater effectiveness in the case of traditional learning. For statistical analysis, Statistica 13.1 software (Tibco, Palo Alto, USA) was used. We presented the qualitative data as a percentage share. In the case of quantitative data obtained on the Likert's scale, we presented the central tendency as a mean and the spread measure as a standard deviation. We used the Mann-Whitney U test to compare the groups. We adopted $p<0.05$ as the level of statistical significance.

Results

We included 306 students from four faculties of the Jan Kochanowski University in Kielce: Faculty of Exact and Life Sciences (n= 58), Faculty of Pedagogy and Psychology (n=65), Faculty of Law and Social Sciences (n = 105), Medical College (n=78) and 86 academic teachers from the same faculties.

The distribution of the demographic data referring to the groups is presented in Table 1. The results of subjective individual assessments in both groups are presented in Table 2.

Table 1 Demographic characteristics of the groups

students					
sex (female, %)	74,50%				
year of studies	1st -31,69%	2nd - 26,79%	3rd - 23,53%	4th - 12,41%	5th - 4,57%
mode of studies	Full-time on-site - 97%	Part-time - 3%			
age (mean, SD)	21.95 years (SD = 1,94)				
teachers					
age (mean, SD)	45,4 (9,55)				
sex (female, %)	49 (63,6%)				
academic degree	Master's degree - 16,8%	PhD - 58,4%	Habilitated PhD - 20,7%	Prof. - 2,59%	

Table 2 Results in groups.

	Students		Teachers			
	mean	SD	mean	SD	p	mean difference [students - teachers]
student involvement	2.639 344	1.298 187	1.675 676	0.829 393	0.000 000	0.963669
student activity	2.655 738	1.252 435	1.851 351	0.870 875	0.000 001	0.804386
contact with the lecturer	2.131 148	1.071 082	1.837 838	0.921 985	0.050 762	0.293310
consistent manner of work	2.636 066	1.150 805	2,093 333	0.946 877	0.000 378	0.542732
Timeliness of completed tasks	3.052 632	1.094 779	2.626 667	1.124 342	0.009 346	0.425965
quality of performed tasks	2.937 294	1.109 574	2.240 000	0.927 653	00000 5	0.697294
adequacy of awarded grades	2.850 993	1.135 789	2.133 33	0.920 243	0.000 001	0.717660

All elements of learning were assessed as more effective in the case of traditional education. The timeliness of performed tasks was an exception in the opinion of students. This feature was evaluated ambiguously by the students (mean rating = 3.052). All the elements in the teachers' assessment were more effective in the case of traditional education. In addition, the teachers assessed all elements of learning as more effective in online education compared to the students' assessment, and the difference was statistically significant. The exception was the contact with the lecturer, where the p-value was at the limit of statistical significance (p=0.05), in this regard, the results in both groups were the lowest, i.e., most indications pointed to the superiority of the traditional model. The biggest difference between the two groups occurred in the assessment of student engagement and activity. The teachers assessed these features much better in the case of traditional learning (2.63 vs 1.67 and 2.65 vs 1.85).

Discussion

In our study, the assessment of key elements of learning varies depending on the perspective. The subjective assessments of students for most elements were more similar to neutral ones with a slight predominance of traditional teaching. The teachers believed that all elements of learning were superior in traditional education. At the university where the research was conducted before the introduction of the sanitary regime, all classes were conducted in a traditional way, and the situation of online learning for both parties was quite new. This means that both of the groups surveyed by us were in the same crisis situation. Taking into account the average age in the group of teachers and the distribution of academic degrees, these are people who became accustomed to traditional education. Therefore, it seems that in the case of willingness or necessity to conduct online or hybrid learning in the future, it is a group that would be more difficult to bring round to this type of activity.

The perception of online teaching is also different in other studies. In the research conducted at Romanian universities, 28.4% of students thought that online classes were boring, and only 3.2% of the teachers shared this opinion. Both groups agreed that classes in this form are more tiring than traditional classes, 49.8% of students and 25.4% of teachers thought so. (4)

However, it seems that despite the initial difficulties in adapting to the new conditions, online learning will be one of the permanent elements of education at universities in the future - after the adaptation of technical issues

and curricula. Students and teachers think that in the future this form of learning will be more useful and increase in efficiency. (5)

The crisis situation related to COVID-19 should be seen not only as a challenge, but also as an opportunity for faster computerization of the university. It seems that the group which will be more difficult to convince to increase the number of non-contact hours in the so-called hybrid learning will be academic teachers because they are more sceptical of all the elements of online learning. In part, this may be related to the phenomenon of nostalgia and resistance to reforms. (6) The data available in the literature indicate that education in the blended learning system combining distance learning with the traditional mode may have a better educational effect compared to traditional learning (7) (8) (9), and enjoys a better reputation among students. (10)

Such a dependence exists even in majors requiring practical learning, such as medicine (11) (12) and subjects aimed at solving problems, such as exact sciences and technology (4).

The hybrid form of teaching is effective and is gaining popularity. Modern academic youth are used to being in the environment of electronic devices, so an interactive approach may turn out to be more natural for them and help in achieving didactic goals better than the traditional form. Young people are particularly sensitive to new technologies. This sensitivity should be used to motivate young people to use new technologies also as scientific aids. (7)

A way to increase student interest is to change the form of teaching to one that engages students in discussions (such as debates and brainstorming) aimed at solving the problem. In this case, however, it is necessary to change the attitude of teachers and make them aware of students' needs. Studies demonstrate that 69.9% of students believe that teamwork is the most effective approach to learning. This view is shared by only 30.2% of teachers, while others believe that individual work is the most effective approach. (4)

Therefore, the key to the development of hybrid science after the pandemic seems to consist in finding a joint measure developed by both sides, which will combine educational goals with the satisfaction of students and teachers.

The limitation of conducting research in the era of the pandemic was the emergency mode of transition to online learning. Partially, this bias was limited by conducting research after the pandemic and remote learning, when both sides had already managed to adapt to the situation. Conducting this research only at one university is an additional limitation. In this case, the opinions we have examined may be partly dependent on cofactors such as individual organization of work at the university, technical support at the transition stage and providing the necessary resources and training courses to conduct this form of teaching. The strong emotional markedness of the entire pandemic period and the limitation of social interactions at all levels of the society, may also limit the perception of distance learning by both sides. This may arouse nostalgia in relation to the period of traditional learning before the introduction of restrictions.

The advantage of our research is the presentation of two points of view and proving that they are different. This study may an element of the path towards developing a common compromise on form and curriculum during distance learning.

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References

1. Polskiej Dziennik Ustaw Rzeczpospolitej. https://www.gov.pl/web/gsse-warszawa/odwolanie-na-obszarze-rzeczypospolitej-polskiej-stanu-epidemii. [Online]

2. Ritchie H. i inni. Coronavirus Pandemic (COVID-19). . *https://ourworldindata.org/coronavirus.* [Online] 2020.

3. Czuba B Mlodawski J, Kajdy A, Sys D, Cnota W, Mlodawska M, Kwiatkowski S, Guzik P, Wielgos M, Rybak-Krzyszkowska M, Fuchs A, Swiercz G, Borowski D. Implementation of the Publicly Funded Prenatal Screening Programme in Poland during the COVID-19 Pandemic. *A Cross-Sectional Study. J Clin Med. 2022 Feb 27;11(5):1317. doi: 10.3390/jcm11051317. PMID: 35268408; PMCID: PMC8911175.*

4. Barbu A Popescu MAM, Moiceanu G. Perspective of Teachers and Students towards the Education Process during COVID-19 in Romanian Universities. *Int J Environ Res Public Health. 2022 Mar 14;19(6):3409. doi: 10.3390/ijerph19063409. PMID: 35329099; PMCID: PMC.*

5. Hebebci Mustafa Tevfik, Bertiz Yasemin i Alan Selahattin. Investigation of Views of Students and Teachers on Distance Education Practices during the Coronavirus (COVID-19) Pandemic. *International Journal of Technology in Education and Science, v4 n4 p267-282 Fall 2020.*

6. Goodson I Moore S, Hargreaves A. Teacher Nostalgia and the Sustainability of Reform: The Generation and Degeneration of Teachers' Missions, Memory, and Meaning. *Educational Administration Quarterly. 2006;42(1):42-61. doi:10.1177/0013161X05278180.*

7. Nazarenko Alla L. Blended Learning vs Traditional Learning: What Works? (A Case Study Research). *Procedia - Social and Behavioral Sciences.* Volume 200, 2015, Pages 77-82, ISSN 1877-0428, https://doi.org/10.1016/j.sbspro.2015.08.018.

8. Hamad Mona M. Blended Learning Outcome vs. Traditional Learning Outcome. *International Journal on Studies in English Language and Literature (IJSELL) Volume 3, Issue 4, April 2015, PP 75-78.* ISSN 2347-3126 (Print) & ISSN 2347-3134 (Online).

9. Milic N Masic S, Bjegovic-Mikanovic V, Trajkovic G, Marinkovic J, Milin-Lazovic J, Bukumiric Z, Savic M, Cirkovic A, Gajic M, Stanisavljevic D. Blended learning is an effective strategy for acquiring competence in public health biostatistics. *Int J PubliHealth. 2018 Apr;63(3):421-428. doi: 10.1007/s00038-017-1039-5. Epub 2017 Oct 3. PMID: 28975369.*

10. Akkoyunlu B. & Soylu, M. Y. (2006). A Study on Students' Views On Blended Learning Environment. *Turkish Online Journal of Distance Education , 7 (3) , 43-56 . Retrieved from https://dergipark.org.tr/en/pub/tojde/issue/16925/176657.*

11. McCutcheon K Lohan M, Traynor M, Martin D. A systematic review evaluating the impact of online or blended learning vs. face-to-face learning of clinical skills in undergraduate nurse education. *J Adv Nurs. 2015 Feb;71(2):255-70. doi: 10.1111/jan.12509. Epub 2014 Aug 19. PMID: 25134985.*

12. Vallée A Blacher J, Cariou A, Sorbets E. Blended Learning Compared to Traditional Learning in Medical Education: Systematic Review and Meta-Analysis. *J Med Internet Res 2020;22(8):e16504 URL: https://www.jmir.org/2020/8/e16504 DOI: 10.2196/16504.*

13. Wang Y Yu R, Liu Y, Qian W. Students' and Teachers' Perspective on the Implementation of Online Medical Education in China: A Qualitative Study. . *Adv Med Educ Pract. 2021;12:895-903.*