

STUDY REGARDING THE INTEREST OF PHYSICAL EDUCATION STUDENTS FOR COLLEGE DURING THE PANDEMIC

Norbert STEFF^{1*}, Pia Simona FĂGĂRAȘ²

¹“George Emil Palade” University of Medicine, Pharmacy, Science and Technology, “Petru Maior” Faculty of Sciences and Letters, Târgu Mureș, Romania

²“George Emil Palade” University of Medicine, Pharmacy, Science and Technology, Faculty of Medicine, Târgu Mureș, Romania

*Corresponding author: steff.norbert@gmail.com

<https://doi.org/10.35189/dpeskj.2021.60.s9>

Abstract. *The pandemic caused by the COVID-19 virus has affected Romania since March 2020 and impacted students and teachers as well, classes being held online or in a hybrid form. The objective of the study is to highlight the impact of online classes on physical education students. We designed Google forms in order to gather as much information as possible from 203 students, most of them from the “George Emil Palade” University of Medicine, Pharmacy, Science and Technology in Târgu Mureș and the “Babeș Bolyai” University in Cluj Napoca. The questions were aimed at collecting information from three main points of view, namely students’ readiness for online learning, students’ interest for college and the teaching methods used during this period. After processing the data, we found that 128 (63%) of students believed that their readiness for online learning was an advantage, and out of the 203 students, 113 (55%) confirmed that their interest for college decreased during the pandemic. The main teaching method consisted of PPT presentations, and for the practical part, homework assignments and projects were used. In conclusion, students’ interest in online learning declined during the pandemic, and this result was checked with control questions that provided more valid information.*

Keywords: *online learning, physical education, students.*

Introduction

According to the *Social Report* of ICCV (Institutul de Cercetare a Calității Vieții [Research Institute for Quality of Life], 2020), the pandemic caused by the COVID-19 virus has impacted Romania since March 2020 and affected the lives of both students and teachers. The problem of isolating many families had to be solved somehow. Cucinotta and Vanelli (2020) stated that the Covid-19 infection, which emerged in Wuhan, China, in December 2019, was declared as a pandemic by the World Health Organization (WHO) on March 11, 2020. According to the literature (Remuzzi & Remuzzi, 2020), in addition to individual health protection measures, governments issued orders to avoid large gatherings and placed areas with outbreaks in quarantine. Kapasia et al. (2020) argue that the COVID-19 pandemic has led to a digital revolution in education with the use of online learning environments, digital books, teleconferences and virtual classrooms.

Therefore, many universities transferred their courses to online learning environments or hybrid learning, meaning that the courses were held online and some of the practical classes were held on-site (Ali, 2020). Isaac et al. (2019) mentions that online learning is also expressed in the literature as “blended learning”, “e-learning” and “distance learning”. This also affected the social life of students, and we can treat the crisis either as a social fact, a

social phenomenon or a process that takes place in a society at a given moment. This had a serious impact on everyone's life and motivated us to conduct this study.

The three aspects that we wanted to see were the following: students' readiness for online learning, students' interest for college and the teaching methods used during the pandemic. A study conducted in Turkey by Hergüner et al. (2021) emphasised that students' readiness for online learning had an impact on their interest for college. We aimed to check this issue for Romanian students and compare this information with the teaching methods used in this process. According to Yurdugül and Demir (2017), readiness, which is expressed as having the necessary information to experience online learning in the most effective way, requires the individual to have attitude and motivation.

Communication is a dynamic process that underlies social interaction. Wang et al. (2013) state that, in online learning, students need a presentation method while being away from teachers, in other words, from the traditional classroom environment

The teaching and education methods concern the ways of transmitting and assimilating knowledge, as well as the development of intellectual and moral qualities along with the control of knowledge acquisition and skill formation. Therefore, the methods serve purposes related to knowledge (mastery of norms and methods of thinking) and training (transmission of knowledge, skills, abilities, work operations and improvement of personality traits).

According to Onu (2017), the literature indicates that there is a strong interdependence between how teachers teach and how students learn, given that gaining knowledge during classes/seminars facilitates individual study.

The basic elements of communication involve the sender, message, channel and receiver. Taking into account Albert Mehrabian's theory, there are three types of language: verbal, paraverbal and nonverbal.

The teaching and learning processes could not take place in the absence of communication (Norliza et al., 2010; Moore, 2007). Duță et al. (2015) state that the teacher's communication style can influence students' interest and attitudes towards creating an enjoyable and learning atmosphere.

It is very important for the teacher to guide students in their learning process and, according to Slujismans (2008, as cited in Lambrechts et al., 2013), this can be done using the following three steps in the evaluation process:

- feed-up: involves giving examples of what is expected during the evaluation, making evaluation criteria explicit for students and being transparent during the evaluation;
- feed-back: involves providing sufficient feedback to students and allowing them to learn from their evaluation as much as possible;
- feed-forward: involves giving students input on how to go further in their learning process.

Jurik (2014) clearly highlights that "verbal teacher-student interactions and student characteristics are meaningful for student learning and motivation" (p. 132).

For us, communication is an exchange of information that takes place using specific codes influenced by certain situations, interests or needs of the interlocutors. Information receives the meaning of the message. The basis for conveying information is language, namely a set of symbols that act as a specialised code in each field of activity. Didactic communication

enables the transmission of knowledge through the classical teaching-learning process that is based on the psycho-social component of the teacher-student relationships.

Intercommunication relationships appear as a result of the need to exchange information, which is felt by students when interacting during a lesson. The students' need for additional explanations, clarifications, formulations and personal interpretations that reveal their understanding of the topic under discussion is the element that makes the difference from the monologue communication.

Dragnea et al. (2006) distinguish two types of communication in physical education: verbal and nonverbal. Verbal communication uses verbal language as a support for the message to be conveyed and is expressed in the form of command, simple communication, persuasion and suggestion. The command is a way of communication specific to the physical education activity, which may seem at first sight to involve only one participant, the teacher, but the student's motor action is considered to be a response given through motor language. In fact, it is exactly the kind of response we expect and whose promptness and accuracy help us to rate the level of message reception. When explaining, the teacher can use any other form of language (simple communication, persuasion, suggestion). All these issues create a big disadvantage for online learning compared to on-site learning.

The first two mentioned ways address the cognitive and communicative functions, being used for the transmission of information meant to explain aspects related to practice, specific theoretical notions, corrections, etc., or argue certain situations and recommendations. The suggestion mainly uses the persuasive and expressive functions of language, which favours the exchange of emotional information imposed in situations of student motivation, additional involvement in the activity, orientation of the response or action, involving the student's creativity and originality, etc.

The transmission of information through verbal communication largely depends on the concrete way in which language is used, on its characteristics (the paraverbal aspect).

Some rules of paraverbal communication refer to:

- The volume of voice, which is preferable to vary during a lesson depending on the created situations;
- The rhythm of speech, which also depends on the environment, should avoid monotony and support the teacher's demonstration or student practice; it may decrease in case of explanations, recommendations or the intention to induce calm and relaxation;
- The tone of voice, which varies depending on the situation, from the firm one required by the command to the strong one during the conduct of the lesson or the low one imposed by the moments of explanations or recommendations;
- The articulation of words (diction), which is important for the clarity of the message;
- Intonation, which emphasises or nuances the message or key moments of a motor action.

Nonverbal communication is present throughout the physical education classes, being used in turn by the teacher (demonstration, sound or gesture signals) and student (practice). Nonverbal communication can strengthen content effectiveness (Jackob et al., 2016).

Nonverbal communication involves the transmission of information through sight, gestures, bodily or motor acts, according to a code of movements that is not always conscious but is possible to control. In this area of communication, two ways of nonverbal expression can be defined:

1. Gesture communication - in ordinary people, it has the role of supporting and complementing those communicated verbally, while for people with special needs (hearing and speech impairments), it is the basis of expression and understanding.

2. Action and behavioural communication - involve a more complex expression through movements, motor behaviours with meanings in the sphere of ideas, states, attitudes, etc.

In physical education and sport, motor acts or actions turn into information when used by the teacher in demonstrations and into responses when performed by students. This response can be considered as information for the teacher (feedback), which helps them to regulate subsequent actions. The ability to dialogue in this way requires mastery of a specific (motor) language, which is also learned through practice in the physical education lesson. Ryan (2014) believes that “the complexity of the physical education environment and classroom management problems and the findings from teacher effectiveness research in classrooms strongly suggest the need to identify new feedback delivery skills for physical education” (p. 2), but this is hard to achieve in online learning.

Too little targeted by teachers, motor language is often limited to the execution of sport-specific skills. However, we encourage the expression through body language as a form of manifestation of the aesthetic component of an individual’s personality. Body language uses two techniques by which it intends to convey the message and communicate:

- Dynamic actions that involve movements of the body or its segments, jumps, etc.;
- Muscle tensions that involve changes in the tone of different muscle groups (including facial ones) in static or dynamic conditions imposed by the created situations.

According to Li (2016), body language displays emotions in educational interaction and multi-activity, which can affect the interest of students. Therefore, communication is a very important part of the teaching process.

Brod (1984) defined the term technostress as a modern disease of adaptation caused by the inability to cope with new computer technologies in a healthy way. The concept was revised and expanded by two American psychologists, Weil and Rosen (1997), as a result of 15 years of research; in their analysis, the meaning of technostress has become wider, indicating any negative impact on attitudes, thoughts, behaviours or psychology caused directly or indirectly by technology.

According to Chiappetta (2017), the identification signs of technostress risk are:

- Constant use of the smartphone even in social gatherings;
- The person never turns off the phone;
- There are very frequent nocturnal awakenings to connect to social platforms;
- It also warns the instinct to call in private places (cinemas, libraries, etc.);
- Writing messages while on the move;
- The TV is mainly used on the tablet or mobile phone.

If we add the fact that students had to use their smartphones or laptops to attend classes, it is obvious that the so-called technostress has increased. Considering all these aspects, we can say that technostress is another reason leading to a decline in students’ interest for college and therefore our survey is justified.

Methodology

Participants

Research participants were 203 students from physical education faculties: 47.3% from the “Babeş-Bolyai” University in Cluj Napoca, 43.3% from the “George Emil Palade” University of Medicine, Pharmacy, Science and Technology in Târgu Mureş, and the rest were from other physical education faculties in Romania.

Instruments

The questions and response options were the following:

1. Gender
 - Male
 - Female
2. At what college do you study Physical Education?
 - “George Emil Palade” University of Medicine, Pharmacy, Science and Technology in Târgu Mureş;
 - “Babeş-Bolyai” University in Cluj Napoca;
 - “Lucian Blaga” University in Sibiu;
 - “Alexandru Ioan Cuza” University in Iaşi;
 - Other physical education college.
3. Before the pandemic, how well could you handle e-learning devices?
Very bad 1 10 Very good
4. Do you think that your ability to handle e-learning devices was an advantage or a disadvantage?
 - It was an advantage because I was good at handling e-learning devices
 - It was a disadvantage because I was bad at handling e-learning devices
 - It was neither an advantage nor a disadvantage
5. Did you study online before the pandemic?
 - Yes
 - No
6. How often did you study online before the pandemic?
Never 1 10 Very often
7. Before the pandemic, did you study physical education in your free time or only what was taught in college?
Never 1 10 Very often
8. How were online courses organised during the pandemic? (Multiple choice)
 - We just logged in
 - Teachers sent us materials to study
 - Teachers taught courses using PPT
9. How interesting did you find online courses compared to on-site courses?
Not interesting at all 1 10 Very interesting
10. How were practical classes held during online learning?

- I just logged in
 - I logged in and got materials I had to read
 - I got materials that I had to put into practice
 - The practical part was based on homework assignments or projects
11. If you had tasks to put into practice at home, did you manage to achieve them?
- Yes
 - No
12. How interesting did you find online practical classes compared to on-site classes?
Not interesting at all 1 10 Very interesting
13. Do you think that your interest for college has decreased with online learning?
- Yes
 - No
14. Compared to on-site learning, how would you rate your interest in online learning?
Not interesting at all 1 10 Very interesting
15. Why do you think your interest for college has decreased? (Multiple choice)
- I spend too much time in front of the computer
 - Too much homework assignments
 - I was not ready for online learning
 - The group atmosphere was not motivating
 - I just got bored of online learning and lost interest
16. Do you think that online learning will help you to make progress in your profession?
Not at all 1 10 Very much
17. Do you think that online learning is more effective than on-site learning?
- Yes
 - No
18. What would you improve on online learning?

Procedure

The research was achieved using Google forms and was completed during the 2020-2021 academic year. The forms were designed so as to have many control questions, knowing how subjective the Google form method is (we wanted to get as accurate information as possible).

Results

After the analysis of students' responses, it was found that 128 (63%) said that being good at handling e-learning devices was an advantage for online learning. The question "Did you study online before the pandemic?" was addressed to those who had responded (to the previous question) that it was an advantage. Out of the 128 participants, 94 confirmed that their level of readiness for online learning had an impact on their studies during the pandemic. (Figure 1)

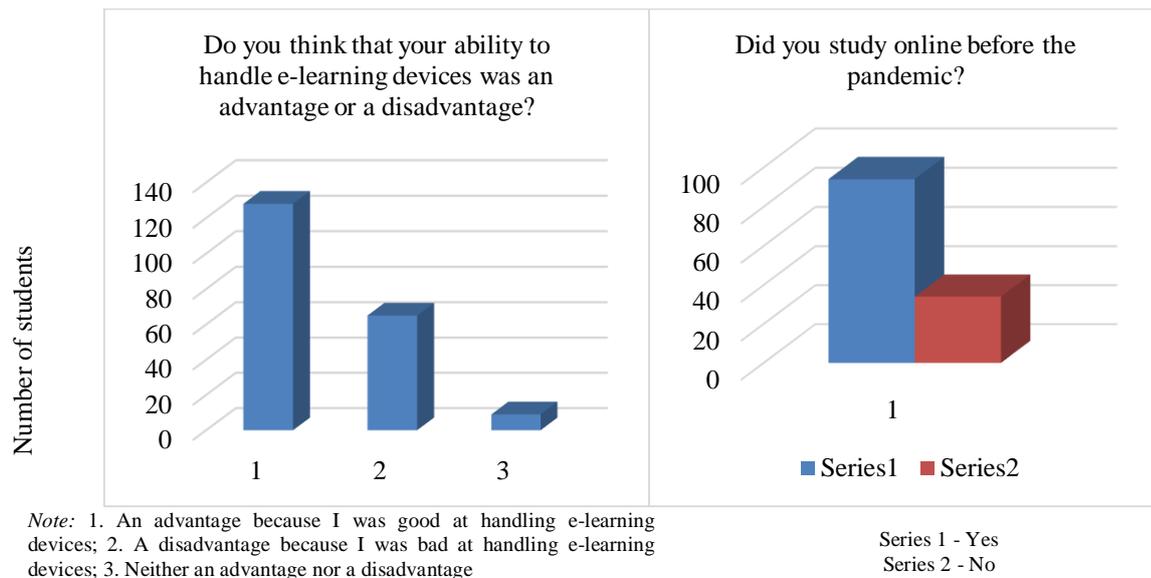


Figure 1. Students' readiness for online learning

The following questions were asked to find out how the courses were conducted and how many students lost interest in them. Most of the courses used Power Point presentations. We believe that this method is as close to reality as possible.

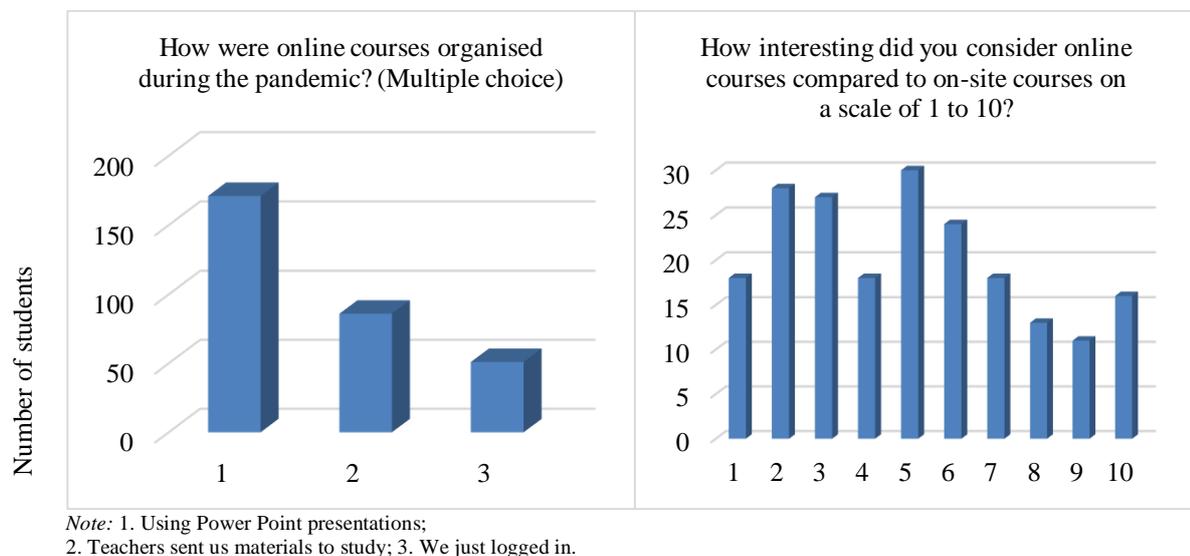


Figure 2. Students' interest in online courses

Students lost their interest in the courses taught using Power Point materials, and we agree that it was so. Only 16 students stated that online courses were more interesting than on-site courses, over 60% of them giving the grade 5 or lower to the question “How interesting did you consider online courses compared to on-site courses?” Most practical classes were based on homework assignments and projects (76% of students chose this option), 16.3% said that there were times when they just logged in, 30% said that they got materials to read, and 46% got tasks to put into practice. This was a multiple-choice question, hence the high percentage.

(Figure 2) We considered that homework assignments and projects caused the lack of interest for college, so we wanted to check this (Figure 3).

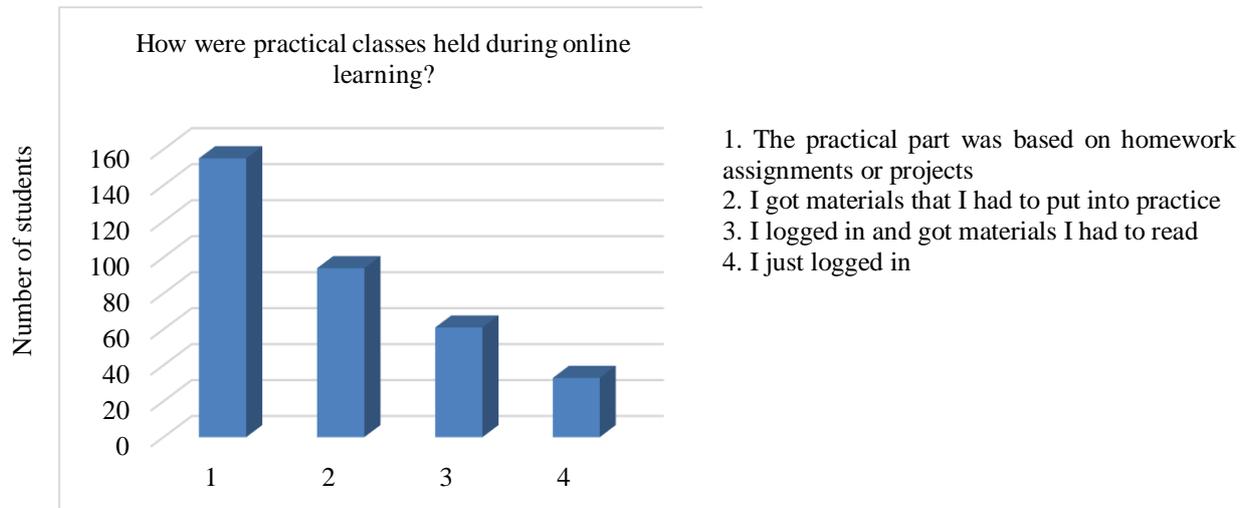


Figure 3. How practical classes were held during online learning

Responses to the question “How interesting did you find online practical classes compared to on-site classes?” showed that students’ interest was more influenced by practical classes, with over 70% of them giving the grade 5 or lower (Figure 4).

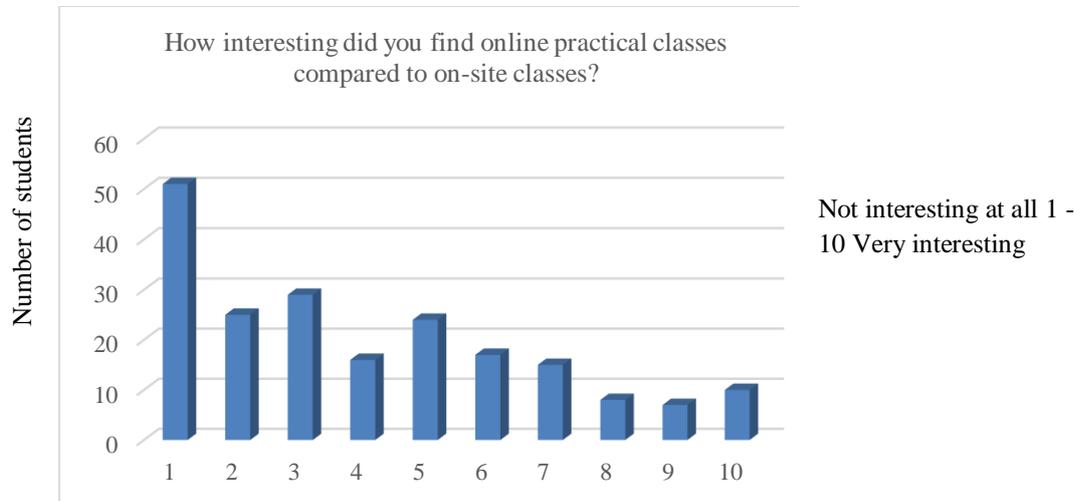


Figure 4. Interest in online practical classes

“Do you think that your interest for college has decreased with online learning?” was a control question to check the responses of students who thought that online courses and practical classes were less interesting. Thus, 64.5% responded that online learning was less interesting. Another control question was “Compared to on-site learning, how would you rate your interest in online learning?” through which we wanted to double-check the information. 60% of students gave the grade 5 or lower. (Figure 5)

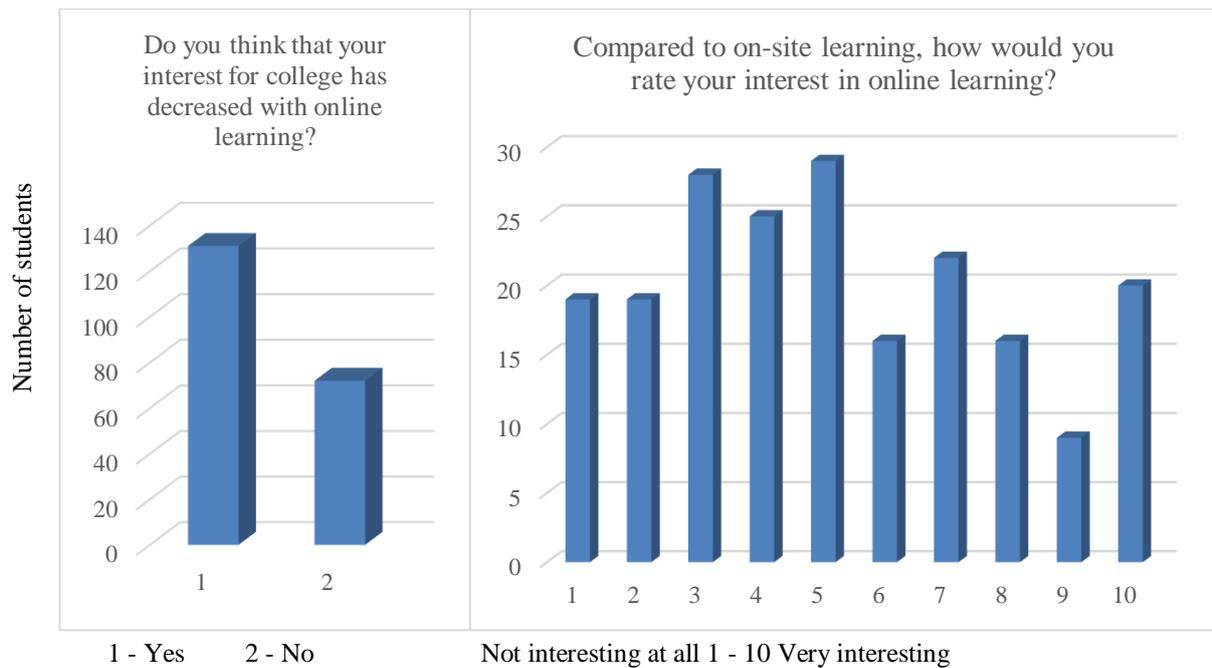


Figure 5. Students' interest in online learning

Discussion

According to Soni (2020), in the current pandemic situation, well-known companies such as Google, Microsoft, Zoom and Slack have offered many features of their products for free, which could be beneficial for educational institutions. This has generated a lot of discussion and research in this area.

After conducting this study, we can confirm that not only teachers but also students face challenges. Brazendale et al. (2017) state that this occurs due to their improper learning attitude, lack of suitable learning materials, involvement in classroom learning, inability to self-discipline and inadequate learning environment in some homes during self-isolation.

The results of our study confirmed those obtained by Hergüner et al. (2021), more precisely, that students' readiness for online learning had an impact on their success.

Nambiar (2020) shows that satisfaction with online classes is important for both the teacher and student, considering the following areas: quality and timely interaction between them, technical support availability, structured online classroom modules and changes to adapt to the conduct of practical classes. Of these, the most recommended in our study were the student-teacher interaction and changes to adapt to the conduct of practical classes, which can decrease students' interest for college.

According to Chiodini (2020), "for many reasons, there's a sense of needing to continue as 'normal' as possible in these unprecedented times and prepare for a time when life will return to usual activity" (p. 1). This is why we believe that we should take online learning as seriously as possible so that we can return to our lives without wasting years of our study opportunities.

Conclusion

Students' interest in online learning declined during the pandemic, and the results were checked with control questions that provided more valid information. Our recommendation would be the same as the most common responses to the last question ("What would you improve on online learning?"): more teacher-student interaction and less time spent in front of the computer by reducing homework assignments and projects and increasing practical exercises.

References

- Ali, W. (2020). Online and remote learning in higher education institutes: A Necessity in light of COVID-19 pandemic. *Higher Education Studies*, 10(3), 16-25.
DOI: 10.5539/hes.v10n3p16
- Brazendale, K., Beets, M. W., Weaver, R. G., Pate, R. R., Turner-McGrievy, G. M., Kaczynski, A. T, Chandler, J. L., & Bohnert A. (2017). Understanding differences between summer vs. school obesogenic behaviors of children: The structured days hypothesis. *International Journal of Behavioral Nutrition and Physical Activity*, 14: 100.
<https://doi.org/10.1186/s12966-017-0555-2>
- Brod, C. (1984). *Technostress: The human cost of the computer revolution*. Addison Wesley Publishing Company.
- Bryant, T. (1998). *Book review - Technostress: Coping with technology @work @home @play*. <http://www.naspa.net/magazine/1998/May/T9805015.PDF>
- Chiappetta, M. (2017). The technostress: Definition, symptoms and risk prevention. *Senses and Sciences*, 4(1), 358-361. doi: 10.14616/sands-2017-1-358361
- Chiodini, J. (2020). Online learning in the time of COVID-19. *Travel Medicine and Infectious Disease*, 34: 1-4. <https://doi.org/10.1016/j.tmaid.2020.101669>
- Cucinotta, D, & Vanelli, M. (2020). WHO declares COVID-19 a pandemic. *Acta Bio-Medica: Atenei Parmensis*, 91(1), 157-160. PMID: 32191675
- Dragnea, A., Teodorescu, S., & Stănescu, M. (2006). Educație fizică și sport: Teorie și didactică [*Physical education and sport: Theory and teaching*]. FEST.
- Duță, N., Pânișoară, G., & Pânișoară, I. O. (2015). The effective communication in teaching. Diagnostic study regarding the academic learning motivation to students. *Procedia – Social and Behavioral Sciences*, 186, 1007-1012.
<https://doi.org/10.1016/j.sbspro.2015.04.064>
- Hergüner, G., Yaman, Ç., Çağlak Sari, S., Yaman, S. M., & Dönmez, A. (2021). The effect of online learning attitudes of sports sciences students on their learning readiness to learn online in the era of the New Coronavirus pandemic (COVID-19). *The Turkish Online Journal of Educational Technology*, 20(1), 68-76.
- Institutul de Cercetare a Calității Vieții. (2020). *Raport social al ICCV 2020, Stare de urgență pentru consumul populației - recurs la reflecție asupra trebuințelor esențiale* [ICCV 2020 Social report, State of emergency for the consumption of the population - recourse to reflection on essential needs]. <https://uefiscdi.gov.ro/resource-829423-2020-raport-social-stare-de-urgenta-pentru-consumul-populatiei-m.pdf>
- Isaac, O., Aldholay, A., Abdullah, Z., & Ramayah, T. (2019). Online learning usage within Yemeni higher education: The role of compatibility and task-technology fit as mediating variables in the IS success model. *Computers & Education*, 136, 113-129.
<https://doi.org/10.1016/j.compedu.2019.02.012>

- Jackob, N., Roessing, T., & Petersen, T. (2016). Effects of verbal and non-verbal elements in communication. In A. Rocci & L. de Saussure (Eds.), *Verbal communication* (pp. 39-53), De Gruyter Mouton.
- Jurik, V., Gröschner, A., & Seidel, T. (2014). Predicting students' cognitive learning activity and intrinsic learning motivation: How powerful are teacher statements, student profiles, and gender? *Learning and Individual Differences*, 32, 132-139.
<https://doi.org/10.1016/j.lindif.2014.01.005>
- Kapasia, N., Paul, P., Roy, A., Saha, J., Zaveri, A., Mallick, R., Barman, B., Das, P., & Chouhan, P. (2020). Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India. *Children and Youth Services Review*, 116: 105194. doi: 10.1016/j.childyouth.2020.105194
- Lambrechts, W., Mulà, I., Ceulemans, K., Molderez, I., & Gaeremynck, V. (2013). The integration of competences for sustainable development in higher education: An analysis of bachelor programs in management. *Journal of Cleaner Production*, 48, 65-73.
<https://doi.org/10.1016/j.jclepro.2011.12.034>
- Li, X. (2016). Researching body movements and interaction in education. In K. King, Y. J. Lai, & S. May (Eds.), *Research methods in language and education. Encyclopedia of language and education* (3rd ed.) (pp. 1-12). Springer.
- Moore, K. D. (2007). *Classroom teaching skills*. McGraw-Hill Humanities.
- Nambiar, D. (2020). The impact of online learning during COVID-19: Students' and teachers' perspective. *International Journal of Indian Psychology*, 8(2), 783-793.
DOI: 10.25215/0802.094
- Norliza, A. M., Zalizan, M. J., Norzaini, A., & Saemah, R. (2010). Communication skills and work motivation amongst expert teachers. *Procedia – Social and Behavioral Sciences*, 7, 565-567. <https://doi.org/10.1016/j.sbspro.2010.10.075>
- Onu, C. (2017). *Elemente de pedagogie universitară* [Elements of university pedagogy]. Editura Universității "Al. I. Cuza" Iași.
- Remuzzi, A., & Remuzzi, G. (2020). COVID-19 and Italy: what next? *The Lancet*, 395(10231), 1225-1228. [https://doi.org/10.1016/S0140-6736\(20\)30627-9](https://doi.org/10.1016/S0140-6736(20)30627-9)
- Ryan, S. (2014). The effects of proximal and distal feedback on rate and type of teacher feedback in a physical education setting. *International Journal of Physical Education, Fitness and Sports*, 3(4), 1-10. <https://doi.org/10.26524/1441>
- Soni, V. D. (2020). *Global impact of e-learning during COVID-19* (preprint).
file:///C:/Users/urose2/Downloads/SSRN-id3630073.pdf
- Wang, C. H., Shannon, D. M., & Ross, M. E. (2013). Students' characteristics, self-regulated learning, technology self-efficacy, and course outcomes in online learning. *Distance Education*, 34(3), 302-323. <https://doi.org/10.1080/01587919.2013.835779>
- Weil, M. M., & Rosen, L. D. (1998). *TechnoStress: Coping with technology @Work @Home @Play*. Wiley.
- Yurdugül, H., & Demir, Ö. (2017). An investigation of pre-service teachers' readiness for e-learning at undergraduate level teacher training programs: The case of Hacettepe University. *Hacettepe Universitesi Egitim Fakultesi Dergisi-Hacettepe University Journal of Education*, 32(4), 896-915. DOI: 10.16986/huje.2016022763