ARPHA Proceedings

Proceedings IFTE-2021, 1315-1326
doi:10.3897/ap.5.e1315

VI International Forum on Teacher Education

Distance education during the covid19 pandemic case study: students' & educators' perception

Aida R. Nurutdinova* (a), Dilyara Sh. Shakirova (b), Fazeela Ibrahim (c)

(a), (b) Kazan Federal University, 420008, Kazan (Russia), 18 Kremlyovskaya street, AiRNurutdinova@kpfu.ru
(c) Institute for Research and Innovation, Villa College, Boduthakurufaanu, Magu, Republic of Maldives, fazeela.ibrahim@villacollege.edu.mv

Abstract

The unexpected transition to a distance learning format - the forced and immediate action and not all institutions were prepared for the fundamental readjustment. Attitudes towards distance learning technologies are under "pressure", however, the term "online learning" is used whenever there is a lack of personal contact, which leads to the inaccurate deductions. In the present situation, it would be unreasonable to use the term online learning even concerning the use of massive open online courses, since the rapid students' transfer in the mid-term without prior arrangements and proper follow-up prevent students to realize the benefits of this technology. The emergency distance learning approach in a pandemic environment differs significantly from well-planned online learning through massive open online courses. Unfortunately, scientific discussions are often closed and research results do not go beyond the scientific community. However, it is benign to say that experimental studies conducted have verified that the efficiency of online learning is no less than, and in some cases even surpasses, conventional face-to-face learning by educational results. Therefore, what is this educational technology? What determines the effectiveness of distance learning? And why should this technology be distinguished from distance learning under extreme conditions?

Keywords: online education quality, online education adaptation, universities, educational process quality, e-learning platform, students' preferences.

Published by Kazan federal university and peer-reviewed under responsibility of IFTE-2021 (VII International Forum on Teacher Education)

* Corresponding author. E-mail: rstmvn@gmail.com

Introduction

The COVID19 has caused alterations and affected educators as well as students' interactions. Due to COVID19, universities were forced to conduct their activities with students entirely online. In this regard, the government has taken measures to prevent COVID19 spread and ensure the educational process continuity, so online learning has been implemented worldwide. Although, online education is considered an alternative to traditional education, but during COVID19, it became an important element to keep universities running (Ali, 2020; Sobaih, 2020; Abou El-Seoud, Seddiek, Taj-Eddin, Ghenghesh, Nosseir, & El-Khouly, 2014). This educational paradigm shift has led to drastic variations in perception, comprehension. Consequently, in this article we tried to record those drastic changes.

Numerous studies in digital skills (Dhawan, 2020; Marinoni, Van't Land, & Jensen, 2020; Adnan & Anwar, 2020; Suresh, Priya, & Gayathri, 2018) agree that virtual/online learning is based on a cautiously planned, targeted learning procedure supported by methodological and measuring materials, which ensure that the training results are delivered in a strictly e-learning format. The key to this definition is instructive project as an course scheme tool, which is lacking in most cases in the abrupt transition to "remote/distance learning". The authors (Means, Bakia, & Murphy, 2014) propose nine basic parameters (characteristics) to be taken into account when aiming a course with alternatives for the online training implementation:

1. Education mode (purely e-learning, blended learning, e-learning with webinars);
2. Learning pace;
3. Number of listeners;
4. Pedagogical technology;
5. Evaluation purpose;
6. The teachers' role;
7. Students' role;
8. Interactions' synchronization;
9. Feedback.

All these parameters have a strong influence on the online course design: content, measures and evaluation tools. The method implies that virtual education is primarily a perceptive and societal, rather than a transmitting process (Yusuf & Al-Banawi, 2013; Bothun, 1998; Clark, 1983). Together with personal and remote learning requires social support for learners: in face-to-face training, this role is played by the material resources and the teachers involved in the teaching process (Fitzpatrick, 2001; Freeman, 1995; Garrison, 1989; Jeffries, n.d.). Virtual learning isn't possible with low IT infrastructure, as well as premium online courses involving efficient virtual training and sustenance.

In the up-to-date situation, where the shift to virtual learning occurs in the shortest possible time, all these settings should be established beforehand and educators should have skill in using real-time/cyber/virtual learning tools and undergraduate maintenance services. Experience shows that it takes an standard of 6-9 months to develop an effective online course. Thus you can't expect high results, even if the most advanced in terms of digital competence the teacher does everything to move classes to an online environment: record some online lectures, post text materials, and upload tests to the platform "no miracle" will happen. A distinction should therefore be drawn between what we mean by "online learning" and what we are trying to implement now in a short time with minimal investment and resources (the latter will be called distance learning in extreme conditions).

Purpose and objectives

The research conducted in 2020, compared frontal education and virtual education in an attempt to define the effectiveness of virtual form is no less than, and in some cases even surpasses, frontal education. The objective is to detect E-learning experiences.

The study examines:

- crisis in studying and the pandemic impact on comprehension and learning;
- students' attitudes when using e-learning platforms;
- the main challenges in E-learning and possible further improvements;
- recommendations and preferences regarding teaching – learning methods.

Literature review

Studying the urgent consequences of the emergency online education has intensified experimental and empirical research, as well as the necessity for the adequate theoretical framework of the new reality.

Most researchers acknowledge that this version of urgent total online education does not meet the expectations and standards of quality education. (Tishchenko, 2020; Yakobiuk, 2020; Jan, 2020).

Although university environments better prepared to transfer to online technologies in education, the epidemic factor, largely due to a negative psychological context, has made digitalization more difficult to adopt (Ozkaral & Bozyigit, 2020; Kerres, 2020). Nevertheless, researchers point to the availability of positive properties through the "emergency education digitalization"; as an example, they look at the development of a new multimodal methodology for online programs. (Bao, 2020; Mishra, Gupta, & Shree, 2020), which is particularly important for training psychomotor professions (Adesoye et al., 2021). Academic authors have no doubt that digital education will continue to be a trend after the COVID-19 pandemic, but in a blended (online/offline) learning format (Pham & Ho, 2020; Osman, 2020):

– Murphy (2020), reflecting on post-pandemic pedagogy, draws attention to the rhetoric that accompanies the urgent shift to online learning: conventional (non-digital) education appears insecure in the context of the pandemic; as an example "the securitization theory to analyze the post-pandemic education" (Murphy, 2020).

– Burns (2020) advises rethinking the ethics in post-pandemic pedagogy, choosing the practice of care and compassion as the starting point.

– The challenges of pandemic education governance - both in the educational disruption context and education digitalization - have been analyzed from different perspectives in international policy briefs and academic studies (Rashid & Yadav, 2020).

– Academic discourse reveals the reproduction mechanisms for the education inequalities in a pandemic context, focusing on the social exclusion and the inability to receive public support in these circumstances (Iivari, Sharma, & Ventä-Olkkonen, 2020). Vulnerable groups in research include teenagers from low-income families, refugee families, "special" , adolescents countryside areas in developing countries (Oyedotun, 2020).

Research on online education in universities during the pandemic coronavirus period focuses on:

– operational and technical support for online education in the emergency framework (Ladyzhets, Neborskiy, Boguslavsky, & Naumova, 2020; Bao, 2020);

– the forced digitalization consequences and the forced resistance of university administrations to a total shift to online education (Kerres, 2020);

– the students' frustrations who have had their offline education replaced with an online format, whose expectations (e.g. internships) are not being met and who are experiencing technical difficulties in the education digitalization (Ozkaral & Bozyigit, 2020);

– the development of multimodal methodological support for online programs that can develop critical thinking, and the need for government support during the transition to quality online learning (Mishra et al., 2020);

– digital education technologies and the social mobilization to encourage online and blended learning (Pham & Ho, 2020);

– balanced and evidence-based incorporation of virtual and offline learning afterwards the pandemic (Osman, 2020);

– following post-pandemic transformations in the content of educational programs; for example, in relation to the current "digital transformation" of the legal profession, the legal education digitalization is being considered (Osina, Tolstopyatenko, & Malinovsky, 2021).

The managerial practices analysis in adapting to online education is particularly optimistic in evaluating "volunteer" participation through online interaction between educators and students (Klyagin, Abalmasova, & Garev, 2020). Researchers recommend digitalization in university education based on innovative tools, such as multimodal education technologies (Skulmowski & Rey, 2020), virtual reality, augmented reality, etc. "COVID-19 crisis" under such conditions becomes an unprecedented accelerator of technological development.

Methodology

A nonstandard questionnaire included elements that corresponded to the three questions of the study.

For the first issue were included: technical problems frequency, setting objectives and obstacles confronted in e-learning (open questions).

For the second issue: preference in the online environment and preference in future higher education.

For the third issue: the prior procedure of the e-learning platform and the future preference for the various platforms.

The last part contained a number of socio-demographic variables. This information was used for a descriptive analysis only.

Research participants were 12.500 students from the Institute of Philology and Intercultural Communication (Kazan Federal University) (Kazan, Russia), Institute for Research and Innovation (Villa College, Male, Republic of Maldives), The Agrarian University of Havana "Fructuoso Rodríguez Pérez" (Havana, Cuba). Their ages varied from 19 to 33, among them were 15% (freshmen), 20% (sophomores), 35% (juniors), and 30% (seniors).

Results

We conducted a survey of professors and students on their attitudes toward distance learning by answering four questions:

1. whether they had more free time;
2. whether distance learning was convenient;
3. how convenient distance learning was for teachers;
4. whether respondents prefer face-to-face to distance learning.

Most students and teachers believe that the distance education quality is worse than that of conventional face-to-face learning. Students were much more loyal to distance learning than teachers. In particular, students (50.3%) and teachers (87.4%) felt that they had lost their free time due to the transition to a distance form of education. A total number of students (47.7%) and teachers (53.8%) find this form inconvenient. Only students (35.8%) think distance learning is inconvenient for teachers. The proportion of teachers (62.1%) who responded that they were uncomfortable was much higher: in the classroom it is better to study students and teachers consider. Students (69.6%) and teachers (85.5%) prefer a face-to-face form.

According to the research data, the students' classification in relation to distance education was also presented. The students were divided into 2 groups:

– "protagonists" (34.6% overall): they were divided into "unconditional" protagonists (8.3%) like everything: they have more free time, they think distance education is convenient, they think their teachers are more comfortable to teach in distance form. For them, a remote education form is a preferable one.

Protagonists who consider that face-to-face education should be given priority over the distance one (17.8%), and "dubitative" protagonists consider the remote education form should be given priority (8,5%).

For example, a 26-year-old graduate student at IFMK KFU wrote that he believed that distance education fostered digitization, nurtured a person's desire for personal growth and timely choice of a particular development trajectory.

– "opponents" (40.4% overall): they were divided into two subgroups: "uncontested" (25.20%) and "dubitative" (15.2%).

For example, undergraduate students from The Agrarian University of Havana "Fructuoso Rodríguez Pérez", Institute for Research and Innovation (Villa College) commented as too many assignments from professors, especially terrible when all assignments "are thrown" at once and leaves no time for any personal matters. However, all opponents realize that making the distance education process is a forced measure of self-isolation.

There were two other groups as well, namely:

– "conscientious objectors' substantive" (2.1%) - took a negative stance on all issues concerning the distance education format.

– "conscientious objectors formally" (1.7%) - formally took part in the survey, as they indicated «difficult to answer» everywhere.

The other 21.2% could not be categorized due to internet connection problems.

Discussions

In this situation of high risk coronavirus infection, the only possible and adequate response to an external challenge was a temporary transition to distance learning. And in these conditions, every possible resource was used to implement the educational process through the Internet. Important requirements for the system were reliability, Internet channels, bandwidth, content creation and placement, simplicity, services' availability, and teachers' and learners' platforms.

Received methodological approval from the Ministry of Science and Higher Education of the Russian Federation, universities have created an IT infrastructure that takes into account external resources for implementing distance learning and the requirements for the format of the learning process. thus, each university has its own instruments for organizing distance learning. The widespread platform was LMS, platforms for content and students' placement tests, social nets, and messengers for learners and teachers' interaction. Most universities have been able to benefit from top Russian and foreign universities, presented on nationwide and worldwide platforms their free online courses. However, even these facilities were not able to guarantee that students fully took advantage of online courses as free access to course content did not involve support from universities and teachers were not immersed in the course content, who were unfamiliar with online learning. However, motivated students have performed fairly well, but unfortunately not very well.

Teachers lacked digital skills to reorganize the educational process. Training was not practicable in such a short time and consisted of training sessions, short webinars, tips and tutorials on how to use different services and platforms; the support of the university's technical services played an important role in introducing new technologies.

Pedagogical and course design have not even been included in the distance learning aspect, a force majeure consequence has strained universities to organize all available capacity by introducing educational technology, but not systematically. It should be noted that e-content for immediate problems needs to be eminent from proper online courses designed to create an adaptable, cooperating, student-centered approach.

We analyze at the study results on two levels:

- practical implications;
- theoretical implications.

On the practical level, the recommendations for successfully improving the educational quality process in an online environment are considered: the educational process in a period of unexpected and abundant changes in the university system is possible, a long adaptation period with the virtual background, improving the educational value, and the students' perception can be positive. However, for a successful adaptation to online education a number of actions have to be taken into consideration: developing trainings or developing syllabuses whose role would be to awaken educators' work and, indirectly, the educational value (Kaplan & Kies, 1993; Lane, 1992; Sherry, 1996).

Conclusion

This article examines the educational process in universities in the pandemic context; but the study also has some limitations.

The first is that the study was conducted at three universities; and the results cannot be synthesized to the whole higher education system. It should be noted that these three universities had experience with the e-learning platform (only the basic platform tools) before the virus.

It is necessary to synthesize the outcomes and also to make assessments by university, study field, previous experience with online learning, availability of instruction syllabuses for teachers in this "shift" period.

It is necessary to examine how universities and teachers have adapted to teaching strictly online, (interaction learning modes), and whether students' attitudes towards online learning have improved.

Acknowledgements

This paper has been supported by the Kazan Federal University Strategic Academic Leadership Program.

References

Abou El-Seoud, S., Seddiek, N., Taj-Eddin, I., Ghenghesh, P., Nosseir, A., & El-Khouly, M. (2014). E-Learning and Students' Motivation: A Research Study on the Effect of E-Learning on Higher Education. *International Journal of Emerging Technologies in Learning, 9*, 689–695.

Adesoye, T., Davis, C. H., Del Calvo, H., Shaikh, A. F., Chegireddy, V., Chan, E. Y., ... & Tariq, N. (2021). Optimization of surgical resident safety and education during the COVID-19 pandemic–lessons learned. *Journal of Surgical Education, 78*(1), 315-320.

Adnan, M., & Anwar, K. (2020). Online Learning amid the COVID-19 Pandemic: Students' Perspectives. *Online Submission, 2*(1), 45-51.

Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Studies in Higher Education, 10*, 16–25.

Bao, W. (2020). COVID-19 and Online Teaching in Higher Education: A Case Study of Peking University. *Human Behavior and Emerging Technologies, 2*(2), 113–115.

Bothun, G. D. (1998). Distance education: Effective learning or content-free credits? *Cause/Effect, 21*(2), 28-37.

Burns, R. (2020). A COVID-19 Panacea in Digital Technologies? Challenges for Democracy and Higher Education. *Dialogues in Human Geography, 10*(2), 246–249.

Clark, T. (1983). Attitudes of higher education faculty toward distance education: A national survey. *The American Journal of Distance Education, 7*(2), 19-31.

Dhawan, S. (2020) Online Learning: A Panacea in the Time of COVID-19 Crisis. *Journal of Educational Technology Systems, 49*, 5–22.

Fitzpatrick, R. (2001). Is distance education better than the traditional classroom? *Clear/Point UX staffing consultants.* Retrieved March 31, 2020, from http://www.clearpnt.com/accelepoint/articles/r_fitzpatrick_060101.shtml

Freeman, V. S. (1995). *Delivery methods, learning styles and outcomes for distance medical technology students* (Doctoral Dissertation, University of Nebraska-Lincoln, USA).

Garrison, D. R. (1989). *Understanding distance education: A framework for the future*. New York: Routledge.

Iivari, N., Sharma, S., & Ventä-Olkkonen, L. (2020). Digital transformation of everyday life–How COVID-19 pandemic transformed the basic education of the young generation and why information management research should care?. *International Journal of Information Management, 55*, 102183.

Jan, A. (2020). A Phenomenological Study of Synchronous Teaching during COVID-19: A Case of an International School in Malaysia. *Social Sciences & Humanities Open, 2*(1), 100084.

Jeffries, M. (n.d.). IPSE – Research in Distance Education. *Institute of Health Economics and Technology Assessment.* Retrieved July 28, 2020, from http://www.ihets.org/consortium/ipse/fdhandbook/resrch.html.

Kaplan, E. J., & Kies, D. A. (1993). Together: Teaching styles and learning styles improving college instruction. *College Student Journal, 27*(4), 509-513.

Kerres, M. (2020). Against All Odds: Education in Germany Coping with COVID-19. *Post- digital Science and Education, 2*, 690–694.

Klyagin, A. V., Abalmasova, E. S., & Garev, K. V. (2020). *Shtorm pervykh nedel: kak vysshee obrazovanie shagnulo v realnost pandemii* [First Weeks Storm: How Higher Education Entered into Reality of Pandemic]. Moscow: HSE.

Ladyzhets, N. S., Neborskiy, E. V., Boguslavsky, M. V., & Naumova, T. A. (2020). Sotsialnoobrazovatelnye aspekty forsmazhornoy aktualizatsii teorii i praktiki tsifrovogo universiteta v usloviyakh pandemii COVID-19 [Socio-Educational Aspects of Force Major Actualization of Theory and Practice of Digital University under the Conditions of Pandemic COVID-19]. *Bulletin of Udmurt University. Sociology. Political Science. International Relations, 4*(2), 125–131.

Lane, C. (1992). Distance education. In P. S. Portway & C. Lane (Eds.), *Guide to teleconferencing and distance learning* (2nd ed., pp.195-278). San Ramon, CA: Applied Business Telecommunications.

Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of Covid-19 on higher education around the world. *International Association of Universities.* Retrieved February 10, 2020 from https://www.iau-aiu.net/IMG/pdf/iau_covid19_and_he_survey_report_final_may_2020.pdf

Means, B., Bakia, M., & Murphy, R. (2014). *Learning online: What research tells us about whether, when and how.* New York: Routledge.

Mishra, L., Gupta, T., & Shree, A. (2020). Online Teaching-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic. *International Journal of Educational Research Open*, 1, 100012.

Murphy, M. P. A. (2020). COVID-19 and emergency e-Learning: Consequences of the Securitization of Higher Education for Post-Pandemic Pedagogy. *Contemporary Security Policy, 41*(3), 492–505.

Osina, D. M., Tolstopyatenko, G. P., & Malinovsky, A. A. (2021). Digitalization of Higher Legal Education in Russia in the Age of COVID-19. In S. I. Ashmarina, V. V. Mantulenko, & M. Vochozka (Eds.), *Engineering Economics: Decisions and Solutions from Eurasian Perspective* (pp. 392-398). Cham: Springer Nature.

Osman, M. E. T. (2020). Global Impact of COVID-19 on Education Systems: The Emergency Remote Teaching at Sultan Qaboos University. *Journal of Education for Teaching, 46*(4), 463–471.

Oyedotun, T. D. (2020). Sudden change of pedagogy in education driven by COVID-19: Perspectives and evaluation from a developing country. *Research in Globalization, 2*, 100029.

Ozkaral, T. C., & Bozyigit, R. (2020). Social Studies and Geography Teacher Candidates' Views on Coronavirus (COVID-19) and Online Education Process. *Review of International Geographical Education Online, 10*(3), 467–484.

Pham, H. H., & Ho, T. T. H. (2020). Toward a 'new normal' with e-learning in Vietnamese higher education during the post COVID-19 pandemic. *Higher Education Research & Development, 39*(7), 1327-1331.

Rashid, S., & Yadav, S. S. (2020). Impact of Covid-19 pandemic on higher education and research. *Indian Journal of Human Development, 14*(2), 340-343.

Sherry, L. (1996). Issues in distance learning. *University of Colorado Denver*. Retrieved July 7, 2001 from http://www.cudenver.edu.public/education/edschool/issues.html

Skulmowski, A., & Rey, G. D. (2020). COVID-19 as an Accelerator for Digitalization at a German University: Establishing Hybrid Campuses in Times of Crisis. *Human Behavior and Emerging Technologies, 2*(3), 212–216.

Sobaih, A. E. E. (2020). Responses to COVID-19 in Higher Education: Social Media Usage for Sustaining Formal Academic Communication in Developing Countries. *Sustainability*, *12*, 6520.

Suresh, M., Priya, V. V., & Gayathri, R. (2018). Effect of e-learning on academic performance of undergraduate students. *Drug Invention Today*, *10*, 1797–1800.

Tishchenko, A. S. (2020). Vliyanie pandemii na ekonomiku obrazovaniya [Effect of the Pandemic on the Education Economy]. *Russian Economic Developments, 27*(5), 90–97.

Yakobiuk, L. I. (2020). Izuchenie vliyaniya distantsionnoy formy obucheniya vo vremya pandemii na rezultaty obucheniya [Study of the Impact of Distance Learning during the Pandemic on Learning Outcomes]. *The World of Science, Culture and Education, 5*(84), 179–181.

Yusuf, N., & Al-Banawi, N. (2013). The Impact of Changing Technology: The Case of E-Learning. *Contemporary Issues In Education Research*, *6*, 173–180.