

UDC 378.147:[372.881.111.1+ 004.738.5]

DOI: [HTTPS://DOI.ORG/10.33989/2075-146X.2022.30.270663](https://doi.org/10.33989/2075-146X.2022.30.270663)

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TEACHING PERCEPTION CHANGE IN UKRAINE: BEFORE AND DURING THE PANDEMIC

The COVID19-Pandemic has forced educators to transform their lessons into online versions in a short period of time. This study compares teachers' and students' perceptions regarding their online teaching and learning practices prior to the obligatory transition to remote mode and their evaluations after experiencing online teaching for a year. With fast changes taking places in recent times and online education taking centerstage, the primary objective of this study is to find out the outcomes of these changes, with respect to effectiveness, teaching style and pedagogy. This study is exploratory in nature. Using a structured questionnaire completed responses were received and analyzed using the available research tools. Two surveys with a three-year gap were completed by 251 Ukrainian teachers and students. Results demonstrated a significant change in the perception regarding resolutions to implement technology in their education in a post-corona era. In this regard, the implementation of the mixed mode seems to be the most popular choice. Findings of this study provide implications for the better interaction possibilities between teachers and students as well as between students themselves, as well as experienced positive and negative aspects of online teaching. Future research should focus on constructing and testing educational design principles for effective adopting online technology in educational practices.

Key words: *online teaching; online learning; the Pandemic; online education; educational technology.*

Introduction

Attitude to online teaching mode has changed greatly due to the Covid 19 Pandemic and the lockdown measures introduced all over the world. Under the conditions of the compulsory distance classes a lot of people had to immerse into the virtual classrooms. So even those who had not considered trying online learning before had to experience its advantages and disadvantages. However, there is lack of generalization on the change of distance learning credibility value in Ukraine before March 2020 and after March 2021. So, the pivot question is what is the satisfaction rate of the distance learning mode and which mode will be mostly considered by learners and teachers for future educational purposes.

New educational opportunities, innovative learning models and advances in technology have influenced everything, education as well as the society as a whole

(Harasim, 2000). Online education is not a new area of research and different aspects of virtual learning have been explored in the past. Parker and Martin (2010) in their study discussed how the online class created an ecosystem facilitating learners and educators to interact collectively through various modes as if in conventional teaching environments. The online or virtual class environments are considered identical to conventional classroom as they both permit prompt reaction, encourage unanimity, and even decision-making in class tasks with real time resolution and explanation. This allows for supervised pacing and regulation of the learning procedure and assisting the evolution of class coherence (Schullo et al., 2007). Due to open access, online learning is able to provide greater opportunities for the learners. Ample learner-centred education opportunities are available in online teaching ecosystem satisfying learner's desire for conventional learning without physical presence in classroom. The online teaching ecosystem also entails reduced reliance on conventional 'one size fits all' form of direction. (Subramaniam & Kandasamy, 2011).

Agrawal et al (2016) conducted a research on assessing the factors affecting e-learning by studying the student perception in various universities towards e-learning usage and found that the instructor perspective, service quality and system quality were among the key factors that emerged to influence e-learning. Loh, et al (2016) examined the students' perception towards e-learning. The study was conducted to try and determine the effectiveness of the application of the different technologies in the various courses and teaching programs in a rapidly changing competitive educational environment. Another study on higher education by Efiloğlu & Tingöy (2017) appraised the acceptance by students and usage of the virtual learning environments. Bower (2017) presented recommendations for learning design and implementation for online education in higher education and schools whereby the focus was on the impact of teaching pedagogy on learner effectiveness by creating an effective virtual world. Visvizi et al (2019) focused on the various approaches and styles of teaching and learning which integrate the emerging technologies to enhance the quality of higher education and innovative teaching pedagogy.

The purpose of this article is to compare the results of two surveys about studying in distance mode in Ukraine. One of the surveys was conducted before the pandemic started in spring 2018 and the second one in March 2021, which means after one year of forced distance education all over the world. The following three questions were addressed.

1. Question 1. How did the attitude towards the online mode change after the experience during the Pandemic restrictions?
2. Question 2. Have student-student and teacher-student interactions in the distance mode become more satisfying during the Pandemic than before it?
3. Question 3. Which mode is more preferable for educational purposes in future after the Pandemic restrictions and experience?

To achieve the purpose, the objectives were set: 1) to select appropriate survey questions; 2) to carry out two surveys with a three-year gap; 3) to assess the given answers to the set of suggested questions.

The hypothesis is stated in the following form. The integration of distance learning elements into standard educational modes will allow students to develop strong cognitive skills and improve their learning outcomes. Our conjecture is that further study of the mixed mode opportunities may provide additional information on the ways of improving the quality of education in general.

Methods

Research design

The study involved the use of mixed (quantitative and qualitative) data assessment. Qualitative methods included pedagogical observations; the analysis of data obtained via empirical questionnaires; survey, Quantitative methods were applied to verify if the hypothesis was true.

Two groups of respondents (before pandemic (n=120) and in-pandemic (n=130)) participated in the research. The questionnaires were given on a personal FB page with a request to answer. So, the respondents are mostly the people who are active users of social networks. Such ethical principles as voluntary participation, anonymity and confidentiality were implemented in the study.

The age-groups in the first group were the following: 32,3% - under 25 years old, 37,2% - from 26 up to 40 years old, 28,9% - from 41 up to 55%. As for the second group 33,8% - under 25 years old, 28,5% - from 26 up to 40 years old, 30,8% - from 41 to 55 and 6,9% above 55 years old.

The sex differentiation practically coincided in both groups, mostly women were very active (79,6%/85,4%) and only 23,1% //14,6% were men. Out of those who responded 42,1% hold Master's Degree in the first group against 48,5% in the second, 24% //17,7% are undergraduate students and 11,6%//16,9% have Bachelor's.

In the first group 47,9% of respondents had no experience in online education, which is quite a high figure, while the 50,4% took an online course at least once. Though 75,2% would like to take an online course and only 18,2% are against such an idea. In the pandemic situation 97,7% of respondents in the second group already had online classes.

Results

The results of the pre-pandemic questionnaire (Table 1) showed that the majority of participants 52,5 % out of those who took an online course completed it. 55,4% of respondents were satisfied with the results. 66,7% of respondents were able to put into practical implementation the knowledge gained. This is not surprising that those courses were mostly taken with professional purposes (61,3%) or as a hobby (25,3%) and some of them (13,4%) out of curiosity or other reasons.

Table 1

Respondent opinions about online courses before the Pandemic

1. Did you complete the courses in case you took them?	Yes	No	Not all of them
	52,5%	32,5%	15%
2. Were you satisfied with the results?	Yes	No	More or less
	55,4%	33,8%	10,8%
3. Were you able to implement the knowledge gained this way?	Yes	No	More or less
	66,7%	28%	5,3%
4. What was the purpose of taking an online course?	Professional	Hobby	Curiosity, and other reasons
	61,3%	25,3%	13,4%

It is well known that to increase the quality of learning each up-to-date ICT tool shouldn't be used randomly and unmethodically. The effective functioning of distance education should be based on principles. The most important, to our mind, is targeting.

Therefore, the results of the survey in the second group taking into account the format of the pandemic, when the primary goal of introducing the distance mode was to ensure the provision of the educational process as effectively as possible, seem to be coherent with this principle. When used on a regular base with clear purposes the positive satisfaction rate with learning in the online mode grew to 68,5% (Table 2). The negative evaluation fell from 33,8% to 16,2%.

Table 2
Respondent opinions about online courses during the Pandemic

1. In what capacity did you take part in distance education?	Teacher	Student	Other
	37,7%	50,8%	11,5%
2. Were you satisfied with the results?	Yes	No	More or less
	68,5%	16,2%	15,4%
3. What was the purpose of taking an online course?	Professional	Hobby	Curiosity, and other reasons
	83,8%	6,2%	10%

Table 2 reveals that both teachers and students managed to cope with the new circumstances and gain the necessary knowledge and skills. Hence, it may be concluded that before the beginning of the pandemic, the distance mode was mostly viewed as optional while in-pandemic situation completely changed this perception.

Table 3
Respondent opinions about online communication before and during the Pandemic and the change (During minus Before)

	Yes		Change	No		Change
	Before - pandemic group	In-pandemic group		Before - pandemic group	In-pandemic group	
1. Was the teacher-student interaction satisfying?	50%	59,2%	+9,2	41,7%	36,2%	-5,5
2. Was the student-student interaction satisfying?	49,3%	56,9%	+7,6	41,1%	34,6%	-6,5

Table 3 shows that the change in the positive evaluation of the teacher-student interaction between the before-pandemic group and in-pandemic group is +9,2%. That demonstrates a definite positive shift in the attitude towards this mode. As for the student-student interaction, though the positive change is lower, +7,6%, the change in the negative evaluation (-6,5%) demonstrates that the evaluation of this type of

communication, nevertheless, improved, even though the change is not big. In essence, on average, the overall perception of this mode has definitely become more positive +9,2% and +7,6%.

Table 4

Estimation of technical problems emerging in online education before and during the Pandemic and the change (During minus Before)

	Yes		Change	No		Change
	Before - pandemic group	In-pandemic group		Before - pandemic group	In-pandemic group	
Were there any technical problems in online education?	32,9%	61,8%	+28,9	58,9%	33,8%	-25,1

Table 4 demonstrates the growth in estimation of the presence of technical problems while teaching and learning online. This increase is quite significant +28,9% which can be explained by a high number of non-experienced users who plunged into this new area. The change of -25,1% in claiming the absence of problems supports this explanation.

Table 5

The preferable mode of education in future: estimation before and during the Pandemic and the change (During minus Before)

			Change
	Before-pandemic group	In-pandemic group	
Online mode	32,5%	10,2%	-22,3%
Traditional Mode	57,8%	20%	-37,8%
Mixed Mode	8,3%	65,1%	+56,8%

The change in the perception of different modes of education is clearly seen in Table 5. If the pre-pandemic respondents definitely preferred traditional mode (57,8%) to online (32,5%) and mixed ones (8,3%), the in-pandemic group strongly inclined towards the mixed mode (65,1%) and the decline in the number of supporters of the traditional mode dropped drastically (-37,8%). Though the change in the number of adherents of the online mode only is -22,3% which can be explained by a deeper understanding of the issue or technical problems encountered.

Discussion

This empirical study aimed to compare teachers' and students' expectations and experiences as regards to online teaching in the unprecedented context of the Covid19-pandemic in Ukraine. The perceptions of 251 Ukrainian teachers and students were

collected through pre-pandemic and in-pandemic questionnaires which were distributed via a social media platform. The conclusions are discussed for each of the three research questions that were presented in the introduction paragraph.

First, the first finding of this study concerns significant differences in perceptions with respect to their online teaching and learning expectations and experiences. Prior experience plays a major role in this difference. Recent studies support the notion that teachers' and students' experience with the use of ICT tools positively influences their perceptions regarding the adoption of technology in education (e.g. Maksimovic and Dimi 2016). So, the attitude towards the online mode changed positively after the experience during the Pandemic restrictions, when both the teachers and the students had to start using online technology to keep on learning and teaching.

Referring to the second research question, the main negative aspect that was predicted and experienced in online teaching, was the lack of interaction. However, interaction was also reported as an unexpected positive experience, both student-teacher and student-student modes. Previous studies in this field support the need to critically encourage interaction between teachers and students in the context of online teaching. In line with this, Kuo et al. (2014) claimed that interaction is a critical factor in student satisfaction. Other researchers emphasize that in order to foster interaction amongst peers, teachers should critically pay attention to create a sense of community in online modules (McInnerney and Roberts 2004).

Concerning the third research question, findings of this study demonstrate that educators and learners have the intention to integrate technology in the process of education significantly more, once everything is back to normal. The preferred mode for educational purposes in future after the Pandemic restrictions and experience is the mixed one. Previous studies in the field of education support these findings, show that the use of technology in educational practice could foster differentiation (e.g. Hoepfl 2007), students' motivation (e.g. Higgins et al. 2019) and efficiency (e.g. Sosin et al. 2004). Further, Amhag, Hellström, and Stigmar (2019) claim that teachers' willingness to adopt technology in their lessons is dependent of the experienced and perceived added value, which is in line with the outcomes of this study.

It can be concluded that the urgency to teach online created teachers' intentions to use more technology in their lessons, also after the pandemic. This was despite the absence of professional programs supporting remote teaching. However, this effect might not last, unless teachers are supported to continuously develop and learn. Research has shown that the integration of technology-supported teaching in teacher training programs has a positive effect on future teachers' use of technology in their teaching (Goos 2011).

Implications. The implications of this study are tentative in nature and relate to the following issues. 1. Online mode of education turned out to be appreciated after being tried during the Pandemic restrictions. Immersion into the online mode throughout the online course appears to be effective, and it results in improved student and teacher perception of the online education. 2. It is plausible that taking advantage of all the possibilities for a better student-teacher and student-student interaction may be taken into account by educators trying to ensure the best outcomes. 3. The implications of the implementation of the mixed mode seem to relate to specific courses and academic curriculum, which have a profound influence on the methodological approaches to teaching in schools and universities.

Limitations.

There are some important limitations of the study. Firstly, the study sample size is fairly small. Secondly, this study used data collected from the particular geographic

region. The results should be interpreted with caution, as they may not be applied in settings with different cultures. Future research may triangulate the findings from this study using different data sources and research approaches. Additionally, it is reasonable to assume that online teaching and learning perception can be affected by factors beyond the scope of this study. Future research may consider applying different theoretical stances or research designs to capture other important factors that affect online teaching and learning satisfaction.

Conclusions

The research reviewed in this article indicates that there has been a significant shift in the perception of distance learning mode since the pandemic started. Specifically, this study shows that online learning, the mixed mode, in particular, can be a long-term strategy for Ukrainian education. The findings indicate that this positive change has occurred due to the immersion of all the participants of the educational process into the online classes. Taking into account that this process was not a prepared and optional one, the results gained give enough ground to expect that supported by appropriate technology, positive perception of learning online, and teacher's performance, the mixed educational mode will boost educational environment. The research reviewed in the article certainly does not exhaust the realm of issues involving distance learning. There is a variety of questions that could be asked, among which is what procedures can be used to improve learning, such as the improvement the quality of student-student and teacher-student interaction; quality of mental models; efficiency; automaticity; metacognitive skills for learning. Future research on these issues could contribute to expanded uses for distance learning mode.

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ОЛІЙНИК О.

Харківська державна академія культури

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Харківська державна академія культури

ЗМІНА СТАВЛЕННЯ ДО ВИКЛАДАННЯ В ОНЛАЙН-РЕЖИМІ ДО ТА ПІД ЧАС ПАНДЕМІЇ В УКРАЇНІ

Пандемія COVID-19 змусила викладачів за короткий час перевести свої уроки в онлайн-формат. У цьому дослідженні порівнюється уявлення вчителів і студентів про їхню практику онлайн-викладання та навчання до обов'язкового переходу на віддалений режим та їхні оцінки після досвіду онлайн-викладання протягом року. Оскільки останнім часом відбуваються швидкі зміни та онлайн-освіта займає центральне місце, головна мета цього дослідження полягає в тому, щоб з'ясувати результати цих змін щодо ефективності, стилю викладання та педагогіки. Це дослідження має дослідницький характер. За допомогою структурованої анкети були отримані заповнені відповіді та проаналізовані за допомогою доступних інструментів дослідження. У двох опитуваннях з інтервалом у три роки взяли участь 251 український вчитель і студент. Результати продемонстрували значні зміни у сприйнятті рішень щодо впровадження технологій у їх освіту в епоху після коронавірусу. У зв'язку з цим реалізація змішаного режиму видається найпопулярнішим вибором. Результати цього дослідження показують наслідки для кращих можливостей взаємодії між вчителями та учнями, а також між самими учнями, а також на досвіді позитивних і негативних аспектів онлайн-викладання. Майбутні дослідження мають бути

зосереджені на розробці та тестуванні принципів освітнього дизайну для ефективного впровадження онлайн-технологій у освітню практику.

Ключові слова: навчання онлайн; онлайн навчання; пандемія; онлайн-освіта; освітня технологія.

Стаття надійшла до редакції 15.11.2022 р.