PUBLIC ADMINISTRATION OF EDUCATIONAL SPHERE IN EMERGENCIES: GENERAL APPROACHES AND NATIONAL FEATURES

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Abstract

The fundamental point of this research is that public authorities should pay more attention to education as a strategic area of society in times of emergency. The purpose of the article is to detect variations (differences) in the reactions of the key actors in the educational process (professors and students) for testing the hypothesis of the rationale for changes in the system of public administration of education. It is a study of how Ukrainian university professors and students react to distance learning during two emergencies: the COVID-19 pandemic (2020-2022) and the military aggression against Ukraine (February-May 2022). The content, additional costs, benefits, restrictions, and externalities of online education were recognized as the most significant disparities. Conclusions on the essential adjustments in the public administration of Ukrainian university education have been drawn based on this identification.

Keywords: Public administration, public emergency management, educational sphere, online education in emergencies.
JEL Codes: H12, I23, I28, E61.

Introduction

This research focuses on a scientific issue regarding the theory and practice of public administration of education. Furthermore, we are discussing public administration of education in emergencies. Research on the educational process in emergencies, conducted in the form of online learning, became relevant worldwide in the early 2020s. However, public administration of education in emergencies has not been the subject of analysis in the vast majority of studies. Although the importance of focusing on public administration of education, as an area where socially significant goods are created, sensitive to emergencies, is undeniable.

Answering the question of how to assure necessary adjustments in the system of public administration of education in emergencies is

the scientific concern of this study. According to the authors, the formulation of the scientific hypothesis, which is stated below, yields the following results.

The authors of this study used the following assumptions to solve the scientific issues:

- education is a strategic area of society, so in emergencies, it should be the focus of public authorities,

- public administration should be conducted in accordance with algorithms that allow authorities to respond appropriately to the genuine challenges that face the entire society and individual communities (Baldi & Brunetta, 1995). As a result, the primary responsibility of public authorities is to incorporate identified educational issues into government measures.

Literature Review

A review of the literature on the issue reflected in the title of this article should cover research in two areas, namely: 1) public administration in emergencies, and 2) organization of education in emergencies, primarily in the form of online learning.

Analyzing the literature on public administration in emergencies, we note that the organizational design of this area of research took place in the 1980s. This is evidenced by the monograph "Emergency management in public administration education" (Settle, 1985). The mentioned work highlights the results of training programs for emergency management specialists. The authors of the publication emphasize the need to "incorporate emergency management into a formal university degree program of public administration".

The tradition of implementing emergency management in public administration is still developing today. In particular, this applies to one of the oldest universities in the United States - Norwich University. The proposed training programs in the 2020s emphasize two fundamentally important points for our study. Firstly, it is the recognition of the closeness of the concepts of "Crisis Management" and "Emergency management". Secondly, it is the realization that Emergency Management is an important component of Public Administration (Norwich University Online, 2020).

The study by Urby H., Mcentire D. (2013) provides scientific evidence that Emergency management professionals should understand and use Public Administration theory in practice.

Based on a comparison of training systems in China and the United States, Qian Hu and Haibo Syang (2020) concluded about "the importance of integrating emergency management into public administration education".

This issue should be emphasized when studying the literature on emergency education. Researchers frequently connect online education to emergencies, acknowledging its importance in such circumstances. Some scholars, such as Hodges et al. (2020), underline *the essential difference* between normal remote teaching and emergency remote teaching. As a result, they consider online education as a self-contained form that can only be used on rare occasions, such as during pandemics or natural catastrophes, etc. While we recognize the importance of such a focus in online education research, we want to emphasize something else. This is the potential of online education, which is revealed and realized in emergencies.

Numerous studies were conducted in the 2020s to identify issues regarding the use of online education during an emergency like the COVID-19 pandemic. We discovered two essential elements of analysis while studying these papers, namely:

- what research is focused on;
- what tools the researchers used.

In post-COVID online education research, two groups can be distinguished: 1) those devoted to solving broad (philosophical) education issues, and 2) those devoted to online education applied challenges.

The first group of so-called "philosophical" studies includes the work of Yong Zhao (2020). It highlights the challenge of a new vision of education, based on the experience of organizing education during the COVID-19 pandemic. These are new responses to basic questions such as "what is learning", "how is learning", and "where can students learn". The research used the deductive analysis method.

The group of general (philosophical) studies, in our opinion, includes the work of Rapanta et al. (2020). It solves the problem of changing the emphasis on the activities of professors, given the experience of organizing university education during the pandemic. It is necessary to combine three components of teaching: social, cognitive, and facilitating.

The group of applied studies includes the research of Weixin He, and John Xiao (2020). It analyzes *the relative effectiveness* of university online teaching compared to teaching in classrooms. Data from opinion polls of students and professors of Chinese universities were used.

The applied research of Aristovnik et al. (2020) analyzes students' reactions to the online form of teaching and identifies the advantages and disadvantages of this form. Furthermore, it identifies socio-demographic and geographical differences in the assessment of online learning in different countries of the world. It uses the tools of the survey, which covered 30,383 students from 62 countries.

The focus of Yeung, M.W.L. & Yau, A.H.Y. (2022) study of the applied nature is on examining the motivating role of online teaching and its benefits. The factors that restrict these benefits have been discovered. The method of interviewing Hong Kong students has been used.

Jyoti Bania and Ishani Banerjee's article (2020) investigates the issue of limiting online education access in a country with significant socioeconomic disparities. In fact, it is an educational exclusion for some students due to high technology inaccessibility. The method used was a sociological survey of Indian students.

The applied study of Tilahun Adamu Mengistie (2020) examines the barriers to digital and more traditional (radio, television) distance learning communications. Some generalizations regarding the harmful impact of such constraints on the emotional state of students have been made. The researchers base their findings on a survey of Ethiopian educational process participants.

Wei Bao (2020) investigated the reasons for online learning low effectiveness in Chinese colleges. It was discovered that when high-tech devices are widely available, demotivating influences become powerful educational limiting factors. Demotivating factors included a general unfavorable attitude toward learning, a lack of a typical educational atmosphere, and self-isolation, etc. Interviews with Chinese students and professors were conducted.

Bozkurt et al. (2020) conducted a study on the "digital gap", which expressed itself in online learning during the COVID-19 pandemic's emergency scenario. The importance of addressing the psychological issues linked with this gap is emphasized. It is also required to alter the evaluation mechanism for learning outcomes. A sociological survey was used with respondents from 32 nations.

The research of Ukrainian scientists Berezhna, S., and Prokopenko, I. (2020) focuses on evaluating the level of technology assistance for online learning, as well as its psychological components and the additional time and effort required by the major participants in the educational process – professors.

Based on the Literature Review, we make the following generalizations:

- modern science of management recognizes that Emergency management is an important component of Public administration,

- online teaching research, as a form used in the COVID-19 pandemic's emergency, was primarily focused on: 1) modifications in educational material and professors' activity, 2) educational exclusion due to socioeconomic differentiation of society, 3) effectiveness of online forms of education, and 4) factors influencing motivation and demotivation of educational participants;

- most studies have not *directly addressed education public management* in emergencies, while they have *indirectly* addressed education public management as contributing to real issues in this sphere.

Methods

The scientific hypothesis of this study, which should correspond to the research methods used, can be formulated as follows: Public Administration improvement in Education Emergency Management should be based on the government's awareness of the issues and challenges of using distance education in emergencies. The way to identify these issues and challenges is to analyze the expectations, needs, values, and preferences of participants in the educational process - professors and students. Identification of the necessary directions of

changes in the system of public administration of education can be carried out on the basis of assessing the synchronicity (similarities/differences) of reactions of professors and students to the form in which the educational process takes place.

The hypothesis does not preclude the authors of this research from considering additional approaches to recognizing the issues with specific types of education, which could serve as essential guidelines for government decision-making in this field.

The research uses the tools of a sociological survey of two groups of Ukrainian university professors and students. The survey took place between February and May of 2022. It drew 194 professors and 460 university students from various Ukrainian regions. The survey is aimed to highlight similarities and differences in the attitudes of professors and students to the online form of education used in emergencies, based on the research hypothesis. Therefore, both groups of respondents provided answers to similar questions (see Annex A).

Results

For the following fundamental reason, we believe that assumptions about the feasibility of identifying necessary adjustments in the system of public administration of education, based on measuring the synchronicity of the reactions of participants in the process, can be deemed justified. In contrast to the paradigm of twentieth-century Government, the paradigm of twenty-first-century Governance is defined by a focus on facilitation, coordination, and a horizontal policy network (Ungsuchaval, 2017). This is what makes synchronicity of reactions, and hence the consistency of participants' interests in the educational process, so important in the evaluation.

The authors of this study believe that its special value is related to the time and place where it was carried out. The survey took place in Ukraine in the first two months since the beginning (in February 2022) of intensified military aggression in the Russian-Ukrainian war. Thus, the results of the survey reflect the reactions of professors and students to the online form of education, which was carried out in two types of emergencies. First, it is the situation of the long-lasting COVID-19 pandemic in 2020-2021. Second, it is the situation of the active phase of aggression in the war against Ukraine. The latter situation is accompanied by massive internal and external migration of citizens, including the migration of university staff to the unoccupied territories, mass killings and destruction of industrial and social infrastructure.

The basic provisions of the applied research methodology are as follows:

- a survey of two groups of respondents - professors and students - addressed similar issues in terms of benefits, limitations, additional costs, externalities of the online form of education;

- similarity/difference of reactions of participants in the educational process was assessed using a scale that reflects the degree of gap in the reactions of respondents (in percentage points – p.p.). The corresponding scale is given in table 1.

Table 1. Criteria for qualitative assessment of differences (gaps) in the reactions of respondents

Criteria for qualitative assessment of differences (gaps) in the reactions of respondents			
insignificant	noticeable	essential	significant
Up to 10 p.p.	More than 10 p.p.	More than 20 p.p.	More than 30 p.p.

Source: Authors.

According to the results of the survey, the least discrepancy was related to the answers of professors and students to the question of whether classes in online learning have become more meaningful. The results are presented in Fig.1a) and 1b).
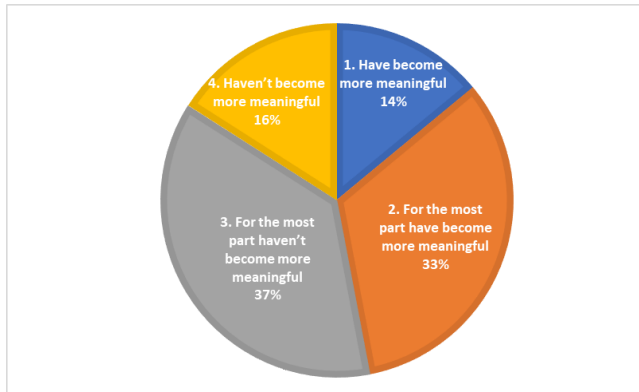
Figure 1a). The structure of professors' answers to the question: "Do you assess the lessons in online learning as more meaningful, i.e. those that contribute to the acquisition of knowledge and the formation of competencies defined by educational programs"
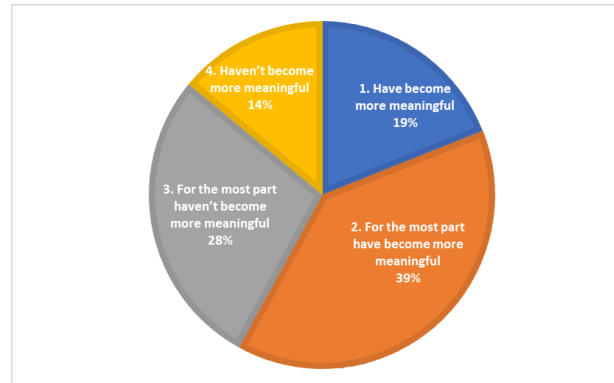
*Source: Authors.

Figure 1b). The structure of students' answers to the question: "Have classes in online learning become more meaningful for you, i.e. those that contribute to a better understanding of disciplines and facilitate the acquisition of new skills and abilities"

The major point of contention was the additional time required to prepare for classes and other duties associated with online

learning. Figures 2a) and 2b) show the outcomes of the answers.
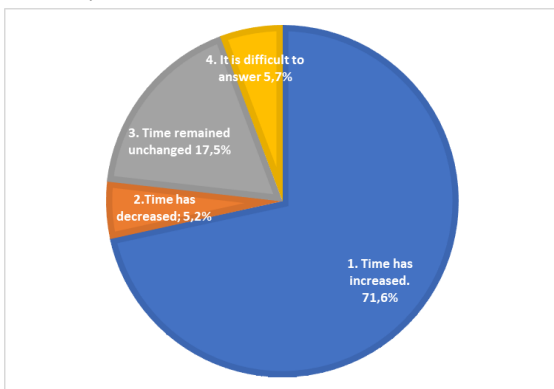

Figure 2a). The structure of professors' responses to the question: "How has your time for class preparation and other work linked to online learning, in particular - checking completed tasks changed?"
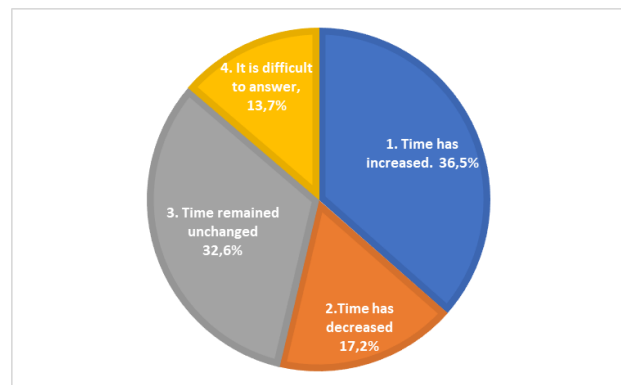
*Source: Authors.

Figure 2b). The structure of students' responses to the question "How has your time for class preparation and other independent work changed?"

The basic findings of the analysis of variations in responses to nine questions from a survey of Ukrainian university professors and students regarding online learning are presented in analytical tables 2 and 3. The proposed format for presenting survey findings, in our opinion, makes it easier to visualize the foundations for our analytical conclusions. The survey findings are divided into two tables based on the scale criterion - smaller and greater - concerning disparities in professor and student replies.

Table 2. The findings of professor and student responses to questions with the smallest disparities in reactions

Questions for professors/students	Answers to individual questions in parts (wording of answer options is given in Annex A) percent of professors/percent of students			
	1)	2)	3)	4)
4. What do you think the most significant disadvantage (restriction) of online learning in both its full and blended forms is?/ 4. What do you think the most significant disadvantage (restriction) of online learning in both its full and blended forms is?	77,8 / 63,7	5,2 6,3	7,7 /11,3	9,3 / 18,7
5. Do you consider online learning sessions to be more relevant, in the sense that they contribute to the acquisition of knowledge and the development of competencies as specified by educational programs / 5. Have you found that online learning classes that encourage greater comprehension of disciplines and aid the acquisition of new skills and abilities have become more meaningful to you?	14/19	33 / 39	37 / 28	16 / 14
9. Does online learning allow you to balance work at your primary job with your professional and personal development?/ 9. Does online learning assist you in combining university courses with other talents, i.e. personal development?	34 / 44,1	36 /35	16 / 13,5	14 / 7,4

Source: Authors.

The following generalizations can be drawn based on the results of the information analysis reported in table 3:

- On the fundamental constraint of the online form, there is a great deal of agreement. The biggest (partial replies) restriction identified by both groups of respondents - professors and students - is the lack of "live" communication in the educational process. This restriction was deemed the most important by around 3/4 of professors and 2/3 of students. It's also worth noting that a small percentage of both professors and students regard the increased costs of purchasing modern communication devices as a limiting factor.

- When evaluating the contents of the online form, there is the most resemblance (coincidence). The percentage of professors and students that identified the online form contents (completely and predominantly) is high in both groups, but the percentages are slightly different: 58 percent versus 47 percent.

- When it comes to determining whether online education adds to professional and personal development, there are minor discrepancies. Professors acknowledge such support (completely and predominantly) at a rate of 70%, while students recognize it at a rate of 79 percent.

Table 3. The findings of professor and student responses to questions that revealed the most significant disparities in reactions

Questions for professors/students	Answers to individual questions in parts percent of professors/percent of students			
	1)	2)	3)	4)
1. Your attitude to a completely online form of learning/ 1. The question is identical	16 / 38	33,5 / 31	39,7/ 22	10,8 / 9

2. Your attitude to a partially online (blended) form of learning/ 2. The question is identical	29/ 15,2	43 / 36,1	24 / 40,2	4/ 8,5
3. What do you consider the main advantage of the online form of education (in both its manifestations - full and partial)/ 3. The question is identical	38,1 / 67,2	15,5 / 6,1	36,6 / 7,1	9,8 / 9,6
6. Have online learning classes become more convenient for you in terms of form, i.e. those that provide comfort, a favorable learning atmosphere, etc./ 6. The question is identical	26 / 45	34 / 36	28 / 14,0	12 / 5
7. How has your time spent preparing for classes and other work linked to online learning changed, particularly with regard to task checking?/ 7. How has your time for class preparation and other independent work changed?	71,6 / 36,5	5,2 / 17,2	17,5 / 2,6	5,7/ 13,7
8. Does online learning allow you to combine work at your primary job with work elsewhere?/ 8. Can you better mix university studies and work with online learning?	24 / 50,9	30 / 26,1	15 / 10,2	31 / 12,8

*Source: Authors.

We make the following generalizations based on our analysis of the information in table 3:

- There are significant differences in the attitude to a completely online form of learning. Among professors, this form is positively (completely and predominantly) perceived by 50% of respondents. Instead, among students, the positive perception of a completely online form is noticeably greater. Almost 70% of students prefer this form. Accordingly, the negative attitude among professors exceeds 40%, while among students - only 22%

- Differences in attitudes towards mixed (partially online) form correlate with attitudes towards fully online form of education. More than 70% of professors are committed (completely and predominantly) to the mixed form. On the other hand, only about 50% of students prefer such a mixed form.

- There are significant disparities in how the respondents view the advantages of online learning. If saving time and money on travel and transportation expenditures is the most important benefit for nearly 72 percent of students, only 37 percent of professors think so. Instead, over 36% of professors and only 7% of students acknowledge the importance of online form creative potential.

- There are noticeable differences in the issue of convenience (comfort) of online learning: students find this form (completely and predominantly) more convenient than professors, and the ratio of grades is as follows: 81% vs. 60%

- The most significant disparities in responses concern the amount of time spent preparing for online learning. Professors appear to spend more than students on online education. This is supported by the following facts:

a) 72% of professors showed an increase in time consuming. Instead, only 37% of students reported such increase. The gap in responses on the increase in time consuming between professors and students was more than 30 p.p.;

б) the gap in the answers regarding time costs reduction is greater than 10 p.p.: only 5% of professors recognized such time cost saving, whereas 17% of students felt time consumption decreased;

b) there is a discrepancy in the answers about the invariability of time expenditure of more than 10 p.p.: 18 percent among professors vs. 33 percent among students.

-The answer to the question of whether the online form helps to combine main work with other activities might be understood as an indirect acknowledgment of the fact that professors combine numerous occupations, and students combine learning and work. Students that combine study and job can benefit greatly from the online form. Instead, professors who have several jobs have fewer options.

Professors in Ukraine are obliged to combine full-time work in one location with part-time jobs in another. This combination is caused by university professors' low salaries.

-The following gaps demonstrate the additional potential that online education provides for students, given the combination of study and work:

a) online education facilitates 51% of students in combining education and work, compared to only 24% of professors who realize the advantages of this form of combining jobs;

b) among professors, 31% said that the online form restricts employment opportunities elsewhere, while among students, only 13% acknowledged such a very restrictive effect.

Conclusion

We derive the following conclusions to explain changes in public administration of education in emergencies based on the findings of a research on the attitudes of professors and students at Ukrainian universities to online learning

• A key prerequisite for managerial adjustments is the analysis of disparities in the attitudes of the primary actors in the educational process to online learning with the goal of improving the public administration of education. The importance of taking into account differences in reactions to the online form increases in emergencies when public administration of education becomes Emergency management of education.

• The study provided an opportunity to identify such peculiarities of the response to online learning, which was used in Ukrainian universities in pandemic and war emergencies:

- similar reactions of Ukrainian university professors and students to issues concerning the so-called "value characteristics" of online learning, namely: a) the "contents" of this form, b) its impact on training and personal development, and c) its main limitation, which is the lack of "live" communication during the educational process;

- the disparity in professor and student reactions to the so-called "cost characteristics" of online education, namely the evaluation of: a) time and effort required to participate in the learning process; b) opportunities to combine the online form with other activities to generate additional income; and c) the comfort of this form of education. Professors' reactions suggest a greater investment of time and effort, as well as the fact that this form is less convenient for organizing professional activities and personal comfort. As a result, many components of online learning might be said to have a considerable asymmetry of interest.

• If our assumption about public administration of education, taking into account the need to harmonize the interests of the main participants in the process, is correct, we might suggest the following areas of priority modifications based on clear variances in reactions:

- improving the standards of professors' time spent organizing specific aspects of online learning, particularly those connected to testing and reviewing students' work, preparation of special tasks, and illustrative teaching materials.;

- incorporation of new aspects into the professor assessment system that accounts for the unique conditions of online work, particularly when combining online learning with classroom learning, online synchronous and asynchronous (with personal online communication) learning;

- encouraging faculty and support staff at individual universities to create large bases of diverse tasks to adequately assess knowledge in the face of existing constraints and to save time and prevent academic dishonesty;

- providing resources for integrating "traditional" online learning with "non-

traditional" forms, overcoming the lack of "live communication" by establishing "discussion clubs" within different disciplines,

"feedback chats", databases for teamwork, "cross-checking of completed tasks", and so on.

References

Yeung, M.W.L., & Yau, A.H.Y. (2022). A thematic analysis of higher education students' perceptions of online learning in Hong Kong under COVID-19: Challenges, strategies and support. *Education and Information Technologies,* 27, 181–208.

Settle, Allen K. (1985). *Emergency management in public administration education* Federal Emergency Management Agency.

Aristovnik, A., Keržič, D., Ravšelj, D., Umek, L., & Tomaževič, N. (2020). Impacts of the COVID-19 Pandemic on Life of Higher Education Students: A Global Perspective. *Sustainability*, 12(20). https://doi.org/10.3390/su12208438

Baldi, B. (1995). *Emergency Preparedness Policy-Making: A Comparative Analysis Between California and Italy*. Newark DE: Disaster Research Centre.

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.

Berezhna, S., & Prokopenko, I. (2020). Higher Education Institutions in Ukraine during the Coronavirus, or COVID-19, Outbreak: New Challenges vs New Opportunities. *Revista Romaneasca Pentru Educatie Multidimensionala*, *12*, 130-135. https://doi.org/10.18662/rrem/12.1sup2/256

Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., Schuwer, R., Egorov, ... & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. Asian Journal of Distance Education, 15(1), 1-126. https://doi.org/10.5281/zenodo.3878572

Hodges, Ch., Moore, St., Lockee,. B, Trust, T. & Bond, A. (2020). *The Difference Between Emergency Remote Teaching and Online Learning.* EDUCAUSE Review.

Bania, J. & Banerje, I. (2020). *Impact of Covid-19 Pandemic on Higher Education: A Critical Review.* [online]. Available at: https://www.guninetwork.org/report/impact-covid-19-pandemic-higher-education-critical-review

Mengistie, T.A. (2020) Impacts of COVID-19 on the Ethiopian education system. *Sci Insigt Edu Front*, 6(1):569-578.

Hu, Q., Syang, H. (2020). Incorporating emergency management into public administration education: The case of China. *Journal of Public Affairs Education*, 26(6),1-22.

Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online University Teaching During and After the COVID-19 Crisis: Refocusing Teacher Presence and Learning Activity. *Postdigital Science and Education*, 2, 923-945.
https://doi.org/10.1007/s42438-020-00155-y

Norwich University Online (2020). The Role of Public Administration in Crisis Management [online]. Available at: https://online.norwich.edu/academic-programs/resources/role-public-administration-crisis-management

Ungsuchaval, Th. (2017) Mainstreaming Moments in Governance Theories: Some Observations. *Public Affairs and Policy*, 2, 3, 23-55.

Urby, H., & Mcentire, D. (2013). Applying Public Administration in Emergency Management: The Importance of Integrating Management into Disaster Education. *Journal of Homeland Security and Emergency Management*, 11(1). DOI: 10.1515/jhsem-2013-0060

He, W., Xiao, J. (2020). The Difference Between Emergency Remote Teaching and Online Learning. [online]. Available at: http://files.eric.ed.gov/fulltext/EJ1285321.pdf

Zhao, Y. (2020). COVID-19 as a catalyst for educational change. *Prospects*, 1-5. https://doi.org/10.1007/s11125-020-09477-y