

Contemporary crisis management in Ukraine's higher education system: a case study from the crises of the pandemic and the invasion

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Abstract

Purpose – Taking the Institute of Philology and Journalism at Ukraine's Taurida National University as a case study, this paper overviews and distils the crisis management measures utilised in transitioning to fully online education during the crises of the Covid-19 pandemic and full-scale Russian invasion and violence.

Design/methodology/approach – With the aim of spotlighting the experiences of the people most directly impacted by these two contemporary crises, this case study documents the lived experience of the authors—all of whom are/were teaching staff at the Institute—and Institute students' responses to online surveys conducted between 2020 and 2022.

Findings – The Institute's case study demonstrates that contemporary crisis management via transitioning to fully online learning can be achieved if the following instrumental and methodological components are employed: (1) an initial assessment of the risks and opportunities for the educational community involved; (2) the right choice of online teaching and communications tools; (3) followed by flexibility and gradualism in onward planning (i.e. where technology and pedagogy are understood as interconnected) taking members' feedback into account. However, the success of these components is contingent upon fulfilling psychological components, with care devoted to: upholding members' psychological well-being; offering members ongoing technical support; and strengthening trust between members.

Originality/value – This case study offers transferable and adaptable findings for successful crisis management in education, from the Ukrainian context out to the wider world.

Keywords Crisis management, Online learning, Online teaching, Covid-19 pandemic, Ukraine

Paper type Case study

1. Purpose: centring on lived experience of Ukraine's dual crises

In the spring of 2020, as around the rest of the world, Ukraine's education institutions were forced to work under the unforeseen crisis conditions brought about by the Covid-19 pandemic, i.e. sudden lockdown and quarantine measures. While schools and universities in other countries have since recovered and/or reworked their ways of operating, the Ukrainian education system is currently facing an even more aggressive challenge: the Russian Federation's "unprovoked military invasion" and enforcement of martial law (OECD, 2023).



The authors are deeply grateful to lecturers and students of the Educational and Scientific Institute of Philology and Journalism community at V.I. Vernadsky Taurida National University for remaining such a friendly and inspiring teaching and learning community during recent years—including those covered here in this case study. The authors also appreciate the efforts of academic editor, Aileen McKay for her supportive improvements to the quality of this manuscript.

Under these recent and ongoing circumstances, crisis management has become a pressing need for Ukraine's education institutions.

Ukraine's education system has traditionally been face-to-face, as well as reluctant to embrace technology and web-based instruction, particularly in terms of: sceptical attitudes towards and slow advancement of technologies; political and financial challenges; lack of technically trained and experienced personnel in curriculum development and educational organisation processes; and the overarching fear that pedagogical quality levels would decline if delivered via virtual spaces, rather than physical ones (Matvienko *et al.*, 2021). In 2018 it was found that Ukrainian students were "ill-prepared for many online-learning activities"—although, simultaneously, they were also found to appear highly ready "for communicating online and using social networks" (Blayone *et al.*, 2018). Despite these deeply rooted cultural and systemic obstacles, as a whole, Ukraine's universities did manage to respond to the immediate challenges of the pandemic successfully in the short-term (Nenko *et al.*, 2020, 2021 and Matvienko *et al.*, 2021).

However, now looking to the present and future, in the existing literature, researchers do not seem to draw a connection from Ukraine's successful shift to fully online teaching and learning during the pandemic over to the ongoing need for crisis management in education caused by the Russian invasion. Given the "alarming [...] burnout levels detected among Ukrainian academic staff" (Tsybuliak *et al.*, 2023) and the deterioration of university students' psycho-emotional well-being, including developing depression and existential anxiety (Yukhymenko-Lescroart *et al.*, 2023) caused by the invasion, effective ongoing crisis management in education remains essential. Thus, this article's aim is to identify and discuss the key components comprising the crisis management processes successfully at work in Ukraine's education system under the crisis conditions of the pandemic, with a view to distilling insights useful both to those navigating ongoing crisis management in Ukraine and those with a need to manage crises in other parts of the world.

Against this political backdrop and enshrining the above aim, this article offers a crisis management case study from V.I. Vernadsky Taurida National University (TNU) comprising: an overview of the background considerations impacting the shift to fully online teaching and learning; a summary of the Institute's risk assessment process; an identification and explanation of each of the three core components (i.e. instrumental, methodological and psychological) ultimately employed in shifting to fully online teaching and learning; and a literature-informed discussion of key findings extracted from those processes.

2. The case study of Taurida National University

2.1 Case study backdrop, rationale and methodology

Having been relocated to Kyiv from occupied Crimea in 2016, TNU is a displaced university forced to function in a state of crisis. In 2020, the sudden and complete transition to fully online learning demanded of the education system in Ukraine, as around the world, fundamentally could not be carried out via traditional management schemes and methods. This transition required an understanding of the risks involved (e.g. disintegration of education communities originally established in person and decrease in the quality of pedagogy as a result of being facilitated in digital spaces) and demanded all available resources (e.g. computer hardware and software, access to high-speed internet and professional technical support, as well as the pedagogical skill required for teaching in digital spaces). Subsequently, the Russian military's full-scale invasion of Ukraine in February 2022 has brought significant deterioration to not only the living conditions of all people living in Ukraine but also the psychological conditions of those involved in Ukraine's education system: students and teachers have been obligated to study and work through

ongoing and extreme danger to their lives and their health, or to emigrate (e.g. [Hoshovsky et al., 2022](#)).

In order to most authentically communicate the sequence of events and processes comprising the radical, emergency restructuring of Ukraine's education process from the first-hand perspectives ([Sandhu, 2017](#)) of the people most directly impacted ([Bimpson et al., 2021](#)), this article offers a case study resting on the lived experience of the authors—all of whom are or were TNU staff, with the first author being Institute Director from 2017 to 2023—and their colleagues, as a collective ([Schutz, 1980](#)). This article's focus on lived experience also encompasses Educational and Scientific Institute of Philology and Journalism students via their responses to online surveys conducted by the authors from 2020 to 2022.

The researchers were unable to seek ethical approval from any university committee prior to conducting this case study since this research infrastructure generally does not exist in Ukraine (e.g. [Coker and McKee, 2001](#)), including at TNU. For their part, the researchers attempted to ensure that any participation in the focus group meeting would be voluntary: the researchers sent a mass email—containing the topic of, date and time of and link to the online focus group meeting—to all Institute students and lecturers at their official university email addresses, inviting them to attend if they wished. As such, the $n = 37$ focus group participants ($n = 30$ students and $n = 7$ teachers) were self-selected and, at least distantly, known to the researchers. The researchers deemed implied consent (i.e. via participants' own self-selection) to be sufficient since the topic of the research was very low risk, and no special category data (e.g. regarding religious beliefs) were collected ([University of Oxford, 2023](#)). The questions subsequently included in the two student surveys were drawn from the main topics raised by students and teachers during the online focus group meeting.

Student survey participants were similarly self-selecting: the researchers posted an invitation to participate in anonymous online surveys on the Institute's Telegram channel, and students responded if they wished. The 2020–2021 survey had $n = 178$ student participants (from a possible total of 470, i.e. 38%), and the 2021–2022 survey had $n = 72$ student participants (from a possible total of 497, i.e. 15%). The surveys were conducted via Google Forms with email address collection disabled so that participants' identities would not be attached to their responses—furthermore, the survey form did not request any demographic or identifying information ([Kaiser, 2010](#)), since it was simply not relevant ([University of British Columbia, 2019](#)). The anonymity of all participants is also protected within this paper since their feedback and insights are presented in this case study only as numerical data (e.g. percentages).

2.2 Risk assessment

The arrival of the pandemic in March 2020 necessitated clear identification and assessment of the risks faced by the Institute—including with regards to shifting to fully online teaching and learning. The most immediate risk posed by the prolonged lockdowns was the isolation of the Institute's community, that is, the destruction of internal connections, for instance between students, and between students and lecturers. The corresponding redundancy of the usual control measures previously used to confirm that teaching was taking place (i.e. lecturers keeping paper records of students' grades and attendance in their classrooms) made it impossible to verify that teaching and learning were actually taking place at all. As is the case in many parts of Central and Eastern Europe today, this risk—namely, losing the ability to document the fundamental existence or verity of the education process on paper—was felt to be highly pressing by Ukraine's authorities, for whom a strict sense of bureaucratic control over educational institutions, educators and students has been preserved since the Soviet era ([Kowalczyk-Wałędziak et al., 2022](#)). Contrastingly, for lecturers themselves, the keenest loss was that of access to conducting their profession in any normal way: put simply, in the face of

the immediate full shift to online teaching, some of them did not have the necessary equipment nor were they trained in online teaching. In turn, for students, lockdowns meant that it was impossible to have any face-to-face communication, either with peers or their teachers: radical conditions which carried risks for some students, such as desocialisation and the development or exacerbation of mental disorders (e.g. depression) (Branquinho *et al.*, 2022). Combined, these risks impacting lecturers and students respectively created the conditions for a decline in the quality of education provided and received.

On the other hand, despite the immediate need for it, the shift to fully online teaching and learning carried significant risks of its own. In line with the loss of in-person documentation systems noted above, the lack of university-wide standard formats or rules made it challenging to organise teaching, as well as maintain the associated documentation online in a common, systematic way. As well as a lack of TNU-issued guidance for online teaching and for documenting that teaching, there further remained the possibility of future retribution during any inspections by Ukraine's State Service for the Quality of Education, if documents were found to be improperly processed—a perpetual threat which created feelings of unease and worry among lecturers and administrators.

However, despite the above risks identified, the comparative risks of making no change were ultimately deemed by the Institute's team to be much greater. Thus, the shift to fully online education unfolded. Retrospectively, in analysing the crisis management strategies employed, three core sets of components have been identified by the authors of this case study: instrumental, methodological and psychological.

2.3 Instrumental components: auditing, exploring, experimenting and adapting

As regards a hierarchy of values during this early decision-making phase of the crisis management, foremost was the fundamental survival and preservation of the Institute's education community. The Institute sought to establish a digital system for communication and for the exchange of educational materials—a change which required Institute staff to not only to find suitable equipment for themselves to use, but also to learn very quickly how to work with it—as well as to reach a swift consensus on which apps and digital tools would be available to and workable for all members of the Institute community, including students. However, in time, the value of the digital solutions found was not solely on a utilitarian basis, but in that they were able to be used as tools of democratisation, individualisation and inclusivity on the micro level—for example, the transfer to Google Sheets for the documentation of students' official grades and transcripts meant that they gained easier access to their grade data than they did pre-pandemic when this information was held in the Institute's records which were unavailable to students. This early phase of the crisis management process had a limited timeframe on account of the upcoming June examination season.

2.3.1 Auditing. The preliminary audit conducted by the Institute's director and department heads in March and April 2020 entailed: reviewing the available digital tools and platforms for facilitating online teaching and learning; assessing students' and lecturers' access to and preparedness to use such technology; and studying the legislation pertaining to the Institute's online operations. The audit revealed factors which would impact the shift to online teaching and learning both negatively and positively.

The negative factors identified by the audit were:

- (1) Many lecturers and students did not own the necessary technical devices (i.e. computers, laptops and/or reliable Internet access at home) or the corresponding skills in using them—some even initially reported feeling fearful at the prospect of using technology.

- (2) Some lecturers expressed scepticism regarding the feasibility of being able to facilitate high-quality teaching online, specifically in terms of their belief that if they did not communicate knowledge to their students in a physical classroom setting, then they would never gain it otherwise.
- (3) The most familiar and accessible digital platforms for messaging (e.g. Telegram) and video calls (e.g. Skype) could not reliably facilitate or host groups of simultaneous users, due to the development of Internet infrastructure in the region being blocked by the ongoing Russian occupation.
- (4) The existing national and university regulations for online teaching and learning were only designed for a gradual and planned implementation, which rendered them fundamentally unusable for the immediate crisis management needs brought about by the pandemic.
- (5) Moodle, the online learning platform used by the university, requires constant system administration and lecturers require special training in order to use it—furthermore, it must be installed in a corporate online environment. These factors rendered it inaccessible for the Institute during the initial lockdown period.
- (6) The lack of a full-time system administrator employed at the university meant that there was no person positioned to coordinate the initial shift to online teaching and learning.
- (7) The unwillingness of the university's senior management to respond to the challenges of the pandemic—seemingly rooted in unrealistically optimistic expectations for a quick return to normal learning conditions, and a lack of awareness of the urgent need to create and regulate a workable online environment—made it initially difficult to orient the Institute community towards the shift to online teaching and learning.

The positive factors identified by the audit were:

- (1) There was a motivated and well-coordinated team of mid-level managers (i.e. director and heads of department), as well as the Dean's office staff and departmental laboratory assistants, who possessed digital literacy and a general working knowledge of digital teaching and learning tools. Critically, these people were ready and willing to learn.
- (2) The existing bonds of mutual trust between Institute community members; the overall psychological readiness of lecturers and students to shift to online teaching and learning; and Institute community members' motivation to improve their digital literacy in order to preserve the workings of the Institute all speak to their resilience as individuals and as a community.
- (3) In the 2019–2020 academic year, the Institute had already started to use private Gmail accounts to share online schedules and develop plans and reports, via Google Docs and Google Sheets.
- (4) There was an existing partnership between the university and Pearson Corporation, allowing the Institute the use of their English-language digital learning platforms.
- (5) Despite initial fears regarding using them, the digital tools for giving and recording lectures, meetings and other events (e.g. Zoom) were fundamentally accessible to the Institute's community members.

- (6) The Institute community already possessed a rich network of mutual assistance between students and lecturers. For instance, an active and authoritative student council informed lecturers about students' difficulties, attitudes and ideas, as well as offered solutions.
- (7) Furthermore, the Institute already had student-student supervision/tutoring in place, with senior students supporting and advising younger students, especially first-year students.

Following the identification of the negative and positive factors listed above, the following tasks were deemed realistic for the Institute director and heads of department to carry out: reviewing online teaching and learning platforms in order to choose the one best aligned with the Institute community's digital competencies; organising the training of lecturers and students on using the chosen platforms; standardising online teaching, learning and organisational communications within the Institute; and developing and implementing online means of documenting the educational process. However, to conclude here, due to the absence of any existing online education environment at TNU at that point in time, the Institute community was obliged to start the exploratory and experimental phase with searches and trials.

2.3.2 Exploring and experimenting. For the next phase in transitioning to fully online teaching and learning, the Institute: navigated government regulations and Institute orders; developed intra-university e-documents; monitored emerging virtual practices, then chose the optimal digital platform for its operations. These tasks were to be completed during the March to August 2020 timeframe, prior to the beginning of the new academic year.

2.3.2.1 Navigating regulations, laws and orders. Following the above audit, the Institute's director and department heads analysed national regulations and laws in order to apply them to the crises the Institute community was navigating. Based on Ukraine's law *On Higher Education; Provisions on Distance Learning* (Order of the Ministry of Education and Science of Ukraine N466, as of April 25th 2013); *Regulations on Distance Learning at V.I. Vernadsky TNU* (Order of the Rector of TNU No242-OD as of December 1st 2017); etc., the Institute's director issued orders on: monitoring students' online class attendance, timing students' independent work, documenting the educational process, as well as preparing and conducting tests and exams. The aim of these orders was not only to standardise online teaching and learning, but also: to accustom lecturers and students to using ICT tools; to help them acquire skills in developing and processing shared online documents; and to establish a virtual communication network within the Institute. Furthermore, in response to the large number of student enquiries, the Institute initiated Rector's orders which, based on the letters of the Ministry of Education and Science of Ukraine, provided the legal framework for verifying the results of final exams conducted virtually.

2.3.2.2 Developing intra-university e-resources. The second direction of activity during the exploratory and experimental stage was the development of e-documents for use within the Institute: namely, online grade books, online transcripts and online timetables. Google Workspace apps, specifically Google Docs and Google Sheets, were chosen for facilitating the creation and use of these e-documents, given the university's limited technical capacities (e.g. academic staff needing use their personal devices, such as laptops, when working from home during lockdowns) and limited budget (e.g. no spare funds to allocate to training academic staff and students in using other, more complex online word processing platforms). Additionally the need for easy site management offered by Google Workspace (Chambers and Price, 2019) made these tools the right choice for the Institute, given the minimal level of digital literacy among the Institute's community at that point in time. Due to the simultaneous need for collective yet controlled access to the Institute's Google Docs and Google Sheets, the

dean's office staff and academic staff had access as "editors" while students had "view only" access. This two-tiered access system allowed for transparency in documenting students' grades throughout the term and consequently in the calculation of their final grade, thus strengthening feelings of trust within our community.

By mid-April 2020, via the joint efforts of department heads and academic group leaders, online grade books were created and completed, plus online formats of official transcripts and timetables were developed by the dean's office staff. Subsequently, lecturers and students learnt to use these newly created e-resources, encountering only a few initial difficulties (e.g. academic staff being unsure of how to fill out an online timetable for their students or students not being familiar with how to access their transcripts online). These difficulties were quickly resolved on a case-by-case basis by the member of the Institute's staff with the greatest digital competencies among our staff team, who took on the role of digital leader—proactively experimenting and seeking out solutions, then teaching the best of her findings to the dean's staff. These staff members were subsequently able to teach their colleagues then student leaders who, in turn, passed the knowledge on to their student peers.

2.3.2.3 Monitoring emerging virtual practices. The third direction of Institute management activity during this stage was monitoring lecturers' emerging online teaching organisation practices, in order to identify common practices among them. It was found that lecturers, seeing the transition to online teaching and learning to be temporary, initially attempted to utilise the usual practices of working in the classroom: i.e. giving 90-min lectures, but now simply via Viber or Skype, as well as issuing students with independent work by sharing photos of their hand-written questions and pages of physical textbooks and expecting photos of students' hand-written work to be submitted in return. Very soon, the majority of teachers began to use Zoom to facilitate their lectures and explored Google Drive as a platform for issuing and receiving students' independent work in a shared online document. Thus, by the end of the exploratory and experimental stage, through learning from each other, the Institute's staff had established: a relatively standardised Institute-wide procedure for organising online teaching; online formats of exam result records; and improved digital literacy among lecturers and students.

During this time, however, some new problems appeared, with the main one being the need to implement a single online teaching and learning platform, as well as online document management system, across the full university. Without this university-level cooperation, all achievements won by the Institute's community throughout this exploratory and experimental stage risked remaining "illegitimate" in that they could be challenged or overturned via external inspection (Kowalczyk-Wałędziak *et al.*, 2022).

2.3.2.4 Choosing the optimal digital platform. As noted above, in line with the digital skills and online forms of documentation already possessed and/or developed by the Institute community, as well as the need for affordability, the relative simplicity and low cost of Google Suite for Education (now Google Workspace), specifically its set of tools conducive to distance learning, was deemed the most suitable online platform for the Institute, including: Google Classroom, Google Meet, Google Docs, Google Sheets, Google Forms and Google Calendar. However, as of August 2020, the use of corporate email addresses for distributing and exchanging official documents and information had not been made mandatory at TNU.

At the end of the exploratory and experimental stage, the institute management faced the following tasks: convincing TNU management to make a contract with Google's Ukraine office to create a university corporate email, in order to enable use of Google apps for organising teaching and learning online (this email address was set up on the 5th of July 2020); accustoming lecturers and students to using their new corporate email accounts; developing protocols for lecturer-student communication via the Google Classroom app, as well as training lecturers and students in how to use it; and developing an Institute-level information and feedback system via the Institute's internal website. Thus, these tasks

determined the Institute management's activities at the next, adaptive stage of shifting to online teaching and learning.

2.3.3 Adapting. Following the exploratory and experimental phase, the adaptive phase lasted from September 2020 until February 2022. This phase entailed the following key activities: building digital infrastructure and conducting consultations; developing e-resources further; recording students' grades; communicating between students and lecturers; hosting events digitally; and surveying students.

2.3.3.1 Building digital infrastructure and conducting consultations. At the beginning of this stage, with the university corporate Gmail address in place, lecturers and the dean's office staff were provided with a training by the university: *Deployment and use of the G-Suite environment in the education setting (digital component)*. Furthermore, collective trainings were held at the Institute on how to: start a permanent video conference; add students; create, send and check assignments; and issue grades and transfer them to the respective academic group's grade book in the Classroom app. Similar sessions were also held for academic group leaders, training them on how to provide support to students.

2.3.3.2 Developing e-resources further. Subsequently, online formats of the documents necessary for supporting the running of the education process were developed and improved, primarily class/session schedules.

2.3.3.3 Recording students' grades. At this stage, an algorithm was developed by the dean's office for creating and maintaining an online grade book for each academic group—along with allocating tasks and duties for the dean's office staff, lecturers, group leaders and students. A technical solution was also found for the automatic generation of official transcripts (for pass/fail tests and exam results), from which the students' grades and consolidated transcripts were then generated. The developed online documents were submitted for consideration to the university's academic council, which approved a testing phase for the online grade book model as part of the transition to digital documentation (as per the Order of the Rector of TNU, No. 18-ОД, January 31st 2022).

2.3.3.4 Communicating between students and lecturers. Establishing a communication system for students and lecturers was a vital element of the shift to fully online teaching and learning. Initially, all Institute members were briefed to use only corporate email addresses and accounts for discussing and solving work issues, where all communications were subsequently carried out. However, it soon transpired in practice that, due to the large number of messages on the platform, the users did not always see their messages or respond to them in time. There was also a need for an easily accessible storage space for shared access links, information, documents, forms, announcements, etc. To meet this need, the Institute's education portal was developed using the Google Sites app, following which the next task was to find ways to accustom students and lecturers to independently finding information and documents on the website.

2.3.3.5 Hosting events digitally. In the spring of 2020, the Institute made its first attempt to use the Google Meet app not only for hosting classes, but also scientific events—in particular, the first Crimean International Philological Forum and the III-IV Congress of Orientalists, both of which were a great success and brought in more than 200 participants each. In the 2021–2022 academic year, a programme of scientific conferences was held based on the success of this initial online experience.

2.3.4 Findings from surveying students. In order to obtain a realistic picture of how online teaching was being organised by Institute lecturers, i.e. to identify which platforms and tools were actually being used, as well as areas for improvement, two student surveys were conducted—the first running across the 2020–2021 academic year and the second the 2021–2022 academic year. As noted above, $n = 180$ students took part in the first survey (i.e. 38% of all Institute students), dropping to $n = 72$ in the second survey (i.e. 15% of all Institute students). Such a significant decrease in the number of respondents can be explained by the

beginning of the active phase of Russian aggression against Ukraine, when the majority of students did not have access to an Internet connection, or had to leave their homes in order to survive.

Nonetheless, the joint results of the two surveys offered the general insights sought. In terms of students' more general attitudes towards the online learning experience, in the more recent of the two surveys, the majority of students (79.2%) reported having a generally positive attitude towards online learning. In terms of which digital platforms were used for online teaching, the majority of students reported that their lecturers used the Classroom app (i.e. 86.5% in 2020–2021 survey and 87.5% in the 2021–2022 survey). In terms of communication between students and lecturers, Telegram was the most used app, chosen by 70.2% of respondents in the 2020–2021 survey and by 84.7% of respondents in the 2021–2022 survey, with the vast majority of respondents in both years (i.e. 94.9 and 100% respectively) reporting using the app to exchange information and discuss urgent problems regarding tutorial work.

However, students reported that initially establishing communications was the most difficult step in the transition to online learning: indeed, 12 and 20% of student respondents respectively mentioned the initial need to spend time and effort ascertaining how to: create a corporate email account, find tasks shared by lecturers, upload completed assignments in the Classroom app and communicate with lecturers. As regards who helped the Institute's students to cope with the initial difficulties of online learning: in the 2020–2021 academic year, 42.2% of respondents reported being helped by their classmates, while only 14% reported being helped by their lecturers—and the remaining 43.8% reported being able to cope with technical problems independently. There was a shift in this trend in the 2021–2022 academic year, where 51.4% of respondents reported coping with technical problems independently, 22.9% with the help of lecturers and 5.8% with that of their classmates, while the remaining 19.9% of respondents did not answer this question, reporting instead that they faced no technical difficulties.

2.3.5 Methodological components. Since the spring term of the 2021–2022 academic year, the Institute's task has been to shift towards a longer term culture of online teaching and learning, whereby the lecturer provides students with tasks they can carry out independently and collaboratively, rather than depending on the more traditional transfer of knowledge from lecturer to student (Blayone *et al.*, 2017). As such, the Institute's students were repeatedly briefed by lecturers that the main component of this new format of their studies in terms of time and effort is this independent work, which they should strive to carry out under their own steam on both a regular and sustained basis. Despite this clarity of vision for the Institute's longer term development needs, unfortunately the full-scale war against Ukraine has made it impossible to advance this development on any practical, ongoing level as yet.

2.3.6 Psychological components. Since late February 2022, the psychological components of the Institute's crisis management efforts have become vital in helping students and staff alike to navigate and overcome the stress of missile attacks and military violence. Some students lived in temporarily occupied territories, and around a third of the Institute's community left Ukraine. In this new phase of the crisis, online communications via Telegram chats were invaluable to both individual and Institute survival since they made it possible to: exchange vital information, collect funds for the army or humanitarian aid, share songs and memes and engage in debate. Indeed, during the initial weeks of the newly escalated military hostilities, the Institute's Telegram communications were developed significantly—new chats were added, including an information channel for the entire Institute where important operational information was posted—plus one where students' writing was showcased, *The Taurida University Almanac*. Although the Institute returned to online teaching via Google Workspace three weeks after the Russian invasion, widespread power and Internet problems and outages meant that Telegram proved to be the only reliable channel of

3. Case study findings

As per the case study, including student survey responses, detailed above, effective crisis management in education in the geo-politically unique context of the two major challenges faced by Ukraine's Taurida National University in the early 2020s—the Covid-19 pandemic and the war and full-scale Russian military invasion—has only been possible via shifting to online teaching and learning. In the initial stages of this transition, the instrumental components for auditing, exploring, experimenting and adapting digital tools were absolutely vital. The Institute's crisis management approach has entailed a fundamental qualitative change in its teaching and learning culture, not simply the transfer of old pedagogical practices to the new online environment. Therefore, as the Institute's case demonstrates, contemporary crisis management in education requires any shift to online teaching and learning to be accompanied by powerful methodological components and psychological components.

These methodological components are: an adequate initial assessment of the risks, limitations and opportunities for the teaching and learning community involved; then, based on this risk assessment, the right choice of virtualisation tools; ratified by flexibility, gradualism and balance in all onward planning following the beginning of the crisis, taking feedback from students and staff into account on an ongoing basis. These psychological components are: upholding the psychological wellbeing of teaching and learning community members; offering members ongoing technical support (both for the immediate benefit of the technical insight and troubleshooting and for the feelings of reassurance and confidence it can bring); and strengthening the trust felt between community members. Being able to successfully utilise these instrumental, methodological and psychological components depends on trust, goodwill, motivation, competence and cooperation within the teaching and learning community, i.e. encompassing students, lecturers and management.

4. Discussion

Our finding that contemporary crisis management in Ukraine's education system has only been possible only by shifting teaching and learning online—despite the many risks and problems that exactly such a transition posed—is a route to survival which broadly illustrates Fawns' (2022) argument that pedagogy and technology can no longer be posited as two separate, dichotomous entities, but instead must be understood as one “entangled” and interconnected entity. However, as our instrumental components detail, as the crises initially unfolded, the Institute staff faced the urgent task of selecting the most appropriate digital platforms for facilitating education and communication—positing them as “driver[s] of change” with a corresponding sense of skill equated with “choosing and (correctly) using tools” (Fawns, 2022), a conceptualisation of online pedagogy that Fawns categorises as “an illusion”. Nonetheless, this choice to initially pursue what can be retrospectively understood as a “technology drives pedagogy” approach was, in fact, essential to the fundamental survival of the Institute community within the unprecedented and unpredictable contexts of navigating both a full-scale invasion and national lockdowns.

Our survey findings revealed that the transition from face-to-face to fully online teaching brought numerous challenges for students. They reported that establishing online communications with lecturers was the single most difficult for them to navigate in the process of switching to studying online: a finding which may be taken as a disappointing disproof of Blayone *et al.*'s (2018) suggestion that “large percentages of Ukrainian students

appear in high-readiness segments for communicating online”. Indeed, this initial challenge the students highlighted in their survey responses does present real cause for concern—both for our own Institute community and online teaching and learning more geographically widely—since good quality teacher-student relationships are “positively associated with students’ achievement and engagement, as well as teachers’ well-being” (Robinson, 2022) and thus form the basis of successful autonomous learning (Yan, 2019).

However, moving through and beyond these initial challenges, our case study also found that the problem-solving undertaken by the Institute’s staff—in this case in the form of setting up of a communication system for the Institute’s lecturers and students by the dean’s office staff—was successful and collaborative. This collaborative approach to problem-solving aligns with Geleti’s (2022) adaptive leadership theory whereby “interconnectivity and creative interactions among actors [. . .] lead to the creation of an adaptive organization that can thrive under complex and fast-changing organizational settings”. In Geleti’s terms, the interconnectivity and creative interactions among the staff team, drawing on their collective intelligence, were vital in allowing the whole Institute to become adaptive as an organisation, a dynamism critical to its ability to “foster proactive responses to [the] volatile and unpredictable” crisis conditions (Uy *et al.*, 2023).

Following the resolution of these initial online communication challenges, the findings from our student survey demonstrated an increase in students solving any technical issues they faced independently (i.e. increasing from 43.8% in 2020–2021 survey to 51.4% in the 2021–2022 survey). This increase in turn perhaps suggests an increase in the students’ sense of independence, involvement and responsibility in and for their own online learning, in time surpassing the “ill-prepared[ness] for many online-learning activities” flagged pre-pandemic by Blayone *et al.* (2018). Indeed, writing about the democratisation of the learning process that comes with the *Fully Online Learning Community* model, Blayone *et al.* (2017) posit that the model “recognizes a learner’s digital [. . .] competencies [. . .] as endogenous variables vital to the successful functioning of a fully online community.” In the Institute’s case, it was via the students’ willingness to utilise their endogenous digital competencies—in tandem with staff support and problem-solving—that the Institute was able to facilitate fully online learning.

Our retrospective conceptualisation of the methodological components stressed the necessity of flexibility, gradualism and balance in all onward planning following the beginning of the crises—taking feedback from students and staff into account on an ongoing basis. Indeed, writing about economic activity, Ye *et al.* (2019) find gradualism to be a successful means of tackling high stakes situations and nurturing coordination between stakeholders, mirroring the Institute’s need for dividing its onward development into a gradient of consecutive, gradual steps in order to ensure sustained success. Similarly, strategic flexibility will serve as a vital element in the Institute’s onward growth—particularly in that “digitalization and strategic flexibility are intertwined; strategic flexibility enables the application of new technology, and digitalization enables flexibility” (Matalāmaki and Joensuu-Salo, 2022). However, as noted in the case study, despite this clarity of vision for the Institute’s longer term development needs, the full-scale war against Ukraine has made it impossible to advance this development on any practical, ongoing level as yet.

Lastly, the psychological components we identified, first and foremost, centred on upholding the psychological wellbeing of the Institute’s community members—for us this was a fundamental moral duty, however, this approach also aligns with Tsabedze *et al.*’s (2023) argument that psychological well-being is the most element of human psychosomatic order, as well as Khalil and Noor (2023) finding that psychological well-being depends upon “positive relationships with others”. As outlined in the case study, the Institute staff offered its students (and fellow staff) ongoing technical support not only out of necessity on this technical level, but for the feelings of reassurance and confidence such practical support can bring, thus investing in the community’s positive interpersonal relationships.

Ultimately, the findings from our student survey results revealed that the majority of students had generally positive attitudes towards the fully online learning experience (engagement and feedback which the Institute's staff value in managing educational developments (Adams, 2023)—past, ongoing and future). However, in some other parts of the world, resistance to fully online learning environments has emerged: for instance, research conducted in Ontario found that “significant negative effects regarding the move to the fully online environment were recorded by some participant groups” (McGravey and vanOostveen, 2022). Similarly, Wigati *et al.* (2023) explore the “rejection” and “refusal” of the pandemic-induced transition to online teaching and learning in the Indonesian context, citing “the tension in the relationship between the people and the state” as the underlying motivation—flagging the need for education communities to feel that they exist within a democracy, both on the level of the education system and on the level of wider governance.

Indeed, it is on account of its “community-oriented” nature, as well as “strong democratic orientation” (Blayone *et al.*, 2017) that the Fully Online Learning Community model aligns with the Institute's aim of preserving the unity of the community of students and staff throughout the past and ongoing crisis management process. While, as outlined in the risk assessment and instrumental components sections of the case study, the staff team took control of the community's decision-making at the beginning of the crisis management process, as soon as this initial period had passed, student feedback was sought in ways that it might not have been without the transition to fully online teaching—thus “deepen[ing] the democratic functioning of learners” and building a new sense of collective responsibility within the community (Blayone *et al.*, 2017). Indeed, this shift to online teaching and learning has developed a greater sense of trust within the Institute's student members (for instance, via the new transparency gained via digitising student transcripts, as noted above), a development we see as aligning with Fawns' (2022) framing of entangled pedagogy as a “basis for making choices that align with educators” values, purposes and contexts, as well as with those of their students’.

5. Conclusion and implications

Going forwards, for the Institute, for TNU and for all of Ukraine's higher education institutions there is a reckoning as the full-scale invasion continues: Ukraine, as yet, has not fully come to terms with the Soviet legacy in terms of how it creates biases that impact decision-making processes—both in the crisis management context and looking ahead to a peaceful future. As Shchepetylnykova (2023) argues, “[i]ndependence [in 1991] did not erase the Soviet legacy in Ukraine”. In particular the Soviet legacy has left Ukraine with what Kulyk (2022) refers to as “rather strong institutionalization”, thus affirming in the Ukrainian context Kowalczyk-Wałędziak *et al.*'s (2022) broader diagnosis of the Central and Eastern European region as a whole we cited earlier: a strict sense of bureaucratic control fastidiously upheld and maintained by post-Soviet, national governing bodies over educational institutions, educators and students. However, this lasting sense of control not only exists on a bureaucratic level, but in terms of perceived education and research quality: for instance, in terms of forming working relationships with universities outwith Ukraine, Oleksiyyenko *et al.* (2022) argue that “[s]truggling with Soviet legacies fueling mediocrity, Ukrainian universities [have been] unable to develop reputable partnerships in international research, or improve their university rankings”. The Institute's staff face a lingering fear that regulations will be enforced in an unpredictable and punitive manner (e.g. a regulatory body declaring a certain activity illegal, citing one of many pre-digital age regulations yet to be rescinded), thus curtailing creativity and innovation (Oleksiyyenko, 2021).

Indeed, these fears are not unfounded: in January 2022 TNU was audited by the State Education Quality Service, primarily to check the documentation of the educational process,

leading to lecturers being instructed by the rector to rewrite all online grade records by hand, since the commission stated that the electronic formats do not carry adequate legal force. Such outdated and counter-productive perceptions of legitimacy are rooted in the inherited Soviet sense of institutionalisation flagged by Kulyk (2022) and sit directly at odds with our case study's finding that the new transparency afforded by electronic record keeping is appreciated by students, deepening their democratic power within the education context.

Despite the ongoing crises and Soviet legacy in Ukraine, our case study proves the irrepressible desire of staff and students to embrace contemporary approaches to pedagogy—our findings can be synthesised as follows. While there was a need for a “technology drives pedagogy” in the early stages of crisis management, the *Entangled Pedagogy* model aligned best with the Institute's ongoing approach. We also found that, to preserve student-teacher relationships, online communications need to run successfully as soon as possible, therefore rendering invaluable collaborative approaches to problem-solving within and across staff teams, in time matched by students independently tackling their own technical problems. Additionally, our methodological components highlighted the necessity of flexibility, gradualism and balance in onward planning beyond the earliest crisis management stages, while the psychological components highlighted the need to uphold the Institute community's psychological wellbeing. While our student survey results revealed positive attitudes towards online learning, reading them alongside resistance to fully online learning environments in other parts of the world drew attention to the need for education communities to feel that they exist within a democracy, both in terms of the education system and wider governance. Indeed, our case study found that—following the staff team taking control of the community's decision-making at the beginning of the crisis management process—seeking student feedback in ways not attempted prior to the transition to fully online teaching actually deepened the democratic functioning of the Institute community.

Ultimately, the Institute's efforts demonstrate that among the most difficult (yet surpassable) strands of education crisis management is overcoming fears of the new, namely: misunderstandings of or unwilling to recognise the huge potential and indeed inevitability, of shifting to online teaching and learning. This sense of courage can be channelled by education communities anywhere and harnessed to drive the success of 21st-century education. We hope that our account of transition under Ukraine's dual crisis conditions renders our case study inspiring and useful: applicable and adaptable to other settings and change contexts, especially but not exclusively online teaching and learning in higher education.

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