Nóra Fazekas

Learning-in-crisis: Learning paths of Hungarian schools in the Covid-19 pandemic

Corvinus University of Budapest, Department of Management Control,
nora.fazekas@uni-corvinus.hu

Reviewer: György Drótos, Ph.D.

Abstract

The research investigates the organizational dynamics of learning-in-crisis (LiC) in Hungarian public education institutions in the light of the Covid-19 pandemic. Firstly, the author introduces the concept and the different theoretical approaches of crisis learning and its literature in the public sector, drawing a model for analysis. When we look at the current case of distance digital education, the postmodern approach to crisis learning is an adequate lens to apply due to the nature of organizational learning. It helps to understand the processes that lead to interpreting the situation as a crisis. What is the subject of crisis exactly? Why is it perceived as a crisis? We can also understand the chosen way of learning that takes place in a school as a result of the crisis, as it is fundamentally influenced by two factors: the extent of the impact and the perceived potential relevance of the rare event. The preliminary results of qualitative empirical research are presented, where the actions and learning processes of five different schools are laid out. The research shows that the learnings are indeed different in the face of an identical external impact.

Keywords: Learning-in-crisis, organizational learning, Covid-19, school management

Funding: The present publication is the outcome of the project „From Talent to Young Researcher project aimed at activities supporting the research career model in higher education," identifier EFOP-3.6.3-VEKOP-16-2017-00007 co-supported by the European Union, Hungary, and the European Social Fund.

1. Introduction

Public education is one of the most affected fields by the coronavirus over the world. Most of the schools and the teachers had only days to start distance education, which, self-reportedly, most of them were not ready for. They started using tools they had never heard of before, setting up a knowledge-sharing community of more than 70,000 members on Facebook over one weekend. They taught each other on online platforms and in the local school communities to cope with the new situation for their students.

This external shock induced an ongoing, but suddenly extremely fundamental learning process in the area of digital competencies. In my research, I am investigating how the coronavirus crisis induced learning has, through the necessity of online education, impacted the digital organizational learning of schools. In this study, I present the theoretical background of the research and the results of the initial analysis of the interview and observation data I gathered.

2. Theoretical background

A great amount of academic literature about the connections of organizational learning and crisis management were written around the great financial crisis of 2008, also inspired by other disruptive events, like previous business scandals (e.g., the Enron scandal), environmental disasters, epidemic or social and technological crises (Moynihan, 2008; Moynihan, 2009; Lampel et al., 2009; Smith & Elliott, 2007; Elliott, 2009; Birkland, 2009; Starbuck, 2009; Beck and Plowman, 2009; Wang, 2008; Deverell, 2009). In addition to crisis learning, there are other related concepts that help better understanding these phenomena, including dynamic capabilities, ambidexterity and absorptive capacity (Antonacopolou & Sheaffer, 2014), or organizational resilience (Smith & Elliott, 2007).

A crisis is a state of an organization when the current situation challenges the organization's basic assumptions and goals, threatens its operation, and even survival. Crisis brings time pressure without any tried and tested coping mechanisms available in a very ambiguous environment (Antonacopolou & Sheaffer, 2014). While crisis is defined similarly across the literature, the con-

cept of learning and its connection to crisis has different conceptual interpretations. A modernist approach to learning can be viewed as the identification and the embedding of practices and behaviors (Moynihan, 2008, p. 352). In connection to crises, we can talk about learning as crisis-induced learning ("lesson-drawing processes" triggered by crisis) (Deverell, 2009, p. 180), or can be categorized as intercrisis ("learning from one crisis to prepare for another") or intracrisis ("learning that seeks to improve response during a single crisis episode") learning (Moynihan, 2009, p. 189). This approach perceives crisis as a change, as an external impact affecting the organizational equilibrium. In a postmodernist view, learning can be understood as the movement from the known to the unknown (Antonacopolou & Sheaffer, 2014). This view describes learning within the crisis. Antonacopolou and Sheaffer defy the separating approach and promote a dynamic view of learning. This approach embraces crisis and sees it as a natural event of continuous change. Thus, learning from a crisis or a failure is not as clear-cut as assumed. Authors even suggest that "understanding the dynamics of learning and crisis may reveal why critical incidents may be perceived as crises in the first place" (p. 6).

When we look at the current case of distance digital education, the latter concept can offer special insights into the phenomenon. It helps to understand the processes that lead to interpreting the situation as a crisis. In this approach, a deficiency of digital competencies was already known within the Hungarian education system. The instant need for distance education only erupted the digital crisis within schools because they were not ready for it (at least most of them).

Both learning blocking and fostering aspects of crisis have been observed in empirical studies (Deverell, 2009). Both sides of this academic discourse highlight the value of learning in and from a crisis. According to Christianson and colleagues (2009), rare events trigger learning in three ways: 1) rare events act as audits of existing response repertoires, 2) disrupt and foster the reorganization organizing routines, 3) redirect organizational identity. Similarly, it is suggested that crisis experience is helpful in new crisis encounters (Moynihan, 2008) by improving understanding of latent, previously hidden flaws (Robin et al., 2019); consequently, it "broadens the scope of action and builds confidence in experimenting with new ways of thinking, acting, and learning" (Antonacopolou & Sheaffer, 2014, p. 16). Crisis also creates a learning space

that cultivates networks and trans-sectorial partnerships (Robin et al., 2019) and the involvement of external experts (Broekema et al., 2018), enabling the procurement of significant outside-organization knowledge and the creation of knowledge synergies.

There are several factors that hinder or block learning (Moynihan, 2008, p. 351):

- The high consequentiality of crises makes trial and error learning prohibitive.
- Crises require inter-organizational rather than organizational learning.
- There is a lack of relevant experience, heuristics, SOPs, or technologies to draw on.
- The scope of learning required is greater than for routine situations.
- The ambiguity of previous experience gives rise to faulty lesson drawing.
- Crises narrow focus and limit information processing.
- There is rigidity of response: actors recycle old solutions to new problems.
- Political dynamics give rise to bargaining and suboptimal decisions.
- Crises provoke defensive postures and denial o f the problem, responsibility, or error.
- Crises provoke opportunism as actors focus on their positive role.

Besides learning and not learning in crisis, we can also talk about unlearning in a crisis situation. First, prior routines have to be unlearned to give way for practices adequate in the crisis situation. Then, however, a great part of these new practices, knowledge, network relationships, etc., get unlearned as well once the crisis is over (Robin et al., 2019).

According to the model of Lampel and colleagues (2009) in Table 1, learning that takes place in a school as a result of the crisis is fundamentally influenced by two factors: the extent of the impact and the perceived potential relevance of the phenomenon. Transformative learning, which we can view as double-loop learning, can occur when both levels are high. A current example of

this is that the day-to-day operation of a school is completely transformed by the need to provide education online (degree of impact), but it also recognizes a lack of digital competencies and knowledge about digital tools supporting school operation as a development point independently from the crisis itself (perceived relevance).

Table 1
Types of learning in crisis

	POTENTIAL IMPACT	
POTENTIAL RELEVANCE	High	Low
High	Transformative	Reinterpretative
Low	Focusing	Transitory

Source: Lampel et al. (2009, p. 839), own editing

We could assume a high level of both factors, considering the present circumstances. However, we may find that in some schools, the degree of perceived relevance is not evident. On the one hand, as the level of digital competence in several schools is variable or low, and its development is not a strategic goal, the situation is assessed as a temporary emergency in which ICT tools have to be used. The other reason seems to stem from the situation of students and parents. As for many, due to the socio-economic background of many families, the use of digital tools and online platforms is scarce and superficial, and the depth of digital knowledge is significantly lower; there is no real need to improve digitalization more widely in education or cooperation among the school staff. Thus, if learning is stimulated by the large-scale impact of the crisis, then it happens in a focused way: to solve a particular problem that arises at a specific time and place. The emergence of intra-crisis learning is thus limited, and intercrisis learning is unlikely.

The perceived impact of the crisis may be lower in schools where significant knowledge and experience have already been accumulated in digital education. This can help to learn, but due to the presence of the needed competencies, only the re-examination of educational and organizational practice occurs (reinterpretation), or only point-like, transitory learning takes place

without systematic transformation.
Generally, public organizations and institutions, as schools and the education system, experience long periods of stability or incremental change. When these get interrupted by a crisis, it creates opportunities for major change (Broekema, 2017). The nature of change itself, however, must be explored.

3. Methods

The preliminary results presented in this study are part of a research project, where the connected research question is as follows: How has the coronavirus induced crisis learning, through the necessity of online education, impacted the organizational learning of digital competencies of schools? In this analysis, I will focus on 1) the nature of crisis the schools perceived, 2) the type of crisis learning characterizing the participating schools, and 3) the main learning patterns emerging from their experiences.

The sampling of the schools was intensity-based with stratified purposeful sampling (Miles & Huberman, 1994). The filtering criterion for sampling was that the chosen schools had to come from the network of KÖVI (Hungarian-Netherlands School of Educational Management), I was in cooperation. Apart from the convenience of approachability, this choice is reasonable, as the connection with KÖVI can be accounted as an attribute of continuous and conscious organizational or managerial learning. Furthermore, the school management had to be engaged, and open to share the data of the development project, to provide additional information, and to grant access to its online platforms, as well as the opportunity for on-site observation. The intensity criteria demanded schools to be able to show some examples of involvement in organizational digitalization initiatives in the past two years that have been perceived by the school community as beneficial or innovative. For stratifying criteria, I have chosen the varying attribute of the maintaining institution (EMMI, ITM, church). Because of Hungarian education policies, schools with different maintainers have different grades of professional, ideological, and financial freedom, which might impact schools' digital innovativeness and their means to it. Although the type of institution maintaining is not in the focus of the research, it provides a potentially relevant additional dimension to the research.

The data collection was carried out in individual and focus group interviews. The sampling of interview participants happened purposively, covering colleagues in diverse positions, experience, age, and subject background. Teachers participating in the focus group interviews also needed to come with different levels of digital competencies to avoid painting biased or wishful pictures about the organizations. Individual interviews in the research served the understanding the managerial perceptions; these involved school principals and vice-principals extended by administrative staff representatives. I also prepared field notes that are essential elements of accurate qualitative research. Notes mostly include a description of the setting, participants, interviews, and critical reflection.

4. Results

To frame my research, first, I had to create my definition of the crisis impacting the learning of the organization: The crisis is an outcome of the Covid-19 pandemic, causing schools to close and operate on online and alternative platforms and ways, they did not have practices and know-how in place for. In table 2, I introduce the schools' basic characteristics, and I summarize their unique connection to the subject of the crisis. Analyzing the gathered data, it became clear that the perception and definition of the crisis situation was a very important factor of the organizational learning processes in the crisis situation. The crisis itself namely was perceived differently in all the participating schools, even though there were common operative challenges in the learning process.

Table 2

Description of the participating schools and their subject of crisis

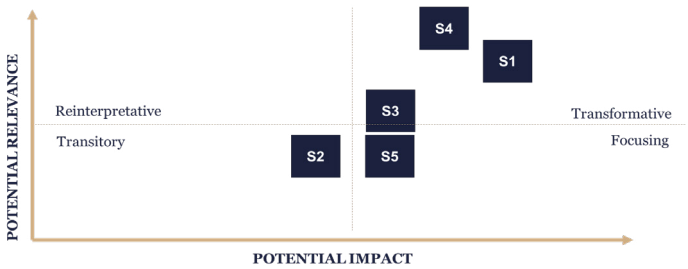
Name	S1	S2	S3	S4
Maintainer	EMMI	EMMI	EMMI	church
Level	primary	primary	primary	primary through secondary
Size	big	small	medium	big
Place	county capital	agglomeration of county capital	midsize town	county capital
Organizational learning capacity	high	middle	high (polarized)	high

Source: own editing

The common ground for the schools' learning was 1) all teachers had to master the skills and learn the platforms, applications and software enabling online distance education, and this skill and knowledge was usually missing. 2) Schools had to build an organization-wide system for learning and cooperation; these were only rarely and only partially in place. What we could see in the mechanisms of learning that it happened 1) among the teachers within the school, teaching and mentoring each other, and 2) outside the school, teachers often turning to their children for help or to online Facebook communities.

Figure 1

Different learning paths of the participating schools



Source: own editing based on Lampel et al. (2009, p. 839)

We can see different approaches to the subject of the crisis, however, based on what the schools brought with themselves from the past in their operations and in their culture. What differentiated the learning paths (Figure 1) along the potential relevance was whether the school had a digitalization strategy in place and whether the school had any other distracting organizational challenge that captured the attention of the school management more than the online transformation. For example, S1 and S4 perceived high relevance of distant education as both schools supported digital dev elopment: S1, as a talent nurturing institution with a focus on natural sciences, saw its duty in keeping up with this development. S4 was planning to start a class with a specialization on IT skill development and digitalized pedagogical methods; they even have a vice principal dedicated to this strategic development.

In S2, there were no clear strategic goals. Thus, it was hard to connect the opportunity of the crisis to any development paths. The school's philosophy also disfavors certain digital solutions, arguing that they exclude certain students and families, and they have to provide education equally to all. Low relevance was also perceived due to a lack of knowledge about possibilities, missing knowledge or competencies in the management team and in the teacher community: "they did not know, what they did not know". In the case of S3 and S5 the level or perceived relevance was lower due to other challenges: S3 suffers from a transformation of becoming a more and more segregated and low performing school from a previously high-performing institution, demanding complete cultural change, that hits the teacher community very hard, causing grief-like symptoms in the organization, deflecting the attention from digitalization. In S5, the social backgrounds of students tend to be quite low. Even in business-as-usual periods, large-scale dropout is a real threat teachers must fight every day. In digital education, the goal was to keep their students in the system, to handle their lack of sufficient tools and internet access, even though the teachers themselves were ready for more complex digital tasks.
Assessing perceived potential impact, we could see S1 and S4 rather celebrating the changes they saw the learnings of the distance education period can bring in the regular practices of education and organizational operation. These organizations realized the positive outcomes they could leverage on, and they managed to locate areas of shortcomings in digital education they will have to address later. In S4, the perceived impact might be smaller, as the school is quite well equipped. It has already used digital methodologies well both in

pedagogy and in collaboration. The scale of change, therefore, is more limited. Also, the school resides on deep religious and community values that put the role of digitalization in the background in the regular learning environment. In the case of the S3 and S4, significant change at organization level is not expected, as digitally competent teachers have worked innovatively before. However, room for further improvement is scarce due to the lack of financial possibilities and the social background of the students and their families. In the case of S2, the impact is minimal, as they were only focusing on managing the situation at hand. Now, they do not intend to transform practices, but plan to go back to previous methods only complemented with some new tools. It is also because the regulations of EMMI and the school district are taken very seriously, and strictly by the school management, they find it risky to experiment and innovate within these boundaries. In all government-maintained institutions (all but S4), the impact is expected to be small, as the budget for digital investments and especially for maintenance is extremely low in comparison to the needs of the schools.

5. Discussion and recommendations

Summarizing the patterns of the learning-in-crisis processes that could be explored in the short terms the following statements can be made:

- Attention and organizational context: the strategic focus is key to steer development actions; however, the external crisis might be overshadowed by inner crisis situations paralyzing the organization to manage transformative learning.
- Infrastructure and systems are key elements in digital competence; thus, social and financial backgrounds matter and represent indirect influencing factors for an organization's digital learning ability.
- External orientation and objective understanding of own knowledge are essential for learning engagement. Schools that had a higher level of learning organizational capacity gained more from the crisis situation as well.
- Transformative and double loop learnings are few due to learning hindering effects of a crisis, as lack of inter-organizational learning and previous expertise, rigidity of response, limited focus and defensive postures varying in the different participating schools.

The results of this research show that the same crisis can be interpreted very differently in various organizational and management contexts. Accordingly, crisis and learning management has to focus on the understanding of the organization as a cumulation of previous experiences and present values. This understanding can help us determine what direction an organization can take within the matrix (Table 1) what pressure points there are to eliminate or handle to steer the organization towards transformative learning.

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