Lessons from COVID-19 and a resilience model for higher education

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Abstract:

In this article, the authors first highlight major challenges that higher education institutions (HEIs) are facing during the Covid-19 pandemic. They then consider the challenges HEIs should expect in the post-Covid period. In practice, HEIs s are keen to maintain their core activities during the pandemic and in this context the authors examine how institutions can continue their activities efficiently by addressing issues related to the potential socio-psychological damage to stakeholders in higher education. To answer this question, they recommend the application of an all-inclusive resilience model at the beginning of the recovery period to withstand the shock of the pandemic and show how an HEIs can apply the antifragile model for the advancement and betterment of the experience of individuals associated with it. The recommendations of the study contribute to the literature related to HEIs and the coronavirus and constitute practical guidance for a post-Covid model that may be followed by HEIs around the world.

Introduction

Academic and social systems influence the learning experience of students. Interactions with teaching staff and peers, along with family, friends and others in the community, enable a student to become integrated into the education system (Tinto 1975). However, the Covid-19 pandemic poses several unforeseen 'grand challenges' to higher education institutions (HEIs). Like any other organisation, an HEI is required to adapt to the current situation so that it can continue to manage its various stakeholders effectively – including academics, administrative staff, researchers and students. Consequently, the radical changes in the social environment due to the pandemic motivate us to examine how HEIs can influence their students so that they remain integrated into the education system. In this article, we identify major lessons learnt by HEIs from the pandemic. Based on existing theories, available information and our own experience, we recommend a resilience model for HEIs to follow in the Covid-19 recovery period.

According to psycho-social norms, individual experience is formed by interpersonal interaction within a social structure (Honneth 1995). HEIs s enable individuals to enhance their experience through the mechanism of self-recognition (see West 2014). As a result of the Covid-19 pandemic, there have been physical boundaries for HEIs, which have affected the application of the psycho-social norms. The pandemic enhanced the need for self-recognition in HE. To the best of our knowledge, there is no definite evidence in academic literature concerning the feasibility of HEIs applying existing psycho-social norms in the Covid-19 recovery period.

One of the key challenges is to identify the most feasible 'new normal' that will enable HEIs to adapt to a new socio-economic system and absorb the changes required for health and safety. HEIs around the world are attempting to identify the most sustainable model to enable such an adjustment, while allowing them to retain the core benefits that emanate from the psycho-social norms. The wide spectrum of activities performed by any HEIs also restricts the application of well-known theories in practice during the 'new normal' time. Thus, there is a need for a model through which HEIs can respond to and absorb profound change with the ability to recover over time. Such a sustainable and resistant model for HEIs performance should have the capacity to consider the current socio-economic state as a 'threshold'. Moreover, it is important to implement local adjustments in response to changes in external factors such as the Covid-19 pandemic. The above arguments can be explained by the features

of a resilience model[1] used for student engagement and encouragement in HEIs (Hall and Winn 2010). In accordance with the literature, we propose that an integrative resilience model will enable HEIs to manage issues related to Covid-19 for each of the stakeholder groups in the higher education sector.

The contribution of the study is as follows. The suggestions provided enrich existing literature on sustainable HEIs models and issues related to higher education in the Covid-19 crisis. In addition, based on a discussion of theoretical models, we focus on certain issues for HEIs raised by the crisis which are within their control. With regard to the resilience model, we make practical suggestions for its application by HEIs.

The rest of the article is organised as follows. First, we discuss major issues HEIs need to address during the pandemic. We then recommend a sustainable model HEIs can apply during the recovery period. Finally, we summarise and draw conclusions from our findings.

Lessons from Covid-19 and issues arising

Lesson 1: The Covid-19 crisis has not caused cracks – it has revealed them.
While for many having an enforced 'pause' from their daily routine may be refreshing, and may provide a much-needed opportunity for reflection, for others it is in effect paper covering the cracks. Authorities in HEIs are making efforts to cope with the changing norms as quickly as possible and are using all available resources to help their workforce adapt. The changes in the HEIs environment disturb the person–environment fit (PE fit) model that has long been the functional model in HEIs (see Kristof 1996). In particular, each individual stakeholder is affected to a varying degree by the changes imposed by the pandemic. To keep moving in the changing world and to keep the cracks covered, people associated with the education sector are engaged in various activities, not directly linked with their preferred work (Chawla, MacGowan, Gabriel et al. 2020). Usually, we prefer to work in organisations in which there is a match of values and beliefs (Kristof-Brown and Guay 2011), and this applies as much to HEIs as to other organisations. However, the situation created by Covid-19 has revealed the PE fit model to be flawed in HEIs. There is a misfit with regard to the individual's experience in the HEIs sector. Usually, experience misfit occurs where there is a mismatch between the needs of an individual and the functioning of the work environment (Follmer, Talbot, Kristof-Brown et

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[1] In a different field of study, Holling's resilience concept (1973) is widely used. Resilience means 'the capacity of a system to absorb disturbance and reorganise while undergoing change, so as to retain essentially the same function, structure, identity and feedbacks' (Hopkins 2009, 12 Resurgence No. 257 November/December 2009).

al. 2018). The pandemic is a 'rare' event – (although such rare events may happen more often than we think) (Lewis 2020) – that has generated a greater experience of misfit and revealed 'cracks' in the higher education system. In the past, for example, if staff members were not supported by their line managers, they might perhaps go for a drink with colleagues, vent their anger and come back the next day ready to carry on. Distraction of this kind is a common means of dealing with stress at work (Dewe and Guest 1990). In conditions of lockdown or severely restricted socialising, such an option is less available, and the effects of problems become magnified. The misfit experience can create loneliness and adversely affect well-being (Achor, Kellerman, Reece et al. 2018). Overall, resistance to change is common and this makes it challenging for organisations like HEIs to introduce systemic change. However, it is clear from the changes adopted by HEIs that they are looking for latitude to make major changes in the system (Walker, Holling, Carpenter et al. see note above2004). To put it another way, HEIs are striving to identify a resilience model by means of which they can absorb the immediate shock of the pandemic and then keep reorganising to maintain student empowerment, knowledge creation and skills teaching. This search for a survival strategy prompts us to investigate what type of resilience model should be followed during the Covid-19 recovery period.

Lesson 2: 'The traitor appears not a traitor' – rebuilding is sometimes harder than survival

> 'An enemy at the gates is less formidable, for he is known and carries his banner openly. But the traitor moves amongst those within the gate freely, his sly whispers rustling through all the alleys, heard in the very halls of government itself. For the traitor appears not a traitor…'
> (Taylor Caldwell, *A Pillar of Iron*, 1965: 602)

One effect of the pandemic has been that HEIs have had to stop or drastically reduce face-to-face interactions and rely on virtual interaction. Like Maurer (2020), we believe that the perception of misfit is greater in HEIs because of the impact of such sudden change on key operating modes of the higher education environment. The virtual initiatives of HEIs may lead stakeholders to distinguish their pre-pandemic life from the present. So, a question that arises is: will this virtual HEIs culture create greater difficulties in rebuilding the system in the post-Covid period? To examine this question, we use the Effort Recovery Model (ERM) applied by Meijman and Mulder (1998), which is widely used in recovery research. To recover from physiological and psychological strain at work, stakeholders in any organisation need a period of non-work (Sonnentag 2001). During the pandemic, those in HEIs have been busy adapting

to change rather than thinking about life outside work. Thus, they are likely to suffer a stressful psychological experience based on their exposure to misfits. Prior literature indicates that when an individual is not able to switch off from work mentally and physically, there is a high mental activation which influences learning adversely (Sonnentag and Fritz 2007). A lack of psychological detachment and a delay in rebuilding resources lost during work, increase the feeling of misfit (Siltaloppi, Kinnunen, Feldt et al. 2011). Thus, a pandemic like Covid-19 influences the psychological experience of individuals and affects the behaviour of people in HEIs in a way that makes rebuilding the experience of individuals and applying the PE fit model a major future challenge (Bhuiyan, Sakib, Pakpour et al. 2020; Mamun and Griffiths 2020).

Very few studies in recovery literature focus on behavioural changes (Volman, Bakker and Xanthopoulou 2013). A variety of stakeholder behaviours can be observed in HEIs and so it is hard to apply any one recovery model in the higher education sector. Moreover, recovery is possible only when individuals begin to feel that it is happening, with their behaviours influenced by increased resources (Binnewies, Sonnentag and Mojza ,2009). However, the persistence of the pandemic militates against a sense of recovery and, in general, there is little evidence of increased resources. Thus, the previously applied recovery model is unsuitable for HEIs to apply for the future recovery of their stakeholders (Van Wijhe, Peeters, Schaufeli et al2013).

To confront the continuing hardship, HEIs need to apply a resilient recovery model that will enhance their capacity to adapt to threats created by the pandemic. Moreover, the evolving nature of resilience will allow them to survive, cope and thrive in the future. A resilience model creates opportunities to interact with individuals, family and the environment, explains the underlying stressful experience of students, staff, researchers and other stakeholders in detail, and can help HEIs to rebuild the system in the Covid-19 recovery period.

Lesson 3. Resilience is about navigating the 3 Dips model

Health experts stress that the Covid-19 crisis is not over and that in future we will experience similar health crises (Desmond-Hellmann 2020; Hixon 2020). Such warnings have particular implications for HE. When the circumstances of an organisation are normal, it may be expected that individuals associated with it will be willing to tolerate uncertainty to some extent and that they will be prepared to adapt to new situations (Gawke, Gorgievski and Bakker 2017). However, because the Covid-19 crisis has imposed a 'new normal' accompanied by many uncertainties, HEIs need to implement a recovery model that can support all their stakeholders

in riding the storm. After a fully functional implementation of that model, as Nishikawa (2006) suggests, it may become easier to motivate stakeholders to rebuild, and such motivation may be sustained to lead to future growth. However, according to Derks et al. (2014), fluctuations in the everyday environment also affect an individual's recovery. The recent socio-psychological changes in HEIs have created exhaustion among their members and consequently have negatively affected individuals' ability to rebuild (Tang 2020). Moreover, the existing recovery models are focused on individuals rather than institutions. Thus, there is a gap in the literature with regard to which model HEIs should adopt in the post-Covid period.

A resilience model is often discussed at the level of the individual, but it can also be applied at the level of the institution (the institution being a combination of individuals and the behaviours associated with their tasks). Tang (2020) expands the traditional resilience model and incorporates exhaustion and competition elements that will assist HEIs to thrive in the recovery period. In agreement with Tang (2020), we propose that the composite resilience model with 3 dips, as shown in Figure 1, is appropriate for HEIs to rebuild the system, so that the PE fit model can be applied.
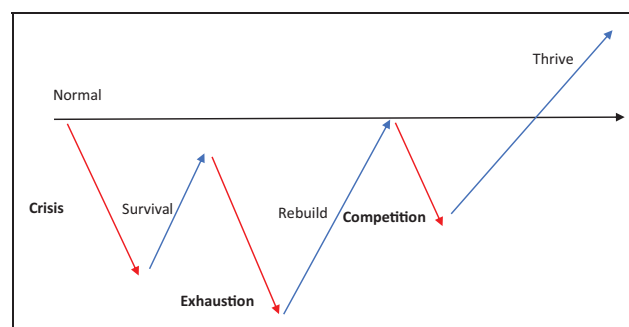

Figure 1. Resilience is navigating 3 dips. *Source:* Tang (2020).

The next challenge for HEIs is to identify survival strategies for when the crisis comes under control. However, by that stage many key workers will be exhausted, and so the rebuilding procedure becomes difficult to initiate (Chodosh 2002). The system is expected to pick up again at a point when there is likely to be diminished camaraderie and less charity, and an even greater fear of 'what now?'. Even though individual resilience will help some in HEIs to say that they are comfortable with the new normal, there will remain a challenge for the institution: the HEIs as a whole need to thrive. We therefore propose that the revised model developed by Tang (2020) and illustrated in Figure 1 is the most appropriate resilience model for HEIs during the recovery period. When the HEIs are navigating their way through the crisis,

they need to identify their capacity to change to adapt to the new normal without disturbing their core activities. For the rebuilding period, HEIs should focus on precariousness to determine the benchmarks. Although the complex nature of an HEIs makes this more difficult, resilience is not about the final test: it is about preparing for the test long before it is faced. Thus, at this stage, the focus of the HEIs should be on 'Panarchy',[2] which will help it to understand how to manage competition and thrive during the recovery period.

Recommendations for HEIs – auditing areas of weakness and fortifying them

We recommend that HEIs and staff at every level should find time *now* to look at rebuilding strategies that could be applied in the post-crisis period. This examination needs to start with an honest assessment of the current position and an awareness of what is feasible in terms of the eventual goal. This is not a time for 'blue sky' projections or for covering up past mistakes; rather, it is a real opportunity for genuine change that will provide a new and stronger foundation for development. We recommend the following steps for institutions undergoing various stages of lockdown.

- *Before or during the Survival period (during the Covid-19 crisis).* (1) What or who keeps the teams going when many key workers are exhausted? (HE will have to manage the current level of anxiety for an uncertain period.) (2) How can the team take or find respite while it is in a period of crisis? (3) What are the minimum needs of HEIs during the crisis that will help them to survive (thus leaving less to repay, restore or rebuild)?
- *During the Rebuild period (short-term measures after coming out of lockdown).* (1) Who or what in any new collaboration can assist with the restoration? (2) What renewed, revisited or transferable skills can now be utilised? It is important to carry out a regular 'sense check' on the staff, stakeholder and student climates, exploring new areas or opportunities where possible. These short-term measures will lead stakeholders to recognise the adaptability in the organisation and will thus increase their confidence in its ability to cope with uncertainties associated with the aftermath of the crisis (Pulakos 2000).

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[2] '… a framework that characterizes complex systems of people and nature as dynamically organized and structured within and across scales of space and time' (Allen et al. 2014: 578).

- *When able to Thrive (long-term measures after the end of lockdown).* (1) Have all the exposed institutional weaknesses been addressed satisfactorily? (2) What lessons were learned and how can they inform current decision making? (3) Has sufficient appreciation been shown to all those who came together to pull through to this point and how will it be continued?

Addressing these issues effectively will strengthen the resilience model of the institution and will motivate stakeholders to help rebuild the system and follow the new norms with less damage to associated individuals.

A sustainable model in post-Covid rebuilding

Crisis brings fear, and fear can result in knee-jerk reactions which in turn lead to derailment, with the institution being 'thrown off course' or 'unable to move forward' (Furnham 2013). There is a high chance that individuals associated with HEIs will place a high importance on emotional loss and will seek to overcome their fear of the pandemic through risk-averse strategies in the recovery period. Thus, to develop a sustainable model, HEIs should pay more attention to resistance to change in the uncertain environment (see the Prospect Theory of Kahneman and Tversky 1979). Some studies have found evidence of a lack of infrastructure in HEIs to support change and/or proper communication about the need and plan for change, creating resistance from individuals affected (Dent and Goldberg 1999). To reduce resistance when applying ideas in practice, leaders in HEIs should follow the emancipator approach[3] to deal with the varying levels of individual risk associated with uncertainties in the post-Covid period (Fisher and Freshwater 2015). Government support alone is not enough, given the dynamic nature of the education sector (Grady 2020), and so the emancipator approach can help in the implementation of a resilience model that will bring enduring change without altering the core mission and vision of the HEIs.

Jones (2020) suggests that the practice of resilience by HEIs has a positive influence on the experience of individuals. The resilience model also works well with the 'safety-signal' hypothesis of Seligman and Grove (1970), who provide the example of the bomb warning

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[3] Emancipatory research perspective is able to produce knowledge that is beneficial for the disadvantaged people in any system. This is an interdisciplinary approach where there is a possibility to include critical theories from other disciplines. The main assumptions of the emancipatory approach is that there are various realities that can affect the system. This assumption allows the system to interact with people in the same system who are affected by reality.

system during 1940–41, arguing that it was so reliable that people in London continued their normal jobs without fear of dying when the sirens were silent. Faith in the siren system helped people to be calm and productive in wartime. Thus, a resilience model should include care, compassion, better understanding and a higher prediction capacity on the part of HEIs leaders, personal accountability, clear principles for leadership, and greater collaboration and networking with companies (Clarke 2020). These factors provide a means for HEIs to convert fear in individuals into hope (Rao and Sutton 2020). When HEIs are able to successfully develop a 'protective' environment by applying such a resilience model, they can then consider applying 'anti-fragility'[4] to perform better in the future (Taleb 2012).

Conclusion

Resilience is about building and constantly topping up emotional and mental *fitness*, rather than trying to attain 'perfect health'. We propose that, during the post-Covid-19 period, HEIs should respond to resistance created by individuals with a resilience model. Such an approach will allow them to continue successfully with their main activities. The resilience model can be applied for quantitative analysis through a scoring mechanism: with the scoring mechanism, HEIs can rank their challenges and plan for a timely response to crises. The pandemic has created an environment in which the learning in the HEI is adversely affected by the changes in the socio-economic situation. The adoption of the resilience model will enable HEIs to address socio-psychological issues and so reduce that inequality and help graduates towards a smooth transition to the job market.

Resilience is related to sustainability and can generate HEsuccess for HE. It also influences students' employability and workplace readiness. The successful outcome of resilient practices is evident in fields such as social science (Higgins 1994), personal development (Werner and Smith 2001) and medicine (O'Leary and Ickovics 1995). However, the literature is inconclusive on the effects of resilience with regard to HEIs (Brewer, Kessel, Sanderson et al. 2019). Among very few studies on resilience in education, Hall and Winn (2010) argue that resilience can develop in an engaging study environment and can empower and encourage students. To the best of our knowledge, this article is the first to propose that

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[4] According to Nassim Nicholas, Taleb divides institutions into three categories. The categories are fragile, robust and the last one is antifragile. At the fragile stage, institutions can avoid disruption but by doing so they are making the system and the people in the system quite vulnerable to the shock. If a system is in a robust state then no change is required. But when the institution follows the antifragile approach then they are stronger and creative after the shocks and disruptions. Every person in the system is able to adapt to the new challenges created by the shock.

the resilience model is the most suitable approach that HEIs can apply in the post-Covid-19 period. Our model thus contributes to the academic literature on HE, resilience and post-Covid recovery. We have attempted to explain how resilience-based interventions can assist HEIs to achieve common goals in the education sector after the crisis and to mitigate the associated risks. The study may help policy makers in HEIs to understand that when institutions develop their strength through a resilience-based model, they can survive more easily, rebuild and find ways to thrive in unexpected crises and shocks.

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