Reshaping Strategies: The Pedagogical Continuity In Higher Education During Post-Covid-19

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Abstract

The research studies the events of tertiary study shaped by an ongoing occurrence of Covid-19 pandemic. From a policy viewpoint, it seeks to assist the universities in the new equilibrium world to achieve a resilient education through multidimensional perspectives; a pedagogical, a technological, a social and cultural, and a managerial aspect. Data collections were performed by documentary reviews, focus groups, and in-depth interviews with 3 university executives, 3 educators, and 36 bachelor's degree students (six groups). The research objectives were to: 1) examine changes in the dynamic and approaches of higher education during the pandemic; 2) identify challenges and opportunities arose from this adversity; and 3) provide policy recommendation model for the higher education institutions during the post-pandemic. Qualitative data analysis shows that the pandemic had disrupted long-term evolution in education system as it had wiped out many years of education gain, nonetheless, the effect of it differs based on the technological readiness of the country as well as the socio-economic diversity. The interviews showed that the three stakeholders often portrayed different levels of positive feelings towards online education experience during the lockdown. Executives seemed to have higher opinions towards it, followed by educators, and students. Research found that the biggest challenge would be to overcome digital diversity, outdated pedagogical assessment and evaluation method, inconsistent upskill and reskill, inapt online learning materials, non-positive online learning climate, absence of participators' engagement, poor online brand community, and lack of consistent support from the university. Despite its setbacks, COVID-19 had also put forward immense digital acceleration which will forever redefine education as it had extended university businesses to include atypical students who is likely to adopt bite-size pay-as-you-go learning opportunity. The greatest opportunity of all for the university, however, is the new potential to deliver a resilient education and an ability to recreate a new generation of human capital that is a resilient learner.

Keywords: Reshaping Strategies, Pedagogical, Higher Education, Covid-19

Introduction

The advent of COVID-19 crisis had affected individuals at all levels all over the globe. Not only it had incurred an economic fallout which caused tens of millions of people to lose their jobs but it had disrupted education globally in ways it had never before. One of the seventeen Sustainable Development Goals (SDGs), goal number 4, is 'quality education'. It aims to promote 'inclusive and equitable education'. Despite the efforts, recent evidence suggested that: "COVID-19 Has Wiped Out 20 Years of Education Gains" (United Nations, 2021). In the beginning of 2020, VOX EU, a research-based policy analysis forum had outlined how global lockdown impacted education institutions and student's learning cycles (Burgess & Sievertsen, 2020) as many governments had chosen to close schools and universities. In Thailand, for an example, the government had urged the schools and universities to conduct online learning. Many students had no other choice but to embrace online learning, and many parents and grandparents of other generations home-schooled their children with little knowledge and resources.

To this point, it seemed that COVID-19 had widened educational gap and create greater inequality between those with and without resources, in particularly to the less prepared countries. 'Assessment issues' is also another problem as "the closure of schools, colleges and universities not only interrupts the teaching for students around the world; the closure also coincides with a key assessment period and many exams have been postponed or cancelled" (Burgess & Sievertsen, 2020). Assessments such as GCSEs and A levels were called off. Norway, France, and Thailand, have also been known to abandoned the traditional exams due to its measurement difficulties. At the end, the global lockdown has created long-term consequences, "exacerbated pre-existing education crisis" (UNESCO, 2022), and unequal interruptions to students at all levels, in particularly to the most vulnerable learners.

The sudden event has asked us to reevaluate and reexamine the quality as well as the alternative approach for the post-pandemic education. Virtual learning had predominantly been an alternative approach to traditional learning at the time of COVID-19 lockdowns for the past years. However, there had been many challenges in online learning and online education had not been a suitable learning experience for everyone as digital inclusion disregarded some people more than another.

In many cases, Internet connectivity as well as connecting device were among the two barriers prohibited learners from achieving full learning capacity in comparison to offline/traditional classroom learning. Completing assessment and homework online can be challenging to learners without high-speed and stable connectivity, or sophisticated devices. Other obstacles included the readiness of teachers and learners, as well as parents responsible for the care of young children.

Admittedly, the government's decision to lockdown had prompted the school to urgently transform their education system and reskill their teachers with any available resources at the time. Additionally, shifted in learning content and approach also led to shift in grading and assessment schemes, which inevitably jeopardise the level of standards among the schools in particularly the public ones.

Moreover, social connections, among other things, were viable factors creating pleasant learning experiences, but virtual learning had disconnected many students from engaging in physical and face-to-face activities. Young children whose first year of kindergarten only relied on tablet devices, young adults whose first year of higher education were conducted purely online; these students are also among one of

the most vulnerable populations during the years of the pandemic. Therefore, the ability to outline these challenges, obstacles, and solutions or policy recommendations in preparation for the next pandemic crisis would greater relieve uneasiness among the vulnerable which included students of all levels, but in particularly the tertiary students in this scenario, teachers, parents, and educational institutions.

A few research (Morgan et al., 2022; Coulange, Stunell, & Train, 2021; Mogaji and Jain, 2020; Onyema et al., 2020; Thonghattha, 2021; Pengtiang. 2021; Bovornwatcharaset and Somanandana, 2021; and Sipitak et al., 2021) had looked at the impacts of COVID-19 in multiple countries from various perspectives, but none of the findings had offered a conclusive policy framework model for higher education institutions.

How should the universities adapt to the future of the post-pandemic world is our question. Will we ever go back to the way it was? Had online study been enough for the students and the teachers? We have read in certain reports that there had been barriers to online learning in the beginning, but what about other aspects? This research will, hence, examine the challenges and barriers found in executives, teachers, and students in the university in order to produce further policy recommendation model on how tertiary education should operate in a post-pandemic world.

Research objectives

1) Examine changes in the dynamic and approaches of tertiary study during the pandemic;

2) Identify challenges and opportunities in online education during the pandemic; and

3) Provide policy recommendation model for future approach to online education during the pandemic.

Methodology

The research adopted a qualitative design approach as it "adopts an interpretive approach to data, studies things within their context and considers the subjective meanings that people bring to their situation" (University of Southern California Libraries, 2016). It employs a documentary review, in-depth interview, and focus group interviews method for data collection. The interviews were conducted on-campus at Suan Sunandha Rajabhat University premises.

With triangulation in mind, data collection was conducted via:

1. Content analysis of the documentary reviews of relevant theories, concepts, and research

2. Semi-structured focus group interviews with 36 students (six groups)

3. Semi-structured in-depth interviews with 3 teachers and 3 executives of various levels

All informants are from Suan Sunandha Rajabhat University, both from Bangkok and Salaya Campus. For data validity, the guided questions were sent out to 3 qualify professionals in the field, followed by a piloting session with a group of 5 students.

Informants were asked to sign consent forms for data collection prior the sessions. During these interviews, the interviewees were encouraged to speak freely but narrative questions were put in place in order for them to convey their opinions better. Open-ended questions were used.

Guided questions were developed following the research framework which came from an extensive documentary review of theories and research. To avoid inconsistency, the informants were asked the same set of questions during one-on-one in-depth interviews and focus group sessions.
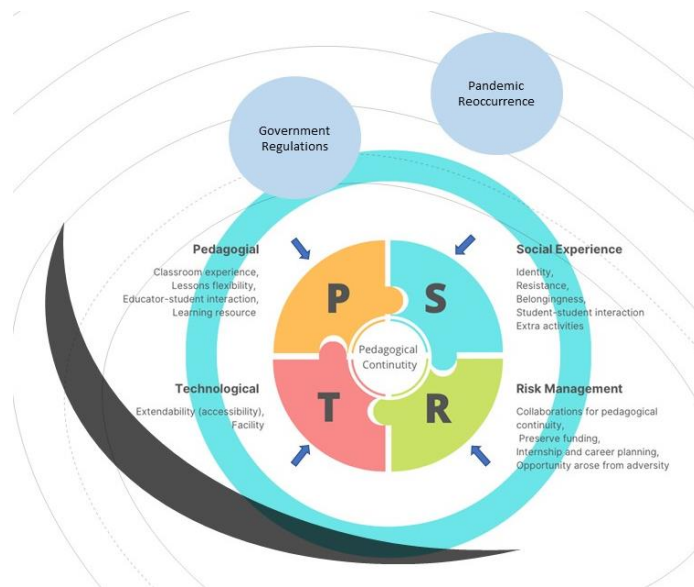
Conceptual Framework

The information obtained from the focus groups were analysed using Philipp Mayring's (2014) method. Philipp Mayring's quantitative content analysis extends to the process of 'coding unit', 'context unit', and 'recording unit'. Coding refers to the smallest component of the materials while context is the largest text component and recoding is the category of texts. Rather than constructing a 'summarising content analysis', qualitative data were analysed using "inductive category formation" to save more time and to consider only the materials relevant to the question (2014, p.79).

Results

The results of the interviews and focus-group interviews were interpreted and displayed by aspects, each aspect comprises of data obtained from each level of the stakeholder. Some examples of direct quotations were placed on the tables with description of high, medium, and low positive feelings. For an example, the following table is a partial illustration of executives' feelings towards pedagogical continuity during the post-COVID19:

Category	Definition	Examples	Coding rules
High pedagogical practices	Stakeholders have highly positive feelings towards classroom experience	"Given the circumstance, I feel we have taken a great leap ever since the beginning of the spread." "We can say that 100 percent of our teachers, regardless of age gap, now	All aspects point to "highly positive feelings"

Category	Definition	Examples	Coding rules
		have the skills to facilitate online classes. So we hoped the experience had been enjoyable to our students and our teachers."	

Afterwards, the results from the interviews were categorised accordingly to its framework and can be interpreted as follows:

1. Stakeholders' feelings towards pedagogical practices: moderate positive feelings.

Category	Executive	Educator	Student
Q1 Classroom experience	H	M	L
Q2 Evaluation method	M	M	M
Q3 Relationship with educator	M	L	L
Q4 Learning materials	H	L	M

2. Stakeholders' feelings towards students' social experience: low positive feelings

Category	Executive	Educator	Student
Q1 Self-satisfaction	H	L	L
Q2 Relationship with friends	L	L	L
Q3 Relationship with university	L	L	L
Q4 Reference network's opinions	M	L	L

3. Stakeholders' feelings towards technological advancement: moderate positive feelings.

Category	Executive	Educator	Student
Q1 Technological experience	H	M	L
Q2 University facility	H	L	L
Q3 Personal tools	M	L	L
Q4 Flexibility	H	H	H

4. Stakeholders' feelings towards the university risk management: moderate positive feelings.

Category	Executive	Educator	Student
Q1 Post-COVID countermeasure	M	L	L
Q2 Internship countermeasure	H	H	M
Q3 Further preparation	M	L	L
Q4 Opportunities & associate measures	M	L	L

Analysis

Data analysis is divided into three sections. The first section provides answers to Question number 1: What were the major changes in the dynamic of Higher Education Institutions during the pandemic?; while the second section provides answers to Question number 2: What were the challenges and opportunities presented in higher education during the pandemic?; and the third section provides answers to Question number 3: What are some policy recommendations that could help shape pedagogical continuity in the post-pandemic world?

For objective number 2 and 3, data analysis is approached following the research framework which subcategorises pedagogical continuity into 4 aspects including 'pedagogical', 'social experience', 'technological', and 'risk management'.

Question 1: What were the major changes in the dynamic of Higher Education Institutions during the pandemic?

Objective 1: Examine changes in the dynamic and approaches of higher education during the pandemic.

From documentary analysis, we found that the major changes in the dynamic of Higher Education is similar to other industries. As COVID-19 progressed, all university activities were shifted to an online platform. Upon many things, it was discovered that the pandemic hit has caused education setbacks to many countries, and the impact of it differs according to the level of technological advancement, the socio-economic status of the country. The United Nations found that generally, COVID-19 has wiped out 20 years of education gains, it caused higher dropout rates, diminished learning proficiency in higher education and in young children. From a human resource development perspective, for an example, COVID-19 had incurred a soaring rise in the Gig Economy where people 'resigns' from their permanent routine jobs to freelance short-term work. To us, the economic losses has caused 'mass resignations' from many schools and universities worldwide.

Statistically, COVID-19 had tremendously affected low-income country who had less access to Internet technology. This caused many students to fall-behind class (Kaskamandidis, 2002) and many schools had been suspended entirely. Learning online had also significantly increased in time student spent on social media, in which the addiction further resulted in higher social isolation (Bashir et al., 2021). Not only that, it had also caused mental health declines, worsens nutrition, increased child labour, and perpetuated a long-term effect on education gain as well as increase poverty. This in turns widened educational gaps between developed and undeveloped countries. Countries like China, who had been

more prepared, were able to enlist over 5,000 courses online within two weeks while countries like Nigeria, of which 96 percent of mobile phone connected via pre-paid planning, suffered greatly.

The change in higher education is forever. Face-to-face teaching is no longer a primary mean of teaching in many countries as blended learning takes its place. Currently, some faculties of Suan Sunandha Rajabhat University offered blended learning courses which 50 percent of the teaching and learning are conducted online and on-demand. Although the provision of necessary learning programs such as Microsoft Office should have readily be available for teachers throughout the country, but this event had also presented some of the 60,000 instructors and 2-million students the opportunity to receive free access to the facility.

In the future, education will serve to promote equality, collaboration, participation. In Thailand, The Higher Education, Service, Research, and Innovation Policy and Strategy (2020-2027) dictates Higher Education policies through four major platforms: manpower and knowledge development; research, development and innovation for grand challenges; research, development and innovation for competitiveness; and research and development for area-based development inclusiveness. Our research focuses on Platform 4 which focuses on developing innovative culture with regard to social inequality, migration, smart society, and inclusiveness.

The Ministry of Higher Education, Science, Research and Innovation stated that 2022 should be all about making up for learning losses in the past two years (Matichon, 2022). The major contradiction in state announcement and the reality of the situation is arguably very controversial. On September 1st, 2021, one year ago from today, the Ministry had released the 18th Announcement stating that higher education institutions can resume onsite teaching as see fitted. When the government disclaimed their responsibility, the obligation fell in the hands of the universities to adopt an appropriate measure on its own. Despite the many callouts and displeasing feedbacks from parents and students, many universities chose to remain 'closed' for fear of another uncontrollable outbreak.

The major shift to online education had opened up a new market to university businesses as atypical students such as women and working students, or mature students, disability students can adopt bit-size pay-as-you-go learning opportunity. Education had become more flexible when a geographical difference is no longer a barrier. "I think technology will enable different types of learning, different types of degree…There will be a lot more university education where you don't attend the campus" (Morris et. al, 2020). These are the current trend of Higher Education today. Inclusiveness is the key to the development of resilient education and resilient learners in a new-normal world.

Section 2: What were the challenges and opportunities presented in higher education during the pandemic?

Objective 2: Identify challenges and opportunities in higher education during the pandemic.

In this section, data analysis is approached following the research framework which subcategorises pedagogical continuity into 4 aspects including 'pedagogical', 'social experience', 'technological', and 'risk management'. Some keywords associated with off-campus learning picked up from the interviews were as follows:

Keywords associated with off-campus learning

On 'pedagogical dimension', the analysis discovered that cultural factors played a vital role in shaping students' and teachers' classroom experiences. Being a highly non-confrontational and 'read between the lines' culture (Meyer, 2014), the teachers feel they face great challenge in establishing trust with the students as it requires personal touch and outside-work-based relationship. Correspondingly, the students feel 'preserved' and shy about expressing their opinions in a 'highly dominance' culture.

In the other words, educator-student relationship is perceived as low and they presented as a strong challenge for pedagogical experiences in class. Apart from various other distractions, similar to findings from Sipitak et al., 2021; Pentiang, 2021; Thonghattha, 2021), students also reported 'parents' as a key challenge to fully participate in an online learning class which take place from home (an 'unconvincing learning environment'). This lack of participation creates lower quality classroom experience in particularly when the learning resources are limited.

Another major challenge teachers reported of is their inability to create interactive materials, and on-demand contents which required an access to paid application together with an extra tech-support. Moreover, students and teachers feel they have extra workloads. In support of Kedraka & Kaltsidis's finindg (2020 ed. Morgan et al., 2022), off-campus students were assigned more self-study time and reading materials, while teachers had extra assessment to mark as they both felt the traditional evaluation method is not compatible with online learning.

On 'social experience dimension', similarly to findings from research such as Jiang's et al. (2021), stakeholders generally reported low self-satisfaction, low relationship with friends, and low relationship with university. The Educators, however, seemed to have higher positive feelings in some aspects. The challenge in this dimension is the lack of engagement in student-student and student-institution relationship. Lack of socialisation in young adolescence could disrupt identity formation process entirely as it is usually followed by lack of confidence, lower self-satisfaction, and increased anxiety (Waterman, 1985, ed. Sokol, 2009).

Lack of student-student engagement also perpetuates lower class quality as students at this age seemed to learn with peer pressure and develops their identity based on reference networks' opinions. On the other hand, lack of student-institution engagement negatively affects the loyalty and the long-

term reputation of the university (Martin et al., 2015). Therefore, the major challenge for this aspect would be an ability to establish student-student and student-institution relationship through online platform.

On 'technological advancement dimension', the analysis shows that the major challenge is the facility and learning technology. The students feel they are less motived when the lessons are less interesting. They claimed that their experiences could be better had they felt more 'connected' with class members. Therefore, with attention to the issue of inclusiveness, the teachers must choose the 'right' technology to foster a greater connection in class, keeping in mind that some students still experience frequent power dropouts and low connectivity.

Hardware development can be problematic to government operated university like Suan Sunandha Rajabhat University. The university will not be able to provide hardware support for all students due to its limited funding. As Shane (2009 ed. Cook & Sonnenberg, 2014, p.171) had stated that online education required technological invention and innovation. The authors also expressed that its fortes of online learning are an ability to creates interactions and personalisation. Based on connectivism theory, it is arguable that enjoyable learning experiences enhances learning motivation because today the development of learners' ability depends on execution of teaching methods as well as the connection with not only peers and instructors, but also with the technology and the network. Therefore, from constructivism point of view, the fact that students have low technological experience in online learning may suggest lower 'active engagement' in learners which ultimately leads to poorer understanding of the lessons.

In the face of limited funding, we perceive that 'correct' software development is a practical solution which would benefit more, if not all, students. All stakeholders agreed that 'flexibility' is the key strength of online learning, and the most flexible form of learning online is to learn 'on-demand'. Hence, the challenge for the teachers at this point, would be to develop an interactive on-demand materials that is suitable and accessible for all students from different access points and technological equipment.

On 'risk management dimension', the challenge in this dimension would be to establish a strong post-COVID countermeasure which will include the issue of funding, resource allocation, resource integration, course syllabus modification, new business strategy, privacy, pedagogy and technology upskills, as well as various establishment of support units. More importantly, it must embrace the opportunity of Hybrid Student Mobility and seek greater alliances with other universities, private sector, and governmental units in order to broaden students' learning and internship experiences. HSM will also foster global and cultural diversity as well as international networking which in turns benefit the university (UNESCO IESALC, 2022). The possibility of local internships will enable the students to live closer to home, pursue further career growth locally, and consequently reduce city migrations and relief various other problems that come with an aging society.

By stakeholders, the greatest challenge for the executives would be to establish a clear short and long-term business strategy, problem identification, and policy formulation which incorporates all-level bottom-up participation from all stakeholders. It must create the right brand community to enhance customers' loyalty and preserve traditional product image that must be transferred into an online

platform. It must seek greater opportunity in an online market and encapsulate wider audiences for the business survival, regardless of geographical area, but with careful consideration of inclusiveness and accessibility issue. They must provide a strong technological, pedagogical, and mental support unit for all stakeholders in particularly the educators and the students. Those services must be accessibility online and on-campus.

It must foster stronger collaboration, not only with stakeholders, but also with other universities in and outside the country to enhance future students' virtual mobility. It must seek to ensure data privacy of the institutions, educators, and the students in case of cyberattacks or copyright and materials infringement. It must also establish an expert legal team to provide free and effective legal recommendations to those in need. Moreover, it must seek to provide continuous support, value stakeholders' feedback, and conduct continuous training and evaluation to upskill and reskill their employees in line with their business directions. Lastly, it must seek to reduce organisational bureaucracy and process redundancy, encourage paperless work-environment, and learners-center society.

The challenge for the Educators would be to keep up with the fast-change technology and become adaptive to the new learning environment. They must embrace new technologies, prepare to upskill, and go beyond their traditional beliefs. They can no longer do routine work as lectures should be delivered participatively with ultimate focus on engagement and two-way interaction. Communication must be multi-directional as class must enable learners to interact freely. Classroom should be an open space with equal power between participators and facilitator. Learning materials will be limitless and give less focus on latent tools such as PowerPoint presentations. Learning materials and technology chose for a blended learning class must also be selected based on inclusiveness and equal accessibility.

The challenge for the students would be to embrace this new learning environment, and accept the change that this new-normal world had brought forward. Technological skills and people skills must go hand-in-hand. Students must be prepared for self-study, become more opinionate, less preserved, more participative, and accept changes.

The opportunity here goes beyond the new business opportunity. It goes beyond the opportunity for the university to broaden their reputations in an online platform, an ability to develop pedagogical continuity, to create meaningful social experience, to deliver greatest technology, or to provide effective risk management countermeasure.

The greatest opportunity of all for the university, however, is the potential to deliver a resilient education and an ability to create a new generation of human capital that is a resilient learner who is highly adaptive, flexible, technological savvy; who employs a multi-facet people skills that operates ethically on a local and global scale; who are highly collaborative and participative; who are not scared to be culturally reserved but also opinionated, who portrays great concerns for issues beyond themselves and learns unconditionally; and who lives up to their potential but with mindful inclusiveness of diversities.

Section 3: What are some policy recommendations that could help shape pedagogical continuity in the post-pandemic world?

Objective 3: Provide policy recommendation model for the higher education institutions during the post-pandemic.

Policy recommendation can help institutions better understand their problems and formulate strategies that would accurately respond to the needs of their stakeholders. This research, in particular, can help the universities establish a strong agenda-setting ground in preparation for the policy formulation process. Agenda-setting is one of the most crucial stages of public policy. It allows knowledge and information exchange to take place through discussions and negotiations among stakeholders. A thoroughly validated agenda-setting will foster accurate representation and interpretations of event whilst enabling series of debatable public discussion and persuasion.

The effectiveness of policy formulation depends on the quality of its agenda-setting. Once stakeholders identify, consider, make decision in regard to the issues through agenda-setting, policy makers could use this information to facilitate policy which correctly respond to the needs of each agency. As an academic institution, university can deliver these feedbacks to The Ministry of Higher Education, Science, Research and Innovation for future policy makings.

Upon analysis, it was found that there are many other viable factors to the establishment of resilient education. Through the manifestation of pedagogical continuity, Higher Education institutions should aim to create resilient learners as we are evolving towards a new equilibrium. To achieve resilient education, higher education must aim to establish pedagogical continuity, technology advancement, positive social experiences and brand community, as well as work collaboratively with government policy, facilitate academic and non-academic alliances, and operate in an open environment which necessitates continuing risk management strategy.

Some policy recommendations reflected by the research analysis includes:

1. Pedagogical dimension: establish a learner-center blended learning space and improve course syllabus. Place emphasis on the benefits of digital technology in terms of its lucidity, paperless nature, flexibility, independency, networking, and interactivity. Always upskill and reskill. Most importantly, the universities must place 'inclusiveness' in the center of a policy making agenda.

2. Technological dimension: establish an interactive learning platform with consideration of inclusiveness, accessibility, diversity, data privacy, ethics, copyright and infringement, and associated legalities. Make free open-source technologies in order to promote greater accessibility.

3. Social dimension and brand community: create short-term and long-term engagement and nurture positive climates between customer-product, customer-brand, customer-institution, and customer-customer. Students Affairs must be delivered online with regard to the preservation of traditional university image. Acknowledge and integrate emotional and social learning into the curriculum.

4. Alliances and integration: encourage Hybrid Student Mobility and foster strong multidimensional network collaborations between universities in and outside the countries, between various institutions such as the private, governmental, and not-for-profit organisations.

5. Environment and risk management: be sustainable, be adaptive to changes, live in an open environment and observe the surrounding eco-system. Reserve funding and employ resource integration technique. Establish technological, pedagogical, legal, and mental support units. Consider Nudge theory

to establish an emergency operation plan through collaborations. Always transparent and open for bottom-up evaluation.

6. Government policy: be wary of government policy. Be a social facilitator and an active participator which encourages the government to hear the voices of other agencies whether it is the academic institution, the private institution, the media, or the people.

Other than the following aspects, the universities who operated under the same area could work collaboratively to initiate place-based policy which they can plan on together. With similar geographical and socio-economic background, place-based policy can help solve issues that are interwoven specifically to the universities' local territory. Place-based policy allow policy makers to determine socio-economic, environmental dimension, and limitations of the location, because the institutions of similar locations are more likely to encounter similar technical and implementation barriers. Mapping these limitations together can facilitate knowledge exchange, promote helpful relationship, and help conserve university resources.

Additionally, the following is a policy recommendation model we proposed:
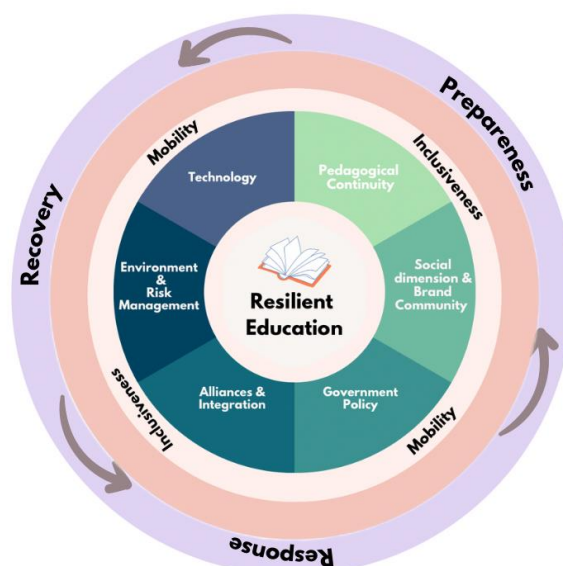
Resilient Education Model for Higher Education Institutions

With 'inclusiveness' and 'mobility' as the key to achieving this equilibrium, the university should aim to facilitate resilient education through pedagogical continuity, technology advancement, positive social experiences and brand community, as well as work collaboratively with government policy, facilitate academic and non-academic alliances, and operate in an open environment which necessitates continuing risk management strategy. Keeping in mind that the university operates in an open eco-system, it must also be prepared for external risks because resilient education requires adaptability and quick responses to incur swift recovery.

Recommendations

Some research recommendations are to:

1. Conduct a mixed method research which comprises of qualitative and quantitative data.

2. Conduct a qualitative research using wider samples from different universities who operate in different regions of Thailand.

3. Use in-depth interviews as the main data collection tool to avoid peer pressure in focus-group interviews.

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