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**Applying quality standards
to strengthen blended and distance learning program**

Content proposal for a Policy Brief

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The Effects of the Pandemic on Higher University Education:

1.1. Have university closures been universal?

No event has ever had a disruptive effect of the magnitude of the COVID-19 pandemic. Although nearly all higher education institutions (HEIs) were temporarily closed to protect public health, the impact of such a measure will have repercussions in the short and long term. In this sense, the closure of academic activities worsens the preexisting gaps in the sector and has implications for equitable access, student continuity, and the quality of teaching and learning processes.

1.2. Have technological solutions been sought everywhere to sustain the pedagogical continuity on a global scale?

The aim of public policies globally has been to ensure the continuity of higher education through alternative access methods such as the virtual modality. In order to facilitate the implementation of this solution, governments have focused mostly on these three aspects:

- The implementation of technological resources such as virtual platforms and the reduction of digital gaps to provide a minimum level of infrastructure
- Training in digital competencies for teachers generally accustomed to delivering face-to-face classes and, therefore, not prepared for a change in the teaching modality, and
- Solutions to challenges related to the virtualization of pedagogical contents.

1.3. Which have been the main challenges in terms of quality and equity?

Quality

There is a general perception that the transition from learning in person to distance learning results in a loss in quality. This situation is to a great extent due to the following factors:

- HEIs were forced to abruptly adapt to virtual education when most universities had no previous experience in this modality.
- HEIs have tried to replicate face-to-face teaching methodologies and experiences in virtual classrooms, without considering the dynamics commonly used in virtual learning environments (Kulinski & Cobo, 2020; Hodges et. al., 2020).
- The absence of campus-related experiences may have caused the disappointment of students. Interactions among peers taking place on a physical campus cannot be transferred to a virtual classroom or substituted by videoconference tools.
- Courses of a practical nature or with lab components have been particularly compromised due to the complexity of adapting them to a virtual classroom.

Equity

Remote education may have implications in terms of equity as it disproportionately affects vulnerable students. For this reason, the principles of ensuring the right to education and not

leaving any student behind should be the compass that guides public policies. The following facts should be considered to avoid an increase in dropouts.

- The digital gap has worsened in vulnerable populations. At the regional level, it is estimated that only 45% of the population has internet access at home (UNESCO, 2020).
- Videoconference classes require a high data or bandwidth capacity, which constitutes a barrier for low-income students.
- Vulnerable students often have less digital competence, and as a result, may have greater difficulty in adapting to a virtual modality.
- Impoverished students will be particularly affected by the economic contraction as it exacerbates their financial situation.
- The cost of opportunities associated with higher education is increasing.

1.4. Which are the most important achievements?

Although it is still too early to assess the achievements of the measures implemented by HEIs to deal with the pandemic, the following are some of the advances made:

- The immediate effect is the beginning of a digital transformation in higher education globally. The role of technological developments has become more relevant when compared to the months prior to the COVID-19 crisis.
- As shown in Figure 1, the most HEIs have put their faith in the virtual modality to ensure the continuity of the educational service.
- A survey conducted by the European Association for the Internationalization of Education (EAIE) shows that 13.7% of HEIs indicate that sharing the strategies used by other institutions would be of great use in dealing with the situation (Rumbley, 2020).
- Increase in partnerships between universities and online program managers (OPX) to expedite the transition towards virtual teaching. During the first half of 2020, an increase of 85 new Public-Private alliances between universities and OPXs was recorded (HolonIQ, 2020), demonstrating a boost in that sector's growth in the face of the pandemic.

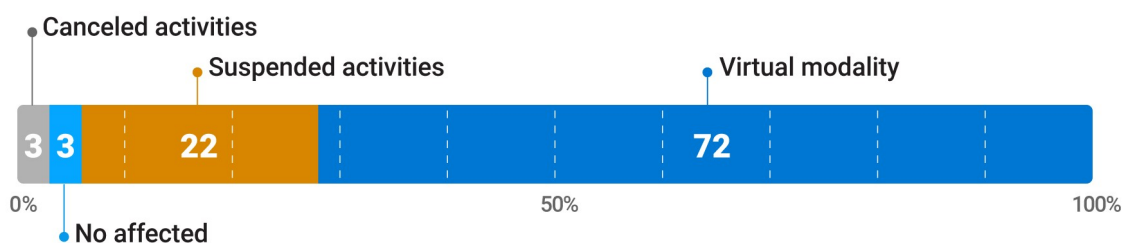
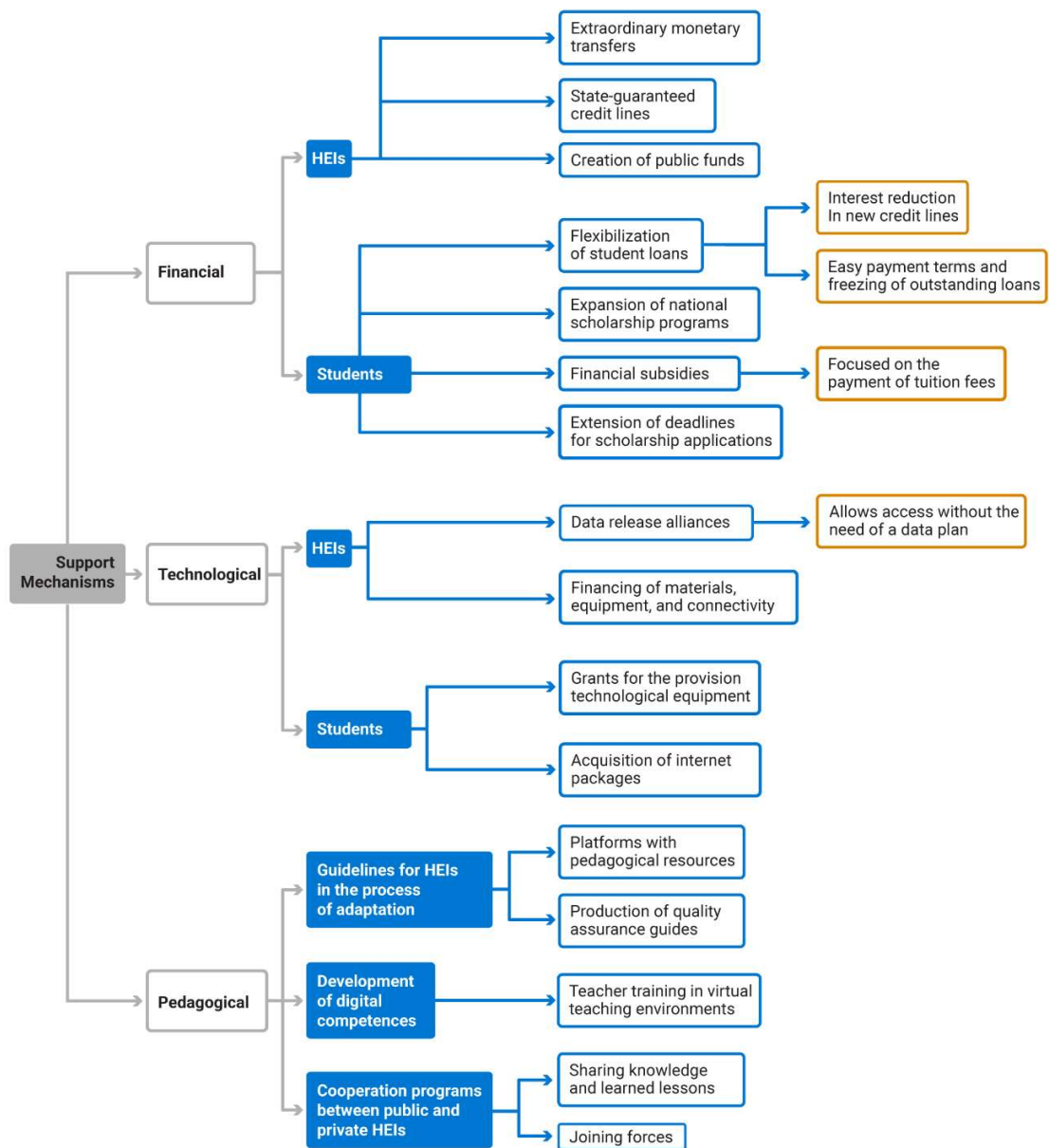


FIGURE 1: HEI situation status May 2020

Source: International Association of Universities

2. Guidelines and Support Mechanisms:



Source: Compiled by the author

2.1. Financial components: What volume of public resources were committed to mitigate the effects of the pandemic on universities?

The lockdown, which was necessary to prevent COVID-19 from spreading, has triggered an economic crisis leading to a reduced demand for higher education and increased risk associated with school interruptions. In order to mitigate this impact, HEIs received extraordinary transfers of resources, and students benefited from measures that involved a

more flexible payment of arrears in fees and the extension of deadlines for scholarships and student loan applications.

HEIs:

- Through programs such as *Unidos por Colombia* and *FOGAPE-COVID* (Chile), the governments of those countries provided state-guaranteed lines of credit to mitigate the impact on the sector.
- In Mexico, the Support Fund for the Provision of Financial Relief and Solutions to Structural Problems of State Public Universities was implemented, whereby the institutions have access to public resources to attenuate the impact of the pandemic.

Students:

- An extension of deadlines for scholarship and student loan applications was implemented in Chile.
- In Colombia, a flexible student loan payment facility, under the “Temporary Aid Plan”, was accessed by over 101 thousand higher education students.
- The Colombian Government provided US\$ 30 million for the “Solidary Education Fund”, whereby monetary subsidies are granted to cover vulnerable students’ tuition fees in public universities.

2.2. Technological components: How have universities been supported in terms of connectivity, technological resources, or applications? Are there any national support programs available?

Several actions have been taken to provide technological resources for both HEIs and students in order to reduce the preexisting digital gaps and ensure academic continuity.

HEIs:

- The Ministry of Education of Argentina undertook a program in alliance with the main local cellular telephone companies for the release of mobile data in the websites of the 57 national universities.

Students:

- Initiatives such as the “Laptop Scholarship” program of the University of the Republic in Uruguay or the “*Tu PC para Estudiar*” fund of the National University of la Plata in Argentina were implemented to provide the student community with technological resources.
- “Technology grants”, distributed according to the socioeconomic conditions of the students, provide the technological devices required for remote education.
- Funds are provided for the acquisition of internet packages to ensure connectivity.

2.3. Pedagogical components: What guidelines or requirements have been developed for the universities?

- In light of the lack of experience in virtual environments, Brazil, Chile, and Panama undertook pedagogical training mechanisms to facilitate the adaptation of teachers.
- Colombia addressed the pedagogical component with a regulatory framework focused on academic activities and the use of technology. Within this framework, strategies aimed at promoting the collaborative work between public and private HEIs were executed.
- Quality agencies such as TEQSA (Australia) and QAA (United Kingdom) have facilitated the transition to distance education by providing orientation and guidelines to HEIs. These are described in detail in the full document.
- In addition to the guidelines, TEQSA has launched a space on its [webpage](#) called “Online Learning Good Practice”. This platform provides a wide range of resources such as webinars, blogs, academic articles, guides, case studies, etc. for orientation purposes.

2.4. Are there programs intended to develop the capabilities of universities and further the skills of teaching staff to ensure the quality of the service?

- Teachers were not prepared for a paradigm change. Apart from the competency gap, adapting to the new modality requires more class planning time and renders student follow-up more difficult (ECLAC-UNESCO, 2020). An action plan has been prepared to support teachers with pedagogical resources and training.
- In the region, 14 countries have provided training courses to further the skills of teaching staff and promote the use of ICT tools (ECLAC-UNESCO, 2020).
- A noteworthy experience is the “COVID-19 Educational Plan” undertaken by the Ecuadorian government. In coordination with institutions such as the International University of La Rioja (UNIR) in Spain, the Ministry of Education was able to enroll over 120,000 teachers in training programs.
- Although the results of the last survey conducted by TALIS (OECD, 2019) show that a high percentage of instructors had formal training in ICT tools for teaching (Figure 2), they claim that one of their greatest needs is precisely access to such training courses.

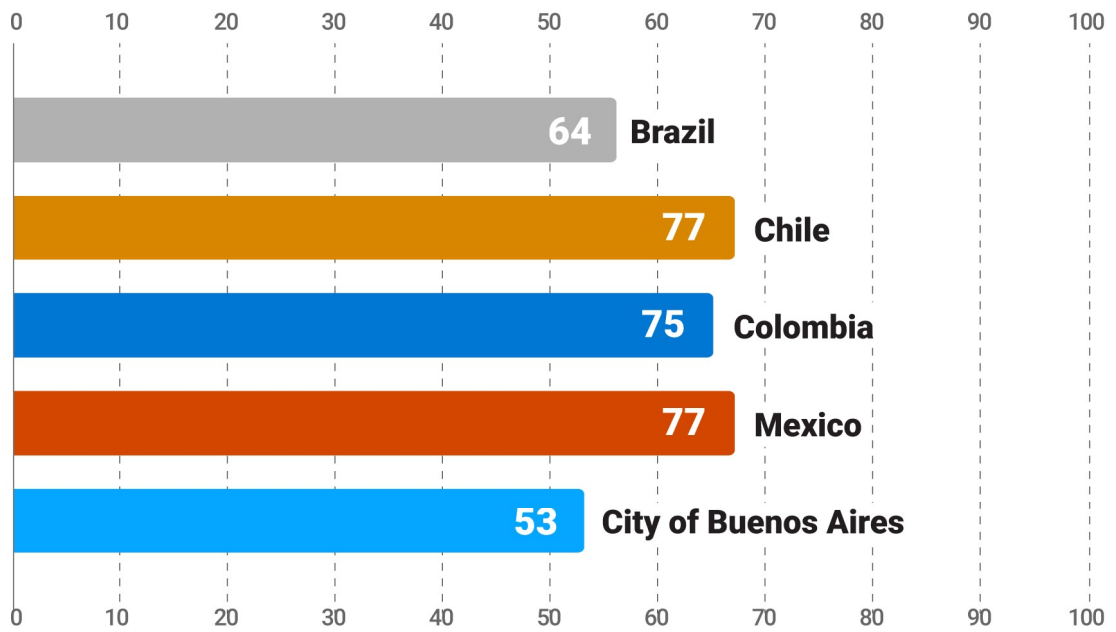


FIGURE 2: Percentage of teachers trained to use ICT tools

Source: OCDE 2019, TALIS 2018 (Volume I). Teachers and School Leaders as Lifelong Learners

3. Quality Assurance during the Pandemic:

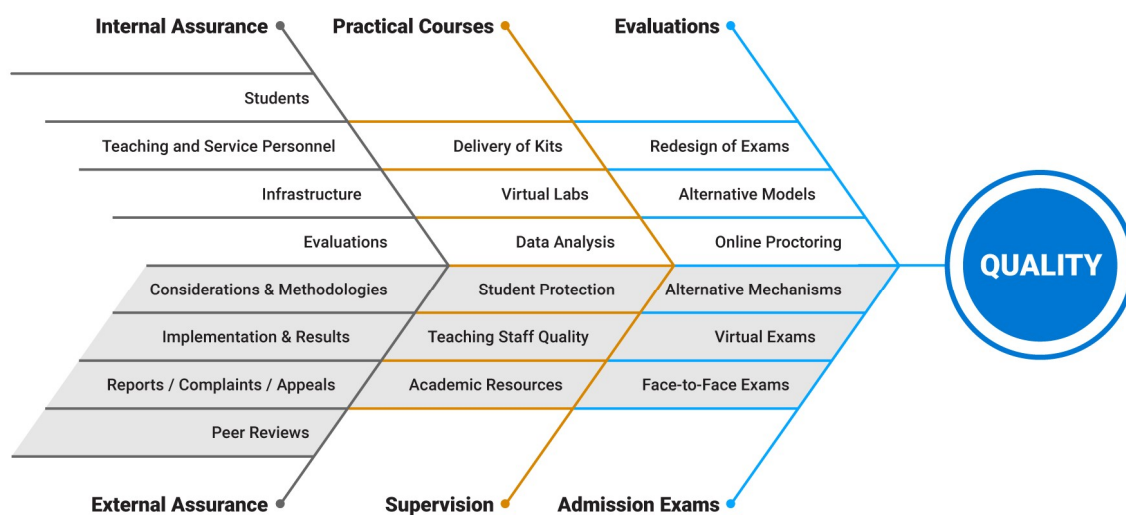


FIGURE 3: Key Elements in the Quality Assurance Process

Source: Compiled by the author

3.1. How has quality been monitored in the transition to Emergency Remote Education at institutional and national levels?

Quality agencies have assumed a central role in facilitating the transition to distance education. Some of them suggest that external quality assurance assessments be more flexible. The focus should be placed on monitoring the protection of students and ensuring the quality of teaching staff and academic resources (ANECA, 2020).

HEIs should capitalize on the progress made in technological innovation and include a greater number of virtual courses in their curriculum, for which internal quality assurance strategies will be necessary. For the purpose of standardization, the Organization of Ibero-American States for Education, Science, and Culture (OEI, 2020) prepared guidelines, which contains four dimensions for self-assessment by HEIs of the quality of their distance education program:

- **Students:** HEIs should have a well-defined profile of their students in order to intervene in cases where the reinforcement of digital competence may be necessary, provide access to connectivity and technological devices, or adapt teaching processes for students with disabilities. HEIs should also provide learning resources, such as online libraries, and enhance tutoring and communication mechanisms.
- **Academic and support staff:** HEIs should have a continuous training plan for both teachers and support staff responsible for providing follow-up and accompaniment of students throughout their period of studies.

- **Evaluation:** HEIs should implement mechanisms to verify the authorship of tests and measure learning outcomes.
- **Infrastructure:** To ensure operational continuity, the guide provides key performance indicators (KPIs) such as the number of warning messages issued when the technological equipment is operating poorly, the percentage of warning messages with responses, response times, disaster recovery protocols, etc.

3.2. What strategies have been implemented or what actions have been taken to organize non-virtualizable activities (workshops, labs, etc.)?

The health emergency has greatly affected the courses that rely on physical spaces, such as laboratories, as their virtualization process is more complex than mainly theoretical courses (Elhaty et al., 2020). However, some alternatives allow students to develop practical abilities and achieve the learning results of in-person courses within a virtual environment.

- Some HEIs in the United States are mailing lab kits to their students' homes in order for them to conduct experiments remotely. This strategy poses a challenge for large classes and institutions with limited resources due to the high cost of kits and the logistics.
- **Online simulations and labs:** The use of online simulation and lab mechanisms has increased since the virtual environment allows most activities that would otherwise be carried out in an actual lab.
- **Data analysis:** This option involves adapting the learning objectives and upgrading the data analytics component (Fox et al., 2020). In this scenario, students can receive experiment measurements and be asked to analyze the database of a scientific publication or even review sets of open data, e.g. information on the evolution of COVID-19.

3.3. How have the evaluation and examination issues been addressed?

Distance education has raised concern over the possible increase of academic dishonesty and difficulties related to the effective measurement of learning results. Nevertheless, it has promoted good practices that differ from conventional examinations focused on the repetition of concepts. In light of this, a report issued by the OECD (2020) mentions the following strategies as good international practices:

- **Redesign of exams:** It is possible to reduce academic dishonesty by implementing "open book" examinations using open questions to assess whether the student has the necessary skills to apply the theoretical concepts. As for limiting interactions between students, some practices include the design of exams with various sets of questions and strict time limits, increasing the opportunity cost of dishonest behaviors.

- **New assessment models:** The substitution of exams for assessments focused on developing an original product is common in online courses. The production of essays, projects focused on case studies, research assignments, presentations, etc., are some of the tools used to redesign the assessment process. Although these tools focus on evaluating skills, most of them are still susceptible to plagiarism and involve a substantially higher work load for teachers.
- **Online proctoring:** Online proctoring instruments allow for the prevention of identity theft and the mitigation of the risk of plagiarism through facial recognition and surveillance.

Admission Exams

Although Figure 3 shows that 69% of HEIs have maintained their admission exams, most of them have been postponed until mechanisms for the safe conduct of exams have been identified. In those cases in which admission exams have been canceled, the institutions are awaiting answers from the national authorities or have implemented alternative evaluation methods.

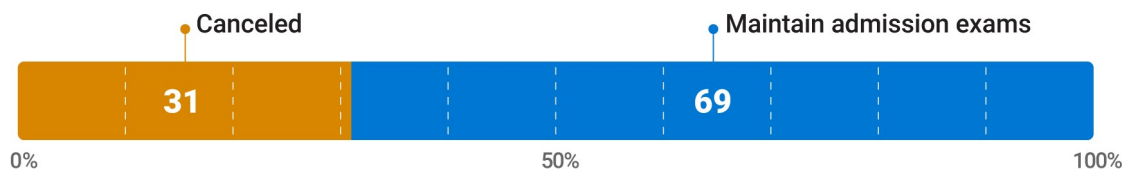


FIGURE 4: Admission exam status

Fuente: UNITWIN-UNESCO, 2020

- **Face-to-face exams:** There are cases where exams are all done in person, e.g. the “Suneung” in South Korea. The government rolled out a prevention plan with measures that included i) the increase of venues by 50%, ii) the sanitation of 31 thousand classrooms and tables equipped with acrylic shields, iii) temperature measurements at entrances, open windows, and the mandatory use of face masks, iv) a free PCR testing program for all students up to the day before the exam, v) the supply of separate classrooms for those who show symptoms on the day of the exam, and vi) setting up spaces in hospitals and special centers for students infected with COVID-19 or in quarantine.
- **Virtual exams:** Some institutions like the Monterrey Institute of Technology (Mexico), have adapted their admission exam to a completely virtual format, but this path is highly complex as it requires online proctoring tools and has implications in terms of equitable access. This is possible only where this technology and the necessary skills are available. Another example to be followed is the “Exame Nacional do Ensino Médio” (Brazil), delivered in a hybrid format, which allows students to decide whether to take the exam in person or virtually.

- **Alternative mechanisms:** In some cases, innovative formulas have been used to evaluate students in their transition to higher education. In England, the grades obtained in high-school were used as predictors of the results expected in the exam. The use of grades as predictors of the performance in an exam is common in the State of Texas (USA), and recently this method has gained popularity in countries like Chile for its highly predictive power (UNESCO, 2020).

4. The Return to a Face-to-Face Modality:

4.1. How has the total or partial return to classrooms begun?

Although the return to face-to-face education comes with a high degree of uncertainty, UNESCO (2020) recommends initiating, as soon as possible, the planning process for reopening schools, and also points out four principles that should guide national policies:

- **Ensuring the right to higher education:** Governments should work on develop a normative framework that respects the autonomy of the university, ensures equal opportunities and provides proper biosafety conditions.
- **Do not leave any student behind:** The temporary closure of HEIs widens the preexisting gaps. The transition to online education disproportionately affects the most vulnerable populations.
- **Agreement mechanisms:** Governments and HEIs must work together to strengthen the sector's resilience and agree on responses to the crisis.
- **Redesigning teaching and learning processes:** During the closure of face-to-face activities, important advances were achieved with the use of technological tools. The reopening of HEIs should be a milestone, capitalizing on learned lessons, promoting blended alternatives and enhancing pedagogical innovations.

Once HEIs have ensured pedagogical continuity, they will be able to focus on planning for school reopening and restructure their teaching and learning processes (UNESCO, 2020). International experiences provide processes and good practices focused on mitigating the risk of new outbreaks associated with the return to face-to-face classes.

- **Nerve Centers:** The pandemic has a disruptive and changing dynamic. It is necessary to ensure good planning and expedite response times at HEIs preparing for the return to face-to-face classes. In order to adapt to crisis environments, universities in the United States usually implement multidisciplinary committees or integrated "nerve centers" (Illanes, Sarakatsannis & Mendy, 2020). Although each university is a world in itself, these committees should comprise work teams specialized in executing health policies, setting up protocols for faster decision-making, implementing monitoring and data collection systems, university campus operations, and finance and communication strategies.

- **Massive testing programs:** Environments should create biosafety to achieve the successful reopening of schools. A recurrent practice in universities that have begun this process is implementing massive testing programs to identify positive COVID-19 cases rapidly. The test can be done randomly or on those who request it. In addition, mandatory testing programs can be implemented where routine testing is required throughout the academic cycle (Walke et al., 2020).
- **Contact tracing and isolation protocols:** it is essential that massive testing be complemented with clear protocols that allow isolating any academic community member who have tested positive for COVID-19, and track anyone who has been in close contact with these persons.
- **Preventive sanitary measures:** The reopening of schools should be accompanied by preventive sanitary measures that reduce the risk of infection. In addition to the above-mentioned massive testing, contact tracing, and isolation strategies, the Center for Disease Control and Prevention (CDC) highlights the following measures
 - **Use of face masks and hand-washing:** Wearing face masks must be mandatory, and the availability of hand sanitizers must be ensured.
 - **Social distancing:** Ensuring appropriate physical distancing of 6 feet (1.8m) in classrooms definitely results in splitting up groups and schedules as classes are physically attended by fewer students in large-sized classrooms. The CDC recommendations stress the importance of social distancing, but do not include classroom capacity reduction strategies. A simulation conducted by the California Institute of Technology (Caltech, 2020) showed that when the 6-foot distance strategy is applied, a conference room with a capacity for 149 students can only hold 16 students (11% of the capacity).
 - **Ventilation:** Improvement of air circulation. Keeping doors and windows open, as well as placing fans near the windows, will increase outdoor air flow. Keeping windows open reduces the density of contaminating particles, and where there is a fan and air purifier, the exposure is reduced considerably.
 - **Consistent disinfection and cleaning:** Cleaning and disinfecting facilities consistently is of utter importance, especially high-contact surfaces (doorknobs, sink faucets, tables, equipment, etc.).

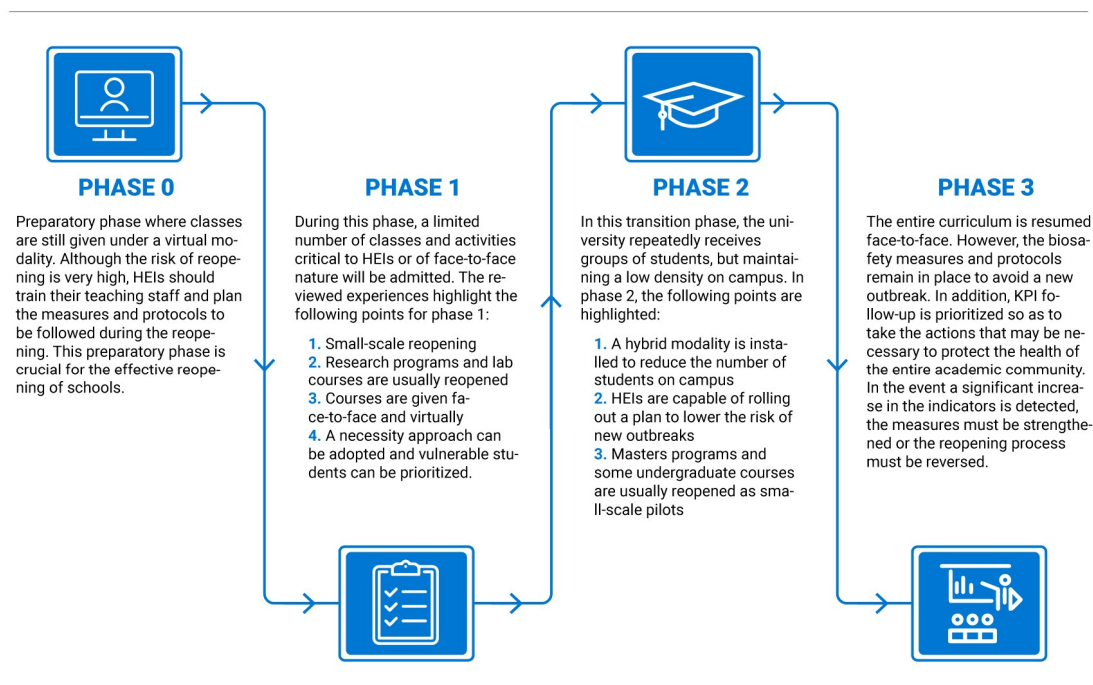
4.2. What are the minimum criteria for the return to classrooms?

According to an international consensus, the reopening of university campuses should be gradual. From a health point of view, the CDC (2020) suggests a three-phase strategy, in which six indicators linked to the health system and the progress of COVID-19 are assessed. HEIs should consider meeting a near-zero incidence or a descending curve in the following criteria during a period of 14 days in order to begin the reopening process and advance along the different phases:

- New documented cases
- Emergency and/or outpatient cases of diseases similar to COVID.
- Emergencies and/or external consultations for diseases similar to the flu

- Percentage of positive SARS-CoV-2 testing
- Installed capacity: Sufficient health personnel and available personal protection supplies for more than 4 days (phases 1 and 2) and 15 days (phase 3); ICU beds availability of at least 80, 75, and 70 percent (phases 1, 2, and 3).
- Robust testing programs: Availability of tests ensuring a global percentage of positive testing of less than a 20, 15, and 10 percent (phases 1, 2, and 3).

A strict follow-up on the 6 Health criteria should be carried out at all times in order to authorize face-to-face activities despite the fact that the CDC protocol does not describe the implications of each phase for HEIs. Proposals from a number of institutions such as McKinsey & Company (2020), Kellogg Community College, Vanderbilt University, and the recommendations issued by the State of Connecticut, (2020) coincide in the characteristics described below.



Source: Compiled by the author