

Ecuadorian university 's chiaroscuro: the challenges in the context of the covid-19 pandemic

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Resumen

The Higher Education Institutions (HEI) temporarily closed its headquarters in order to make a transition from a presence-based modality to an Emergency Remote Teaching due to COVID-19 pandemic. The article's objective is to analyze the Ecuadorian case in the implementation of this modality, acknowledging it is not automatic rather it hampers the struggled context where the HEI have unsolved issues previous to the pandemic. This document focuses on a literature review and a historical approach on the transformation of Ecuador's higher education policies by taking as a starting point the first evaluation of universities of 1988 in order to determine the prevailed challenges to implement the Emergency Remote Teaching, after twenty years. The paper develops as follows: (1) First, the article describes brief characteristics of the Emergency Remote Teaching; (2) Second, the paper problematizes the unsolved structural challenges; (3) Finally, the document raises the immediate challenges of HEI in the transition to an Emergency Remote Teaching. At the end, this research concludes that the ability of HEI to adapt themselves to an Emergency Remote Teaching depends to what extent the unsolved structural challenges are sorted out.

Keywords: higher education, inequality, remote teaching.

El claroscuro de la universidad ecuatoriana: los desafíos en contextos de la pandemia de COVID-19

Abstract

Las instituciones de educación superior (IES) cerraron sus centros de estudios y transitaron de una enseñanza presencial a una modalidad remota emergente debido a la pandemia de COVID-19. El objetivo de este artículo es analizar el caso ecuatoriano en la implementación de esta modalidad de enseñanza, reconociendo que no fue automática y que se complejiza en contextos en donde las IES tienen desafíos previos a la pandemia que no han sido resueltos. Este documento realiza una revisión bibliográfica y un recorrido histórico sobre la transformación de la educación superior en Ecuador tomando como

punto de partida la primera evaluación a universidades realizada en 1988 para detectar, luego de veinte años, qué desafíos prevalecen de cara a la implementación de la enseñanza remota emergente. El documento se divide en tres partes: (1) el tránsito a la Enseñanza Remota Emergente; (2) los desafíos estructurales previos no resueltos; y (3) los desafíos inmediatos de las IES para el tránsito a la Enseñanza Remota Emergente. Finalmente, el artículo concluye que la capacidad de las IES para adaptarse a las nuevas realidades de enseñanza remota emergente dependerá de la medida en que estos desafíos estructurales previos estén resueltos.

Palabras clave: educación superior; desigualdad, enseñanza remota.

O equatoriana claro-escuro da universidade: os desafios Em contextos provocados pela pandemia de COVID-19

Resumo

As instituições de ensino superior (IES) fecharam seus centros de estudo e fizeram a transição do ensino presencial para uma modalidade remota emergente devido à pandemia COVID-19. O objetivo deste artigo é analisar o caso equatoriano na implantação dessa modalidade de ensino, reconhecendo que ela não foi automática e que se torna mais complexa em contextos onde as IES têm desafios anteriores à pandemia que não foram resolvidos. Este documento faz uma revisão bibliográfica e um percurso histórico sobre a transformação da educação superior no Equador, tomando como ponto de partida a primeira avaliação de universidades realizada em 1988 para detectar, após vinte anos, quais desafios prevalecem diante da implantação do ensino a distância emergente. O documento analisa o caso equatoriano na implementação dessa modalidade e divide-se em três partes: (1) as características do Ensino à Distância Emergente; (2) os desafios estruturais prévios que ainda não foram resolvidos; e (3) os desafios imediatos das IES para a transição ao Ensino à Distância Emergente. Por fim, o artigo conclui que a capacidade das IES para se adaptarem às novas realidades de ensino à distância emergente dependerá da medida em que os desafios estruturais prévios estejam resolvidos.

Palavras-chave: educação superior; desigualdade; ensino à distância.

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Introduction

The COVID-19 pandemic has impacted most sectors around the world, including higher education. While this is not the first time higher education institutions (HEIs) have faced an epidemic, the rapid spread of the SARS-CoV-2 virus had an unprecedented impact on the student life of some 24.3 million students and 1.4 million professors in Latin America and the Caribbean (IESALC, 2020). The pandemic entailed an immediate implementation of virtual education models, mostly unplanned, rapidly adapting

remote teaching methodologies so higher education could still be available for millions of people. Some experts refer to this process as Emergency Remote Teaching, separating it from virtual or online teaching, since the latter has its own methodology, pedagogy, and computer tools. It also has a particular way of adapting the curriculum and even targets a different audience (Hodges, *et.al.*, 2020).

Emergency Remote Teaching requires adaptations and certain conditions to be implemented, ranging from the strengthening of infrastructure, curricular and pedagogical adaptations, and even flexibility and adaptation

to institutional culture change. This transition could be more complex in contexts where HEIs drag previous problems or challenges that have not been fully resolved, even before the pandemic. The foregoing document reflects on the Ecuadorian case, analyzing the structural challenges that universities face and that complicate the transition to remote education, for example, weak management models, poor connection with the baccalaureate and the labor market, limited diversification of supply and the impossibility of increasing the number of new cohorts, difficulties in reducing inequalities and educational gaps among students (which increases university dropout rates), gender inequalities¹, and the predominance of the role of research over teaching and its impact on the students' formative process². This paper analyzes how the persistence of structural problems affects universities cross-sectionally, hindering the transition towards Emergency Remote Teaching, reproducing and deepening the inequality gaps both between universities and in the type or quality of education students receive in general. Therefore, the implementation of Emergent Remote Teaching will test the response capacity of HEIs, knowing that there are unresolved underlying determinants where the strategies for moving toward this new teaching modality will be more individualized than systemic and structural responses.

In this sense, for the purpose of analysis, the text has been divided into three parts: in the first part, the main characteristics of the transition to Emergency Remote Teaching are pointed out; in

the second part, the previous structural challenges are reviewed; and in the third part, the immediate challenges that higher education institutions in Ecuador are face with in their transition to Emergent Remote Teaching are presented. Finally, the document concludes that the implementation of the new modality will be affected to a greater or lesser extent by the previous challenges pending at the systemic and structural levels, since not having resolved them will entail dragging these problems. This, in the face of the emerging implementation and the quick adaptation, could slow down the transition to Emergency Remote Teaching, exacerbating the inequality gaps.

Transitioning to Emergency Remote Teaching

Virtual education at all levels is a modality that has been implemented for more than four decades, growing stronger with the emergence of the Internet (Brown & Adler, 2008). Since this expansion, the quality of online higher education has been increasing, even complying with the same standards as face-to-face education (Allen & Seaman, 2004). Universities that have implemented this type of modality carry out academic planning at least one year in advance, developing in detail each of the components of the courses, retention strategies, tutoring sessions, pedagogical tools, tutorials, interactive videos, synchronous or asynchronous activities, evaluations, among others. Such a structure has allowed a substantial increase in student demand, diversifying the profiles that opt for this study modality, especially in the last two decades (Greenland & Moore, 2014). This study modality has even become a powerful tool for consolidating processes of democratization and massification of higher education, still pending, especially in Latin America.

In the current context, being optimistic, the pandemic could represent an opportunity to debunk the myth that face-to-face education is of better quality par excellence and to urge higher education institutions, which must continue with their classes remotely, to reconsider the good practices of online education for this emerging implementation. However, while the virtual modality in higher education requires prior

¹ Gender violence is a pending problem in society in general that is also reproduced in university spaces. In the Ecuadorian context, universities are not free from this violence that reproduces unequal power relations between authorities, professors, staff, and students.

² In the Ecuadorian case, the substantive functions of higher education, expressed in the Organic Law of Higher Education, are three: Teaching, Research, and Liaison. In recent years, there has been a preference for strengthening the role of research over teaching. Although the first is important in the context of a knowledge-based society, given the national situation, this emphasis on research displaces the importance of teaching in general and in particular increases one of the challenges Ecuador is faced with in terms of university dropouts.

planning to structure curricula and methodology, it also demands that the student has high skills for self-regulated learning (Zimmerman, 2008).

In that regard, Emergency Remote Teaching is understood as an alternative way of transferring knowledge that is urgently needed due to the context of crisis (Hodges *et al.*, 2020). Although the current pandemic is unprecedented, there are several examples showing the implementation of remote education due to political, social, economic, and other conflicts (Davies & Bentrovato, 2011). This reveals that a common practice in this type of situation is to be creative and think outside the box. Therefore, Emergency Remoting Teaching should demand that these resources and methodologies are learned and used as authorities, professors and students adapt to virtual environments with which they were previously unfamiliar.

Emergency Remote Teaching is implemented in the region and, specifically, in Ecuador with the institutional decision of universities to continue academic activities. This does not mean that the face-to-face teaching-learning process is taking place identically on the virtual platforms, but rather that the classroom methodology is completely restructured by balancing synchronous and asynchronous activities in order to meet the learning objectives. Nor is it assumed that teaching will entirely shift to a virtual modality, since it was not conceived as such from the academic planning stage.

In this regard, higher education institutions must consider endogenous and exogenous factors as conditioning elements that will contribute to the achievement an effective transition. Some of them are listed below:

Endogenous factors: we will call endogenous factors those elements that are intrinsically part of the HEIs' activities. Their implementation will depend on the degree of adaptation and experience the institution has in previous virtual processes from the face-to-face classes: 1) Curricular redesign and adaptation, as well as syllabus adjustment that balances synchronous and asynchronous activities; 2) analysis of evaluation criteria adapted to the new modality; 3) restructuring and adjustment of teaching and learning methodologies applied to the technological resources, rethinking real-time

interaction between students and professors; 4) adaptation of students to the remote modality, which entails strengthening self-guided work and leaving behind supervision dynamics; 5) accompanying professors with training to allow for a broader range of tools for teaching and learning; 6) strengthening of the platforms' technological infrastructure, as well as the acquisition and renewal of licenses to use programs that support and enable learning; 7) Incentives and flexibility to promote collective learning among professors and students (Sepúlveda, 2020).

Some of the exogenous factors on which HEIs need to make decisions are: 1) the connectivity, accessibility, and technological equipment of citizens; 2) the socioeconomic effects on families in the context of the economic contraction resulting from the pandemic; 3) the attention or omissions by the regulatory and governing bodies for higher education policy in order to generate systemic support strategies; and 4) state decisions to deal with the pandemic.

Likewise, despite all these challenges, it has also been documented that there are advantages of remote education both in terms of satisfaction levels and fulfillment of learning objectives, since both are better rated by students than in face-to-face or blended modalities (hybrid in Ecuador) (Cabrales, 2020).

Therefore, although Emergency Remote Teaching is not a virtual modality *per se*, it will be the only way to carry on academic activities in a context of crisis. However, this implementation also implies that the previous structural inequalities may migrate to remote teaching, impacting the learning processes of students who do not have access tools, who are many, given the large digital gap in the country. The challenges this transition entails will be directly related not only to the quick and accurate response capacity of HEIs to adapt to the new circumstances, but also to how these previous problems have been solved on a structural and systematic level. Otherwise, they will only mean the replication of the same inadequacies in the emerging remote modality, even increasing the existing heterogeneity among universities and widening the gap between students who have the right to access and keep receiving quality, inclusive education with equal opportunities.

Previous structural challenges

In Ecuador, universities and polytechnic schools are heterogeneous. There are public, private, and regional universities, located both in the main cities and in smaller towns. Most of them are universities focused on teaching, but with a growing research activity, each one with different institutional logics as a result of the territorial dynamics within which they operate. Therefore, the following section will analyze the common structural challenges among the universities that have not been fully resolved and persist in different ways with varying levels and intensities. In the following section, we will point out the main structural challenges still unresolved in HEIs in Ecuador that could have an impact on, slow down, and complicate the implementation of endogenous factors and the decisions that must be made in response to the exogenous ones in order to achieve an effective transition to a remote teaching modality. For this purpose, as a starting point, we will look at the findings from the first evaluation of Ecuadorian higher education institutions to, then, make a projection up to the present—by means of a brief historical review—of the findings that have been solved. Finally the challenges that persist today in the Higher Education System in Ecuador will be identified.

Between 1980 and 1988, Ecuador conducted the first evaluation of universities. The results of this process showed structural problems that called for a redesign and renovation of university management (Higher Education Council, 2015). This report evidenced, among several difficulties, the weak articulation between the demand and supply of higher education, the overrating of a professional degree to the detriment of a technical degree, as well as the bigger focus on undergraduate programs and the poor articulation with specialized labor demands. In addition, it was shown that the programs lacked demand studies and clear graduate profiles, and that there were high levels of graduate unemployment, both open and equivalent.

Moreover, such imbalances were not approached merely from the perspective of the lack of articulation between higher education and the labor market, but also as a disarticulation between secondary and higher education, which

in part explains the high dropout rate during the first year and the presence of other inefficiency indicators in the system. This assessment showed the need to promote university dynamics based on systemic policies, overcoming the fragmentation in the university system, which leads low levels of articulation both in terms of enrollment and in terms of graduation. Among these imbalances were the excess of graduate professional supply and the low achievements in research, technical training, and the promotion of specialization programs.

Later, UNESCO (in 2006) evaluated higher education in Latin America and the Caribbean and recognized the significant progress of university reforms since 2000. In line with the UNESCO report, Ecuador was part of what Claudio Rama called the Third Reform of Higher Education in Latin America and the Caribbean, expressed in processes of massification, increased supply, feminization, regionalization, differentiation, and segmentation of the new population demanding higher education (Rama, 2006). However, there were still challenges that “are still far from signifying a fundamental transformation of higher education in the region,” since these reforms do not mention the organization of knowledge, the institutional profile, epistemological frameworks, and their translation into organizational structures such as schools or programs (Lanz, Fergusson, & Marcuzzi, 2006). In other words, the reforms in the 2000s aimed at technical adjustments that did not delve into the way of conceiving, developing, and offering higher education.

Since these evaluations, with the Organic Law of Higher Education of Ecuador (enacted in 2010), progress has been made in systemic regulation, access to higher education, new supply of undergraduate and graduate program with demand and relevance studies, the implementation of co-governance, the strengthening of substantive functions (especially research) resulting in an increase in scientific production, quality assurance, and a revaluation of tertiary education in general. On the other hand, persistent internal weaknesses in HEIs have permeated the new transformations in higher education, just to mention a few: the lack of deepening into the models of teaching, knowing,

understanding, learning; the epistemological frameworks; and the organization of knowledge that could translate into the development of a common core or broad fields of knowledge. However, and in spite of the important reforms following the findings of the first evaluation in Ecuador, these challenges persist at different levels within the public and private higher education system, as detailed below:

1. Management models

During the last years of the 2000s, Ecuador joined the group of countries in Latin America and the Caribbean that assumed the evaluation of educational academic management as a strategic part of quality assurance in higher education (Fernández Lamarra, 2012). In a report by the Organization of Ibero-American States with the Economic Commission for Latin America and the Caribbean, the strengthening of academic management of the higher education system as a whole and within HEIs was a pending task in order to achieve democratic governance and strengthening the role of universities in transforming citizenship. The document addresses, on the one hand, the strengthening of the system's governing institutions and, on the other hand, the strengthening of planning, efficient resource management, and the organization of human resources, whose effectiveness will lie in their "capacity to fully fulfill their mission, which depends on the educational quality they develop and, in turn, on how their work is organized within and in relation to their context" (ECLAC-OEI, 2004).

Thus, universities in Latin America initiated processes of profound changes in their structures, forms of organization, management, and governance. These transformations implied tensions and new forms of governance within the HEIs themselves in complex political and economic scenarios. They even coincided with a fluctuation of public resources in a context in which demand continued to grow (Landinelli, 2008). In that context, these transformations also brought internal and external power dynamics, endogamic logics, and personalistic views on the educational activity, which could have an impact on the purpose of education, which is social transformation.

These dynamics have created confusion in educational management, which leads to the fact that the processes particular to the functioning of university affect academic and research activity, creating an unresolved tension. Therefore, this disarticulation generates a false dilemma that ultimately exacerbates the disconnection between the exercise of knowledge and the preconditions or daily activities that enable it. This disconnection is reproduced because on one end there are the decision-makers, who often disregard academic activity, and, on the other end, there are the scholars who have difficulties in complying with these decisions, placing themselves above the management processes. For this reason, higher education management and academia must be reconciled, thus enabling decision-making in line with the purpose of universities and their substantive functions. In addition, the fact that universities are highly regulated entities with bureaucratic management systems slows down decision-making vis-à-vis to fulfill the work for which they were created (Ganga, Pérez, & Mancilla, 2018).

In this context, in Ecuador, the response to the management and governance of the country's universities and polytechnic schools formally translated into statutory and regulatory reforms mandated by the 2010 Organic Law of Higher Education. However, they did not necessarily solve the core problems or allow for adequate governance³, which was its objective, since their emphasis was mainly regulatory. In this sense, these reforms did not motivate a reflection process, nor did they reconfigure systemic knowledge for future learning about the educational activity within HEIs. Therefore, in recent decades, the country's higher education institutions continue to lag behind in taking qualitative leaps in management processes, since they have concentrated primarily on offering educational services and on responding immediately and reactively to the changes brought about by the

³ With the enacting of the Organic Law of Higher Education in 2010, it was stipulated that higher education institutions will adapt their functional, academic, administrative, financial, and statutory organizational structure to the new regulations.

multiple regulatory reforms.

As a result, higher education institutions in Ecuador still need institutional strengthening to respond to social demands and to the dizzying global changes in higher education trends. In some cases, even management is affected by the “loss of effectiveness of existing provisions, the persistent inability to modify them, the increasingly evident absence of collective spaces for development, and what is even more serious, the lack of scenarios at all levels in which priority issues concerning quality, equity, and relevance of learning are discussed” (International Institute for Educational Planning, 2015).

In sum, the internal power structures and the separation of educational management from academic management as unrelated, autonomous processes, are pending tasks that currently impact formative processes and that, in contexts of crisis as the current one, can increase the difficulty of institutional decision-making. UNESCO-IESALC, in the report on higher education in the contexts of the pandemic, states that “there is undoubtedly an opportunity to improve university management, making the most of teleworking and reducing the typical inefficiencies in the most outdated systems under archaic or excessively bureaucratized management models” (IESALC, 2020, p. 32).

2. Disconnection between the baccalaureate, higher education, and the labor market

The disarticulation between the basic education system and the baccalaureate, and, in turn, between the baccalaureate and higher education has been a recurrent problem for more than forty years in Ecuador. Prior to 2012, universities implemented their own access mechanisms; there was no free admission as such, but rather multiple admission processes that depended on each institution. Currently, Ecuador has a higher education access policy that has been in place for several years. It is a policy that procedurally allows a transition between secondary and higher education. However, it has not been possible to build an effective bridge between secondary education and university in at least two ways: (1) the baccalaureate graduation profile does not adjust to the admission profile expected by the universities, and (2) the

socioeconomic inequalities and the educational gaps resulting from this have not been solved.

Although there have been major improvements in educational processes at the state level, the strengthening of knowledge, skills, and aptitudes of baccalaureate students does not match the profiles required by higher education institutions, recognizing at the same time that universities have not been flexible in adapting their own processes to these heterogeneous and changing demands. Therefore, it is desirable to implement processes that strengthen the knowledge, skills, and aptitudes of baccalaureate students prior to admission and during the first stages of higher education. This calls for a two-way articulation:

Secondary education institutions should raise the baccalaureate graduation profile and universities should not idealize the admission profile. For the latter, it is necessary that HEIs recognize the baccalaureate graduation profile and propose competence strengthening strategies, if required, for an effective academic transition during the first years. In this way, the selective paradigm of universities can be overcome and an effective integration between the different educational levels can be achieved.

In addition, Ecuador has not been able to bridge the structural gaps resulting from a society with profound inequalities. Access to higher education in the country continues to be a pending issue, not only because few of the population that demands higher education are able to access it, but also because those who do access it find it difficult to stay and complete their studies. In other words, the places offered, which correspond to the fixed capacity of HEIs, do not meet the demand of those who wish to enter the higher education system. In addition, mere access to higher education may be insufficient, because when these structural gaps persist, there is a substantial impact on the permanence and graduation of those students with fewer material and symbolic resources. In this sense, Nussbaum's (2012) proposal becomes relevant in the field of higher education, as it implies capacity building as a key methodological and conceptual tool for improving educational systems. The challenge of education in general and higher education in particular is to develop and foster capabilities, which, in unequal

societies, is not only the fundamental objective, but above all, a real mechanism for creating equal opportunities.

Regarding the bridge between the university and the labor market, it is necessary to consider that technological advances and the diversification of the more traditional areas of knowledge have contributed to a diverse and heterogeneous labor market. The major industries in the future are also related to the “care for the environment and corporate social responsibility, care for the elderly, education, health, and work environment management within organizations” (Bernardo & Esteban, 2015, p. 3). This is why HEI graduate profiles are continuously disconnected with the production of knowledge and the demands of organizations, companies, and the economic development of countries (Landinelli, 2008).

Therefore, the professionals who will incorporate to society must have the following characteristics: flexible profiles that allow for continuing, lifelong learning—already proposed in other academic analyses (Villanueva, 2008), interdisciplinary knowledge to provide solutions to major global problems with a national and local perspective, and the capacity to influence the development of countries with innovative proposals. Therefore, the bridge linking secondary and higher education, and the latter with the labor market, still has a long way to go.

In pandemic contexts, this disarticulation between the baccalaureate, higher education, and the labor market is accentuated since, for the time being, universities are forced to implement contingency plans for online education and not necessarily to strengthen their policies for access and follow-up of their graduates. In fact, the crisis increases the complexity of the situation in which universities already found themselves, as they were facing “unresolved challenges such as growth without guaranteed quality, inequities in access and achievement, or the progressive loss of public funding.” (IESALC, 2020, p. 14)

3. Lack of diversification of the supply and impossibility to increase new cohorts.

Latin America has experienced a continuing growth in the gross enrollment rate in higher education. From 1950 to 2004, gross enrollment

grew 45 times, reaching 12 million students, doubling today to 24.3 million Latin American students (Fernández Lamarra, 2004; IE-SALC, 2020, p. 10). Ecuador has not been exempted from this reality, following the regional trend of increasing demand for access to higher education that is caused by at least the following reasons: demographic effect, expectation of upward social mobility through professional training, and an increase in undergraduate rates (Aponte-Hernández, 2008).

Faced with this reality, the Ecuadorian higher education system has had heterogeneous responses to expand and diversify its academic supply, understanding diversification by level of studies, areas of knowledge, and geographic location. The data show that there is a high concentration of higher education supply at the undergraduate level, in traditional areas of knowledge, and in certain areas in the cities of Quito and Guayaquil. Eighty percent of the current supply is at the tertiary level, and the number of undergraduate programs in the higher education system decreased between 2017 and 2018 by approximately 500 programs. Three areas of knowledge (social sciences, business education and law; engineering, industry, and construction; and services) account for 47% of the total current supply of undergraduate programs in Ecuador. More than half of the current supply of third level programs is concentrated in Quito and Guayaquil (SENESCYT, 2018).

Nevertheless, in retrospect, there was an expansion of public supply, a change in access conditions, and a sustained growth in the supply from private universities, which as a whole diversified options and modalities, adjusting to the new training needs and expectations of baccalaureate graduates and their families. However, it is still a pending task for Ecuadorian higher education institutions to diversify their supply according to new global trends and national needs in other areas of knowledge, to increase in a structured manner the number of undergraduate programs in high demand, and to reorganize low-demand programs—including the strengthening of interdisciplinary and specialized graduate programs—in addition to seeking public and private funding for the creation of programs

in cities and provinces with limited supply.

Although there is a diversification in the supply of programs that targets the new demands, and there are more and more programs related to the development of ICTs and environmental care, there is still a serious problem with young people seeking to enroll in traditional programs with high demand, but saturated with professionals in the market. Therefore, it is necessary to insist that disciplinary and professional training is not sufficient to cover social demand. Therefore, it is important to restructure curricula in a comprehensive manner, fostering new thinking and praxis capabilities to generate relevant knowledge that adjusts to our reality, which would also translate into the supply of new disciplines or university programs in different modalities (Landinelli, 2008).

Consequently, the diversification of the supply in the higher education system is a goal towards which the institutions that comprise it have taken important, but not sufficient, steps. In addition, the pandemic coincided with a time when Ecuador was promoting distance education, where “various activities were being developed in this country’s HEIs to modernize technological resources and increase the program supply in this modality” (IESALC, 2020, p. 33). However, at the time of facing the crisis, these advances have not been enough to mitigate the adaptations that involved implementing Emerging Remote Education with contingency plans in Ecuadorian HEIs. In this sense, there have been many confusions and improvisations, and administrative staff, professors, and students have struggled to implement online learning in a broad and effective manner, proving that “the transition to this modality requires effective learning management systems, video-education and conference facilities, and academic staff with experience in distance education” (Alcántara Santuario, 2020), which is still a pending task in Ecuador in the face of the diversification of modalities and supply.

4. Difficulties in reducing inequalities and educational gaps among students, influencing university dropout rates.

According to the 2019 Economic Commission for Latin America and the Caribbean, 30.8% of

Latin Americans are poor and 11.5% are extremely poor (CEPAL, 2019). Ecuador is not exempt from this reality, where the poverty rate is 25.5% and the extreme poverty rate is 9.5% (INEC, 2019). Universities and polytechnic schools are not isolated from this social, economic, and political reality. The communities within universities reflect the structural inequalities faced by society, and such inequalities and social asymmetries cannot be excluded from the debate concerning higher education, given that higher education is conceived as a tool for closing inequality gaps.

Undoubtedly, Ecuador has made significant progress in access processes, coverage, quality, regulation, among others. However, some problems persist, such as retention, accompaniment, academic performance, graduation, curricular adaptations, and labor integration (Aponte-Hernández, 2008). Therefore, equity as a way to build equal opportunities becomes relevant and cross-sections issues such as access, retention and successful graduation, coverage, diversification of supply and connection with the productive and labor sector.

For this reason, it is necessary to promote educational inclusion policies that are not limited to access to higher education, but that accompany students all along their educational path until they actually graduate. In this way, drop-outs can be avoided, especially in the first years and among those populations historically lagging behind that are more vulnerable to accessing, continuing, and completing university. Considering “inclusion processes under conditions of inequity leads to increasing grade repetition, drop-outs, and low knowledge and competence acquisition” that will have an immediate impact on labor market integration and, ultimately, on the improvement of the quality of life of those who access higher education (Aponte-Hernández, 2008, pp. 133-134).

In addition to this, socioeconomic inequality is aggravated by the digital gap in the region and in the country. In Latin America, according to data from the Inter-American Development Bank, 44% of households have internet access, while in Ecuador the latest data from the National Institute of Statistics and Census indicates that 37.2% of households have internet access, with the gap widening in rural sectors, where it is barely

16.1%. (Prats Cabrera & Puig Garrabó, 2017; INEC, 2019). In other words, not only are the situations of structural inequality with which people access higher education a limiting factor, but also the technological tools necessary for the study process are also a pending task.

Studies on the quality of academic management, as well as student performance, including the development of strategies to prevent dropout and its relationship with welfare approaches, have grown in recent years. As a reference, a 2017 World Bank study indicates that approximately 50% of students in Latin America who entered higher education at some point did not complete their studies (Ferreyra *et al.*, 2017). In the same study, for Ecuador the figures range between 35% and 40%.

Student desertion in Ecuador has had little attention from academia, thus becoming an unresolved problem that affects time investment and the economic resources of students and the state, and that, in short, weakens the role and objective of universities as agents for social transformation. The few studies that address dropout recognize that there are determining factors among which economic factors, vocational orientation, sociability, previous educational gaps, and lack of study habits stand out (Donoso *et al.*, 2010; Villanueva, 2008). To this we could add the triggering factors of cultural and social capital of those who enter the higher education system, since "the substantial increase in enrollment among previously relegated groups has led to the inclusion of sectors among which there is a significant number of people with disadvantaged cultural capital, difficulties in their academic background, and relatively more uncertain future expectations" (Landinelli, 2008, p. 160).

The dimension of equity and inclusion in the context of the pandemic, notes Brown and Salmi (2020, p. 1), "has shown, again, that students from the most vulnerable groups have been the most affected (...) A large number of students from poor families have had enormous difficulties in terms of housing and access to medical services, as well as economic problems as their expenses have increased due to the unexpected change in their school situation. In some cases, a considerable number of university students face the risk of dropping out of school due to economic

difficulties."

Also, many of these students "have limited internet access and low broadband capacity, so their online learning opportunities are likely to be limited, especially in rural areas. Not only a significant number of low-income students, but even some teachers lack computers or tablets" (Alcántara Santuario, 2020, p. 78).

5. Substantive functions: teaching and research.

It is necessary to recognize Ecuador's significant progress in terms of scientific production: between 2006 and 2015, the number of high-impact research projects increased fivefold (Castillo & Powell, 2019). Then, the strengthening of research activity undoubtedly contributed to the country's transition towards a higher education that also generates and contributes to a knowledge-based society. However, this had as an undesired consequence: a dispute between teaching and research, causing the former to be relegated.

HEIs in Ecuador have strengthened the research component as a result of the important visibility that this substantive function has had in regulatory frameworks, including quality assessment models. This is correct to the extent that research does not refer to a discipline, nor does it respond to individual or corporate interests. In the words of Didriksson (2008), "strategic research responds to short-, medium-, and long-term interests. It is basic, applied, or experimental, but depends on the establishment of national, social, or specific priorities that contemplate a solution related to a context or to problems, and it is inter and transdisciplinary" (p. 36).

Although it is necessary to recognize its impact, it is paradoxical that teaching is a subordinated activity in contexts where student dropout rates are high and the social needs for access, permanence, and graduation are still weak among the poorest sectors. Therefore, it is necessary to revalue the role of teacher training inasmuch as it can be applied to the daily didactic practice, which has been subordinated to other substantive functions, such as research in recent years in the country. The latter, as stated in the LOES, is in the core of the higher education process, but inasmuch as it sustains teaching.

In this sense, it is urgent to revalue the teaching-learning process exercised by faculty, where research nurtures teaching. Teaching staff can have an important impact on research, however, if they do not bring this knowledge to the classroom, it would not serve its purpose. In this sense, it is important to remember that one of the roles of higher education is also to train professionals for the development of the country, as well as to generate knowledge that proposes solutions to different problems of society. Both objectives do not compete with each other, but rather complement each other.

However, it is important to recognize the role of universities in the region. They have responded to the pandemic with research projects “to support government efforts in epidemiological surveillance, clinical drug testing, rapid virus detection tests, etc.. Likewise, workgroups have been assembled to manufacture biomedical equipment such as ventilators and engage in other innovative actions” (IESALC, 2020, p. 39).

Although the dispute between these two substantive functions has been going on for some time, in the context of the pandemic, it could increase, since the teaching staff has been challenged to find solutions to adapt and relax the contents and designs of the courses to allow for learning in the different training areas, possibly risking research project scheduling, since only desk research can have certain continuity (IESALC, 2020).

6. Gender inequalities

The 2019 National Survey on Family Relations and Gender Violence against Women in Ecuador-ENVIGMU reveals that 65 out of every 100 Ecuadorian women have been victims of violence at least once in their lifetime (INEC, 2019). At the higher education level, 5 out of 10 members of the university community (professors, administrative staff, and students) have been involved in situations of violence against women (GIZ Ecuador, 2019). In other words, Ecuador is a country where situations of gender-based violence are constant, and university spaces, being a reflection of society, also reproduce this problem.

The Higher Education Council, in 2018, issued the Regulation to Guarantee Equality for All

Actors in the Higher Education System, which calls on higher education institutions to establish action protocols for cases of violence, as well as equality plans that enable the implementation of policies, processes, and actions to reduce and, as far as possible, eradicate gender-based violence from university spaces.

Since this is a problem that transcends university campuses, higher education institutions will not necessarily be able to solve this nationwide situation. Furthermore, it remains a pending task the incorporation at the higher education level of a policy of gender mainstreaming for curricula development, the strengthening of lines of research in this area, and working on the reconciliation of the roles of caregiving and academic work in the entire university community. To this end, Fraser’s approach proposes taking up the idea of gender justice as participatory parity, that is, on the one hand, a redistribution of material resources and access to them, and, on the other hand, the transformation of cultural values to redefine social hierarchies (Fraser, 2008).

Likewise, a cross-sectional approach to understand inequalities is essential for reducing and addressing gender inequality issues. The sum of vulnerabilities due to economic situation, ethnicity, human mobility, disability, among others, should be taken into account when addressing all issues related to gender inequalities, especially in public higher education policies.

This has also meant that, in the context of the pandemic, the care crisis has deepened. In Latin America, “113 million children and adolescents are at home to prevent the spread of the virus. The closure of schools implies that this population requires 24-hour care. This undoubtedly overstrains the time of families, particularly that of women, who dedicate three times as much time daily to domestic and unpaid care work as men do in the region” (ECLAC, 2020, p. 1). In this sense, the closure of schools and the banning of face-to-face attendance has meant an increased workload related to home care, disproportionately affecting girls, female students, and female professors in their ability to remain involved in education in the long term.

Immediate challenges for Higher Education Institutions in Ecuador in the context of transition to Emergency Remote Teaching

As mentioned above, HEIs that decided to carry on with their academic activities implemented Emergency Remote Teaching processes. This transition brings along previous unresolved deficiencies in the higher education system, as well as the immediate challenges inherent to a process of change. Any transition implies a modification in the form, scope, and depth in which certain actions are carried out. However, in this text, this transition from the face-to-face modality to an Emergency Remote Teaching takes us by surprise and tests the response capacity of higher education institutions. This includes the traditional forms of organization, data-processing capacity, organization of human resources, and also makes more evident the previous unresolved structures and challenges. In 2008, UNESCO conducted an analysis of the transition processes at that time, confirming that higher education institutions in the region are not homogeneous and that it is very likely that unequal and unbalanced transitions will appear at all levels of education (Landinelli, 2008). This statement could be applied to current contexts, given that the heterogeneity of universities in Ecuador remains a latent issue, as noted above. In this sense, the pandemic "has revealed shortcomings and inequalities both in terms of resources available and preparation of professors and students to shift towards distance education modalities" (Alcántara Santuario, 2020, p. 76). In a recent report, Brown and Salmi (2020) analyze the reactions of some universities and higher education institution to the transition to online education. It shows that, although many universities and higher education institutions have embraced and attempted to adopt online learning, very few are well prepared to make this change quickly and abruptly (Alcántara Santuario, 2020).

For the Ecuadorian higher education system, the transition to Emergent Remote Teaching posed at least four challenges: (1) to solve the previous structural problems, (2) to act quickly to implement the effective transition to this new emerging remote

teaching modality, (3) to respond effectively to the transition in teaching and research activities, and (4) to reduce the deepening of inequalities in those populations that were already experiencing them before the emergency.

As to the first two, this transition poses challenges for HEIs as well as for the state. It is necessary to recognize that the previously unresolved structural problems that generate inequality will not be solved by the will of higher education institutions, but rather with sustained national policies in the medium and long term. As far as higher education institutions are concerned, it is necessary to make a series of decisions aimed at deactivating certain operational functions in order to create an administrative framework that will make management more flexible. In this way, they will be able to adapt to changes and create the conditions for the entire university community to quickly adjust to the new dynamics. It is the State's responsibility to create an agenda capable of resolving these challenges in such a way as to enable higher education to improve its management models; to bridge the gap between baccalaureate, university, and the labor market; to diversify the academic supply in terms of modality and levels; and to place greater emphasis on the university becoming a dynamic tool for justice and equality.

The actions of HEIs, together with those of the state, should ensure that, in these moments of crisis, heterogeneity among universities does not increase, or that inequalities and inequities worsen or deepen. This has occurred in other areas of higher education reforms, since the decisions were taken from a normative-bureaucratic perspective and were not aimed at affecting the core of the system (see Didriksson, 2008).

As to the third and fourth challenge, it is necessary to implement an academic flexibility plan, informing the university community in an effective and timely manner of the procedures to be followed. Transitioning to Emerging Remote Teaching involves changing the paradigm with which the classes were taught face-to-face. This includes the academic organization from its planning, as well as the internal interactions, making dialogue between management and academic decisions more effective. This will result

in a change in the teaching-learning culture that, although temporary, should be assumed as a window of opportunity. Clear and orderly communication on the procedures to be followed is key to generating a culture of adaptation that is dialogic and creative among authorities, professors, and students. This will strengthen self-guided education and self-regulation without the need for exhaustive monitoring of the teaching activity. This new culture will be the moment for professors and students to develop greater autonomy. In that regard, it is necessary to assume that a face-to-face class should not be replicated identically in virtual environments. To this end, it would be interesting to develop instructional guides that consider the duration of videoconferences, flexibility in attending virtual classes —especially for vulnerable populations such as students with disabilities, connection difficulties, people with caregiving strains, etc., planning of asynchronous activities and evaluations for all students, mechanisms for monitoring the syllabus or learning objectives in accordance with remote teaching, teaching-learning strategies on practical components, efficient teaching scheduling processes balanced with research hours, among others.

Likewise, higher education institutions face the operational challenge of strengthening their infrastructure capacity to support the connection to synchronous academic activities and training in technological tools and education in virtual environments for students and professors, establishing an accompaniment plan for students with special educational needs associated or not with a disability, virtualizing the administrative procedures for educational management, among others.

Complementarily, HEIs could take actions to reduce or counteract inequalities, at least in those areas that can be managed autonomously. Due to the digital gap mentioned above, it is important to have contrasted information to know exactly which students do not have these tools and to analyze strategies to mitigate this problem. However, given the reality of higher education—especially public education—in Ecuador, developing guides with asynchronous activities is essential for the population that does not have

the technological tools to successfully establish virtual connections in real time. Likewise, it is important to improve the accessibility of virtual platforms for people with disabilities, provide sign language interpreters for deaf students, implement remote psychosocial and psycho-educational support programs for students in general and for those with special educational needs in particular, among others.

At the same time, HEIs can consider a tuition policy with a strengthening of their scholarship and financial aid programs for populations that, in the context of the crisis, find themselves in socio-economic conditions of vulnerability. This, in turn, can be complemented with paid work projects within the universities at the administrative level, teaching assistantships and research assistantships, introductory and reinforcement courses with a strong vocational orientation.

The current crisis serves as a wake-up call to assess the weaknesses of higher education and the challenges of operating in a globalized and interdependent world.

Additionally, it proves the importance of developing contingency plans and the need for academic flexibilization and learning objectives assessment. The pandemic “has also led to understand that achieving equity in higher education for vulnerable groups of society remains one of the greatest challenges” (Alcántara Santuario, 2020, p. 80).

Thus, the great challenge is to regard academic flexibility as the best way to adapt to the new teaching processes without reducing quality, relating the challenges described above to what transforming a face-to-face course curriculum to an online one entails and deciding which complementary tools will be used to meet and evaluate the learning objectives for all students on an equal opportunity basis, avoiding, as far as possible, the widening of inequality gaps.

Conclusions

The COVID 19 pandemic meant that many study centers around the world had to move from face-to-face teaching to an emerging remote modality.

This does not imply online education *per se*, since it requires a different type of planning from the outset, but its implementation is urgent in a context of crisis. The transition implies that the teaching-learning process moves momentarily to virtual environments to which professors and students may not have been accustomed. Therefore, implementation strategies will be closely related to the existing capacity of HEIs, the technological infrastructure they have, their management models, economic resources for emerging investments⁴, the students and professors' abilities for autonomous learning, and the capacity to overcome previous structural challenges without exacerbating them, so that the learning processes are not affected since they were not initially planned for this modality.

Likewise, in Ecuador, this transition implied not only an instrumental adaptation of virtual modalities and computer tools to support it, but also, as pointed out in the second part of this article, some of the structural problems detected in the first evaluation of universities in Ecuador (1988), have not been solved and persist today in the higher education system. These challenges refer to management models, the disconnection between the baccalaureate and higher education and between higher education and the labor market, diversification of supply, inequalities in access, permanence and effective graduation of students, the conflict between research and teaching, and gender inequalities, which complicates the transition to Emerging Remote Teaching.

In sum, the paper determined that the country's higher education institutions will have to implement remote teaching modalities to continue with their academic activities, which implies a series of adaptation challenges. However, the implementation of the new modality will be affected to a greater or lesser extent by the previous challenges pending at the systemic and structural levels, since not having solved them will entail dragging these problems which, in the face of the emerging implementation and quick adaptation, could slow down the transition to Emerging Remote Teaching, exacerbating

inequality gaps.

Therefore, as there are several structural challenges in the higher education system, the ability of HEIs to adapt to the new realities of Emerging Remote Teaching will depend on the extent to which these challenges are resolved, at least in three ways: (1) institutions that have material resources, investments in infrastructure, and financial sustainability, could have a greater capacity to face the new challenges the implementation of Emerging Remote Teaching entails; (2) institutions that have managed to rethink academic processes with a critical-reflective approach, concretizing them in the form of management with clear processes, precise and integrated curricular structures, roles, and competencies, to more easily implement solutions to the uncertain contexts derived from The Emerging Remote Teaching; and (3) the priority that higher education has on the agenda of the states to reduce inequalities and deal with unresolved preconditions through plans and policies, as well as the capacity to bridge the gaps generated by the differences resulting from the transition to emerging remote education, avoiding greater heterogeneity in the education received by thousands of students. In other words, solutions must be applied in a systemic, comprehensive, and inclusive manner.

Due to the uncertainty about resuming daily activities, higher education institutions will test their ability to lower the potential impacts of unresolved structural preconditions in the transition to a remote modality with quality, inclusion, and relevance. In HEIs, this process will depend on the leadership and management models available for easy adaptation, whether they offer virtual or blended modalities, the number of students and professors, and their response to the implementation of endogenous factors and the decisions they will have to make to deal with exogenous factors. However, in the light of this adaptation, the challenges are the same for most universities in the country.

Finally, it should be noted that higher education in the region and the country has undergone important changes in view of the massification, feminization and diversification of the student body, which has been taking place for

4 The heterogeneity between public and private universities could increase this implementation gap.

more than a decade. Students with a historical lag who enter higher education have an expectation of upward social mobility, since it is believed that completing university studies will allow them to improve their material, symbolic, and cultural conditions.

Therefore, the transition to emerging remote education in a context of crisis must prevent these populations with greater vulnerability from increasing their situation of educational exclusion, as already happened in the 2000s with the massification of higher education, which reproduced to a greater extent the deep gender, ethnic, and socioeconomic inequalities (Villanueva, 2008). Finally, it is necessary to rethink which path can be taken, and what priorities can be set in the future agenda so that THE UNIVERSITY, as a broad concept, becomes a catalyst for social justice and the strengthening of citizenship.

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