

Promoting inclusion and equity in Higher Education: Is this the role of distance learning in Brazil?*

Sidney L. M. Mello ^a
Marcelo J. Meiriño ^b
Walter Leal Filho ^c
Thaís N. da R. Sampaio ^d

Abstract

This study aims to investigate how enrollments have reached a rapid increase in distance learning Higher Education (DLHE) in Brazil and consider whether it promotes inclusion, equity, and quality as disseminated by the Sustainable Development Goal 4 (SDG 4) and the Brazilian Plan of Education (PNE). The methodological procedures were based on documentary research. For this analysis, three goals of DLHE were investigated: access, quality, and equity by looking at variables such as enrollments, the regulatory framework, the quality assessment, the cost of Education, the student income, gender, and ethnicity. The analysis showed increased enrollments in Higher Education (HE) in the last decade, particularly distance Education. This growth was accompanied by greater inclusion and equity in access to HE. But there are issues in the quantity and content of courses and the concentration of enrollments in a few for-profit private institutions, which affect the quality of Education. This paper provides a unique view of whether DLHE promotes inclusion and equity in tertiary Education in Brazil and whether it has been valuable in public policy.

Keywords: Sustainable Development; Brazilian Higher Education; Distance Learning; SDG 4; Massification of Higher Education.

* Research supported by the Brazilian National Council for Scientific and Technological Development (CNPq) – Universal Call 01-2016, Process Number: 430119/2016-0. The authors are grateful to Dr. Thaíse Machado Senes Mello.

^a Faculdade Cesgranrio, Rio de Janeiro, RJ, Brasil/ Universidade Federal Fluminense, Niterói, RJ, Brasil.

^b Universidade Federal Fluminense, Niterói, RJ, Brasil.

^c European School of Sustainability Science and Research, Hamburg University of Applied Sciences, Hamburg, Germany.

^d Universidade Federal Fluminense, Niterói, RJ, Brasil.

Received: 11 nov. 2021

Accepted: 14 set. 2022

1 Introduction

In 2015, the United Nations (UN) Agenda 2030 defined an action plan for the planet's sustainable development and, finally, formalized Higher Education (HE) in the scope of global development (UNITED NATIONS, 2015). All member states of the UN agreed to an inclusive agenda with seventeen Sustainable Development Goals (SDGs) that represent a universal call against poverty and the protection of the planet to ensure that all people have peace and prosperity (MENSAH, 2019).

Among seventeen SDGs, SDG 4 addresses educational challenges in HE (OWENS, 2017). This goal recommends that inclusive, equitable, and quality Education be guaranteed as a learning opportunity throughout life for all. The SDG 4 deals with equal gender access to university, increasing the population with relevant professional skills for decent work, yet promoting international student mobility, and adopting key sustainability concepts in the curriculum of graduate courses.

The WORLD BANK (2019) showed that the educational indicators in Brazil are not compatible with its status as one of the largest world economies. In 2018, about 13.5% of young people between 15 and 29 years old were employed and studying in the country, 23.0% were neither employed nor studying, 28.6% were not employed but studying, and 34.9% were employed and not studying, out of a total of 47.3 million people in this age group (MELLO *et al.*, 2019). The number of young people between 18 and 24 who do not study, or work, is well above the 14.0% average for the Organization for Economic Cooperation and Development (OECD) member countries (OECD, 2019). Around 24.0% of Brazilians between 25 and 34 years old hold a tertiary degree, but only 17.0% of the population have completed HE. Across OECD member countries, 43.0%, on average, hold a tertiary degree.

HE is necessary for all countries to achieve sustainable development (e.g., WU; SHEN, 2016). Also, advances in the knowledge society and the globalization of the economy have contributed significantly to the demand for HE (MENSE *et al.*, 2018). According to estimates, the total number of enrollments increased from 146 million in 2006 to more than 218 million students in 2016 and is expected to reach, according to estimates, 243 million in 2020 and more than 265 million in 2025 (NOUI, 2020). Such extensive access to HE has been called mass HE or massification, as it breaks with the earlier model for elites, expanding enrollments and institutions to accommodate social groups that, in the past, were excluded from this possibility (e.g., TIGHT, 2019).

In 2014, a year before committing to the 2030 Agenda, the Brazilian government was aware of this reality and approved a 10-year National Education Plan (PNE)

(INEP, 2014). The PNE is a state policy explicitly committed to many SDG 4 targets. One of the commitments of Goal 12 of the PNE is to expand the HE enrollment rate to 50% (gross rate) and 33% (net rate) of the population aged 18 to 24 years old by raising the public HE system to 40% of new registrations (SOMERS *et al.*, 2013). Achieving this goal will require the enrollment of about 11 million (gross rate) and 7.3 million (net rate) people in HE until 2024 when the Brazilian population aged 18 to 24 years will be close to 22.1 million.

The government action to accelerate the expansion of HE was the revision of the normative acts of the National Education Council (CNE) due to distance learning (DL) (MATTOS; SILVA, 2019). This revision meant modifications in the regulatory framework to widen the number of institutions and courses (e.g., CRUZ; LIMA, 2019). A new decree reinforced the equivalent role for distance and on-campus HE, highlighting Distance Learning Higher Education (DLHE) as an essential part of the educational system. The country has improved the availability of digital technologies, strengthening the national capacity to use mobile applications, access to web platforms, and online courses. In 2018, about 126.9 million Brazilians (70% of the population) regularly accessed the internet, including 50% of the rural and semi-skilled, unskilled, or unemployed social classes (IBGE, 2020).

The rapid expansion of HE still poses questions if the quality of Education will translate into inclusion and professional success. This study investigates the role of DLHE in Brazil. Firstly, it provides a literature overview on mass HE, framing Brazil within a global trend for inclusion and equity access. Secondly, it describes the methodology for documentary research on the issue. Thirdly, it shows how DLHE has evolved and whether the courses promote relevant Education within a national regulatory framework. Fourthly, it discusses whether this educational modality can promote equity and quality Education following SDG 4 and bolster the PNE. In conclusion, the study demonstrates the role of DL in the scope of public policy.

2 Literature overview

According to TROW (2008), the massification of HE has created three main educational typologies, namely: (1) elite Education (0%–15% of enrollments) that shapes the mind and character of a dominant class as preparation for elite roles; (2) mass Education (16%–50% of enrollments) that shapes skills and prepares the broad base of the population for technical and economic elite functions; and (3) universal Education (over 50% of enrollments) that prepares the population for rapid social and technological changes. These typologies considered the potential percentage of enrolled students between 18 and 24 years old, the size of the HE system, institutional diversity, access and selection policies, governance and administration, curriculum and forms of instruction, and academic standards.

There is a lot of criticism of massification, covering inclusion, equity, and quality (SCHENDEL; MCCOWAN, 2016a). There is disagreement about the fairness of this system since access to equity among expanding enrollments is accompanied by increasing stratification in terms of social groups, quality, and the prestige of the institutions. For Brennan and Naidoo (2008), there is a functionalist concept in massification regarding the need to place the right people in the correct social positions for the general benefit of all. Some people also think that disadvantaged students are restricted to a low-quality Education (MARGINSON, 2016). Furthermore, massification is detached from the democratization of Education. It is seen as the commodification of HE (MCCOWAN, 2016a) and as a university credential that reproduces inequalities in the labor market (TOMLINSON; WATERMEYER, 2020).

On the other hand, Altbach, Reisberg and Rumbley (2010) considered that massification does not end to inequalities but can promote progress, as follows: (1) it provides more significant opportunities for social mobility; (2) it provides higher levels of income; and (3) it opens institutions for women and historically marginalized social groups around the world. For Salmi and D'Addio (2020), the expansion of HE has to be in line with social and economic policies. Today, many types of university and non-university grant degrees to different populations and purposes. But global experiences consider the complexity of guaranteeing the expansion of enrollments, the quality of teaching, social justice, and differing levels of socioeconomic development (e.g., CLANCY; GOASTELLEC, 2007; SCHWARTZMAN, 2020).

Reforms in HE in Latin America took place in the 1990s and, since then, the growth in enrollments has been higher than in European countries (BERNASCONI; CELIS, 2017). In Brazil, global policies have guided the reforms, focusing on overcoming educational inequalities, expanding HE, and providing professional training (e.g., BUCCI; GOMES, 2017). For Arretche (2019), Brazil has high levels of social inequality and low levels of Education, among the nations with the highest income inequality in the world. Thus, inclusive Education targets eliminating social exclusion that is a consequence of attitudes and responses to diversity in race, social class, ethnicity, religion, gender, and ability (e.g., SALMI; D'ADDIO, 2020). The emphasis on equity implies a concern with fairness. Achieving inclusion and equity responds to the imperatives of social justice, reflected in SGD 4. Here, the notion of equity is close to justice, as in McCowan (2016b).

Economic support policies for low-income students and affirmative action such as ethnic quotas have provided equitable access to HE (RISTOFF, 2014). For Arantes (2021), HE in Brazil has improved access to quality Education and scientific production. Public universities became more inclusive through the Program for Federal Universities Restructuring and Expansion (Reuni) (PAULA; ALMEIDA,

2020), the National Student Assistance Plan (Pnaes) (e.g., BORSATO; ALVES, 2015), and the ethnic quota law (e.g., KIRAKOSYAN, 2014). Private Education, on-campus, and DL together reached over 75% in enrollments, reflecting a global trend in which the public sector cannot support mass and universal Education (e.g., BUCKNER, 2017). The Brazilian government has created public programs such as the University for All Program (ProUni) and the HE Student Financing Fund (Fies) to subsidize students at private institutions, which was intended to strengthen the private sector (CHAVES; AMARAL, 2016). Santos (2018) showed that DLHE recorded 49,000 enrollments in 2003 and almost 1,5 million in 2016. Between 2010 and 2015, enrollments in undergraduate courses grew by 25.3% overall; on-campus enrollments grew by 21.1%, but DL grew by 49.7% (GIOLO, 2018).

The growth in DL has been global, with around 21.3% of HE enrollments worldwide (QAYYUM; ZAWACKI-RICHTER, 2019). Arruda and Arruda (2015) considered that Brazilian DLHE is part of mass HE. The Open University of Brazil (UAB) creation was part of an educational policy to push for democratization and development (BAXTO; AMARO; MATTAR, 2019). Further, Pereira, Araujo e Machado-Taylor (2018) showed that the National Higher Education Assessment System (Sinaes) governs the quality assessment of institutions and courses for both DL and on-campus Education, whether public or private. Our issue is whether the DLHE as a form of mass HE can fulfill goal 12 of the PNE and targets of SDG 4.

3 Methodology

This exploratory study is based on documentary research (e.g., BOWEN, 2009). The analytic approach involves finding, selecting, appraising, and synthesizing documents to extract meaning and empirically understand a phenomenon.

The methodological procedure covered the qualitative and quantitative analysis of document data of Brazilian HE, obtained from public and private databases, in the format of census reports and educational policy norms. The documentary data covered ten years of the development of Brazilian HE between 2009 and 2019. The choice of the year 2009 regards the first notable record of enrollments in DLHE, while the year 2019 represented the latest available data late in 2020 by the time of the documentary survey.

The public databases were from official sources available in the public domain: (1) The Brazilian Institute of Geography and Statistics (IBGE) provides the National Household Sample Survey (PNAD), which issues data on population, Education, labor, income, IT, and housing (<https://www.ibge.gov.br/estatisticas/sociais/educacao/>); (2) The National Institute of Educational Studies and

Research Anísio Teixeira (Inep) issues data and statistics of HE on institutions, courses, and students' socioeconomic profiles (<http://bve.cibec.inep.gov.br/web/guest/dados>); and (3) The Ministry of Education (MEC) - Legislation and regulations (<http://portal.mec.gov.br/legislacao>). The private databases served to obtain complementary data, such as the cost of courses, online educational resources, and details on the student profile. The data sources were the following: (1) The Brazilian Distance Education Association (Abed) yearly releases a DL census based on data from associated institutions (http://www.abed.org.br/site/pt/midioteca/censo_ead/); and (2) The Hoper Educação issues on demand a sectorial analysis of private Education in Brazil (<https://www.hoper.com.br/>).

The analysis of the content of these databases followed the method of Elo and Kyngäs (2008), which considers two ways of sorting documents, both involving a three-phase process: preparation, organizing, and reporting. The inductive way entails determining categorical variables when knowledge about the topic is fragmented, and another is deductive for finding categories from prior knowledge. This research used the deductive method of selecting variables to structure the analysis of documentary data.

The preparation phase consisted of finding variables for sorting data on the databases. The variables found were based on SDG 4 and PNE 12 goals and targets. The organizing phase consisted of extracting data from the databases, compiling a new dataset in spreadsheet format (MS Excel) with fields of information for each variable. The reporting phase used the new dataset for qualitative and quantitative analysis and interpretation as time series, bar plots, box plots, and scatter plots.

Table 1 displays goals, targets, and variables of DLHE related to PNE 12 and SDG 4, which guided data extraction.

Table 1 - The left column displays the goals of SDG 4 and PNE 12. The center column outlines the targets to fulfill such purposes, and the right column exhibits variables that correspond to each target

Goal	Target	Variable
Access	Enrollments	Enrollments on-campus and distance learning
		Enrollments in public and private institutions
	National coverage	Enrollments growth on-campus and distance learning
		Gross and net enrollments rate
	Cost	Enrollments in public universities
		Number of distance learning centers
Norms and law	Tuition fee in on-campus and distance learning	
		Regulatory framework of distance learning (DLC)

Continue

Goal	Target	Variable
Quality	Student's performance	Exam results
	Student's social class	Household income range of the students
Equity	Student's gender	Enrollments by gender
	Student's ethnicity	Enrollments by skin color

Source: The authors (2020)

The enrollments quantify inclusion and equity, while the regulatory framework strengthens educational policy to access and quality. The cost of Education is a critical issue as a natural element of exclusion. The National Student Assessment Exam (Enade) is part of the quality assessment of students and courses. Equity is intended to reduce socioeconomic and cultural asymmetries and democratize access to HE for individuals, ruling access despite social class, ethnicity, skin color, gender, and geographic location.

4 Results

The expansion of HE in Brazil started with the PNE between 2001 and 2011 with the idea that knowledge is the basis of scientific and technological development capable of current dynamizing societies (AGUIAR, 2010). In 2014, Brazil renewed such principles for the PNE (2014-2024), encouraging the use of DLHE. The primary outcome of such plans concerning primary goals on DLHE is displayed as follows.

4.1 Access

From 1996 to 2004, DLHE in Brazil was perceived by public policies as a model of learning with limited content and quality. In this period, the educational policies were conservative in terms of accreditation of DLHE. In 2001, with the start of the first PNE (2001-2011), DLHE was thought to democratize Education. Thus, in 2005, the MEC made further changes in the previous regulatory framework, establishing the same workload for on-campus and DL undergraduate courses, and defining the same rules for quality assessment. From 2008, the private initiatives turned out more strongly in DL, gaining market shares year by year over public enrollments at UAB.

The current DLHE regulatory framework dated 2017 supersedes previous rules. The proposal is to expand the offer of courses, improve evaluation procedures, and make systems less bureaucratic. This new framework also focused on increasing competition in the offer of courses in private sector. By deconcentrating the market and

reducing entry barriers to DL for new incoming institutions, the DL quality indicators were expected to rise, reducing the cost of Education, strengthening competition among institutions, and expanding the national network more rapidly. The evolution in time of the Brazilian legal framework for DLHE is summarized in Table 2.

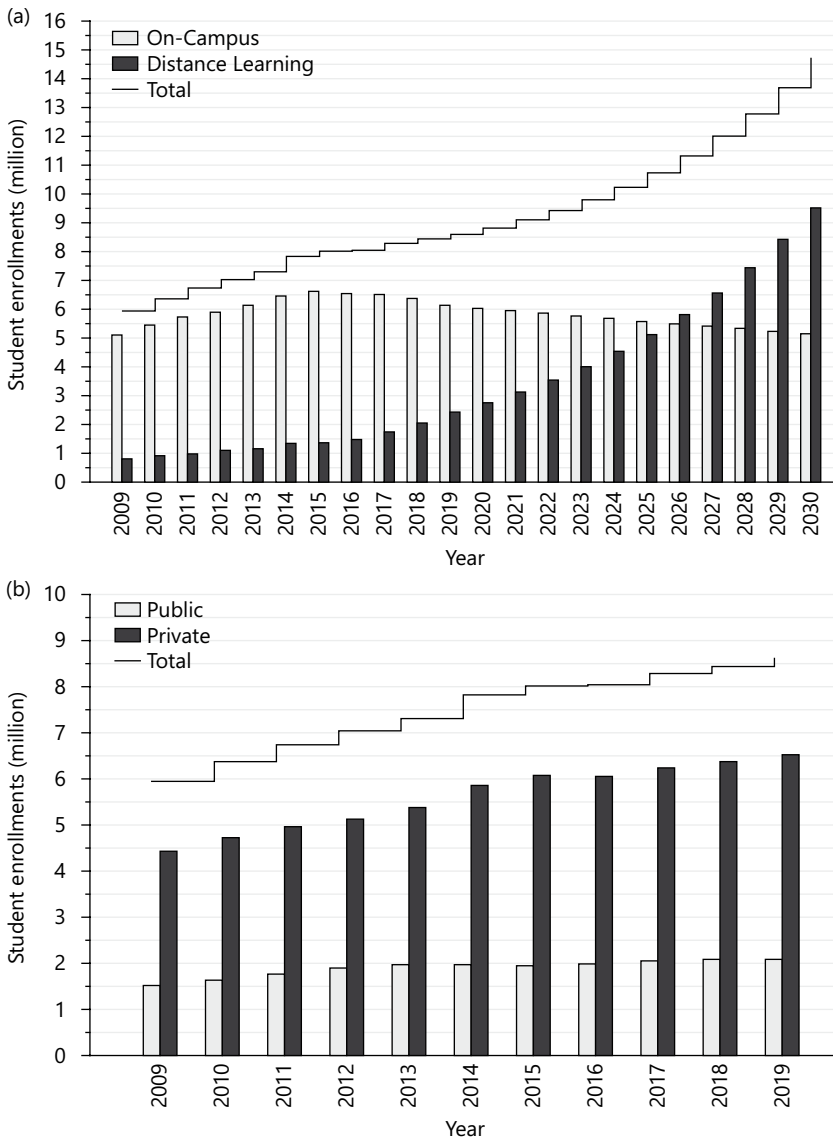
Table 2 - The evolution of the Brazilian legal framework for DLHE from 1996 to the present, showing the year, driver, and impact on the educational system

Year	Driver	Legal Framework
1996	DL expansion mainly by the government	Education Guidelines Law No. 9,394/1996. The first time that DL is presented in the form of a law.
1998		Normative for the accreditation to offer DL courses - Decree No. 2,494 /1998 and Ordinance 301.
2001		First PNE, Law No. 10,172/2001. DL is strategic to democratize access to HE. Normative No. 2,253 of the MEC to offer of 20% online disciplines in on-campus classes
2005	DL expansion mainly by the private initiative	On-campus and DL courses with equivalent workload and the same rules for quality assessment - Decree No. 5,622/2005.
2006		Decree No. 5,800/2006 creates the Open University of Brazil (UAB) for the expansion of DLHE in public universities.
2007		Decree No. 6,303/2007 modernized the rules for the accreditation, renewal, and supervision of DLHE.
2014		PNE 2014-2024 Goal 12
2017		Decree No. 9,057/2017 new regulatory framework for DLHE New model for accreditation of DLHE institutions and distance learning centers (DLC)
2018	Normative No. 1,428/2018 of the MEC enables the offer of 20% online disciplines in on-campus undergraduate courses.	
2020	Coronavirus (Covid-19) pandemic - all on-campus courses must be offered in DL. The assessment exams performed online and temporarily suspended the mandatory visit to DLC.	

Source: The National Institute of Educational Studies and Research Anísio Teixeira (INEP, 2020)

Figure 1a shows that DLHE enrollments have risen sharply in the last ten years at an average rate of about 12%. The number of students enrolled in DL is equivalent to 29% of the total enrollments in HE. This scenario strengthens the role of DL in mass HE. Figure 1a also displays the rising from 6 million enrollments in 2009 to 8.6 million in 2019, increasing 43% in the total number of students in HE. This growth has mainly been driven by private institutions, corresponding to 76% of enrollments in 2019 (Figure 1b). Programs like ProUni, from 2004, and FIES, from 2001 granted, respectively, scholarships and loans for student enrollment in private institutions.

Figure 1 - Evolution of Higher Education on-campus and distance learning enrollments from 2009 to 2019. **(a)** Annual variation of on-campus and distance learning enrollments, and the projection of enrollments from 2020 to 2030. The projected enrollments between 2020 and 2030 were estimated by geometric means, assuming enrollments between 2016 and 2019 as the initial value. **(b)** Annual variation of enrollments shared by public and private Higher Education institutions. The authors elaborated the figures 1a and 1b in 2021



Source: The National Institute of Educational Studies and Research Anísio Teixeira (INEP), 2020

The overall enrollment growth is consistent with an increase of 182.50% in DLHE students. In contrast, the total on-campus enrollment has stagnated in the last five years. DL may be the primary learning modality of HE already in 2026, surpassing the traditional on-campus model (Figure 1a). The population of Brazil has 44.9% of young people aged between 18 and 24 years, but only 24.7% within the same age group is in HE.

Most students are not responsible for their household: 64.3% enrolled in public, and 21.3% in private. Besides, the cost of Education is significant for the household income of the working class, which on average monthly fee from \$226 on-campus to \$78 DL in 2018. The on-campus tuitions were up to 80% of the average income. DLHE is about one-third cheaper than on-campus, and tuition costs are dropping year by year.

By 2030 the deadline for achieving the SDG 4 targets, the country may reach 14.7 million enrollments in HE, with 65% in DL. Then, Brazil should achieve a mass HE system but not yet fully consolidated. A warning point is that the growth of HE is out of step with the development of Brazilian secondary Education.

The current gross and net enrollments are at 35.9% and 18.1%, respectively. By 2024, the gross rate should be 46.3% and net 20.7%. Increasing enrollments in the public sector will be impossible soon. Thus, the DLHE shall be crucial to achieving the PNE 12 goal from 2024 onwards, to 11 million students aged 18 to 24 (Figure 1a and 1b).

The national coverage of DLHE institutions is worthy, thanks to the mandatory in-person activities at distance learning centers (DLC). There, students perform tests and final exams, and laboratory activities. DLC is in many remote regions of national territory where lack on-campus colleges and universities. Such centers maintain a physical, technological, and personnel infrastructure that should be adequate for the pedagogical projects of the courses. In 2019, 16,135 DLC were covering 2445 municipalities, about 44% of 5,570 Brazilian cities. The on-campus learning model does not reach half of this percentage.

The expansion of the DLC indicates a sustainable path concerning low investments by public and private sectors in Education. From the student's point of view, it will enable access to HE with lower cost and flexibility in terms of time and location, reducing potential costs with migration and commuting between cities. In a continental country like Brazil, the geographic expansion of DLHE institutions has been a decisive factor in guaranteeing access.

There are over a hundred DLHE courses recognized by the MEC, leading to degrees in three formats: (a) Licentiate: a three to four-year course to train teachers; (b) Bachelor: a five-year course to train professionals in different areas; and (3) Technologists: a two to a three-year course to prepare professionals to specific activity in the labor market. About 44% of DL courses are of the technologist degree, shorter than bachelor (e.g., two years instead of four years) and more applied to market demands. This data reinforces the importance of DLHE to upskill people to jobs.

4.2 Quality of Education

The Sinaes is responsible for institutional and course assessments and student performance. It evaluates HE courses and institutions, both on-campus and DL, and student performances in the Enade.

DL courses must maintain qualified technical and administrative staff and professors with proper training in DL and laboratories, technological infrastructures for remote assistance to students and professors, libraries with electronic collections, and sound operating regimes to serve students at a distance. They must comply with national curriculum guidelines, provide for students with special needs, and deliver the entire course curriculum and assessments. The institutions need to provide mandatory in-person activities at DLC.

Bielschowsky (2018) made a comprehensive analysis of the performance of DL students in Enade, involving 175,543 students on 877 courses from 144 different institutions. This analysis demonstrated the intense concentration of enrollments in six for-profit private HEIs and showed students from DL and on-campus courses perform the same in exams. However, DL students in those six institutions with the most enrollments had low-performance percentages. Further work by Cortelazzo and Elisei (2021) showed that DL students, especially those with many graduates, tend to have numerically smaller continuous Enade grades and averages show more significant variability. Both results seem to call attention to the need for further investigation to prove the observed trends.

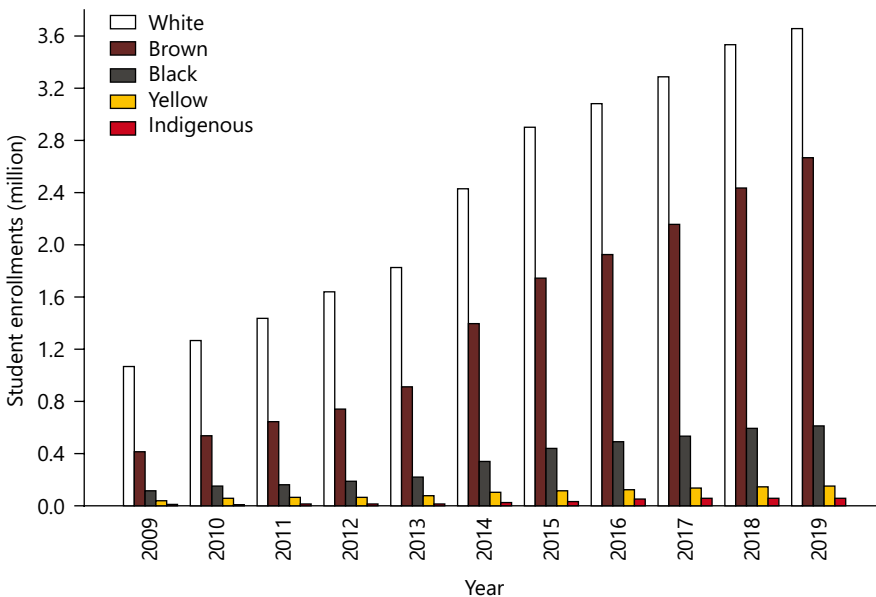
The dropout rate of DLHE students has been an issue in terms of quality, which also deserves extensive work. ABED census data revealed rates of up to 50% in specific courses, which is a considerable number. Many factors may be responsible for dropping out of classes. Social factors have figured at the top of the explanations and a set of critical elements related to motivation and the pedagogical projects of the studies (STREET, 2010).

4.3 Equity

In the recent past, students from lower social classes accessed private HE, while those with higher income accessed public HE, but this assertive has changed since the launch of programs like ProUni and Fies and the ethnic quota, Reuni, and Pnaes. The profile of Brazilian university students has changed in both the public and private sectors concerning skin color, gender, and income.

In 2019, white students represented 42.5% of total enrollments, followed by browns and blacks, accounting for 38.1% of enrollments (Figure 2).

Figure 2 - Student enrollments in Higher Education and skin color between 2009 and 2019



Source: The National Institute of Educational Studies and Research Anísio Teixeira (INEP), 2020

From 2014, with the acceleration of enrollments in HE, brown people grew 91%, black people 81%, and white people grew 50%, showing greater inclusion of brown and black people. In DLHE, browns and blacks accounted for 40.1% of enrollments in 2019, while 39.3% were white. The indigenous population

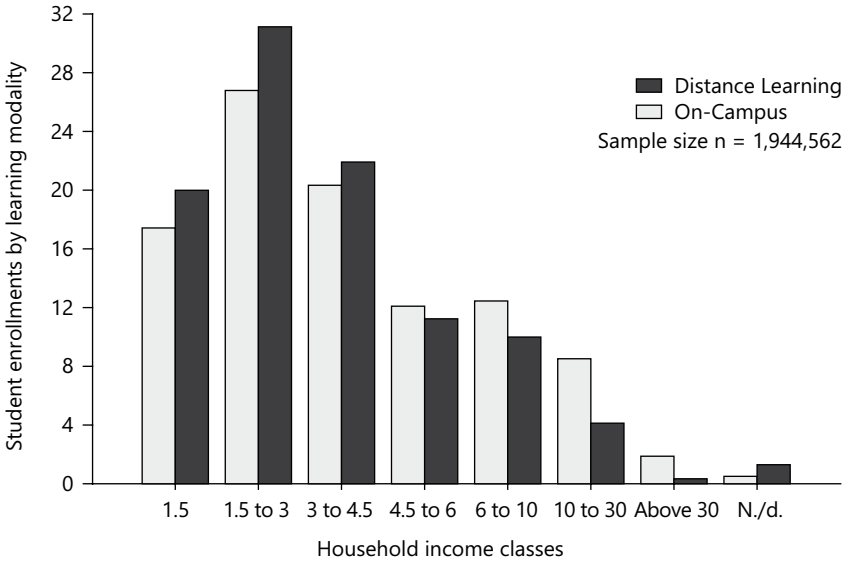
represents less than 1% of the total enrollment. Between 2009 and 2019, enrollment of indigenous students grew from 7,279 to 44,480 on-campus learning and from 676 to 11,777 in DL.

The fact that women are the majority among Brazilian university students is a relatively recent event. In 1956, they represented 26% of the total number of students enrolled and, in 1971, they were no more than 40%. In 2019, 57% of enrollments in undergraduate courses were occupied by women. In DL, female participation is even more significant, with women occupying 62% of enrollments. DL has expanded opportunities to the entrance of more females in HE.

Social classes designated by minimum salary ranges are helpful to know the socio-economic profile of students. The IBGE uses a simple division in social as follows: class A (> 20 minimum wages); class B (10 to 20 minimum wages); class C (4 to 10 minimum wages); class D (2 to 4 minimum wages); and class E (< 2 minimum wages). In 2019, considering the minimum wage of \$282, about 61.9% of young people aged 18 to 24 in class A attended HE, while only 10.5% of young people in class E accessed a degree. Three out of four students aged 18 to 24 in class C attended HE in a private HE institution. Social classes D and E increased participation in HE from 2012, considering the age of 18 to 24 years. Social class E increased the number of students in the same age group reaching 64.5%, while social class D reached 50.2%.

Figure 3 displays the socio-economic profile of students who took the Enade, between 2015 and 2019, in public and private institutions in all areas of knowledge. DL figures as the leading learning modality for students with household income up to 4.5 minimum wages, which corresponds to social classes E and D. On the opposite, from social class C onwards, on-campus prevails the primary option of study.

Figure 3 - Enade assessed the household income range of Higher Education students in the period 2015-2019. The sample size covered 1,944,562 students enrolled in public and private Higher Education institutions, on-campus, and distance learning, attending the undergraduate courses in all areas of knowledge. The household income varied from 1.5 minimum wages to above 30 minimum wages. The authors elaborated the Figure 3 in 2021



Source: The National Institute of Educational Studies and Research Anísio Teixeira (INEP), 2020

5 Discussion

Altbach *et al.* (2010) showed that HE continues to grow worldwide. HE is no longer exclusive to elites. It embraces social groups that have been excluded from this possibility in the past. Among the many reasons to increase enrollment rates are population growth, the need for better-trained professionals, and policies oriented towards sustainable development (e.g., OKETCH, 2016). Such policies have allowed women, ethnic and social minorities, and other underrepresented students better access to HE. The main driving force behind the increase in demand for university degrees has been the lower middle classes.

Brazil achieved 8.6 million enrollments in 2019 by increasing 45.50% in the total enrolled within 2,537 institutions. Although private institutions have mainly driven the overall growth, Brazil has one of the largest public and free university systems globally, with 296 public institutions of HE (federal, state, and municipal),

with 2.08 million students in 2019. Brazil occupies the 11th position in academic research and accounts for the best 14 universities in Latin America out of the top 25, according to Times Higher Education for Latin America in 2019. The most important is that inclusion and equity to access the public university system did not lose its quality standards (e.g., ARANTES, 2021).

Chaves (2010) showed that the private HE system had grown about five times more than the public since 2000, concentrating capital, attracting investment funds, and capturing public subsidies in an oligopolistic way. The enormous expansion of private enrollments increased competitiveness, and tuition costs fell sharply until 2010. But there was a loss in the quality of Education, with the transfer of regional and family private institutions to the control of international investment funds and private equity (CHAVES; AMARAL, 2016). The for-profit private sector benefited from government programs, such as Prouni and Fies, to grant scholarships at private institutions and lend students money.

New private providers have emerged in university campuses with international branches and international online institutions (BUCKNER, 2017). Most on-campus and DL enrollments are concentrated in large private for-profit groups in Brazil, whose investment in professors is far below the public sector and small and medium-sized non-profit private institutions (GIOLO, 2018). The private DLHE has grown 40% in the last four years by reducing costs and promoting universal Education but lost quality in Education (BIELSCHOWSKY, 2020). However, low-income, and working-class students have benefited a lot from low-cost undergraduate courses and greater access to DLHE.

DLHE has diversified into more technical and professional areas aimed at employability and the job market, reflecting the private sector's strong influence in HE. The industry still lacks the strength of innovative disciplines and courses. Therefore, new DLHE courses should explore sustainable development contents, skills for future jobs, and the concept of lifelong learning.

The recent Covid-19 pandemic has dramatically affected all on-campus activities on the planet and, of course, student mobility (RAPANTA *et al.*, 2020). Emergency remote teaching (ERT) became the didactic-pedagogical alternative for teaching at educational institutions during social distancing (COQUEIRO; SOUSA, 2021). The future seems to point to greater flexibility in educational models, reducing costs and school fees, and increasing competitiveness, which will require new attitudes and strategies from Brazilian federal universities (e.g., CASTIONI *et al.*, 2021).

6 Conclusion

A new profile of students at Brazilian universities has emerged from a dominant elite environment to mass HE. It corroborates the priority of PNE in access based on minorities and the needs-based social interest of communities.

DLHE in Brazil promotes inclusion and equity since it includes people who struggle to afford HE. DLHE is an affordable and competitive option since it guarantees training and possibly a better place in the labor market.

DL has overcome many limitations imposed by *on-campus* pedagogy, especially time and location. Besides, DL is a pedagogical model equivalent to the traditional *on-campus*, nationally assessed by Sinaes. In particular, the quality assessment of DLHE appears to be neglecting quality and the formation of for-profit private oligopolies, which concentrate enrolments and low-performing students in the Enade.

DLHE in Brazil is aligned with the goals of universal access to Education in Goal 12 of the PNE and simultaneously with the principles of the sustainable development goals in SDG 4. But it needs to solve quality assessment issues. The lack of data on the employability and professional performance of DLHE graduates is critical in assessing the quality of Education.

Promover a inclusão e a equidade no Ensino Superior: este é o papel da Educação a Distância no Brasil?

Resumo

Esse estudo tem como objetivo investigar como as matrículas alcançaram um rápido aumento na Educação Superior a Distância no Brasil e considerar se, de fato, promove inclusão, equidade e qualidade, conforme orientado pelo Objetivo de Desenvolvimento Sustentável 4 (ODS 4) e o Plano Brasileiro de Educação (PNE). Os procedimentos metodológicos foram baseados em pesquisa documental. Para essa análise, três objetivos da educação superior foram investigados: acesso, qualidade e equidade com base em variáveis como matrículas, estrutura regulatória, avaliação da qualidade, custo da educação, renda do aluno, gênero e etnia. A análise mostrou um aumento nas matrículas no Ensino Superior (ES) na última década, principalmente no ensino a distância. Esse crescimento foi acompanhado por uma maior inclusão e equidade no ES. Mas, há problemas na quantidade e no conteúdo dos cursos e na concentração das matrículas em poucas instituições privadas com fins lucrativos, que afetam a qualidade do ensino. Esse artigo fornece uma visão única: se o ensino superior a distância promove a inclusão e a equidade na Educação Superior no Brasil e se tem sido valioso nas políticas públicas.

Palavras-chave: Desenvolvimento Sustentável. Ensino Superior Brasileiro. Ensino a Distância. SDG 4. Massificação da Educação Superior.

Promoción de la inclusión y la equidad en la Educación Superior: ¿Es este el papel de la Educación a Distancia en Brasil?

Resumen

Este estudio tiene como objetivo investigar cómo las matrículas han alcanzado un rápido aumento en la Educación Superior a distancia (DLHE) en Brasil y considerar si promueve la inclusión, la equidad y la calidad como lo difundido por el Objetivo de Desarrollo Sostenible 4 (ODS 4) y el Plan Brasileño de Educación (PNE). Los procedimientos metodológicos se basaron en la investigación documental. Para este análisis, se investigaron tres objetivos de DLHE: acceso, calidad y equidad al observar variables como la matrícula, el marco regulatorio, la evaluación de la calidad, el costo de la educación, los ingresos de los estudiantes, el género y el origen étnico. El análisis mostró un aumento de la matrícula en la Educación Superior (ES) en la última década, particularmente en la educación a distancia. Este crecimiento estuvo acompañado de una mayor inclusión y equidad en el acceso a la ES. Pero existen problemas en la cantidad y el contenido de los cursos y la concentración de matrículas en unas pocas instituciones privadas con fines de lucro, que afectan la calidad de la educación. Este documento proporciona una visión única de si la DLHE promueve la inclusión y la equidad en la educación terciaria en Brasil y si ha sido valiosa en las políticas públicas.

Palabras clave: Desarrollo Sostenible. Educación Superior Brasileña. La Educación a Distancia. ODS 4. Masificación de la Educación Superior.

References

- AGUIAR, M. A. S. Avaliação do Plano Nacional de Educação 2001-2009: questões para reflexão. *Educação & Sociedade*, Campinas, v. 31, n. 112, p. 707-727, Sep. 2010. <https://doi.org/10.1590/S0101-73302010000300004>
- ALTBACH, P. G.; REISBERG, L.; RUMBLEY, L. E. Tracking a global academic revolution. *Change: The Magazine of Higher Learning*, London, v. 42, n. 2, p. 30-39, 2010. <https://doi.org/10.1080/00091381003590845>
- ARANTES, P. F. Higher education in dark times: from the democratic renewal of Brazilian universities to its current wreck. *Policy Reviews in Higher Education*, [s. l.], v. 5, n. 4, p. 1-27, 22, Jan. 2021. <https://doi.org/10.1080/23322969.2021.1872412>
- ARRETCHE, M. (ed.). *Paths of inequality in Brazil: a half-century of changes*. [S. L.]: Springer, 2019.
- ARRUDA, E. P.; ARRUDA, D. E. P. Educação a distância no Brasil: políticas públicas e democratização do acesso ao ensino superior. *Educação em Revista*, Belo Horizonte, v. 31, n. 3, p. 321-338, Sep. 2015. <https://doi.org/10.1590/0102-4698117010>
- BAXTO, W.; AMARO, R.; MATTAR, J. Distance education and the open university of Brazil. *The International Review of Research in Open and Distributed Learning*, Athabasca, v. 20, n. 4, p. 100-115, Jul. 2019. <https://doi.org/10.19173/irrodl.v20i4.4132>.
- BERNASCONI, A.; CELIS, S. Higher education reforms: Latin America in comparative perspective. *Education Policy Analysis Archives*, Tempe, v. 25, p. 67, p. 1-15, Jul. 2017. <https://doi.org/10.14507/epaa.25.3240>
- BIELSCHOWSKY, C. E. Análise dos resultados do Exame Nacional de Desempenho de Estudantes (Enade) para educação a distância do ciclo 2015 a 2017. *EaD em Foco*, Rio de Janeiro, v. 8, n. 1, 758, Oct. 2018. <https://doi.org/10.18264/eadf.v8i1.758>
- BIELSCHOWSKY, C. E. Tendências de precarização do ensino superior privado no Brasil. *Revista Brasileira de Política e Administração da Educação*, Brasília, DF, v. 36, n. 1, p. 241-271, jan./abr. 2020. <https://doi.org/10.21573/vol36n12020.99946>
- BORSATO, F. P.; ALVES, J. M. Student assistance in higher education in Brazil. *Procedia - Social and Behavioral Sciences*, [s. l.], v. 174, p. 1542-1549, Feb. 2015. <https://doi.org/10.1016/j.sbspro.2015.01.786>

BOWEN, G. A. Document analysis as a qualitative research method. *Qualitative Research Journal*, [s. l.], v. 9, n. 2, p. 27-40, Aug. 2009. <https://doi.org/10.3316/QRJ0902027>.

BRENNAN, J.; NAIDOO, R. Higher education and the achievement (and/or prevention) of equity and social justice. *Higher Education*, [s. l.], v. 56, p. 287-302, 2008. <https://doi.org/10.1007/s10734-008-9127-3>

BUCCI, M. P. D.; GOMES, F. A. D. A piece of legislation for the guidance of public education policies in Brazil: the National Education Plan 2014–2024. *The Theory and Practice of Legislation*, London, v. 5, n. 3, p. 277-301, Sep. 2017. <https://doi.org/10.1080/20508840.2018.1427526>

BUCKNER, E. The worldwide growth of private higher education: cross-national patterns of higher education institution foundations by sector. *Sociology of Education*, [s. l.], v. 90, n. 4, p. 296-314, Oct. 2017. <https://doi.org/10.1177/0038040717739613>

CASTIONI, R., *et al.* Universidades federais na pandemia da Covid-19: acesso discente à internet e ensino remoto emergencial. *Ensaio: Avaliação e Políticas Públicas em Educação*, Rio de Janeiro, v. 29, n. 111, p. 399-419, Apr./Jun. 2021. <https://doi.org/10.1590/S0104-40362021002903108>

CHAVES, V. L. J. Expansão da privatização/mercantilização do ensino superior Brasileiro: a formação dos oligopólios. *Educação & Sociedade*, Campinas, v. 31, n. 111, p. 481-500, Jun. 2010. <https://doi.org/10.1590/S0101-73302010000200010>.

CHAVES, V. L. J.; AMARAL, N. C. Política de expansão da educação superior no Brasil: o ProUni e o Fies como financiadores do setor privado. *Educação em Revista*, Belo Horizonte, v. 32, n. 4, p. 49-72, Dec. 2016. <https://doi.org/10.1590/0102-4698162030>.

CLANCY, P.; GOASTELLE, G. Exploring access and equity in higher education: policy and performance in a comparative perspective. *Higher Education Quarterly*, [s. l.], v. 61, n. 2, p. 136-154, Apr. 2007. <https://doi.org/10.1111/j.1468-2273.2007.00343.x>

COQUEIRO, N. P. S.; SOUSA, E. C. A educação a distância (EAD) e o ensino remoto emergencial (ERE) em tempos de Pandemia da Covid 19. *Brazilian Journal of Development*, Curitiba, v.7, n.7, p. 66061-66075, Jul. 2021. <https://doi.org/10.34117/bjdv7n7-060>

CORTELAZZO, A. L.; ELISEI, C. C. A. Desempenho dos estudantes de cursos presenciais e a distância no Enade em 2015, 2016 e 2017. *Ensaio: Avaliação e Políticas Públicas em Educação*, Rio de Janeiro, v. 30, n. 114, p. 1-25, 23 Jul. 2021. <https://doi.org/10.1590/s0104-40362021002902247>

CRUZ, J. R.; LIMA, D. C. B. P. Trajetória da Educação a Distância no Brasil: políticas, programas e ações nos últimos 40 anos. *Jornal de Políticas Educacionais*, Curitiba, v. 13, n. 13, p. 1-19, Apr. 2019. <https://doi.org/10.5380/jpe.v13i0.64564>

ELO, S.; KYNGÄS, H. The qualitative content analysis process. *Journal of Advanced Nursing*, Oxford, v. 62, n. 1, p. 107-115, Apr. 2008. <https://doi.org/10.1111/j.1365-2648.2007.04569.x>

GIOLO, J. Educação a Distância no Brasil: a expansão vertiginosa. *Revista Brasileira de Política e Administração da Educação*, [s. l.], v. 34, n. 1, p. 73-97, Apr. 2018. <https://doi.org/10.21573/vol34n12018.82465>

INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA – IBGE. *Acesso à Internet e à televisão e posse de telefone móvel celular para uso pessoal 2018*. Rio de Janeiro, 2020.

INSTITUTO NACIONAL DE ESTUDOS E PESQUISAS EDUCACIONAIS – INEP. *Censo da Educação Superior 2019: notas estatísticas*. Brasília, DF: Ministério da Educação, 2020.

INSTITUTO NACIONAL DE ESTUDOS E PESQUISAS EDUCACIONAIS – INEP. *Plano Nacional de Educação PNE 2014-2024: linha de base*. Brasília, DF: Ministério da Educação, 2014.

KIRAKOSYAN, L. Affirmative action quotas in Brazilian higher education: analyzing claims and implications. *Journal for Multicultural Education*, Bingley, v. 8, n. 2, p. 137-44, 2014. <https://doi.org/10.1108/jme-01-2014-0005>

MARGINSON, S. The worldwide trend to high participation higher education: dynamics of social stratification in inclusive systems. *Higher Education*, Oxford, v. 72, n. 4, p. 413-434, Oct. 2016. <https://doi.org/10.1007/s10734-016-0016-x>

MATTOS, M. C. C. M.; SILVA, M. C. R. F. Marco regulatório da Educação à Distância no Brasil de 1961 a 2017: uma análise histórico-crítica. *EaD em Foco*, Rio de Janeiro, v. 9, n. 1, Jun. 2019. <https://doi.org.br/10.18264/eadf.v9i1.751>

MCCOWAN, T. Three dimensions of equity of access to higher education. *Compare*, [s. l.], v. 46, n. 4, p. 645-665, 2016b.

MCCOWAN, T. Universities, and the post-2015 development agenda: an analytical framework. *Higher Education*, Oxford, v. 72, n. 4, p. 505-523, 18 Oct. 2016a. <https://doi.org/10.1007/s10734-016-0035-7>

MELLO, S. L. M., *et al.* Innovation in the digital era: new labor market and educational changes. *Ensaio: Avaliação e Políticas Públicas em Educação*, Rio de Janeiro. 28, n. 106, p. 66-87 Jan./Mar. 2019. <https://doi.org/10.1590/s0104-40362019002702511>

MENSAH, J. Sustainable development: meaning, history, principles, pillars, and implications for human action: a literature review. *Cogent Social Sciences*, [s. l.], v. 5, n. 1, p. 1–21, 1 Jan. 2019. <https://doi.org/10.1080/23311886.2019.1653531>

MENSE, E. G., *et al.* The development of global higher education in a world of transformation. *Journal of Education and Development*, [s. l.], v. 2, n. 3, p. 47-60, Sep. 2018. <https://doi.org/10.20849/jed.v2i3.529>

NOUI, R. Higher education between massification and quality. *Higher Education Evaluation and Development*, [s. l.], v. 14, n. 2, p. 93-103, Nov. 2020. <https://doi.org/10.1108/HEED-04-2020-0008>

OECD. Education at a Glance 2019. Paris: OECD, 2019.

OKETCH, M. Financing higher education in sub-Saharan Africa: some reflections and implications for sustainable development. *Higher Education*, [s. l.], v. 72, n. 4, p. 525-539, Oct. 2016. <https://doi.org/10.1007/s10734-016-0044-6>

OWENS, T. L. Higher education in the sustainable development goals framework. *European Journal of Education*, [s. l.], v. 52, n. 4, p. 414-420, Dec. 2017. <https://doi.org/10.1111/ejed.12237>

PAULA, C. H.; ALMEIDA, F. M. O programa Reuni e o desempenho das Ifes brasileiras. *Ensaio: Avaliação e Políticas Públicas em Educação*, Rio de Janeiro, v. 28, n. 109, p. 1054-1075, Oct./Dec. 2020. <https://doi.org/10.1590/s0104-40362020002801869>

PEREIRA, C. A.; ARAUJO, J. F. F. E.; MACHADO-TAYLOR, M. L. The Brazilian higher education evaluation model: “SINAES” sui generis? *International Journal of Educational Development*, [s. l.], v. 61, p. 5-15, July 2018. <https://doi.org/10.1016/j.ijeducdev.2017.11.007>

QAYYUM, A.; ZAWACKI-RICHTER, O. *Open and distance education in Asia, Africa, and the middle east: national perspectives in a digital age*. In: ZAWACKI-RICHTER, O.; QAYYUM, A. (eds.). *The state of open and distance education*. Singapore: Springer, 2019. p. 125-140.

RAPANTA, C., *et al.* Online university teaching during and after the Covid-19 crisis: refocusing teacher presence and learning activity.

Postdigital Science and Education, [s. l.], v. 2, n. 3, p. 923-945, Oct. 2020.
<https://doi.org/10.1007/s42438-020-00155-y>

RISTOFF, D. O novo perfil do campus brasileiro: uma análise do perfil socioeconômico do estudante de graduação. *Avaliação (Campinas)*, v.19, n. 3, p. 723-747, Nov. 2014. <https://doi.org/10.1590/S1414-40772014000300010>

SALMI, J.; D'ADDIO, A. Policies for achieving inclusion in higher education. *Policy Reviews in Higher Education*, v. 5, n. 1, p. 1-26, Oct. 2020. <https://doi.org/10.1080/23322969.2020.1835529>

SANTOS, C. D. A. Educação superior a distância no Brasil: democratização da oferta ou expansão do mercado. *Revista Brasileira de Política e Administração da Educação*, Brasília, DF, v. 34, n. 1, p. 167-188, Jan./Apr. 2018. <https://doi.org/10.21573/vol34n12018.82470>

SCHENDEL, R.; MCCOWAN, T. Expanding higher education systems in low- and middle-income countries: the challenges of equity and quality. *Higher Education*, [s. l.], v. 72, n. 4, p. 407-411, 18 Oct. 2016. DOI 10.1007/s10734-016-0028-6.

SCHWARTZMAN, S. Higher education and the challenges of the twenty-first century: an introduction. In: SCHWARTZMAN, S. *Higher education in Latin America and the Challenges of the 21st Century*. Cham: Springer, 2020. p. 1-17.

SOMERS, P., et al. Brazil's radical approach to expanding access for underrepresented college students. In: MEYER, H.-D., et al. (eds.). *Fairness in access to higher education in a global perspective: reconciling excellence, efficiency, and justice*. Rotterdam: Sense, 2013. p. 203-221.

STREET, H. Factors influencing a learner's decision to drop-out or persist in higher education distance learning. *Online Journal of Distance Learning Administration*, [s. l.], v. 13, n. 4, Dec. 2010.

TIGHT, M. Mass higher education and massification. *Higher Education Policy*, [s. l.], v. 32, n. 1, p. 93-108, Mar. 2019. <https://doi.org/10.1057/s41307-017-0075-3>

TOMLINSON, M.; WATERMEYER, R. When masses meet markets: credentialism and commodification in twenty-first-century higher education. *Discourse: Studies in the Cultural Politics of Education*, [s. l.], v. 43, n 2, p. 173-187, Sep. 2020. <https://doi.org/10.1080/01596306.2020.1814996>

TROW, M. Reflections on the Transition from elite to mass to universal access: forms and phases of higher education in modern societies since WWII. *International Handbook of Higher Education*, Dordrecht: Springer, 2008. (Springer International Handbooks of Education book series, v. 18).

UNITED NATIONS. *Transforming our world: the 2030 agenda for sustainable development*. Resolution adopted by General Assembly on 25 September 2015.


WORLD BANK. *World Development Report 2019: the changing nature of work*. Washington, DC: The World Bank, 2019.

WU, Y. C. J.; SHEN, J. P. Higher education for sustainable development: a systematic review. *International Journal of Sustainability in Higher Education*, [s. l.], v. 17, n.5, p. 633-651, 2016. <https://doi.org/10.1108/IJSHE-01-2015-0004>




Information about the authors


Sidney L. M. Mello: Ph.D., Full Professor at Faculdade Cesgranrio, Universidade Federal Fluminense, and member of the Academia Brasileira de Educação. Contact: smello@id.uff.br.

 <https://orcid.org/0000-0003-4977-558X>


Marcelo J. Meiriño: DSc., Associated Professor head of professional MSc program in management systems at Universidade Federal Fluminense. Contact: marcelojm@id.uff.br.

 <https://orcid.org/0000-0001-9165-2300>

Walter Leal Filho: Ph.D., Senior Professor at London Metropolitan University, UK, and head of the Research and Transfer Centre “Applications of Life Sciences” of the Hamburg University of Applied Sciences. Contact: walter.leal2@haw-hamburg.de.

 <https://orcid.org/0000-0002-1241-5225>

Thaís N. da R. Sampaio: MSc., Partnership manager at Descomplica Faculdade Digital. Contact: thais.nunes@descomplica.com.br.

 <https://orcid.org/0000-0002-1081-3270>