

Knowledge production on internationalisation of Higher Education in the Global South

Latin America in focus

Kyria Rebeca Finardi
Federal University of Espírito Santo (UFES), Brazil

Claudio França
Federal University of Espírito Santo (UFES), Brazil

Felipe Furtado Guimarães
Federal University of Espírito Santo (UFES), Brazil.

Abstract: Drawing on the notion of ecology of knowledges and epistemologies of the South, the study discusses the production of knowledge on internationalisation of higher education in Latin America through the analysis of papers published between 2011- 2020 by authors linked to institutions located in this region. Bibliometric techniques were used to compose a corpus of 117 papers from the Scopus database, analysed in two dimensions. In the editorial dimension, annual production by country and most prevalent languages and journals were analysed, and in the epistemological dimension the most cited authors, word co-occurrence and collaborations were analysed. Results of the study show that the growth in publications is unmatched by the impact of this production, suggesting a lack of ecology of knowledges and epistemologies of the South in Latin America, thus reinforcing the status quo and reverberation of theories produced outside the ecosystem of the South.

Keywords: Academic production. Higher education. Internationalisation. Latin America. Global South.

Resumen: A partir de la noción de ecología de saberes y epistemologías del Sur, el estudio discute la producción de conocimiento sobre la internacionalización de la educación superior en América Latina a través del análisis de trabajos publicados entre 2011-2020 por autores vinculados a instituciones de esa región. Se utilizaron técnicas bibliométricas para componer un corpus de 117 artículos de la base de datos Scopus, analizados en dos dimensiones. En la dimensión editorial se analizó la producción anual por país y los idiomas y revistas más prevalentes y en la dimensión epistemológica se analizaron los autores más citados, co-ocurrencia de palabras y colaboraciones. Los resultados del estudio muestran que el crecimiento de las publicaciones no tiene relación con el impacto de esta producción sugiriendo una falta de ecología de saberes y epistemologías del Sur en América Latina, reforzando así el status quo y la reverberación de las teorías producidas fuera del ecosistema del Sur.

Palabras clave: Producción académica. Educación superior. Internacionalización. América Latina. Sur global.

1 Introduction

The hierarchical structure and legacies/entanglements of knowledge production in international education are discussed by Takayama, Sriprakash and Conell (2017) from a Southern perspective that critiques the Northern-centered global ‘economy of knowledge’ on the grounds that such economy requires the inclusion of voices from the South (e.g., Dados & Connell, 2012). Boaventura de Sousa Santos’ (2014) ‘Epistemologies of the South’ represents a relevant framework for the analysis of the knowledge production in the Global South. Thus, in the present study, we draw on the notions of abyssal lines, ecology of knowledges and epistemologies of the South, to analyse knowledge production in the field of internationalisation of higher education (IHE) in Latin America.

Abyssal lines (Santos, 2014) consist of a system of visible and invisible lines that divide the world, whereby knowledges produced in the Global North are visible, whereas knowledges produced in the Global South are not. The exclusion or invisibility of knowledges produced on the ‘other side of the abyssal lines’ results in a type of ‘epistemicide’ (Santos, 2014) that could be avoided by promoting an ‘ecology of knowledges’.

Latin American perspectives (e.g., Quijano, 2000; Grosfoguel, 2007, 2013; Maldonado-Torres, 2007; Mignolo, 2011) have also been used to approach IHE (e.g., Leal & Moraes, 2018; Abba, Leal & Finardi, 2022), and are analysed in the present study in terms of the scientific production on internationalisation of higher education in Latin America. More specifically, this study analyses papers published by authors linked to institutions located in Latin America in the Scopus database. In doing so, we acknowledge that the Global North/Global South distinction goes beyond geographical locations, involving economic, cultural, historical and epistemological aspects that are not always bound to geographical delimitations. Yet, we argue that the analysis of the scientific production in IHE in Latin America may enrich the discussion of the ecology/economy of knowledge production in the South and North divide/abyssal lines.

2 Tensions in the production of knowledge in Latin America

Alperin, Fischman and Willinsky (2011) claim that the difference between a top-tier and a second-tier journal can be determined by whether it is published in English or not. Altbach (1991) states that the knowledge production in the field of international education is unequally distributed/valued. Following these claims, this study assumes that the ‘invisibility’ of the scientific production in IHE in Latin America is linked to (and can be, at least partially, explained by) the analysis of two variables, namely, the language and vehicle (place) of publication.

Languages play a key role in higher education and its internationalisation process, for various reasons. For instance, languages are used as medium of instruction and as medium of academic production and cooperation, thus affecting relationships, identities, and academic group membership, that may allow or impede the sharing of common research interests (e.g., Spolsky, 2004; Shohamy, 2006; Wright, 2016; Lagares, 2018).

Regarding the second variable, for example, vehicle of publication, Beigel (2014) claims that international academic publishing with the Institute for Scientific



Information (ISI) style affected ‘peripheral’ journals, as citation data collected and produced in central institutions became ‘universal’, determining *what* gets published *where*. Though the World Scientific System (WSS) has had attention from research, it was only in the second post-war internationalisation period that the universalisation of science produced in the Global North acquired more prominence, despite evidence that autonomous knowledge is also produced in the periphery/Global South (e.g., Takayama, Sriprakash and Connell, 2017).

In relation to the ISI, the international scientific production is influenced by standards established by this Institute, an organization initially created in the 1960s to support the development of library collections, though (throughout the following decades) it has also influenced the assessment of science outcomes. Using the citation counts of articles published in journals, ISI has developed its own metrics, such as the Impact Factor, which indicates the journals with the highest impact in their fields of knowledge. The problem is: the inclusion of journals in the ISI indexes, currently part of the ‘Web of Science’ database, is a very restrictive process, targeted at a relatively small number of journals.

Therefore, looking only at the journals indexed in that database (Web of Science) as parameter to determine what will be published (and in which journal) can be considered a process which is ‘harmful’ to science, excluding the knowledge(s) published in journals that are not part of the indexes of large bibliographic databases. Consequently, these publications are not ‘visible’ nor ‘acknowledged’ in their fields of knowledge. Indeed, we can see the following scenario: journals which are part of large bibliographic databases, achieving impact metrics, are seen as ‘universal’, while journals which are not part of such databases are at the ‘margin’ of knowledge production.

The international academic production system dominated by ISI-style and the hyper-centrality of English contributes to the unequal distribution of material resources and academic recognition, since ‘global science’ receives minimum input from the peripheries, relying on international databases that include mainstream journals written in English. The analysis of symbolic capital (e.g., Bourdieu, 1991) as scientific recognition suggests that the mainstream scientific production has been self-built on the supposition that outside the centers of excellence (of the Global North) there is little academic value (Vessuri, Guédon & Cetto, 2014) or what Santos (2008; 2014) calls ‘invisibility’.

Regarding the languages and vehicles of this ‘invisibility’, Heilbron (2013) shows that there are many more books translated from English than into English, whereas for all other languages the reverse is true. What is more, Heilbron (2001) suggests that this trend in translation practices mirrors and reproduces, rather than corrects, core-periphery asymmetries in citations. This is so because citations depend on languages and vehicles of publication, and they are used as metrics to evaluate the impact of research (Maltrás-Barba, 2003). Put differently, even if a publication significantly contributes to the advancement of science, if it is not published in English in mainstream journals, it may never reach scientists (and citations) inside the ‘center’ of the production of knowledge.

Vessuri, Guédon and Cetto (2014) analysed the Latin American academic production arguing that the obsession for internationalisation, imposed by impact factors and journal rankings, pervaded the evaluation systems in that region. As a result, local journals had to either adapt to these internationalisation rules or focus on local needs and languages. Beigel (2014) suggests that international publications are produced by two different elites: those who publish in English but ‘perish locally’, and those who publish in local languages but ‘perish globally’.



To address internationalisation ideals, Latin America sought to build its own system of journals and repositories to ensure worldwide projection/visibility, as can be seen in the creation of Latindex, SciELO and Redalyc, which represent relevant initiatives in that direction. Alperin, Fischman and Willinsky (2011) claim that the SciELO became Latin America's version of the Science Citation Index (SCI), with all its virtues and weaknesses. One of SciELO's responses to the weakness in disciplinary focus on the hard sciences to the detriment of the soft/social sciences is the creation of Redalyc in 2002, to include Latin America, the Caribbean, Spain, and Portugal.

Despite these initiatives and according to Bernasconi (2013), the models adopted by universities in the Global North reinforce the visibility of publications in English and in the STEM areas. We argue that a colonial legacy can help to explain the asymmetries between languages (English versus other languages), knowledge areas (hard versus soft sciences) and centers (Global North/center versus Global South/periphery) in the economy and distribution of knowledge(s), and visibility in the two sides of the abyssal lines.

Indeed, if we consider Brunner and Salazar's (2009) unsettling claim that approximately 90% of all academic papers are never cited, and that half of them are never read by anyone other than their authors, reviewers and editors, then we can agree that where a paper is published and cited is arguably more important than the content of that publication, for it could determine whether a paper gets read/cited and by whom. Put differently, the 'where' and 'how' a paper is published has more 'value' than the content itself. This is why we approach the 'invisibility' of the knowledge produced in Latin America as a window through which to analyse academic production in the Global South, despite the limitations of a geographically-bound perspective in the analysis of knowledge produced in the Global South/Latin America.

The choice to analyse the academic production in IHE is based on the view that 'soft' or social sciences, such as international education, suffer from a 'disobedience' to universalistic laws and measures. Indeed, Buquet (2013) argues that one of the reasons why the social sciences are not as internationalised as the STEM areas is related to the fact that the latter deals with more 'universal knowledge' published in English, while the former tackles local/regional issues and problems that may be best addressed by local languages.

According to Meneghini and Packer (2007), more than half of the publications are in Portuguese in Brazil. Finardi and França (2016) and Finardi, França and Guimarães (2022) report similar results explaining the mismatch between the number of publications and the impact of publications, as measured by citations, in relation to the languages in which Brazilian scholars publish. According to Packer (2009), though initiatives such as SciELO aim to give more visibility to the Latin American academic production, helping non-English-speaking countries to be more 'visible' in international databases, they still do not solve the problem of how and where to find the 'lost' science hidden beneath an 'invisible language' located in the 'wrong' side of the abyssal lines. Thus, the analysis of 'languages' and 'locations' in the production/circulation of knowledge in the two sides of the abyssal lines is justified.

In what concerns the geographical link between the (in)visibility of international academic production and its internationalisation, Buquet (2013) correlated the country of affiliation of authors with the country of journals, to explain the low level of internationalisation of the Latin American academic production. The author claims that the academic production in that region is neither internationalised nor regionalised, for it is mostly concentrated in the country where it was produced. As



such, the lack of visibility/internationalisation of the Latin American academic production in social sciences is twofold: Latin American authors publish in non-mainstream journals which (in turn) are concentrated in the lower second half of rankings.

An alternative approach to foster a greater visibility of productions which are not 'mainstream' is the adoption of editorial standards which could make possible not only the indexation in large bibliographic databases (such as Scopus and Web of Science) but also the indexation in regional databases such as SciELO, Redalyc and Dialnet. For instance, the integration of SciELO into the Web of Science in 2014 made it possible to access the contents indexed in the national database (SciELO), including citation indicators that could improve the visibility of works, considering the assessment indexes of the international database (Web of Science).

Vessuri, Guédon and Cetto (2014) claim that the scientific production of the Global South (countries which are not members of the Organization for Economic Co-operation and Development [OECD], according to these authors) suffers from a lack of visibility despite efforts such as Redalyc, which is particularly beneficial to the social sciences and humanities fields that do not abide to the logic of impact factors and the use of English as the lingua franca of publications. Moreover, they make the caveat that, though it is true that science that is not visible 'does not exist', visibility alone is not a proxy to quality, nor enough to guarantee it. That can be seen in several Latin American journals/papers that are accessible on the internet, but that does not mean they are read or cited, for this would depend on their quality, as well as who determines that quality. While much can be done to improve access and visibility of the research produced in Latin America, it will remain of limited 'value' if it continues to be perceived as 'peripheral', 'underdeveloped' and of 'local interest' only, just because it is produced in the 'wrong' side (or language) of the 'abyssal lines'.

Buquet (2013) claims that 80% of Latin American papers in social sciences are published in Spanish or Portuguese. What is more disturbing, in our opinion, is the observation made by Buquet (2013) that the Latin American academic production suffers from a lack of reciprocity of citations, since authors in that region cite more those of the Global North, whereas the opposite does not hold true. Again, it is hard to circumvent the relationship between language/citation here.

Guzmán-Valenzuela (2017) discusses the external pressures from various institutions to internationalise academic production in the humanities and social sciences fields, while Guzmán-Valenzuela and Gómez (2019) identify a dual pattern of publication in Latin America, characterised by a wish to internationalise while maintaining local presence and relevance. Issues related to language, rankings and prestige, the North/South division, the distinction between hard/basic and soft/applied sciences and the nature of higher education studies were used by Guzmán-Valenzuela and Gómez (2019) to explain such a pattern of securing a 'dual epistemic recognition'. Before that, Fischman, Alperin and Willinsky (2010) had already claimed that the Latin American university was divided between local/regional and international interests. What is more problematic, according to the aforementioned authors, is the observation that though Latin America represented 8% of the world's population, it accounted for only 1.6% of the world academic production.

Gacel-Ávila (2012) claims that Latin American universities are reviewing their mission/internationalisation process (e.g., Guimarães et al., 2020), one of the characteristics of 'internationalised' universities according to Kuzhabekova and Lee (2018). Mendoza and Dorner (2020) suggest that the theory of 'academic capitalism' can explain the tensions in higher education and, in that sense, Bernasconi (2013)



reminds us that the use of international rankings produced in, by and for the Global North, does not make justice to Latin American universities, given their ‘common good’ responsibilities and functions that transcend the neoliberal logic of Anglo-Saxon universities, something that was also corroborated about Brazilian universities, as described in a study by Finardi and Guimarães (2017).

3 Higher Education and Internationalisation in Latin America

According to Belli and Balta (2019), the mapping of bi-regional scientific collaboration requires multiple approaches to obtain the best picture. In their bibliometric study, they used the number and type of publications, as indicators to analyse the scientific production indexed in the Web of Science (WoS) database from countries in Latin America, the Caribbean, and the European Union (EULAC), between 2005 and 2016, paying special attention to the most important research areas, and the role of national research agencies in the promotion of international cooperation. In addition, the study analysed an additional indicator of ‘strength of link’, looking at alliances between countries and the connection of a particular country within the network, drawn by the set of co-publications analysed. Results of their study suggest the ability of EULAC countries to generate scientific networks, and their relevant role in a growing worldwide network of researchers from various countries.

With a specific focus on Latin America and results that are more relevant to the present study, Guzmán-Valenzuela and Gómez (2019) claim that Latin American scholars are caught between tensions to maintain their local identities in the South while acquiring visibility in the North. Another tension identified in the IHE is that between cooperation and competition (e.g. De Wit, 2020; Finardi, Mendes & Silva, 2022). This resulted in an increasing dominance of English and internationalisation as a soft power (for more discussions on internationalisation, see Knight, 2011; De Wit, 2011; De Wit et al., 2015; Beelen & Jones, 2015; Guimarães et al., 2019).

To see how this soft power may be enacted by researchers linked to institutions in the Global South, we propose an analysis of the knowledge production in Latin America as a window through which to see the tensions between collaboration/competition and between local/international forces that interact in the production and dissemination of knowledge in IHE, in relation to the possibility of producing an ecology of knowledges and epistemologies of the South.

4 Method

Bibliometric techniques coupled with the analyses of social networks were used to map the scientific production on internationalisation of higher education in Latin America, published in journals between 2011 and 2020 by authors affiliated with institutions located in this region. The data were collected in January 2021 from the Scopus database. As attested by Mongeon and Paul-Hus (2016), when comparing the two main bibliographic bases of WoS and Scopus, they observed that the coverage by area of knowledge in the social sciences presents greater representativeness in the Scopus base, as verified in the 281 titles indexed in Scopus versus 98 titles in the WoS database for the year 2020.

Thus, considering that higher education studies are predominantly concentrated in social sciences journals and the aim to analyse the scientific production concentrated in the Global South in search of evidence of internationalisation, the Scopus database was chosen as the data source for this study. It has the highest coverage in relation to the number of indexed journals in Latin America, which

allows for a more extensive analysis of scientific production related to higher education in that region.

The search strategy used employed the descriptors: higher education, applied in the syntax (“higher education” OR “tertiary education” OR “university education”) AND (“internationalization” OR “internationalization”), parameterised so that these terms were retrieved in the title, keywords and/or abstract (TITLE-ABS-KEY). The decision to use semantically corresponding descriptors was made to enable greater retrieval of documents related to the research focus.

In addition, delimiters related to the authors’ institutional affiliation (AFFILCOUNTRY) were applied to the search strategy, seeking to ensure that the recovered records included only those linked to Latin American institutions. The application of this filter yielded 117 documents which constitute the corpus of this study. The ‘Biblioshiny’ tool was used, a ‘Bibliometrix’ graphical interface that prepares ‘science mapping’ analyses with indicators to measure the evaluation of scientific production (Aria & Cuccurullo, 2017).

The results are categorised in two dimensions: the editorial dimension, which allows the examination of common aspects of scientific production; and the epistemological dimension, which allows the analysis of the theoretical development of a given field, measured by its thematic evolution, the interactions and influences with other themes and research domains, and the collaboration networks between countries. Figure 1 summarizes the data categorized in the editorial and epistemological dimensions.

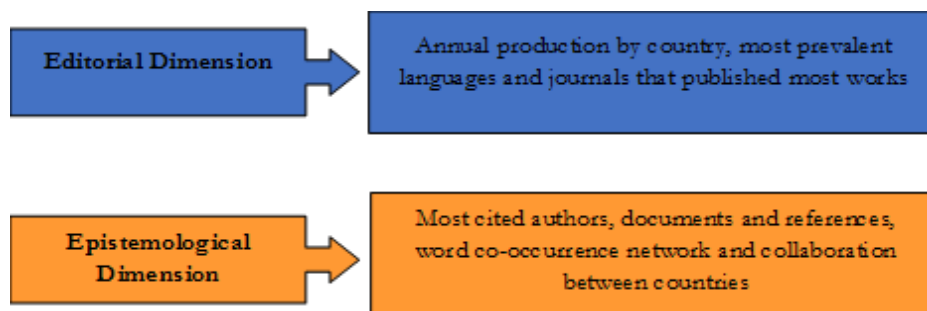
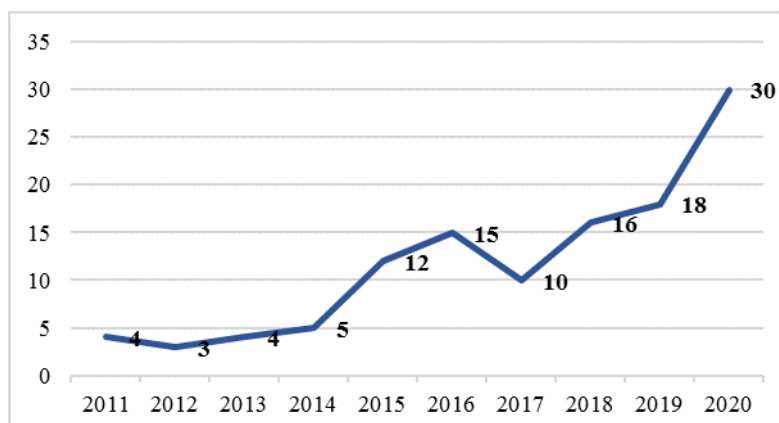


Figure 1: Dimensions analysed in the study (Prepared by the authors, 2021).

5 Results and Discussion

5.1 Scientific production on internationalisation of higher education in Latin America: the editorial dimension

In the period of analysis, the articles on internationalisation of higher education produced by authors linked to countries in Latin America were published in 71 journals. The production measured in the decade of analysis, represented in Graph 1, shows that the growth was continuous until the year 2016, with a decrease in documents published in 2017, with a recovery in the following year reaching a peak in 2020, with 30 documents published. At the end of the analysed period, it was possible to observe an annual growth rate of 25.09%, which demonstrates that studies on internationalisation are still emerging and have not reached ‘saturation’ among researchers in the field of higher education.



Graph 1: Annual scientific production (2011-2020) (research data, 2021).

The growth observed reflects the increase and consolidation of policies related to greater investment in Science, Technology, and Innovation (ST&I), training of human resources and improvement of the evaluation actions for scientific production. Likewise, the changes observed in scientific communication practices, materialized in the transition from printed to electronic and digital formats, as well as the intensification of actions to encourage ‘open access’, in addition to the interest in internationalising national productions, were driving agents for the increase observed during the period under review (Santín & Caregnato, 2019). A trend towards co-authorship was observed, as can be seen in the number of papers with a single author in the corpus, only 24% ($n = 29$). The other publications in the corpus had two or more authors, amounting to a total of 231 co-authored papers. The Latin American scientific production analysed per country revealed the predominance of Brazilian authors 56% ($n = 66$) during the period of analysis. The five countries with the highest academic production after Brazil were Mexico with 15 papers; Chile with 13 papers; Colombia, Argentina and Cuba with 11, 8 and 4 papers, respectively.

These results are in line with a recent study developed by Guzmán-Valenzuela and Gómez (2019), comparing the scientific production of the ‘Core Collection’ of the Web of Science (WoS) with the SciELO Citation Index, both members of the Web of Science (WoS) database. SciELO is less restrictive than WoS, similarly to the Scopus database, where Guzmán-Valenzuela and Gómez (2019) found the Mexican production occupying the second place, ahead of the Chilean production, a scenario that is reversed when analysing only the production indexed in the main collection of WoS.

Despite the fact that the study by Guzmán-Valenzuela and Gómez (2019) had a cutoff point for analysis between 2000 and 2015, the results of the present study show that the expansion of the analysis period until 2020 does not change the pattern of production in the most productive countries in the region, in regards to the production on internationalisation of higher education.

Regarding the language of publications and despite the fact that, with the exception of Brazil, most Latin American countries speak Spanish, it was observed that almost half of the scientific production in the region 46.1% ($n = 54$) was published in English. Though with a smaller representation, works published in Spanish were also found representing 29.10% ($n = 34$) of data and followed by Portuguese 24.80% ($n = 29$) of the data.



The compiled data for the period between 2011 and 2020 is shown in Table 1, segmented in periods of five years, to allow the verification of trends in terms of choice of language of publication over the years.

Period	Language	Documents	Percentage
Whole (2011-2020)	English	54	46,10%
	Spanish	34	29,10%
	Portuguese	29	24,80%
TOTAL		117	100%
Segment 1 (2011-2015)	English	11	39,30%
	Spanish	9	32,10%
	Portuguese	8	28,60%
TOTAL		28	100%
Segment 2 (2016-2020)	English	43	48,30%
	Spanish	25	28,10%
	Portuguese	21	23,60%
TOTAL		89	100%

Table 1: Language of publication (research data, 2021).

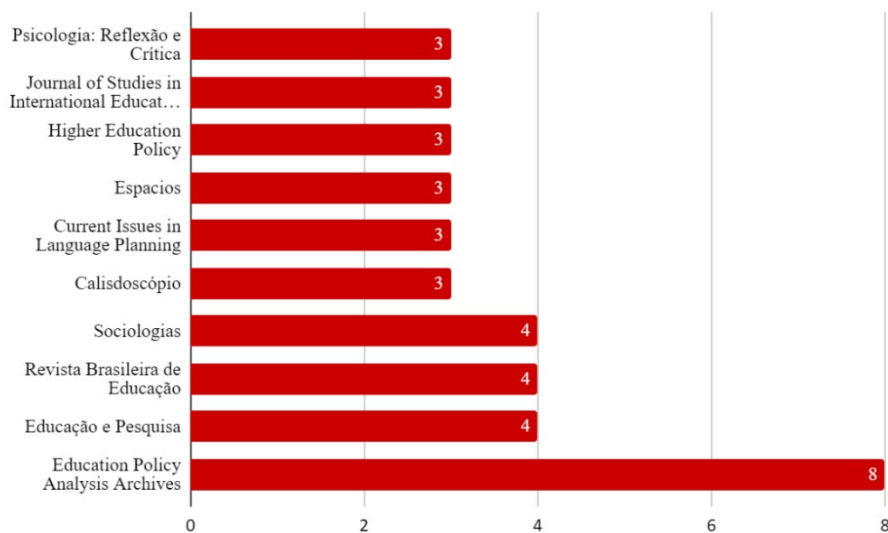
A growth in publications is observed in the five-year period 2016-2020, as well as the choice to publish in English with a growth of 9%, when compared to the previous five-year period, reinforcing the changes in scientific communication practices, especially regarding the patterns of language choice for publication. This result may suggest three hypotheses: (1) the acceptance of journals from the Global North to publish papers by Latin American authors; (2) the co-authorship with authors from the Global North, favoring publication in foreign journals; and (3) the search for authors and editors to adapt to the standards established for indexing periodicals on prestigious reference bases, such as Scopus, allowing greater visibility for local productions and, consequently, greater impact, by becoming available in English-speaking countries.

At this point, it is important to note the caveat made by Alperin, Fischman and Willinsky (2011) regarding the difference between top-tier and second-tier journals. According to Beigel (2014), the publishing system dominated by the hyper-centrality of English contributed to establish an unequal distribution of material resources and academic recognition. Indeed, the aforementioned author claims that global science is analysed with minimum input from the peripheries, relying on 'international' databases that include only 'mainstream' journals written in English.

Still in regard to the use of languages for publications, and as shown by Heilbron (2001) in relation to translation and citation flows/patterns, the more central (mainstream/hegemonic) the scientific production of a nation/region is, the more it has a chance of being cited and translated. Considering Buquet's (2013) claim that more than 80% of the papers published in Latin America are in Spanish and/or Portuguese, it is easy to 'link the dots' between language and impact (citation) of publications.

As suggested earlier by Brunner and Salazar (2009), the way a paper is cited (and its outlet of publication) is often perceived as having more importance than the content of the publication itself. Since the language of publication determines the outlet and readership of a paper, we argue that languages chosen for publications are directly related to the readership/visibility of paper. Whether this non-reciprocal pattern of recognition is associated with the language and/or place and outlet of publication is debatable, though we argue (based on the literature reviewed here) that this hypothesis is at least worth investigating.

Returning to our data and analysis of the language factor in publications, the journals that publish the most articles on internationalisation are shown in Graph 2, confirming the hypotheses raised here and providing evidence that the academic production of the region is gaining entry in international journals whose language of publication is essentially English.



Graph 2: Journals with the largest number of published articles (2010-2019) research data, 2021).

However, among the ten journals with the highest number of papers published, the presence of titles from Latin America ($n = 6$) is dominant, and it is noteworthy the presence of other four titles from countries of the Global North, especially the United States and England, namely, the Education Policy Analysis Archives (EPAA), published by the Arizona State University (ASU), with the largest number of papers ($n = 8$). The place of publication of the journal with the highest number of papers in our data corroborates Altbach's (1991) analysis, more than thirty years ago, denouncing that the knowledge production in international education was highly tied to 'flagship' journals based in English-speaking countries.

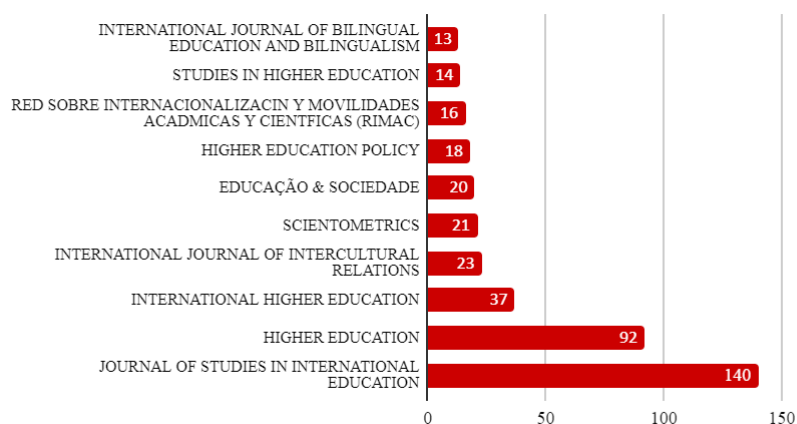
In other words, data shown in Graph 2 indicate that, although most works with the highest number of citations came from Latin America ($n=6$), it is important to highlight that the journal which published articles with the highest number of citations is edited in the USA, by ASU. This fact confirms Altbach's (1991) analysis, suggesting the (still) strong influence of publications that use the English language, located in hegemonic countries.

5.2 Indicators of scientific production on internationalisation of higher education in Latin America: the epistemological dimension

A citation represents relevant evidence for the development of indicators to measure the quality of an academic production, since the number of citations received is evidence of the acceptance or (at least) readership of contents published. When citations are analysed collectively, they can provide evidence of how the knowledge produced in each field influences the epistemological development of that field.



The data on the two most cited databases according to the list of references of articles produced by researchers from Latin America, shown in Graph 3, reveals the predominance of journals used by authors from this domain of knowledge, adding up to nine of the ten sources, since the ‘Network on Internationalisation and Academic and Scientific Mobility’ (Red sobre Internacionalización y Movilidades Académicas y Científicas – RIMAC) integrates a series of reports on the practices of internationalisation and higher education.

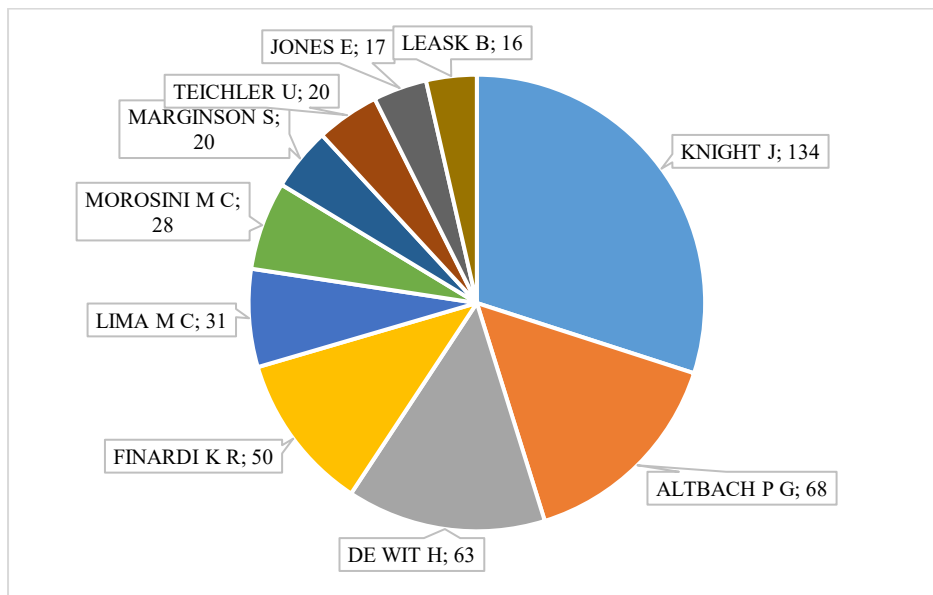


Graph 3: Document sources most cited in reference lists (2011-2020) (research data, 2021).

This evidence has to be considered in contrast with that of Hicks (2004) highlighting the high impact of books in the humanities and social sciences fields and taking into consideration Buquet’s (2013) claim that the visibility of Latin American papers suffers from two problems: (1) they are published in low impact outlets; and (2) the journals published in the region are located in the second half of the rankings.

When observing the geographical distribution of journals that receive the most citations (and, therefore, tend to influence the epistemic development of an area), there was a predominance of titles published in the Global North, with the presence of 8 titles, from the United Kingdom ($n = 4$), the United States ($n = 2$), and the Netherlands ($n = 2$). The other publications come from Mexico (Red sobre Internacionalización y Movilidades Académicas y Científicas) and Brazil (Educação & Sociedade).

Regarding the influence of the sources published in the Global North, the most cited authors in the corpus were analysed looking for traces of influence of authors in that region (Global North) to the development of a field. This is considered a relevant piece of evidence, because the set of ideas developed by a given author during his/her research trajectory can influence the development of a field. Graph 4 shows the ten most cited authors on internationalisation of higher education in our data.



Graph 4: Most cited authors (2011-2020) (research data, 2021).

References cited in articles published by Latin American researchers show the influence of authors outside that region and from the Global North, as can be seen in the citation of authors located in the Commonwealth of Nations (Knight, Marginson, Jones and Leask), the United States (Altbach), the Netherlands (De Wit) and Germany (Teichler). The most cited authors from the Global South are Brazilian researchers (Finardi, Lima and Morosini, in that order), although (together) they represent less than half of the citations, that is, 30% of the sample considered for analysis and, even so, they are not present in the three most cited sources composed by authors from the Global North (Knight, Altbach and De Wit, in that order).

The results of Graph 4 relate to the notion of ‘abyssal lines’ regarding the influence and visibility of the Global North, though there is a growing presence of authors and journals from the Global South attesting a sign of growing visibility and recognition of the science produced in Latin America.

The study of the co-occurrence of words is a type of content analysis and represents an important indicator of the epistemological dimension, as it allows the analysis of the recurrence of research topics of interest or the methodological approaches shared by a scientific community, when analysing words contained in titles and abstracts (Codato, Madeira & Bittencourt, 2020).

For the purposes of this study, and to envision the co-occurrence of words in the corpus, the keywords assigned by the authors in the documents were analysed and are graphically represented in the network shown in Figure 2.



Figure 2: Word co-occurrence network (2011-2020) (prepared by the authors in the Biblioshiny software, based on research data, 2021).

The Social Network Analysis (SNA) theory is used to analyse social structures identifying certain configurations that can be reduced to a small number of specific network patterns, to study the configurations of relationships (Johnson, 2011). The networks can be graphically represented and decomposed into subsets, called ‘clusters’, resulting in the graphic representation of the actors that integrate the network, with their position and ties.

In Figure 2, it is possible to observe the formation of five clusters, identified by colors, based on the keywords assigned by the authors in the articles. The red cluster is the center of the network, and the ‘bubbles’ where the terms are inserted can vary according to the recurrence of the words in the analysed set. Since “internationalisation” and “higher education” made up the search query in the Scopus database, they are the terms with greatest representation.

It is evident that other terms, members of the same cluster, gravitate around them, connected by edges, representing the proportion in which the two terms occur simultaneously. The closer an item is to the central terms of the cluster, in this case – “internationalisation” and “higher education” – the more intense is the co-occurrence of words.

The content analysis of the central cluster highlights the variety of concepts and themes investigated in the IHE area, showing that the ties are weak and not very dense, making it possible to infer that these topics are not systematically analysed in research in this area.

Two other clusters are connected to the central one, in red. Although it is possible to observe the link, it is in a peripheral condition, that is, distant from the central topics, indicating the reduced co-occurrence with terms related to the internationalisation of higher education. This fact is explained by the position of the blue and green clusters, located in other research domains: public policies and evaluation (blue), university and Argentina (green), and by the fact that they are not always in dialogue with the topic under analysis in this study.

Regarding public policies, and as put forward by Huitrón (2021), who analysed South-South cooperation in Chile until 2019, the analysis of public policies for cooperation is challenging, due to a lack of detailed information about their functioning, and the results and resources employed. Nevertheless, we think that a detailed analysis of public policies and academic cooperation in the region (e.g. Finardi et al. [2020] for Brazil) is an important contribution yet to be made by future research endeavors.

Finally, the graphic representation of the word co-occurrence network shows two other isolated clusters, with no connection between them, or with the other clusters. They represent research topics, which, while maintaining a relationship with higher education, correspond to a different scenario, more related to the domains of language policies (orange) and internationalisation as academic mobility (purple). Overall, the co-occurrence network of words, produced from the corpus, is not very dense and has little cohesion, suggesting a research field in development.

The collaboration dimension between countries is a double indicator which can provide evidence of possible influences on the epistemological development of a research area, as well as predict the impact of a study, through the recognition of peers, materialised in citations. The analysis of data in this study considered the mapping of collaboration networks between Latin American authors with authors from other geographic regions, based on the network of participation of researchers as co-authors.

In order to demonstrate the collaboration networks between countries, the map below considered the presence of up to fifteen nodes, with the graphical demonstration limiting the relationship between countries to this quantity, as shown in Figure 3.

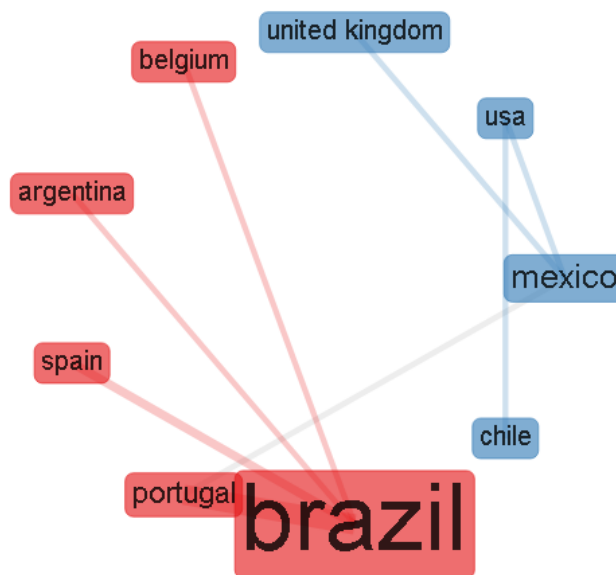


Figure 3: Collaboration network between countries (2011-2020) (prepared by the authors in the Biblioshiny software, based on research data, 2021).



The Brazilian production has the largest number of papers indexed in the Scopus database on the topic of higher education. The analysis of collaboration between countries shows a significant partnership with Portugal, which is understandable considering that both are Portuguese-speaking countries. The second largest collaboration with Brazil, even if much smaller, is with Spain and this is an interesting result per se for it shows that regardless of the language, Brazil seeks collaboration with countries in the Global North, most notably, with Portugal and Spain. Regarding intraregional ties, in this case, between countries that are part of the same continent, collaboration is observed only with Argentina.

The collaboration pattern observed in the blue cluster corroborates that reported in Guzmán-Valenzuela and Gómez (2019) concerning the Chilean production that strategically chooses partners in/from the Global North and mainstream, high-impact journals for the academic outlet (Guzmán-Valenzuela & Muñoz-García, 2018), suggesting that the language barrier is not always an impediment to co-authorship. Put differently, our data suggest that both Brazil and Chile seek partnerships with countries in the Global North, despite (or perhaps because of?) the language in these countries.

The network graph lists the four countries with the highest production on the topic under study in Latin America. When looking at extra-regional cooperation relations, our data partially supports that of Belli and Balta (2019) who found that countries from the European Union, Latin America and the Caribbean have a strong ability to generate scientific networks worldwide, though our data points to Latin American academic collaborations mainly with authors from the USA and Europe.

When looking at intra-regional cooperation relations, it is evident that participation in co-authorship between countries in Latin America is low and only observed between Brazil and Argentina (considering the corpus we analysed). This scenario negatively impacts efforts to develop a scientific field with local and autonomous epistemological bases, and such scenario may also represent an attempt to meet global norms and models through partnerships with the Global North, to achieve greater impact and recognition from peers, (as can be inferred from some authors we cited in this study, such as Guzmán-Valenzuela, 2017).

6 Final considerations

The analysis of publications on internationalisation of higher education produced by authors with institutional ties in Latin America was carried out considering the production of knowledge in this domain from two perspectives: (1) the editorial perspective; and (2) the epistemic one. Variables such as the progression of publications on the theme, the language chosen for these publications, the countries, and journals with the highest number of publications, were analysed in the editorial dimension. Regarding the epistemic dimension, the authors with the highest productivity and their possible influence on the conceptual development in the studied area were analysed. Additionally, the thematic evolution was observed through the study of word co-occurrence, and the collaboration network between countries, to expand the understanding of the epistemic scenario of the field, providing evidence to characterize the 'ecosystem' of the academic production on internationalisation of higher education, built by Latin American authors.

The results of the present study are prominent in what concerns the growth of papers on the topic, as well as the variety of topics discussed within the field of internationalisation and higher education, analysed through the co-occurrence of words. This suggests a domain of knowledge that is still expanding and that is



configured as interdisciplinary, due to the dialogue with other areas of knowledge besides Education, such as Linguistics and Management – as can be seen in our analyses of the corpus described in this paper.

On the other hand, it is clear that the much-needed-sought recognition of local productions is still quite incipient, given the influence of the Global North, shown in the number of most cited authors in our corpus, and the lack of influence/reciprocity of authors from the Global South. Moreover, the presence of seminal authors from the Global North still predominates.

More than advocating for the establishment of an ‘epistemology of the South’ (which may occur through the recognition of academic outputs/authors from the South, as can be observed in the citations of papers published in Latin America), the results of our study suggest that intra-regional cooperation between authors is still small and, conversely, more intense with institutions in the Global North. This situation reinforces the status quo of greater reverberation of theories and conceptual structures produced in the Global North ecosystem, going against an ‘ecology of knowledges’.

Finally, we acknowledge limitations in terms of corpus size which, in a way, makes it impossible to analyse other relevant aspects, such as collaboration networks between authors. Despite these limitations, in terms of corpus size, we reiterate our choice for the data indexed in the Scopus database, because such database is less restrictive, about the insertion of Latin American journals, in addition to those published in other regions.

In fact, for a breakthrough in the construction of this scenario of analysis, it would be important to consider data from local databases, such as SciELO, Redalyc and Dialnet to allow for a richer analysis. However, except for the first, the other sources do not provide bibliographic data, nor are all the records of journals that make up the collection available in reference databases, such as Scopus or Web of Science. For this reason, it is suggested that future studies observe the data recorded in these bases to advance discussions not covered here.

Acknowledgements

Acknowledgements are due to CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) for financial help in the form of Productivity Scholarship for author 1; and to CNPq for the postdoctoral research grant (PDJ) for author 3.

References

- Abba, Julieta; Leal, Fernanda G.; Finardi, Kyria Rebeca. 2022. “Internacionalización de la educación superior inclusiva de/para América Latina: la hora de ‘los de abajo’.” *Reflexão e Ação* 30 (3): 122-137.
- Alperin, Juan Pablo; Fischman, Gustavo E.; Willinsky, John. 2011. “Scholarly communication strategies in Latin America’s research-intensive universities.” *Educación Superior y Sociedad* 16 (2): 1-19.
- Altbach, Philip G. 1991. “Trends in Comparative Education.” *Comparative Education Review* 35 (3): 491–507.
- Aria, Massimo; Cuccurullo, Corrado. 2017. “Bibliometrix: an R-tool for comprehensive science mapping analysis.” *Journal of Informetrics* 11 (4): 959-975.



- Beelen, Jos; Jones, Elspeth. 2015. "Redefining internationalization at home." In *The European Higher Education Area: between critical reflections and future policies*, edited by Adrian Curaj, Liviu Matei, Remus Pricopie, Jamil Salmi, and Peter Scott, 59-72. Cham: Springer.
- Beigel, Fernanda. 2014. "Publishing from the periphery: structural heterogeneity and segmented circuits. The evaluation of scientific publications for tenure in Argentina's CONICET." *Current Sociology* 62 (5): 743-765.
- Belli, Simone; Balta, Joan. 2019. "Mapeo de las publicaciones científicas entre América Latina, el Caribe y la Unión Europea." *América Latina Hoy* 82: 7-41.
- Bernasconi, Andres. 2013. "Are global rankings unfair to Latin American universities?" *International Higher Education* 72: 12-13.
- Bourdieu, Pierre. 1991. *Language and symbolic power*. Cambridge, Mass.: Harvard University Press.
- Brunner, José Joaquín; Salazar, Felipe. 2009. "La investigación educacional en Chile: Una aproximación bibliométrica no convencional." *Documento de Trabajo CPCE*, accessed 18 December 2020, <http://200.6.99.248/~bru487cl/files/Publication3_bibliomet.pdf>
- Buquet, Daniel. 2013. "Producción e impacto de las ciencias sociales en América Latina." *Documento de Trabajo CLACSO*, accessed 18 December 2020, <http://biblioteca.clacso.edu.ar/gsd/collect/clacso/index/assoc/D8947.dir/Buquet_Ciencias_Sociales_America_Latina.pdf>
- Codato, Adriano; Madeira, Rafael; Bittencourt, Maiane. 2020. "Political science in Latin America: a scientometric Analysis." *Brazilian Political Science Review* 14 (3): 1-35.
- Dados, Nour; Connell, Raewyn. 2012. "The Global South." *Contexts* 11 (1): 12-13.
- De Wit, Hans. 2011. "Internationalization of higher education: nine misconceptions." *International Higher Education* 64: 6-7.
- De Wit, Hans. 2020. "Internationalization of higher education: the need for a more ethical and qualitative approach." *Journal of International Students* 10 (1): i-iv.
- De Wit, Hans; Hunter, Fiona; Howard, Laura; Egron-Polak, Eva. 2015. *Internationalisation of Higher Education*. EU Directorate General for Internal Policies (Study). Brussels: European Parliament.
- Finardi, Kyria R.; França, Claudio. 2016. "O inglês na internacionalização da produção científica brasileira: evidências da subárea de linguagem e linguística." *Revista Interseções* 9 (19): 234-250.
- Finardi, Kyria Rebeca; França, Claudio; Guimarães, Felipe Furtado. 2022. "Ecology of knowledges and languages in Latin American academic production." *Ensaio: Avaliação e Políticas Públicas em Educação* 30: 764-787.
- Finardi, Kyria Rebeca; Macêdo Mendes, Ana Rachel; Aparecido da Silva, Kleber. 2022. "Tensions and directions of internationalization in Brazil: between competition and solidarity." *Education Policy Analysis Archives* 30 (58).
- Finardi, Kyria Rebeca; Semblante, Sabrina; Amorim, Gabriel; Veronez, Thiago. 2020. "Internationalizations in two loci of enunciation the south and global north." *ETD Educação Temática Digital* 22 (3): 591-611.
- Fischman, Gustavo E.; Alperin, Juan Pablo; Willinsky, John. 2010. "Visibility and quality in Spanish-Language Latin American scholarly publishing." *Information Technologies & International Development* 6 (4): 1-21.
- Gacel-Ávila, Jocelyne. 2012. "Comprehensive internationalisation in Latin America." *Higher Education Policy* 25: 493-510.
- Grosfoguel, Ramón. 2007. "Descolonizando los universalismos occidentales: el pluriuniversalismo transmoderno decolonial desde Aimé Césaire hasta los zapatistas." In *El giro*



- decolonial: Reflexiones para una diversidad epistémica más allá del capitalismo global*, edited by Santiago Castro-Gómez and Ramón Grosfoguel, 63-78. Bogotá: Siglo del Hombre Editores.
- Grosfoguel, Ramón. 2013. "Racismo/sexismo epistémico, universidades occidentalizadas y los cuatro genocidios/epistemicidios del largo siglo XVI." *Tabula Rasa* 19: 31-58.
- Guimarães, Felipe Furtado; Finardi, Kyria Rebeca; El Kadri, Michele Salles; Taquini, Reninni. (2020). "The mission statements of the federal universities and the projection of internationalization in Brazil." *System* 94, 1-13.
- Guimarães, Felipe Furtado; Mendes, Ana Rachel Macedo; Rodrigues, Lisiane Mendes; Paiva, Raquel Soprani dos Santos; Finardi, Kyria Rebeca. (2019). "Internationalization at home, COIL and intercomprehension: for more inclusive activities in the Global South." *Simon Fraser University Educational Review* 12 (3): 90-109.
- Guzmán-Valenzuela, Carolina. 2017. "The geopolitics of research in teaching and learning in the university in Latin America." *SOTL in the South* 1 (1): 4-18.
- Guzmán-Valenzuela, Carolina; Gómez, Carolina. 2019. "Advancing a knowledge ecology: changing patterns of higher education studies in Latin America." *Higher Education* 77: 115-133.
- Guzmán-Valenzuela, Carolina; Muñoz-García, Ana Luisa. 2018. "Decolonizing international collaborative work: exploring new grammars for academic partnerships in Chile." In *Exploring consensual leadership in higher education: co-operation, collaboration and partnership*, edited by Lynne Gornall, Brychan Thomas and Lucy Sweetman, 171-189. London: Bloomsbury.
- Heilbron, Johan. 2001. "Échanges culturels transnationaux et mondialisation: quelques réflexions." *Regards Sociologiques* 22: 141-154.
- Heilbron, Johan. 2013. "The social sciences as an emerging global field." *Current Sociology* 62 (5): 685-703.
- Hicks, Diana. 2004. "The four literatures of social science." In *Handbook of quantitative science and technology research*, edited by Henk F. Moed, Wolfgang Glänzel and Ulrich Schmoch, 473-496. Dordrecht: Springer.
- Huitrón, Analilia. 2021. "Valorando la política de cooperación sur-sur: el caso de Chile hasta 2019." *América Latina Hoy* 87: 45-67.
- Johnson, J. David. 2011. "Análise de redes." In *Gestão de redes de conhecimento*, edited by J. David Johnson, 47-80. São Paulo: Editora Senac.
- Knight, Jane. 2011. "Five myths about internationalization." *International Higher Education* 62: 14-15.
- Kuzhabekova, Aliya; Lee, Jack. 2018. "International faculty contribution to local research capacity building: a view from publication data." *Higher Education Policy* 31: 423-446.
- Lagares, Xoán Carlos. 2018. *Qual política linguística? Desafios glotopolíticos contemporâneos*. São Paulo: Parábola Editorial.
- Leal, Fernanda Geremias; Moraes, Mário César Barreto. 2018. "Decoloniality as epistemology for the theoretical field of the internationalization of Higher Education." *Education Policy Analysis Archives* 26 (87): 1-25.
- Maldonado-Torres, Nelson. 2007. "Sobre la colonialidad del ser: contribuciones al desarrollo de un concepto." In *El giro decolonial: reflexiones para una diversidad epistémica más allá del capitalismo global*, edited by Santiago Castro-Gómez and Ramón Grosfoguel, 127-168. Bogotá: Siglo del Hombre Editores.
- Maltrás-Barba, Bruno. 2003. *Los indicadores bibliométricos: Fundamentos y aplicación al análisis de la ciencia*. Gijón: Trea.



- Mendoza, Pilar; Dorner, Lisa. 2020. "The neoliberal discourse in Latin American higher education: A call for national development and tighter government control." *Education Policy Analysis Archives* 28 (176): 1-25.
- Meneghini, Rogerio; Packer, Abel L. 2007. "Is there science beyond English? Initiatives to increase the quality and visibility of non-English publications might help to break down language barriers in scientific communication." *EMBO Reports* 8 (2): 112-116.
- Mignolo, Walter. 2011. *The darker side of Western modernity: global futures, decolonial options*. Durham, N.C.: Duke University Press.
- Mongeon, Philippe; Paul-Hus, Adèle. 2016. "The journal coverage of Web of Science and Scopus: a comparative analysis." *Scientometrics* 106: 213-228.
- Packer, Abel L. 2009. "The SciELO Open Access: a gold way from the south." *Canadian Journal of Higher Education* 39 (3): 111-126.
- Quijano, Anibal. 2000. "Coloniality of power and Eurocentrism in Latin America." *International Sociology* 15 (2): 215-232.
- Santin, Dirce Maria; Caregnato, Sônia Elisa. 2019. *Perfil científico da América Latina e Caribe no início do século XXI*. Paper presented at the XX ENANCIB, Florianópolis/SC, October 21-25, 1-20. Accessed 18 December 2020, <<https://www.lume.ufrgs.br/bitstream/handle/10183/202722/001106555.pdf?sequence=1>>.
- Santos, Boaventura de Sousa. 2008. A Universidade no século XXI: para uma reforma democrática e emancipatória da Universidade. In *A universidade no século XXI: para uma universidade nova*, edited by Boaventura de Sousa Santos and Naomar de Almeida Filho, 13-106. Coimbra: Almedina Editora.
- Santos, Boaventura de Sousa. 2014. *Epistemologies of the South: justice against epistemicide*. Abingdon: Routledge.
- Shohamy, Elana. 2006. *Language policy: hidden agendas and new approaches*. New York: Routledge.
- Spolsky, Bernard. 2004. *Language policy*. New York: Cambridge University Press.
- Takayama, Keita; Sriprakash, Arathi; Connell, Raewyn. 2017. "Toward a postcolonial comparative and international education." *Comparative Education Review* 61 (S1): S1-S24.
- Vessuri, Hebe; Guédon, Jean-Claude; Cetto, Ana María. 2014. "Excellence or quality? Impact of the current competition regime on science and scientific publishing in Latin America and its implications for development." *Current Sociology* 62 (5): 647-665.
- Wright, Sue. 2016. *Language policy and planning: from nationalism to globalization*. New York: Palgrave Macmillan.