

Advancing a knowledge ecology: changing patterns of higher education studies in Latin America

Carolina Guzmán-Valenzuela¹ · Carolina Gómez¹

Published online: 6 April 2018

© Springer Science+Business Media B.V., part of Springer Nature 2018

Abstract Drawing on de Sousa Santos’s work on *Epistemologies of the South* (2014), this paper critically examines the patterns of publication in higher education studies in mainstream and non-mainstream journals in Latin American between 2000 and 2015. An analysis of 1370 papers—130 indexed in the Web of Science (WoS) core collection indexes and 1240 indexed in the Scientific Electronic Library Online index (SciELO)—indicates that Latin American academics are engaged in lively practices of publication. However, a *dual pattern of publication* is identified, characterised by researchers extensively publishing in non-mainstream journals and *also* maintaining a presence in mainstream journals. Issues related to language, rankings and prestige, the North/South divide, the distinction between hard/basic and soft/applied sciences and the nature of higher education studies are used to explain such a pattern. Although there is a tense process of securing a *dual epistemic recognition*, there is also a positive tension that involves collaboration across a plurality of knowledges. Finally, this paper offers the concept of *zones of epistemic influence*, which opens spaces for an ecology of knowledges in which knowledges from both the North and the South constitute a new assemblage that accords due weight to a plurality of epistemic interests.

Keywords Higher education studies · Latin America · Web of Science · Scientific Electronic Library Online · Geopolitical dimension · Production of knowledge · Ecology of knowledges

Introduction

In a recent book, *Epistemologies of the South*, Boaventura de Sousa Santos proposes a concept of ‘abyssal thinking’ (Santos 2014, p. 118). Abyssal thinking ‘consists of a system of visible

✉ Carolina Guzmán-Valenzuela
carolina.guzman@ciae.uchile.cl

Carolina Gómez
carolina.gomez@ciae.uchile.cl

¹ Centre for Advanced Research in Education, University of Chile, Periodista José Carrasco Tapia 75, Santiago, Chile

and invisible distinctions, the invisible ones being the foundation of the visible ones' (Santos 2014, p. 118). Through abyssal thinking, value is ascribed to certain knowledge (mainly produced in the North) while another type of knowledge (produced in the South) is made invisible. In developing his concept of abyssal thinking, Santos draws on a concept of 'epistemicide, the murder of knowledge' (2014, p. 92), that is, a particular form of cognitive and intellectual colonialism (led by countries in the North) that establishes which type of knowledge is significant while marginalizing knowledge produced in southern countries. As an alternative to the murder of knowledge, Santos proposes the concept of 'ecologies of knowledges' which 'confronts the logic of the monoculture of scientific knowledge and rigor by identifying other knowledges and criteria of rigor and validity that operate credibly in social practices pronounced nonexistent by metonymic reason' (Santos 2014, p. 188).

The concepts of 'abyssal thinking', 'epistemicide' and 'ecologies of knowledges' open a large territory that go beyond the reach of a single paper. Nevertheless, we want to draw on some of Santos' ideas, and to do so by uncovering the publication patterns in both mainstream and non-mainstream journals in Latin America, focusing on the field of higher education studies. The data presented here provide empirical backing to some of Santos' ideas but also prompt some nuances. For instance, we observe indications of an invisibility—there is a vibrant undertaking in higher education studies in Latin America but most of it is invisible in the North—but the work identified here raises issues about the visible-invisible dichotomy. In turn, options emerge as to how both the invisibility and visibility of knowledge might be addressed, so as to create possibilities for an ecology of knowledges in higher education.

The aims of this paper are threefold: (1) empirically, it will analyse publication trends in both mainstream and non-mainstream journals of higher education studies in Latin America; (2) it will explain those publication patterns drawing on a critical perspective (Pusser and Marginson 2013) and particularly on Santos' ideas (Santos 2014, 2013) and, finally (3) it will reflect on global and regional debates that might offer possibilities for the future of higher education studies in Latin America and beyond.

Higher education studies in the world and in Latin America

Higher education as an area of study is still relatively new. In Anglo-Saxon and European countries, higher education, as an area of study, was established in the 1960s, (Kehm 2015; Tight 2015, 2012; MacFarlane and Grant 2012; Brunner 2009; Teichler 2000). Higher education studies 'may be understood as a multiple series of intersecting cognate fields' (MacFarlane and Grant 2012, p. 621). It constitutes a hybrid area of study drawing on the social sciences (such as sociology, psychology, economics, political science, law) and on the humanities (such as history and philosophy) among other domains (Tight 2015; Altbach 2014; MacFarlane and Grant 2012; Brunner 2009).

According to Brennan and Teichler (2008), higher education studies grew in the wake of an expansion of higher education in the world economy, knowledge society and social mobility and also 'because the object of its study is the institutional basis of all academic disciplines and the contribution of systematic knowledge to the future of society' (Brennan and Teichler 2008, p. 259). Now, there are research centres, journals and conferences devoted to higher education, especially in Europe, Australasia and in the USA (Rumbley et al. 2014; Tight 2012; MacFarlane and Grant 2012).

In Latin America—a ‘peripheral’ region (Connell 2007)—the developments in studies in higher education are even more incipient and less institutionalised compared with Anglo-Saxon countries (Brunner 2009). In this region, higher education has actually received attention for at least the last one hundred years, but has been largely contained in the broader discipline of educational studies (Nussbaum and González 2015; Brunner and Salazar 2009; Torres-Verdugo 2005; Pérez et al. 2003; Rueda 2003; Fernández and Bueno 1998) and other social sciences such as sociology, historiography and political sciences (Quintanilla et al. 2003). As in other regions of the world, studies in higher education in Latin America have been developing in response to social, financial, political and cultural challenges experienced at local, national, regional and global levels.

In particular, the Cordoba movement in favour of institutional autonomy that originated in Argentina in 1918 had such an impact across the region that a profuse literature on the topic developed from the 1920s onwards (del Mazo 1926, 1955; Benjamin 1965; Albormoz 1972; Tünnermann 1979; Marsiske 1998; Marsiske and Alvarado 1999). In addition, a systematization of educational research occurred in Mexico between 1992 and 2002, including higher education from a historiographic perspective (Galván et al. 2003), with topics related to the autonomy of public universities in Mexico (especially the Universidad Nacional de México) and student movements.

There is a distinctiveness regarding the themes currently being addressed in higher education in the Latin American region, with its focus on social inequalities (Brunner 2009). There are, indeed, many studies in the region related to access and stratification, undergraduate students’ non-completion rates, social mobility, massification, quality and accreditation systems, privatization and the role of the state in financing higher education. However, in spite of a rich tradition in books and reports in higher education in Latin America, research production in mainstream journals has been rather limited (Brunner 2009).

Paper publication in higher education studies in Latin America

Studies conducted in the broader field of education in Latin America show an increase in the number of papers published not only in educational studies journals (Nussbaum and González 2015; Brunner and Salazar 2009) but also in the social sciences and the humanities (Buquet 2013), all three areas in which higher education is anchored. Across the region, bibliometric studies on higher education have shown tendencies and characteristic topics in particular countries or in certain journals (see for example Guzmán-Valenzuela 2017a, b; Machado et al. 2009; Osorio-Madrid 2008, 2014).

Pioneer work was initiated by Brunner (2009) in publishing a paper on the sociology of higher education at three levels, globally, across Latin America and in Chile. His study—more descriptive and judgemental rather than empirical—was critical of the developments of higher education as an area of study in the region. In particular, Brunner noted the character of publications in higher education as ideologically driven and usually published in non-mainstream journals. He observed too that a significant number of publications had been produced by practitioners, rather lacking empirical data in support of their assertions.

A large number of the publications in the area of higher education in the region have appeared in non-indexed journals, in institutional documents, and in books and reports that rested largely on a non-peer review processes (Fischman et al. 2010; Brunner, 2009; Meneghini and Packer 2007). Furthermore, in Latin America, there is a common practice of publishing in open access journals, which are usually of a lower academic status compared

with mainstream journals indexed in the SCOPUS or the Web of Science (WoS) citation indexes (Meneghini 2012; Meneghini and Packer 2007). Additionally, a low proportion of papers originating in Latin America are published in international journals, a feature that is particularly evident in the social sciences and the humanities. This is understandable at one level since there are idiomatic barriers (Ordorika and Lloyd 2015; Bernasconi 2013), with English being the dominant language of international scholarship (Marginson and Ordorika 2011) while Spanish and Portuguese are the *lingua franca* of the Latin American region (Bernasconi 2013; Meneghini 2012). As Marginson and Ordorika point out ‘knowledge has somehow become more “true” if it begins in English... much work in languages other than English, some of exceptional quality, never enters the one recognised global intellectual conversation’ (Marginson and Ordorika 2011, p. 88).

However, the patterns of publication in Latin America—not only in the area of higher education but also across the social sciences and the humanities—might now be changing. The long tradition of publishing books in these fields is now being displaced by current pressures to publish in well-regarded journals (pressures that are being felt not only in Latin America), and which spring from accelerating global forces for prestige and internationalisation. Indeed, a kind of *paperization* is shaking academia and occluding traditional ways of communicating knowledge.

Because of competition for prestige and research income (Marginson and Ordorika 2011), the importance of international rankings (2017; Pusser and Marginson 2013), and a drive towards internationalization (Britez and Peters 2010), Latin American universities and their academics are under yet further pressure. The role of international rankings as a means of obtaining recognition and prestige is particularly influential (Hazelkorn 2017; Ordorika and Lloyd 2015; Marginson and Ordorika 2011). Rankings rely heavily on academic productivity and many of them (such as the Shanghai ranking, the Times Higher Education and the QS rankings) use indicators such as the number of publications in mainstream journals indexed in either WoS or SCOPUS. These indicators, ‘which are heavily biased toward English-language publications, reflect the hegemony of the US higher education model—and of its elite institutions in particular’ (Ordorika and Lloyd 2015, p. 2) so that ‘the rankings have positioned themselves as a new form of gatekeeper for higher education, determining whom and what are valued, and to what degree’ (Ordorika and Lloyd 2015, p. 4).

As a result, more universities in the region are paying attention to the type of journals where academics publish (Vessuri et al. 2014; Meneghini 2012) and are placing tight boundaries on academics in which only certain journals are identified as justifying international recognition. Universities and government policy-makers, therefore (and not only in Latin America), are under pressure to follow ‘the template of the globally dominant universities that lead the rankings’ (Pusser and Marginson 2013, p. 558). In doing so, universities and government agencies legitimise and reinforce normative practices and codes established by the North (Pusser and Marginson 2013). As an example, some national policy frameworks are encouraging and rewarding collaborative publication between Latin American academics and those from elite universities—usually located in Anglo-Saxon countries (see for example the case of Chile (CONICYT 2015))—as a means of increasing the publication rate in international journals.

The issue of international visibility and prestige gained through publication is becoming, therefore, a paramount issue right across Latin America, especially for new academic staff (Balbachevsky 2015). New generations of academics are expected to publish in mainstream

international journals. One might hypothesise, therefore, that the patterns of publication in the area of higher education would be changing so as to privilege publications in journals recognised internationally. However, our findings below suggest caution here.

Mainstream and non-mainstream journals

Characteristically, ‘mainstream journals’ are understood to be those that attract international prestige while ‘non-mainstream journals’ are seen as those that publish ‘low quality research’ (Chavarro et al. 2017, p. 1666). Nevertheless, these understandings are problematic.

Mainstream journals are included in citation indexes such as the WoS or SCOPUS, which are indexes of citations across publications on similar research topics published in journals and conference proceedings. Almost exclusively, the journals included in these indexes are published in English and they are mainly produced in the USA (especially), the UK, Australia and continental Europe. WoS ‘gives access to multiple databases that reference cross-disciplinary research, which allows for in-depth exploration of specialized subfields within an academic or scientific discipline’ (Xu et al. 2014, p. 1566). It was previously owned by the Thompson Reuters company and currently it is managed by Clarivate Analytics—an independent company focused on purchasing and selling academic products and whose main branch is in the USA. WoS, is, therefore, a company with a commercial rationale (Meneghini 2012).

Journals indexed in WoS need to attend to certain parameters such as impact, influence, peer review and representation resulting in a group of journals with the ‘greatest impact factors’ (Vessuri et al. 2014, p. 656) and which are considered to be part of ‘the global research circuit’ (Marginson and Ordorika 2011, p. 101). WoS includes in its core collection the Science Citation Index Expanded, the Social Sciences Citation Index and the Arts & Humanities Citation Index.

In Latin America, however, there are many regional journals that are indexed neither in WoS nor SCOPUS but in indexes such as SciELO, Latindex and Redalyc. The SciELO (Scientific Electronic Library Online) has been known as the leading index for emerging economies. It includes journals that are freely available and whose copyright and licensing restrictions have been removed. Created in 1997 in Brazil, SciELO was launched with the aim of promoting international visibility and access to scientific knowledge in emerging countries in Latin America and South Africa (Alperin et al. 2011). Its creation was a response to a systematic exclusion of Latin American journals from international databases. Some consider that ‘scientific journals from developing countries have a difficult time finding a place in the sun’ (Packer 2009, p. 112) with the result that these countries ‘could never achieve a sufficient degree of publishing autonomy to define national research priorities and questions’ (Vessuri et al. 2014, p. 654).

SciELO was rapidly adopted by Chile and other Latin American countries, the Caribbean, Spain, Portugal and South Africa, covering around 650 journals. Papers indexed in SciELO are usually published in a country’s own local language. Currently, SciELO is subsidised by universities, national funding bodies and other agencies in each country. This means that SciELO does not work under a commercial logic—unlike the WoS index. However, since 2013, WoS has also been hosting SciELO after reaching an agreement through which SciELO is committed to follow similar standards of selection, review and publication practices established by WoS (Packer 2009). This new situation implies an emulation of practices in

academia in non-western countries in favour of western standards (Xiaoming and Haitao 2000). However, SciELO does not constitute part of the WoS ‘core collection’, and so it does not enjoy significant status and international recognition. In supporting this latter idea of low recognition, Ordorika (2015) refers to a perverse cycle through which Latin American scholars publishing in mainstream journals tend to disregard authors cited in non-mainstream journals while favouring authors cited in mainstream journals so reinforcing a cycle through which elite journals become more elitist.

To sum up, journals indexed in the WoS core collection are usually the most prestigious across disciplines, they tend to be published in English, and usually they work on a commercial basis. SciELO, instead, is an index of open access journals, popular in Latin America and South Africa, and contains journals mainly published in Spanish, Portuguese and English. Further, these patterns overlay global forces of commercial academic production and hegemonic assumptions as to quality in research.

Hegemonic agendas in higher education studies: an expression of abyssal thinking

Although it is common practice in Latin America to publish in open access journals ‘we cannot ignore the fact that journals indexed in [Web of Science] are still amongst the most highly rewarded mediums for disseminating research... [and] as, a collateral result... foreign (and mostly English-language) journals were recognized as the place of “real” scholarship...’ (Alperin et al. 2011). Consequently, academic publication in journals in indexes such as WoS and SCOPUS underpins a dominant view of higher education, which dictates what is acceptable and valuable in terms of academic production (Marginson and Ordorika 2011).

The predominance of hegemonic agendas in the production of knowledge in higher education can be read through the substantial work of Santos. According to Santos (2014), the creation of knowledge worldwide involves a system of ‘abyssal’ thinking through which some knowledges are visible and valuable while other knowledges are invisible and so, for many, come to lack value. ‘[T]echno-scientific knowledge... owes its hegemony to the credible way in which it discredits all rival knowledges, by suggesting that they are not comparable, in terms of efficiency and coherence, to the scientificity of the market laws’ (Santos 2013, p. 13). Most of this knowledge—presumed to be universal—is produced in countries in the North and promotes their interests. At the same time, it represses and discards alternative knowledges that do not obey that agenda and which are produced in non-western countries (Santos 2013). In the view of Santos, a monoculture of scientific knowledge promoted by powerful groups in the North prevails through a logic of inclusion/exclusion that not only does not recognise alternative knowledges but also disqualifies those who produce them and who are usually located in non-Western countries (Santos 2013).

Note that, within this framework, knowledge produced in the South is neither obliterated nor ineffectual. On the contrary, knowledge from the South—even in the ‘abyss’—retains influence. Indeed, the primacy of publications in higher education studies in mainstream well-recognised journals (such as those indexed in WoS) and the devaluation of knowledge published in regional journals and which are not part of the group of prestigious journals (such as those indexed in SciELO) may be seen as *inter-dependant*. This is the nature of an abyss: the visible gains its significance from the invisible and vice-versa.

Method

Mention was made earlier of ‘mainstream’ and ‘non-mainstream’ journals. For the purposes of this study, mainstream journals are those journals indexed in the *WoS core collection* while non-mainstream journals are those indexed in *SciELO*. Across both collections, articles in the area of higher education by authors affiliated to Latin American universities¹ between 2000 and 2015 were analysed along the following dimensions:

- (a) Evolution over time (in number) of publications across the region and by country.
- (b) Main trends of publications (preferred journal and language).
- (c) Level of internationalization defined as the collaboration between authors from different countries within and outside Latin America.

Two searches in the WoS index were conducted. The first search focused on the indexes included in the ‘core collection’,² that is, Science Citation Index Expanded (SCI-EXPANDED), Social Sciences Citation Index (SSCI) and Arts & Humanities Citation Index (A&HCI). The second search focused on the SciELO Citation Index. In both cases, articles within the categories ‘education & educational research’, ‘education special’, ‘education scientific disciplines’ and ‘psychology educational’ plus the keywords ‘higher education’, ‘university education’ and ‘tertiary education’ were selected. In the WoS core collection, a total of 130 articles were identified while in SciELO, 1240 articles were identified, so resulting in a set of 1370 articles as the basis for this analysis.

In the following section, as a first step, the patterns of publication in higher education are described. This first descriptive stage is necessary before a second step in the analysis, which involves a geopolitical perspective.

Results

Evolution of Latin American publications in higher education

As seen in Fig. 1, over the years in question, the *number of Latin American publications* in both WoS core collection and SciELO journals tended to rise. While in 2000, there was only one WoS core publication and none in SciELO, in 2015 there were 19 WoS core collection papers and 193 in SciELO. As for WoS, with the exception of 2012—when 12 articles were published—the number of papers ranged from 16 to 19 between 2010 and 2015. For SciELO, there was a spike in the production in 2007, with 65 papers, following an upward trend, and almost doubling the production by 2011 with 119 articles, and since 2011 a steady increase has been evident, reaching more than one hundred papers per year.

In relation to the number of publications by countries (Table 1), in the WoS index, Chile led the number of publications with 40 papers, followed by Brazil with 37 and Mexico with 22.

¹ Latin American countries included here were Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Ecuador, Guatemala, Haiti, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Dominican Republic, Uruguay and Venezuela.

² The Emerging Source Citation Index was not included since it subsumes journals that under evaluation in order to be part of the core collection.

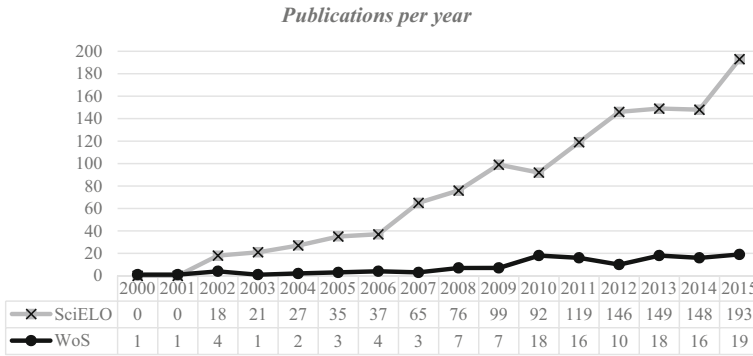


Fig. 1 Evolution of Latin American publications in higher education per year in the WoS core collection and SciELO indexes (2000–2015)

These three countries account for 76.2% of the entire production of WoS core collection papers. In the case of SciELO, Brazil led the number of publications with 610 papers, followed by Mexico with 259 and Chile with 90. Brazil alone accounts for almost half of the production in Latin America for the studied period, with 49.3%. The three top countries account for 77.7% of the papers (see Fig. 2 below).

Regarding the number of publications (see Table 2 below) per country and considering four-year periods (period 1: 2000–2003; period 2: 2004–2007; period 3: 2008–2011; period 4: 2012–2015), there was a significant increase in the production of both WoS and SciELO papers between periods 1 and 2, with Chile leading this rise in WoS papers and Brazil leading SciELO papers. A *quadrupling* in the number of WoS papers is observed between periods 2 and 3 (with Chile and Brazil leading this growth), while in the case of SciELO, the papers more than *doubled* (with Brazil, again, leading this tendency). In the last period (2012–2015), the number of papers continued to increase for both WoS and SciELO although in a less spectacular way. Chile and

Table 1 Paper production by country in WoS core collection and SciELO indexes (2000–2015)

	SciELO		WoS	
	Number of Publications	%	Number of Publications	%
Argentina	64	5.2	10	7.7
Bolivia	2	0.2	0	0.0
Brazil	610	49.8	37	28.5
Chile	90	7.3	40	30.8
Colombia	65	5.3	9	6.9
Costa Rica	25	2.0	1	0.8
Cuba	62	5.1	1	0.8
Ecuador	3	0.2	1	0.8
Mexico	259	21.1	22	16.9
Panama	0	0.0	1	0.8
Paraguay	1	0.1	1	0.8
Peru	5	0.4	2	1.5
Uruguay	5	0.4	3	2.3
Venezuela	34	2.8	2	1.5
Total	1225	100.0	130	100.0

Bold numbers refer to the highest production of papers by countries:

- In the case of WoS, Chile, Brazil and Mexico account for 76.2% of the entire production of WoS core collection papers.

- In the case of SciELO, Brazil, Mexico and Chile account for 77.7% of the papers.

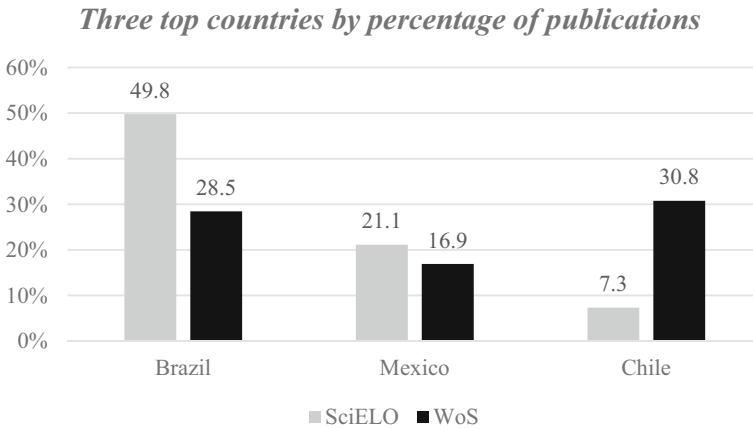


Fig. 2 Three top publishing countries in WoS and SciELO indexes, by percentage of publications

Brazil led in the case of WoS papers and Brazil in the case of SciELO. Across this whole period (2000–2015), there is a sharp increase in both types of publications (WoS and SciELO) from 2008 onwards. With the SciELO database, *all* the countries experienced an upwards trend in the number of publications across *all* the four periods.

Trends in publication: preferred journals and language

Figure 3 shows preferences in publishing in WoS core collection journals. Three journals accounted for over one quarter of the publications: *Higher Education* (The Netherlands), with

Table 2 Publications per country in four periods (2000–2003; 2004–2007; 2008–2011; 2012–2015), in WoS core collection and SciELO indexes

	WoS		SciELO		WoS		SciELO	
	No of Pub.	%	No of Pub.	%	No of Pub.	%	No of Pub.	%
	Period 1: 2000–2003				Period 2: 2004–2007			
Argentina	2	28.57	1	2.56	0	0.00	7	4.27
Brazil	2	28.57	15	38.46	2	16.67	90	54.88
Chile	0	0.00	2	5.13	4	33.33	7	4.27
Colombia	0	0.00	1	2.56	0	0.00	4	2.44
Cuba	0	0.00	2	5.13	0	0.00	19	11.59
Mexico	3	42.86	12	30.77	3	25.00	29	17.68
Venezuela	0	0.00	6	15.38	1	8.33	7	4.27
Other	0	0.00	0	0.00	2	16.67	1	0.61
Total	7	100	39	100	12	100.00	164	100
	Period 3: 2008–2011				Period 4: 2012–2015			
Argentina	2	4.17	16	4.15	6	9.52	40	6.29
Brazil	15	31.25	201	52.07	18	28.57	304	47.80
Chile	19	39.58	30	7.77	17	26.98	51	8.02
Colombia	2	4.17	25	6.48	7	11.11	35	5.50
Cuba	0	0.00	11	2.85	1	1.59	30	4.72
Mexico	7	14.58	85	22.02	9	14.29	133	20.91
Venezuela	0	0.00	10	2.59	1	1.59	11	1.73
Other	3	6.25	8	2.07	4	6.35	32	5.03
Total	48	100	386	100	63	100	636	100

21 publications (16% of the total), *Movimento* (Brazil) with 9 publications (7%) and *Studies in Higher Education* (UK) with 7 (5.4%). Journals with only one paper represent 22.3% of the total, and journals with two or more articles represent 77.7%. Figure 3 also shows that most of the papers in higher education studies are published in non-specialised journals but in the broader field of education.

Figure 4 shows the SciELO journals where most papers were published. Three journals account for just over a quarter of all publications (25.3%): *Avaliação: Revista da Avaliação da Educação Superior* (Brazil), with 156 publications (12.7%), followed by *Perfiles Educativos* (Mexico) with 78 publications (6.4%); and *Revista de la Educación Superior* (Mexico), with 76 publications (6.2%). As in WoS core collection journals, most of the papers in SciELO are published in non-specialised journals.

The main language used for publication in WoS core collection papers (Fig. 5) was English with 77% of the total, followed by Spanish (15%). Five percent were published both in English and Spanish. Portuguese is the least used language comprising 3% of these publications. Also, none of the WoS core collection journals that specialise in higher education is published in Spanish or Portuguese. This is not an unsurprising result considering that most of the journals indexed in WoS (of all disciplines) are published in English (Ordorika 2015). The main languages used for publication in SciELO papers (see Fig. 5) were Spanish and Portuguese, accounting for 99% of the publications. Spanish is the main language with 51% of the total. English was barely used, accounting for just 1% of publications.

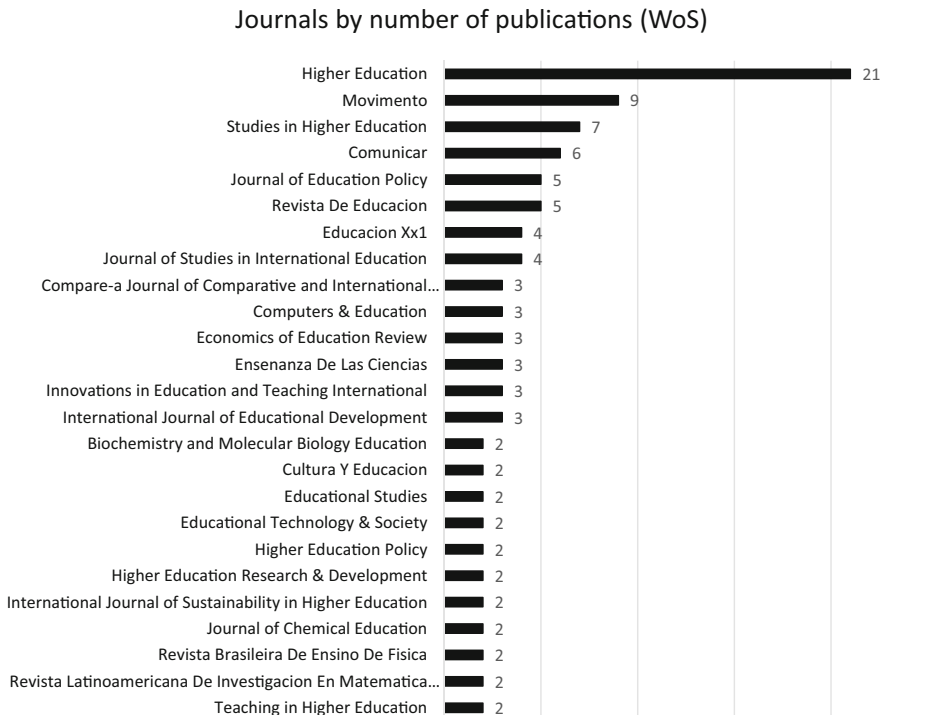


Fig. 3 Main journals where WoS core collection papers were published (2000–2015)

Journals by number of publications (SciELO)



Fig. 4 Journals where SciELO papers were published (2000–2015)

Level of internationalization

Table 3 and Fig. 6 show the extent to which authors of both WoS and SciELO papers published with colleagues from other countries (either within or outside Latin America).

Generally speaking, most of publications were produced by academic(s) within the same country in Latin America without *any* international collaboration, although this tendency is much more pronounced in SciELO than in the WoS (93% versus 62%, respectively). In

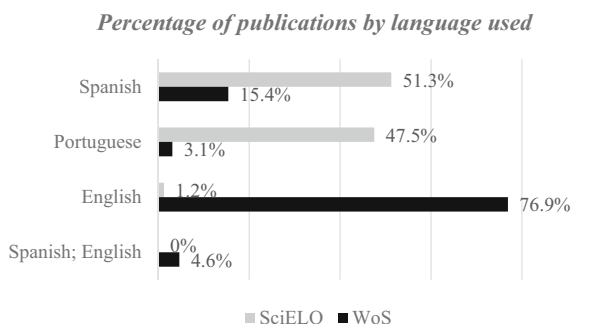


Fig. 5 Percentage of publications by language in WoS core collection and SciELO indexes

Table 3 Internationalisation patterns in WoS core collection and SciELO papers (2000–2015)

Level of internationalisation	SciELO		WoS	
	Number of Publications	%	Number of Publications	%
No international collaboration	1140	93.06	80	61.54
International collaboration	85	6.94	50	38.46
International collaboration breakdown				
With countries, outside Latin America	59	4.82	46	35.38
With countries, within Latin America	24	1.96	3	2.31
With both	2	0.16	1	0.77

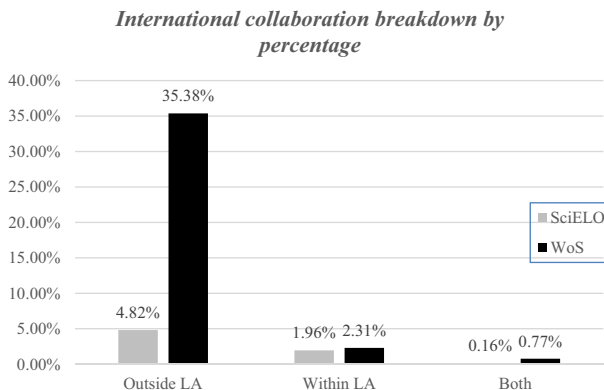
relation to WoS papers, 35% of papers were written with colleagues from outside Latin America and only 2% of papers were written with colleagues from within Latin America. In the case of SciELO, fewer than 2% of papers were co-authored by colleagues from different countries within Latin America, suggesting rather little collaboration across the region.

Pattern of publications in higher education studies across Latin America

This analysis of papers in higher education studies in both mainstream and non-mainstream journals in Latin American prompts some broad observations and also poses some issues.

Firstly, academic production in journals across the region in the area of higher education has been steadily increasing, particularly since 2004 in the case of SciELO papers and since 2008 in the case of WoS papers.

In regard to mainstream journals, Chile and Brazil have been leading this increase. The role of Chile in publishing in mainstream journals particularly invites scrutiny since it is a small country with few institutions, students and academics compared to Mexico and Brazil. The strong profile exhibited by Chile can be attributed to its research and human capital policies, patterns of internationalization (Guzmán-Valenzuela and Muñoz 2018; Guzmán-Valenzuela 2017a, b; CONICYT 2015), and the importance given to its academics studying in foreign world-class universities, international collaboration and publications in leading journals.

**Fig. 6** International collaboration breakdown in WoS core collection and SciELO indexes (2000–2015)

Regarding publication in non-mainstream journals as in the SciELO index, the leading countries are Brazil and Mexico. That that database was created by Brazil might help to explain the country's prominence in it. Overall, the total production of SciELO papers across countries is remarkable and demonstrates that the production of knowledge in higher education across Latin America is *flourishing and fast developing*.

Secondly, for both WoS core collection and SciELO papers, authors tend to publish more in journals devoted to the broad field of education rather than in journals specialising in higher education (there are few such specialist journals) so continuing the long-standing pattern that was earlier mentioned.

Thirdly, a feature that invites consideration is the relatively low level of international collaboration among Latin American researchers both outside *and* within Latin America, across WoS and SciELO papers, although especially in the latter case.

Despite this low level of internationalisation, within WoS core collection journals, in disaggregating Table 3 and through further analysis, Latin American academics (mostly from Chile (13) and Brazil (11)) often write papers with colleagues in Europe (29) or in the USA (16). Possible explanations for this pattern of international collaboration in publishing in mainstream journals are that:

(a) Latin American academics seek to publish with colleagues based in the USA and in Europe because co-publishing with them is more prestigious (most of the universities that lead the international rankings are located in these countries);

(b) Latin American academics frequently publish with their former supervisors (at least in Chile, a significant proportion of academics having obtained their doctoral degrees either in the USA or in Europe (Guzmán-Valenzuela and Muñoz 2018; CONICYT 2014, 2015)) and;

(c) Latin American academics engage in strategic patterns of publication with colleagues in both the USA and Europe so as to increase the likelihood of being published (Guzmán-Valenzuela 2017a).

These suggestions receive support from a report in Chile by the National Funding Body (CONICYT 2015) which states that 'international collaboration has a major impact on the production of knowledge compared with local collaboration' (CONICYT 2015, p. 38). Indeed, Chilean academics are characteristically strategic and carefully choose international partner collaborations in publishing in mainstream journals (Guzmán-Valenzuela and Muñoz 2018).

As noted, in the case of SciELO, academics mainly publish without colleagues from other countries (either they are sole authors or they publish with colleagues in their own country). A possible hypothesis for this situation is that publications in Latin American journals tend to focus on policy issues or practical concerns at a national level (in a particular country). This pattern, we may note, is not particular to Latin America but conforms to the broad sweep of higher education studies across the world in having a practical orientation (Kehm 2015; Brunner 2009; Brennan and Teichler 2008; Teichler 2000). Another hypothesis could be that simply writing within a national context itself would discourage international collaboration.

Visibility and invisibility in higher education studies in Latin America

It is evident, from the data presented here, that Latin American researchers in higher education are maintaining a lively practice of publishing in regional journals, with publications also being achieved in mainstream journals. This suggests that the Latin American region is, or at least is becoming, a fertile ground for research in higher education such that higher education continues to

evolve as an emerging field of study in the region. *However, most of the papers are published in non-mainstream journals and publications in WoS core collection journals are limited.*

Higher education studies in Latin America is, therefore, evincing a *dual* pattern. On the one hand, academics publish extensively in non-mainstream (regional) journals, published in Spanish and Portuguese, and are broadly read and used by Latin American academics, practitioners and managers (Brunner and Salazar 2009). On the other hand, academics increasingly look to maintain a presence in mainstream journals, which suggests that Latin American scholars are striving to join a conversation in higher education studies orchestrated mainly in the North and in English (Ordorika 2015).

This dual pattern of advancing knowledge in higher education studies in Latin America might be explained through a geopolitical perspective (Santos 2014, 2013; Connell 2007). Although SciELO is being increasingly recognised, it remains still an index for less prestigious journals. Indeed, this recognition is partly a result of SciELO making efforts to emulate the practices and codes imposed by the North, which in turn have led to it becoming part of the WoS index. However, as observed earlier in this paper, this recognition is merely partial since SciELO is not (yet) part of the selective WoS ‘core collection’.

Non-mainstream journals in Latin America are almost *invisible* in the North (Santos 2014). This observation prompts the consideration that the value ascribed to knowledges depends in part on their *geographical origin*. In higher education studies, at least, the geographical origin works to establish a hegemonic agenda that projects the power of the North across the world (Marginson and Ordorika 2011). Factors such as the language of publication (non-English), a low level of international collaboration among authors (especially beyond Latin America) and the range of topics addressed by them—in reaching a more local (national or regional) rather than a worldwide audience—are part of the process of *making-invisible* or devaluing a knowledge produced in Latin America. What is more, Latin American scholars in higher education—at least those oriented towards WoS-type journals—might be tacitly contributing to the devaluation of such a knowledge by over-valuing those knowledges produced in the North (Ordorika 2015).

However, this invisibility of higher education studies in Latin America is not straightforward. While it might be invisible in the North, knowledge about higher education produced in Latin America is highly visible *within* Latin America. Higher education might be seen as a promising area of study with its universities increasingly devoting research effort in that direction and with a fast-growing volume of publications, at least in regional journals. These publications enjoy a high level of interest in Latin America, focusing on topics that are important in the region and aiming to contribute to national issues. Although these journals are unfamiliar in the North, they are valuable and visible in the Latin America since they take into consideration the singularities of local contexts so having impact on higher education policies within nation-states (Brunner 2009). By valuing those knowledges in higher education produced regionally and locally, higher education studies in Latin America is breaking—to some extent—a pattern of reproduction of hegemonic agendas in the production of knowledge emanating from the North.

In addressing the visible/invisible dichotomy and in recognising that higher education as an emerging area of study in Latin America enjoys social recognition, the concept of ‘cognitive justice’ is helpful here. Cognitive justice refers to a recognition of a plurality of knowledges and which are connected with different cultural values, customs and lifestyles (Visvanathan 2006). According to Santos, such a cognitive justice, involving ‘a more equitable distribution of scientific knowledge’ (Santos 2014, p. 207), would provide the basis of a global social justice.

Higher education studies in Latin America published in non-mainstream journals, therefore, may be understood in just this way as deserving of recognition, value and visibility against a global horizon.

In meeting this challenge, the concept of ‘ecology of knowledges’ (Santos 2013) is constructive. An ecology of knowledges involves an assemblage of diverse knowledges in dialogue and interaction. In such an ecology, there is a recognition of a plurality of knowledges: knowledges are included rather than excluded. It is recognised that each knowledge operates in particular contexts and is embedded in local practices, an important feature of higher education studies not only in Latin America but also across the world. The concept of ecology, accordingly, makes possible a richer and productive debate over the plurality of knowledges in higher education studies between Latin America and the wider world. Local knowledges in higher education in the region might even come to perform a counter-hegemonic role, having an impact on global knowledge itself (Santos 2014, 2013). In other words, regional knowledges—of the kind barely visible in the North—might help to *re-globalise* the contemporary agenda in higher education studies.

This epistemological interaction might offer, therefore, new spaces for promoting understanding and posing new interrogations of, and advancing imagination in, higher education studies. The concept of ecology of knowledges not least in the context of higher education studies opens to possibilities of *epistemological creativity*.

The global and the local in higher education studies

Underlying much of the analysis here is the matter of language, and this is an issue across the so-called pure/hard disciplines and the social sciences and the humanities (Pontille and Torny 2010). The English language is dominant in research in hard sciences (Marginson and Ordorika 2011), and helps to a ‘single global conversation’ (Marginson 2016, p. 19). It is, though, a conversation that is dominated by voices of the North. The use of English in publications, while perhaps justified in the hard sciences may be weakening the humanities and social sciences—where higher education studies are anchored. Both humanities and social sciences are ‘nation-bound’ (Marginson 2016, p. 19) with disciplines being intimately intertwined with local language and culture: ‘humanities are more nationally structured and correspondingly more centrally implicated in the formation of distinctive national, and sometimes more localized, identities’ (Marginson and Ordorika 2011, p. 89).

Given that languages in Latin America are Spanish and Portuguese, it may be ventured that local and national issues in higher education in this region should be addressed primarily in those languages. Indeed, the recognition of languages in the production of knowledge in higher education studies might also be considered as a means of promoting a plurality of knowledges.

Some Latin American scholars have taken a position in this debate, some seeking to open spaces for a more local conversation across the region while others wish to embrace the possibility of both an inter-connected regional and a global conversation. Brunner and Salazar (2009) advocate a more regionally oriented academic production. For them, the use of metrics such as the number of articles in WoS core collection indexes does little justice to Latin American educational research and knowledge, which exhibits a broader tradition. Adopting a more nuanced position, Nussbaum and González (2015) argue for research that engages with *both* regional and global debates. They consider that participation in global educational debates may actually assist more regional debates, especially where there is an integration of both

perspectives. They, therefore, suggest that academics should publish in *both* regional and more globally oriented journals.

However, tension seems inevitable in this latter case since academics ‘find themselves constantly oscillating between strategy and identity, knowing that by position-taking on [the terms imposed by the global knowledge system] they are complicit in the very mechanisms that place them at a permanent disadvantage. No system of control is as effective as a system that is embraced voluntarily with a sense the inevitable has come’ (Marginson and Ordorika 2011, p. 94). Consequently, in joining a ‘single global conversation’ in higher education studies, academics are trapped in reproducing hegemonic agendas produced in the North. Such a dilemma—between adopting a single local conversation, and/or global conversations especially in the humanities and the social sciences—requires further debate and investigation not only regarding patterns of publications but also in terms of citation patterns, topics, theories and analytic perspectives in use in research.

Conclusion

In this paper, trends in academic production in higher education studies across Latin American countries have been examined. The data show that higher education is a flourishing area of studies in the region with a growing number of publications in both mainstream and non-mainstream journals, although with a majority of publications appearing in the latter.

In producing their publications, Latin American scholars in higher education (and especially those based in Latin America) are tacitly involved in *processes of negotiating visibility* in the North and the South and of negotiating their *own academic identities*. There are, therefore, challenges and tensions in simultaneously being recognised in the North *and* in publishing research that is relevant for and recognised in this region of the South. On the one hand, any disengagement or distance from debates conducted in and largely by the North may lead to intellectual isolation and non-recognition. On the other hand, assenting to agendas of the North might require a stance in which less value is accorded to knowledge produced in Latin America. In so doing, academics and universities in the region risk creating knowledge that fails to resonate with particular problems and practices of Latin America and is unlikely to contribute to the public good. At the levels both of the individual academic identity *and* of scholarship across the region, therefore, there is here a *uneasy process* of securing a *dual epistemic recognition* in the two domains.

There is, however, a *positive* tension here as well. Participating in a more northern debate on higher education opens spaces for collaboration between Latin America and European or North American centres of research and for new perspectives to emerge. At the same time, participating in debates with more of a Latin American orientation allows academics to be connected to their immediate cultural identities and roots with their own singularities and challenges.

These considerations open the way for empirical work in examining academic orientations in the construction of knowledge in higher education studies, and also ways through which academics and universities negotiate between juxtaposed northern and southern *zones of epistemic influence*. Emerging here is a possibility of a dialogue across a plurality of knowledges that could promote an epistemological imagination around higher education. Cognitive justice in this field surely requires a knowledge ecology which holds together knowledges both of the North and of the South and so comes to constitute a new epistemic assemblage that

accords due weight to a plurality of cognitive interests. For Latin America, such a prospect suggests a new level of academic agency in which academics and universities in the region seek collaboration with the North but bring into play the resources of their own epistemic richness.

Future research on the construction of knowledge in higher education studies—and more broadly in the humanities and social sciences—in Latin America and in the South should continue to interrogate both the scientific production and the parameters through which it is created and disseminated so as to recognise the extent to which it has been colonised. In particular, the perhaps disturbing question invites itself: Can we develop and advance an agenda of scholarship that is critical of knowledge produced in the North and much more open to epistemologies of the South *within* the journals of the North? Such a questioning would be healthy, not least in contributing to a new epistemology in which a plurality of knowledges can be recognised and valued.

Acknowledgments This work was supported by Conicyt-Chile, Fondecyt project 1170374 and PIA-CONICYT (Chile) Basal Funds for Centers of Excellence Project BF0003. We greatly appreciate the help provided by research assistants Ricardo Zavala and Benjamín Gareca.

References

- Alborno, O. (1972). *Ideología y política en la Universidad Latinoamericana*. Caracas: Talleres Tipográficos de Miguel Ángel García e hijo.
- Alperin, J. P., Fischman, G. E., & Willinsky, J. (2011). Scholarly communication strategies in Latin America's research-intensive universities. *Educación superior y sociedad*, 16(2). Retrieved on 15 February 2017 from: <https://purl.stanford.edu/fj828hg2133>
- Altbach, P. (2014). The emergence of a field: research and training in higher education. *Studies in Higher Education*, 39, 1306–1302.
- Balbachevsky, E. (2015). The Latin American University model and the challenges posed by the reforms: perspectives from the academics. In W. Cummings & U. Teichler (Eds.), *The relevance of academic work in comparative perspective* (pp. 239–252). Dordrecht, Netherlands: Springer International Publishing.
- Benjamin, H. (1965). *Higher education in the American republics*. New York: Mac Graw-Hill.
- Bernasconi, A. (2013). Are global rankings unfair to Latin American universities? *International Higher Education*, 72, 12–13.
- Brennan, J., & Teichler, U. (2008). The future of higher education and of higher education research. *Higher Education*, 56(3), 259–264.
- Britez, R., & Peters, M. A. (2010). Internationalization and the cosmopolitical university. *Policy Futures in Education*, 8(2), 201–216.
- Brunner, J. J., and Salazar, F. (2009). La investigación educacional en Chile: Una aproximación bibliométrica no convencional. Retrieved on January 31 2017 from: <http://www.udp.cl/funciones/descargaArchivos.asp?seccion=documentos&id=32>
- Brunner, J. J. (2009). Apuntes sobre sociología de la educación superior en contexto internacional, regional y local. *Estudios Pedagógicos*, 35(2), 203–230.
- Buquet, D. (2013). *Producción e impacto de las ciencias sociales en América Latina. Documento de Trabajo CLACSO*. Retrieved on 24 December from: http://biblioteca.clacso.edu.ar/gsd/collect/clacso/index/assoc/D8947.dir/Buquet_Ciencias_Sociales_America_Latina.pdf
- CONICYT. (2014). *Brain exchange: departamento de estudios y gestión estratégica*. Retrieved on June 9 2017 from: <http://www.conicyt.cl/wp-content/uploads/2014/07/Resumen-Ejecutivo-Brain-Exchange-2014.pdf>
- CONICYT. (2015). *Principales indicadores científicos de la actividad científica Chilena*. Retrieved on June 9 2017 from: http://www.informacioncientifica.cl/Informe_2015/Principales_Indicadores_Cienciome%CC%81tricos_Completo.pdf
- Connell, R. (2007). *Southern theory: the global dynamics of knowledge in social science*. Cambridge: Polity.
- del Mazo, G. (1926). *La Reforma Universitaria*. Buenos Aires: Federación Universitaria de Buenos Aires.
- del Mazo, G. (1955). *Estudiantes y gobierno universitario*. Buenos Aires: El Ateneo.

- Fernández, A., & Bueno, A. (1998). Síntesis de estudios bibliométricos españoles en educación. Una dimensión evaluativa (Synthesis of Spanish bibliometric studies in education. An evaluative dimension). *Revista Española de Documentación Científica*, 21(3), 269–285.
- Fischman, G. E., Alperin, J. P., & Willinsky, J. (2010). Visibility and quality in Spanish-language Latin American scholarly publishing. *Information technologies & international development*, 6(4), pp-1.
- Galván, L., Quintanilla, S., & Ramírez, C. (2003). Volumen 10: Historiografía de la Educación. In *Colección: La Investigación Educativa en México 1992–2002*. México D.F: Consejo Mexicano de Investigación Educativa, A.C.
- Guzmán-Valenzuela. (2017a). The geopolitics of research in teaching and learning in the university in Latin America. *Scholarship of Teaching and Learning in the South*, 1(1), 4–18.
- Guzmán-Valenzuela (2017b). Internationalization of higher education studies in Latin America. In P. Teixeira, Pedro and J. Shin, (Editors In chief). *Encyclopaedia of International Higher Education Systems and Institutions*. Springer.
- Guzmán-Valenzuela, C. & Muñoz, A. L. (2018). (De) colonizing international collaborative work: exploring new grammars for academic partnerships in Chile. In L. Gormall, L. Sweetman & B. Thomas. *Exploring consensual leadership in higher education: co-operation, collaboration and partnership*. London: Bloomsbury.
- Hazelkorn, E. (Ed.). (2017). *Global rankings and the geopolitics of higher education: understanding the influence and impact of rankings on higher education, policy and society*. Abingdon. Routledge.
- Kehm, B. M. (2015). Higher education as a field of study and research in Europe. *European Journal of Education*, 50(1), 60–74.
- MacFarlane, B., & Grant, B. (2012). The growth of higher education studies: from forerunners to path takers. *Higher Education Research and Development*, 31, 621–624.
- Manchado-Garabito, S., Tamames-Gómez, M., López González, M., Mohedano-Macías, L., D'Agostino, M. and Veiga, J. (2009). Revisiones Sistemáticas Exploratorias. *Medicina y Seguridad del Trabajo*, 55 (216): 12–19.
- Marginson, S. (2016). Global stratification in higher education. In S. Slaughter & B. J. Taylor (Eds.), *Higher education, stratification, and workforce development, higher education dynamics. Competitive advantage in Europe, the US, and Canada* (pp. 13–34). Dordrecht, Netherlands: Springer International Publishing.
- Marginson, S. & Ordorika, I. (2011). El central volumen de la fuerza. Global hegemony in higher education and research. In D. Rhoten & C. Calhoun, C. (Eds.). *Knowledge matters: the public mission of the research university* (pp. 67–129). New York: Columbia University Press.
- Marsiske, R. (1998). *Los estudiantes. Trabajos de historia y sociología*. México: Centro de Estudios sobre la Universidad/Plaza y Valdés.
- Marsiske, R., & Alvarado, L. (1999). *Movimientos estudiantiles en la historia de América Latina* (Vol. 3). México: Plaza y Valdes
- Meneghini, R. (2012). Emerging journals. *EMBO Reports*, 13(2), 106–108.
- Meneghini, R., & Packer, A. L. (2007). Is there science beyond English? *EMBO Reports*, 8(2), 112–116.
- Nussbaum, M., & González, C. (2015). Desarrollo de la investigación en el área de la educación. En I. Sánchez Ideas en Educación: reflexiones y propuestas desde la UC (pp. 492–518). Santiago: Ediciones Pontificia Universidad Católica.
- Ordorika, I., & Lloyd, M. (2015). International rankings and the contest for university hegemony. *Journal of Education Policy*, 30(3), 385–405.
- Ordorika, I. (2015). Rankings universitarios. *Revista de la educación superior*, 44(173), 7–9.
- Osorio-Madrid, J. R. (2008). La educación superior en México desde la mirada de la revista Perfiles Educativos. *Perfiles educativos*, 30(122), 109–127.
- Osorio-Madrid, J. R. (2014). La Revista Iberoamericana de Educación Superior (RIES): tres años contribuyendo al conocimiento de la educación superior en la región. *Revista iberoamericana de educación superior*, 5(12), 118–136.
- Packer, A. L. (2009). The SciELO Open Access: a gold way from the south. *The Canadian Journal of Higher Education*, 39(3), 111.
- Pérez, G., Anta, C., Bandera, S., García, J., Pérez, M., & Sarrate, M. (2003). *Análisis Bibliométrico en Educación. Incidencia en la calidad universitaria*. Madrid: Ministerio de Educación y Ciencia de España.
- Pontille, D., & Tomy, D. (2010). The controversial policies of journal ratings: evaluating social sciences and humanities. *Research Evaluation*, 19(5), 347–360.
- Pusser, B., & Marginson, S. (2013). University rankings in critical perspective. *The Journal of Higher Education*, 84(4), 544–568.
- Quintanilla, S., Alvadado, L. & Padilla, A. (2003). Historiografía de la educación superior en México. Siglos XIX y XX. In L. Galván Lafarga, S. Quintanilla Osorio and C. Ramírez González (coords). *Volumen 10: Historiografía de la Educación. Colección: La Investigación Educativa en México 1992–2002* (pp. 205–230). México D.F.: Consejo Mexicano de Investigación Educativa, A.C.

- Rueda, M. (2003) La investigación Educativa en México (1992–2002). In L. Galván, S. Quintanilla, S. & C. Ramírez. (Coord.) *Volumen 10: Historiografía de la Educación. Colección: La Investigación Educativa en México 1992–2002* (pp. 3–15). México D.F.: Consejo Mexicano de Investigación Educativa, A.C.
- Rumbley, L., Altbach, P., Stanfield, D., Shimmi, Y., de Gayardon, A., & Chan, R. (2014). Higher education: a worldwide inventory of research centers, academic programs, and journals and publications. In *Bonn*. Berlin: New York Boston College, and Lemmens Media.
- Santos, B. (2014). *Epistemologies of the south: justice against epistemicide*. Santiago, Chile: LOM.
- Santos, B. (2013). *The rise of the global left: the world social forum and beyond*. New York: Zed Books Ltd..
- Teichler, U. (2000). Higher education research and its institutional basis. In S. Schwarz & U. Teichler (Eds.), *The institutional basis of higher education research* (pp. 13–24). Dordrecht: Kluwer.
- Tight, M. (2015). Theory development and application in higher education research: tribes and territories. *Higher Education Policy*, 28, 277–293.
- Tight, M. (2012). Higher education research 2000–2010: changing journal publication patterns. *Higher Education Research & Development*, 31(5), 723–740.
- Torres-Verdugo, M. (2005). Perfiles Educativos: análisis de sus autores y temas desde 1978 hasta diciembre de 2003. *Perfiles Educativos*, 27(109–110), 172–183.
- Tünnermann, C. (1979). *La Reforma Universitaria de Córdoba*. Caracas: Fondo Editorial para el Desarrollo de la Educación Superior.
- Vessuri, H., Guédon, J. C., & Cetto, A. M. (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.
- Visvanathan, S. (2006). Alternative science. *Theory, culture & society*, 23 (2–3), 164–169.
- Xiamoming, Z. & Haitao, X. (2000) Internationalisation: a challenge for China's higher education, in IMHE/ OECD Current Issues in Chinese Higher Education, OECD, Paris, (pp. 101–113).
- Xu, J., Cruz-Machado, V. A., Lev, B., & Nickel, S. (Eds.). (2014). *Proceedings of the Eighth International Conference on Management Science and Engineering Management: Focused on Computing and Engineering Management* (Vol. 281). Heildeber, New York, Dordrecht & London Springer.