

Academic Reviews: between evaluation and fulfillment of their social function

Las revistas académicas: entre la evaluación y el cumplimiento de su función social

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Resumen

En el texto se plantea la necesidad de revisar el contexto de la evaluación del trabajo académico para poder entender las dificultades que tienen las revistas académicas latinoamericanas para cumplir con su evaluación a través del índice de impacto y la interacción con las empresas que lo emplean. De igual manera se describe la influencia que ejercen las editoriales comerciales sobre la producción y difusión del conocimiento. Se revisan algunas de las estrategias seguidas por las revistas latinoamericanas para hacer visible el conocimiento producido, al tiempo que se presenta la situación de las revistas mexicanas de investigación educativa en las bases de datos internacionales y regionales. Por último, a través de un ejercicio analítico de los criterios y políticas nacionales de evaluación de revistas mexicanas de investigación, se develan los mecanismos puestos en juego para sortear las pruebas que un proceso de esta naturaleza conlleva.

Palabras clave:

Evaluación; revistas de investigación; acceso abierto; índice de impacto; índices y bases de datos; mercantilización del conocimiento, libertad académica; impacto social.

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Abstract

This paper presents the necessity of reviewing the context of the evaluation of academic work in order to understand the difficulties faced by Latin American academic journals in order to comply with evaluation requirements through the use of an impact factor and interaction with companies that make use of it. It further describes the influence exercised by commercial publishers over the production and circulation of knowledge. It examines some of the strategies followed by Latin American journals to increase visibility of the knowledge, while presenting the situation condition of Mexican educational research journals in international and regional databases. Finally, the paper analyses the national evaluation criteria and policies of Mexican research journals in order to reveal the mechanisms employed to overcome obstacles that a process of this nature entails.

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Evaluation; research journals; open access; impact factor; indexes and databases; commodification of knowledge; academic freedom; social impact.

Today, evaluation has been placed at the heart of many university activities: academic personnel are evaluated, undergraduate and postgraduate programs are evaluated, academic journals are evaluated, and finally, the university itself is evaluated using a range of mechanisms based on the results of these very evaluations. Naturally, funding frequently

depends on these results, meaning that evaluation has shifted from being a means to being an end in and of itself.

Meanwhile, evaluation of journals, along with the evaluation of academic staff and of the university as a whole, is based on citation analysis and, principally, on what is known as the impact factor or indicator. However, Latin

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American research journals have encountered a number of difficulties with achieving visibility for their content using this type of analysis, especially in regards to achieving representation in the two leading databases that use this methodology: the Web of Science (Thomson Reuters) and Scopus (Elsevier).

The starting point for this paper is the current issue of academic evaluation used as an indispensable tool that allows an understanding of the problems facing Latin American academic journals with regard to impact factor-based evaluation and the companies that employ this methodology. It examines the strategies Latin American journals have taken to increase visibility of their content, and how Mexican journals of educational research are placed in international and regional databases. Finally, examples are given of how the evaluations carried out in Mexico produce all the problems already described.

Introduction

If evaluation is understood in general terms as examination of another's work, it should also be acknowledged that this activity has traditionally formed part of academic life in higher education institutions (HEIs). Indeed, the evaluation of academic work has long made use of peer review facilitated by collegiate bodies comprised of members working in the same discipline. This meant that the evaluation was carried out differently in accordance with the specific field of knowledge in question. Likewise, in recent decades research work undertaken outside HEIs has turned to evaluation processes for the purposes of transparency, as well as social prestige.

However, in the case of Latin America, the economic crises of the 1970s and 1980s led governments to assign ever fewer resources to HEIs and to research, to establish salary caps that prevented increases to academics' pay, and to implement programs to stimulate productivity. These programs have made use of evaluations as an administrative mechanism for assigning funds in addition to salaries.

Furthermore, these mechanisms weakened the academic unions that had historically been responsible for salary negotiations (García Salord, 1999). By reducing room for labor negotiation and associating funding with evaluation processes, the institutional policies of Latin American HEIs swiftly adopted evaluation criteria defined by external bodies, unconnected to academia or universities (Rueda Beltrán & García Salord, 2013). This means that a type of evaluation identified by Martínez Rizo (2000) as "analytical" in orientation has come to dominate, it is one that:

Essentially consists of the enumeration of different types of *product* derived from the actions of faculty, assigning to each type a number of points, such that the total *productivity* of each academic is expressed in the total number of points. (p.166)

Accounting for the products and the association of this type of productivity with the concept of quality has affected academic activity—teaching, research and knowledge production—such that the evaluation process, in the view of many analysts, has had negative or undesirable effects: the forms of assessment have been standardized with the same criteria for all disciplines; practices of simulation by academics have increased (output of dubious quality to improve the number of points received, "salami" publication, increasing the number of authors per article, false authorship, etc.); quantitative and technical criteria have come to dominate, seeking only to comply with the indicators, among other effects; together, they compromise the academic freedom and social goals of the HEIs (Buendia, 2013; Grediaga, 2000; Martínez Rizo, 2000; Rueda Beltrán & García Salord, 2013).

In this context, research journals have also been affected since evaluation has turned to them as "containers" of the products of research. The journals therefore lost part of their *raison d'être* as the ideal means for the

dissemination of knowledge, and are now used as tools of evaluation.

Against this background, Latin American journals have undergone a particular evolution that positions them in a complex scenario: on the one hand, they have faced invisibility on international indexes that evaluate their performance using the impact factor; on the other, they have developed important open access mechanisms that enable them to fulfill their fundamental task: the dissemination of knowledge.

Web of Science and Scopus: Hegemony and Commodification of Knowledge

In the middle of the twentieth century, Eugene Garfield of the Institute of Scientific Information (ISI) created the methodology known as impact factor to evaluate research journals and compare production between countries (Mendoza & Paravic, 2006). The impact factor is obtained by dividing the number of citations received by a journal by the number of papers published over a period of two years. Since then, the results have been published in *Journal Citation Reports* (JCR), where the reviews are classified by quartiles. This database is now known as the Web of Science (WoS), having been bought by Thomson Reuters.

In 2004, Elsevier launched its own database known as Scopus, in direct competition with WoS. The citation analysis methodology used by this database is basically the same, but for the following differences: the impact indicator is given for journals by dividing the number of citations received by the number of papers published, but over a period of three years. In addition, the coverage of journals in Scopus is broader (over 18,000 titles, double that of WoS), which suggests, though it does not guarantee, a better citation-gathering potential; Scopus further provides an *h*-index for authors and journals, which is obtained when a number of papers has been cited the same number of times each one. The results are published annually in the Scimago Journal Rank (SJR), which also organizes

journals by quartiles according to the points obtained.

The journals that occupy the first quartile both in the JCR and the SJR are considered mainstream publications. Although it is only a quantitative criterion, the impact factor is currently the bibliometric methodology most widely used to evaluate journals, researchers, and universities as well. More problematic is the fact it is used to judge their quality (Buela-Casal, 2003) even though, as Garfield himself acknowledged years later, there is no absolute correlation between impact and quality (Vivanco, 2010).

The tendency to equate quantity and quality gave rise, from the outset, to severe criticism from the international academic community due to the shortcomings of this system when taken as an indicator of quality. These include the fact that the authors and journals that are better positioned in the quartiles are those that tend to be most cited, leading to a vicious circle (Merton's "Mateo effect"); a paper may be cited for various reasons, including to comment on its poor quality; citing a work does not prove that it has been read; academic publishing practices vary between countries and between disciplines; the quality of a paper cannot be equated with the quality of the journal it is published in; the use of the content (the knowledge produced) is not exclusive to academic communities, and, as a result, citation analysis is insufficient when it comes to evaluating the impact of a publication (Alperin, 2015; Borrego & Urbano, 2006; Spinak, 1996; Vivanco, 2010).

There is a further criticism that holds special significance for the purposes of this paper: the underrepresentation in these indexes of journals from developing countries and the underrepresentation of journals in languages other than English. For example, the JCR (WoS) for 2014 included 11,719 journals, of which 243 are from Latin America, 122 from Spain, and 8 from Portugal; this means that Latin America makes up 2 percent of the journals indexed in this database and Ibero-America as a whole just 3.1 percent.

Meanwhile, the SJR (Scopus) for 2014 included 22,878 journals, of which 715 are from Latin America, 467 from Spain, and 35 from Portugal, giving a representation of 3.1 percent for Latin America and 5.3 percent for Ibero-America.^[1]

This underrepresentation is further compounded by language. It is a fact that many Spanish-speaking academics choose to publish their results in English and in foreign journals and that scientific output in English has increased in non-English-speaking countries because it is considered the *lingua franca* of science (Vivanco, 2010). As an example, of the 14 Mexican journals indexed by JCR, 28 percent are published in English; of the 90 Mexican journals indexed on the SJR, 7.7 percent are in English. It should be noted that these figures are based on those Mexican journals whose titles are in English; we could also add those with titles in Spanish yet also publish papers in English or in a mix of the two. These figures are taken from the databases themselves.

While these two databases lead to regions and languages becoming invisible, scientific production, as stated above, is evaluated on the basis of belonging to these databases and being published in journals to which they pertain:

this form of evaluation is having clear repercussions on the publication habits of researchers, who no longer choose the journals to which they send their papers on the basis of the audience they seek to address, but rather on the extent to which the publication may be evaluated in future funding processes (Borrego and Urbano, 2006: 15)

Indeed, in some institutions and fields in Mexico, only those journals and papers indexed by WoS in the first two quartiles are taken into account, which in reality means that they are unable to publish in any Mexican journals at all (Cantoral, 2015).

These forms of evaluation and the publishing habits they give rise to undoubtedly affect the advancement of science, which in

principle should serve regional and national development. As such, in 2013 a group of directors and editors of academic journals published the *Declaration on Research Assessment (DORA)*, which essentially rejects the use of metrics such as the impact factor to evaluate the quality of papers, for the hiring and funding of researchers and for evaluation of their contributions (DORA, 2013). More recently, in 2015, a text entitled “Bibliometrics: The Leiden Manifesto for Research Metrics” was published, offering the “best practice in metrics-based research assessment so that researchers can hold evaluators to account, and evaluators can hold their indicators to account” (Hicks *et al.*, 2015: 430). This manifesto presents ten principles, including the following: qualitative evaluation should accompany quantitative evaluation, locally relevant research should be protected (which by nature is not of interest to mainstream journals), take into account different publication practices in different fields, evaluate researchers using qualitative assessments, and recognize the systemic effects of evaluation and indicators.

Despite the criticism that has built up over the decades, there has been little change in the evaluation of journals, researchers, and universities. This is explained, among other reasons, by economic factors. Setting aside the problem of salaries for academic staff referred to at the start of this paper, on which much research has been carried out, it is important to emphasize that from a publishing perspective, editing academic journals is a great business. According to Gustavo Fischman, a number of different studies have estimated that some 1.5 trillion US dollars are spent annually on the production of knowledge, and the estimated annual cost of peer review—which in most cases is undertaken free of charge despite the fact academic staff spend their working hours on it—is 2.8 billion US dollars.^[2] Meanwhile, data from the US consultant Outsell show that in 2011 this sector of the publishing industry generated 9.4 billion dollars and published around 1.8 million papers with a profit margin for publishers of 20 to 30 percent (SciELO,

2013). Finally, it is estimated that sales by Elsevier between 2010 and 2015 were in excess of 2 billion dollars, with a profit margin of 20 to 25 percent for the general collection, rising to net profits of 30 to 40 percent in the science, technology, and medicine division (Larivière et al., 2015). These profit margins are significant if we take into account that in the book industry generally they stand at between 10 and 15 percent (Schiffrin, 2001).

The large profit margins for major companies is easily explained since, on the one hand, commercial academic journals charge for publishing (the author), and for subscriptions (the reader), and on the other, universities pay four times over for the content: they pay the researcher to publish it in the first place, they pay for the subscription to the journals where it is published, they pay for the editing of their own journals, and finally they pay to subscribe to databases where all these publications are ranked. In addition, as mentioned above, in most cases peer review work is not remunerated. In this context, it is hardly surprising that WoS and Scopus present themselves as filters for quality journals and that they maintain an interest in academic evaluation continuing to depend on their figures.

Given this market dominance and the commodification of knowledge, what strategies have Latin American academic journals pursued to improve the visibility of their knowledge?

Latindex, SciELO and RedALyC: Open Access

Latin American academic journals are seen as peripheral insofar as they do not belong to the mainstream, nor is the impact of science in the region considered of significance with respect to the rest of the world (Santa & Herrero, 2010). Evidently, both assertions are the result of the impact factor. That is to say, they are seen as peripheral because of their ranking on WoS and Scopus, which suggests a vicious cycle. The label is further explained by a yet another characteristic: for a long time

Latin American academic journals suffered from problems with their periodicity (journals published on an irregular basis, journals that only published a few issues) as well as standardization with respect to other publications (problems with records and with organization of information).

However, in recent decades this last aspect has become less of an issue thanks to the efforts by a number of institutions to increase the visibility of output in the region, as well as to break the vicious circle and the hegemony of the two major international databases. In this regard, significant efforts and progress have been made to develop regional databases that better reflect academic output in Latin America (Alperin et al., 2011). We will discuss the three most important of these below.

Sistema Regional de Información en Línea para Revistas Científicas de América Latina, el Caribe, España y Portugal (Latindex)

This is an information system created in 1995 by the National Autonomous University of Mexico as a network of regional cooperation that registers academic journals in Ibero-America, with a total of 8,210 records. It currently offers three services: a directory (all existing journals), a catalogue (sub-set of the directory with the journals that meet the editorial criteria established by the system itself), and links (to the journals in the directory that offer an online version). While this system does not offer the full text version of the journals' content, its importance lies in the editorial criteria established for entry. These include possession of an ISSN, data on the journal's editorial team, the type of refereeing of papers undertaken or guidelines given to authors, the type of material it must contain, the institutional affiliation of the authors, the language for abstracts and key words, and the bibliographic information each paper must include. These editorial criteria and the rest of the information are available at: <http://www.latindex.unam.mx>. The criteria have served as a resource for self-evaluation and normalization of the form and content for

publications in the region. As a result, many journals today take into account compliance with Latindex criteria for entry into regional and international databases.

Scientific Electronic Library Online (SciELO)

This is the largest open access database for Latin American journals in the region, with a total of 1,242 journals indexed. It was created in 1998 by the Fundación de Apoyo a la Investigación del Estado de São Paulo and the Centro Latinoamericano y del Caribe de Información en Ciencias de la Salud de Brasil. It currently offers a network of collections of journals in 15 countries, excluding Brazil. In addition, it is the only index to have developed its own methodology for online publication of full text content of journals (in HTML and XML) and the production of statistical indicators for use and impact of journals. These indicators coincide with those developed by WoS: impact factor, cited half-life and immediacy index (all this information may be consulted at: <http://www.scielo.org/php/index.php?lang=es>).

On the basis of its coverage and use of bibliometric indicators, in 2013 SciELO signed an agreement with Thomson Reuters to create the SciELO Citation Index. This means that all citations of journals in the main collection of WoS received in the SciELO collection are added to those received in the rest of WoS collections. This is especially important for Latin American journals included in the main collection, as they can now gather a larger number of citations than other Latin American journals.

Red de Revistas Científicas de América Latina y el Caribe, España y Portugal (RedALyC)

This network was created in 2002 by the State of Mexico Autonomous University. It is a scientific information system with a collection of 998 journals offering full text papers available via open access in PDF format (for further information see: <http://www.redalyc.org/>). It provides usage

indicators such as the number of visits and downloads by country and by journal.

All these initiatives have been of great importance to increase the visibility of scientific output in Latin America, and above all to make evident and available to all the use of a practice that was already common among most journals in the region: open access to content. Indeed, various studies indicate that 70 percent of papers published in Latin America are available on an open access basis (Alperin, 2015, Alperin et al., 2011).

Already noted by several studies and articles, open access is not only a business model characteristic of Latin America that runs counter to the practice of the major publishing companies (such as Elsevier and Thomson Reuters), but may also act as an element that provides new forms of evaluation to academic journals. According to recent research by Juan Pablo Alperin (2015), the common practice of open access in Latin America has meant that knowledge is viewed as a public good in the region. He demonstrates this with the results of a study showing that the most frequent users of SciELO are students (not only researchers) as well as users who have no links to the academic world. In contrast with the information provided by international databases, which focus on citation analysis and thus on communication within the academic community, Alperin holds that open access to knowledge and tracking using altmetrics methods make it possible to identify the public impact of Latin American science beyond academic communities.

Although work needs to be done through a more consistent methodology, making advances in the direction proposed by Alperin would imply a new twist to the business model represented by the two major databases, and above all, in how journals are evaluated. It would mean that the focus of attention would shift from a superficial measure of impact assessed through citations to a social impact measured by the public use of knowledge.

Despite the potential this represents, both open access and any proposal that takes this as its starting point will encounter serious resistance. For a long time it was asserted that the underrepresentation of Latin America in databases such as WoS was not a question of the monopolization and dominance of a particular form of knowledge, but rather of the (lack of) importance of science in this region of the world compared to others and the fact that Latin American researchers publish their best work in foreign journals (Spinak, 1996).

However, texts such as those recently published by Beall (2015) arouse suspicions. In his blog *Scholarly Open Access*, Beall launched a critique of the Latin American databases SciELO and RedALyC, comparing them with “favelas.” He claims that the platforms of the commercial publishers are better at disseminating knowledge since they maintain agreements and close relationships with bookshops and libraries (which may be accessed by students), they make sure that their content is indexed, that the references and metadata can easily be exported to the databases, and because they include alert services for the researchers. For this reason he claims that “commercial publisher platforms are nice neighborhoods for scholarly publications.” Meanwhile, without evidence, he asserts that SciELO and RedALyC do a poor job of distributing and increasing the visibility of their content such that they remain hidden (most US libraries are unaware of them) and are not indexed, despite being open access. As such, he refers to these databases as “favelas.”

Setting aside the frankly discriminatory aspect of this comparison, it is worth making a number of clarifications for the purposes of this paper. Firstly, it should be recalled that the commercial publishers are currently controlled by five large companies (Reed Elsevier, Springer, Taylor & Francis, Sage, and Wiley). This oligopoly on academic publications offers, as described above, large financial margins as it profits from the not-for-profit labor of academics and universities, as well as

by setting and artificially increasing the prices of annual subscriptions to their publications (by as much as 30 percent a year) (Larivière et al., 2015). The rejection by these consortiums of open access models may be explained, in the first instance, by the large sums of money at play from which certain players besides the companies obtain benefits.

The larger risk, of course, is the control that commercial publishers hold over the academic community and, by extension, over knowledge. This control may be exercised thanks to the position occupied by their journals within the monopoly of databases that validate the publications, again placing us in the vicious cycle of the impact indicator and the evaluation of journals and faculty:

Young researchers need to publish in prestigious journals to gain tenure, while older researchers need to do the same in order to keep their grants, and, in this environment, publishing in a high impact Elsevier or Springer journal is what ‘counts’. In this general context, the negative effect of various bibliometric indicators in the evaluation of individual researchers cannot be understated. (Larivière et al., 2015).

Ultimately, it is difficult to argue that the position held by Latin American journals within these two major databases is solely due to the lesser importance of science in the region compared to the rest of the world. At the same time, it is this system that researchers in the region support when they publish in internationally recognized journals. In this complex situation of crossed interests, how are Mexican journals of educational research positioned?

Databases: Evaluation of Mexican Educational Research Journals

Latin American and specifically Mexican journals of educational research confront a system that places a double constraint on them. The first is defined by their own regional position (and by the fact that most of them publish solely in Spanish). The second is the fact that their discipline is the social sciences.

As we know, the bibliometric methodology of the impact factor emerges in response to the dynamics of the exact sciences: journals are only considered when historically the favored means of communication of the social sciences has been the book; in addition, citation periods of two or three years are considered when the half-life of papers in the social sciences can exceed eight years. Finally, educational research journals often fulfill a pedagogical function: their results are aimed at a non-specialist audience (teachers, public officials, students), meaning that the knowledge they disseminate is also multidisciplinary in nature.

Even so, Mexican journals of educational research seek to participate on this territory in order to form part of the current dynamic of knowledge circulation. We shall now examine how these journals are placed within international databases and within SciELO, a platform that provides bibliometric indicators.

Web of Science

A single Mexican journal is indexed in the main collection of this database: the *Revista*

Latinoamericana de Investigación en Matemática Educativa (RELIME) edited by the Latin American Committee for Educational Mathematics. Given that this is the only database to produce metrics on the JCR and thus cannot be compared with any other Mexican journal, we can only state that for the 2014 JCR it obtained an FI of 0.4, occupying position 174 of 224 indexed journals in the discipline, with 46 citations and a half-life of papers of more than ten years.^[3]

Scopus

Four Mexican journals are indexed in this database: *Educación Química*, edited by the Universidad Nacional Autónoma de México; *Perfiles Educativos*, edited by the same university; *Revista Electrónica de Investigación Educativa* (REDIE), edited by the Universidad Autónoma de Baja California; and the *Revista Mexicana de Investigación Educativa* (RMIE), edited by the Mexican Council of Educational Research. The position occupied by these journals on the SJR in 2014 is as follows:

Table 1 – Educational Mexican journals in Scopus

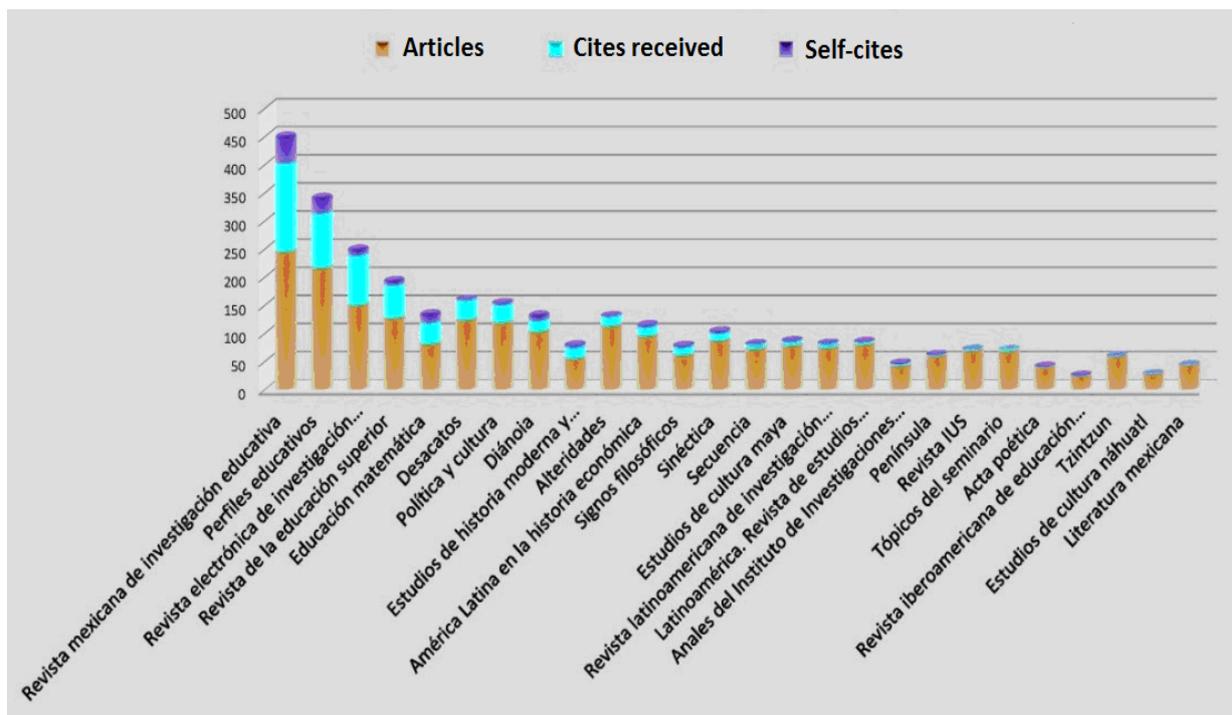
Title	SJR	H index	Total Docs. (2014)	Total Docs. (3years)	Total Refs.	Total Cites (3 years)	Citable Docs. (3 years)	Cites / Doc. (2 years)	Ref. / Doc.
RMIE	0.215	2	52	90	1719	15	84	0.18	33.06
Educación Química	0.206	3	63	181	1701	25	167	0.16	27
Perfiles Educativos	0.146	4	64	186	1916	12	169	0.08	29.94
REDIE	0.116	2	33	77	915	3	77	0	27.73

Source: author's work with data from Scimago Journal Rank 2014, in: http://www.scimagojr.com/journalrank.php?category=3304&area=3300&year=2014&country=&order=sjr&min=0&min_type=cd&age=16

The first two journals, RMIE and *Educación Química*, are placed in Q3, and the latter two in Q4. As may be noted and as discussed above, Latin American journals do not appear in the first two quartiles of international databases. Nevertheless, let us

observe how they are positioned in the SciELO Mexico database, to which all five journals belong (*Educación Química*, *Perfiles Educativos*, REDIE, RELIME, RMIE):

Figure 1 – Comparison of journals in the area of humanities and behavioral sciences according to citations received by SciELO (August 2014)

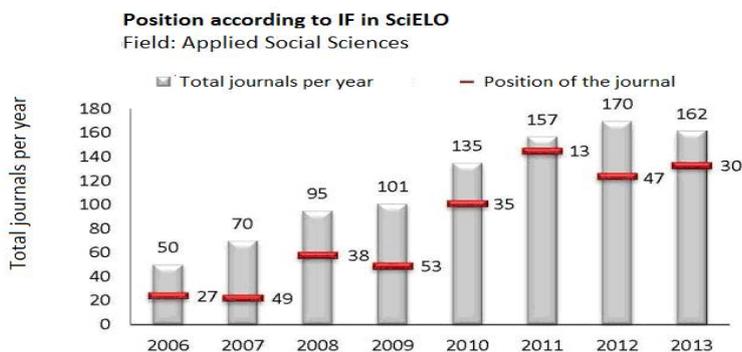


Source: SciELO Mexico, Bibliometric report *Perfiles Educativos*, December 2014

As may be observed, RMIE, *Perfiles Educativos*, and REDIE are the three most-cited journals in the field of Humanities on this database. It should be noted that in both WoS and Scopus, educational research journals are assigned to the social sciences. However, if we take the journal *Perfiles Educativos* as an

example (second in the field of Humanities on SciELO México), it is ranked 30 out of 162 journals that form part of the area of Social Sciences in the entire SciELO Network, that is, of the 16 existing collections in the same number of countries.

Figure 2 - Position based on IF in SciELO Network. Field: Applied Social Sciences



Records the evolution of position of Educational Profiles based on the IF in SciELO from 2006 to 2013, among all journals in applied social sciences. In SciELO, the IF is calculated from the citations in mainly Latin-American journals, and therefore the IF is a regional data. The number on the top of the bars represents the number of journals included. The number next to the red mark indicates the position of the journal among all, according to its IF.

The position of Educational Profiles among the Latin-American journals in the field of Applied Social Sciences shows a rising trend from 2006 (positioned 27/50) to 2013 (positioned 31/162), and stands out in 2011(positioned 13/157). It is important to note that the figures in this graph have a cutoff date of August 2014. Since SciELO keeps updating information, surely the displayed IF will be modified in the later reports.

Thus, what could be seen as discouraging results from an international perspective take on a different hue when judged from a regional perspective. However, this data is the result of citation analysis and, as such, continues to offer only a partial and fragmentary view of the academic use to which these journals are put. The mechanisms for understanding the social uses given to the knowledge published in them remain to be developed. This, from our point of view, is what constitutes the principal purpose of such publications.

Government Evaluation of Research Journals in Mexico

In Mexico, the body responsible for evaluating academic journals is the National Council for Science and Technology (CONACyT). It is the government body that defines national policies on science and technology and thus funding for academics, research centers, projects, and so on. It runs the Index of Mexican Journals of Science and Technological Research (IRMICyT), in the words of CONACyT itself, to acknowledge their quality and editorial excellence. This index basically comprises a list of the journals that pass the evaluations the Council periodically carries out, but offers no indicators of any kind, whether relating to scientific quality or bibliometrics. In exchange, the journals do not receive financial but in-kind support, principally in the form of advice and infrastructure for operating publishing managers such as the Open Journal System and translation services for abstracts and keywords. Contrary to what might be thought, publishing in IRMICyT journals in general is not a significant criterion for evaluation of Mexican academics. As mentioned above, in many disciplines only those publications are taken into account that are indexed in the upper quartiles of WoS, while others also consider the Scopus list. However, few ascribe importance to the journals also being included on IRMICyT (on the contrary, they are not valid if they are *only* included on IRMICyT). As a result, when the evaluation processes applied to academics by

CONACyT fail to recognize the output of journals accredited by its own index, belonging to this becomes nothing more than a procedure that represents participation in national policies on science and technology.

Meanwhile, the evaluation practices that CONACyT implements for journals through IRMICyT are notable since—in common with other practices in government spheres in Mexico—they lack a clear scientific policy and tend to stick to the discourse employed by the international databases.

Thus, the first characteristic of note is that the call for journals to be evaluated does not include a solid core of criteria for evaluation. Instead, these change every year (they can request either the lines of research of peer reviewers or of publications; in certain years they request the percentage of foreign authors and peer reviewers and in others they don't). The second characteristic of this evaluation is that it is based on the internal processes of the journals rather than the products (the journals themselves), contrary to the practice of any of the other databases. Proof of this is that the [2014 call for submissions](#) asked journals to provide information about the following:

- a) papers published in the 2012-2013 period, including the following information for each: title, issue, page, dates of receipt, acceptance, and publication, number of revisions, the qualifications, institution, and level in the National Researchers' System (SNI) of the reviewers, their experience and specialism in the area they evaluate;
- b) The referees' reports for the papers published over the period set out in an Excel form;
- c) the following information about the referees who participated over the evaluation period: qualification, full name, institution, department, field, discipline, specialty, level in the National Researchers' System (SNI), whether they are a regular or guest referee, number of papers reviewed, their specialty in relation

to the papers reviewed, plus **the last 3 citations of their own published work**;

- d) the following information about the members of the editorial committee: qualification, full name, institution, department, field, discipline, specialism, level in the National Researchers' System (SNI), plus **the last 3 citations of their own published work**;
- e) The referee's reports in PDF format for the papers rejected over the same period;
- f) The minutes of the editorial committee meetings over the period under evaluation;
- g) Journal statistics on: rejection rate, papers published per year, time taken for the peer review process (average number of months), the 5 most-cited papers, the 5 most-downloaded papers, and so on;
- h) General information on: indexes and databases to which the journal belongs, norms and operation of the editorial committee, distribution of the journal, and so on.

As may be imagined, meeting these requirements demands a great deal of time for a journal's editorial team, requiring weeks to gather the information. However, the CONACyT included a clause in the call for submissions stating that journals were exempt from providing the information requested if they belonged to two international databases (WoS and Scopus) and two regional ones (SciELO and RedALyC), if their impact factor and number of citations had increased, if they could demonstrate their use of publishing management software, and if their collection was up to date on SciELO Mexico. For all practical purposes, journals that met the first two criteria were exempted (international databases, principally, as well as regional ones), but none were exempted that did not belong to WoS (even if they were indexed on Scopus, SciELO, and RedALyC).

Meanwhile, together with the call for submissions, general criteria of evaluation were issues which included formal aspects

such as “the number of authors mentioned in papers must be appropriate to the quantity and quality of findings reported. Unjustified excess of authors will be severely punished.” (CONACyT, 2014). This example suggests how bodies external to HEIs place pressure on journals to act as platforms for implementing evaluation criteria and, even further, to correct the negative effects (such as practices of simulation) that the evaluation process itself gives rise to.

Thus, on the basis of these criteria, CONACyT established a committee of experts in evaluation of publications, comprising 10 specialists in academic publishing and journal evaluation, all of them researchers in a range of fields (the members of the committee are detailed here: www.conacyt.mx/index.php/el-conacyt/convocatorias-y-resultados-conacyt/convocatorias-indice-revistas-cyt-1/8458-comite-de-expertos-2015/file). The feedback received from the committee by the journals assessed includes recommendations such as this one: “review your internal processes with regard to the quality of papers in order to halt the fall in citations”^[4]. What this observation shows is that in practice, basic principles contained in the Leiden Manifesto and in DORA—that all experts should know—are being violated: not to use the impact factor metric to judge the quality of papers. In addition, the existence of a double discourse may be observed, depending on whether the role of editor or referee is being played.

This is the context in which Latin American and, in particular, Mexican educational research journals must operate at international and national level. On the one hand, monopolistic practices that tend to make academic output from Latin America invisible negate the importance of regional databases, distort the uses of open access, and reflect commercial rather than academic interests. On the other, government practices that promote the commodification of knowledge do little or nothing at all to support regional databases, and whose evaluation fails to improve editorial practices and repeats the false premise that

quantity and quality are synonymous. Between one and the other, the result is the evaluation that is carried out on journals and on academics alike, leading them to modify their practice.

Editorial Best Practice: Between the Possible and the Desirable

Thus far we have presented a global system of knowledge production and evaluation in which Latin American journals face unequal conditions, not necessarily due to structural or chance factors. The situation for Mexican educational research journals is no better. However, publications must seek mechanisms to better fulfill their purpose and at the same time meet the academic needs of researchers and universities, even when the forms of evaluation may be questioned.

Below, we present a number of ideas that might help to reconcile the social responsibilities of academic publications with the demands of international evaluation models.

In the broader context of institutional evaluation, the social responsibility of HEIs should be reasserted, especially in unequal societies like those of Latin America. This means separating salaries from evaluation and thus from the goals of scientific labor such that financial factors do not subordinate academic goals. It further implies that the knowledge produced in the region should be connected to the most relevant social problems it faces.

From the point of view of academic personnel, it has repeatedly been stated that the evaluation practices that link output to salaries are harmful to the free generation of knowledge. Homogenization in how the academic profession is valued is damaging to its freedom and autonomy in the production of new knowledge. Meanwhile, although it is clear that there are powerful economic interests that seek to maintain the status quo in relation to evaluation, this is not enough to explain the double discourse generated when academics perform the role of both referees and the refereed. An in-depth analysis should

be carried out of the symbolic capital that academic personnel assign to the impact factor of academic journals. Only then will it become possible to implement change.

For their part, the editorial teams of Latin American academic journals and Mexican educational research journals in particular should align the social and academic functions of the journal, but always placing the former before the latter. Thus, they should privilege content that addresses problems of social significance to their context, whether regional or national. To achieve this, they may make use of themed issues, special issues, dossiers, supplements, together with the content of regular issues.

Similarly, in light of their social function, they should defend open access (without cost to authors) to content as an irrevocable commitment. This means demonstrating the importance of regional databases in the dissemination of content, as well as in improving the visibility of the journals themselves. It also implies criticizing these databases when they engage in the same practices as their international peers. By this we are referring to the notable fact that the SciELO network, despite being regional and open access, carries out the same type of bibliometric analysis as WoS. In addition, the new 2015 indexing criteria for its Brazilian collection—which may be extended to its other collections—are of concern: they require publishing a certain number of issues per year, depending on discipline, publishing a certain number of papers per year, and publishing bilingual editions, among others. In short, these are new criteria for a regional database that are a return to the old criteria of the international databases. These new criteria may be consulted at: http://www.scielo.br/avaliacao/20141003NovosCriterios_SciELO_Brasil.pdf

Once these functions and tasks have been met, journals may begin to seek strategies to favor inclusion in international databases and thus to respond to the demands of the academic community and their own

institutions. However, in light of this panorama, it would be better for Mexican educational research journals to take advantage of collegiate work among Mexican journals to increase visibility as a group and to make progress in databases together. One advance in this regard is the Group of Educational Research Journals (GRIE),^[5] recently established in Mexico, but work remains to be done on coordinating efforts to consolidate the goals set out above.

With regard to the national evaluation of Mexican journals, alliance and dialogue among them is also part of the answer. One example of this is the Permanent Seminar of Editors set up in mid-2014 by the National Autonomous University of Mexico (UNAM), which many other national institutions have joined. One of the objectives proposed by this working group is to alter the evaluation practices of academic journals. This has led to meetings with the CONACyT authorities to persuade them to modify the terms of their IRMICyT calls for submissions: so that evaluation applies to products rather than processes and serves to improve practices, among other things. In addition, this Seminar provides ongoing training for editors to professionalize, a goal that without doubt will improve the operation of journals.

In summary, we must work tenaciously to achieve an evaluation model that does not confuse quantity and quality, where the conditions for journals, disciplines, and countries are better balanced, and where academic criteria come before economic ones. As we work towards this goal, we must above all ensure that our output is socially relevant, seek mechanisms to identify the social uses to which our journals are put and, finally, make the best possible use of journal evaluation and of the major databases that underlie this process.

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Notes

- ^[1]Figures obtained directly from the databases: *Scimago Journal Rank*, available at: <http://www.scimagojr.com/journalrank.php> (consulted: July 21, 2015); *Journal Citation Reports*, available at: <https://jcr.incites.thomsonreuters.com/JCRJournalHomeAction.action>
- ^[2] Data presented at the lecture “Reconocimiento del trabajo editorial en los sistemas de evaluación” (IISUE-UNAM, October 10, 2014).
- ^[3] Figures obtained from the Journal Citation Reports 2014: <https://jcr.incites.thomsonreuters.com/JCRJournalProfileAction.action?pg=JRNLPF&journalImpactFactor=0.4&year=2014&journalTitle=Revista%20Latinoamericana%20de%20Investigacion%20en%20Matematica%20Educativa-RELIME&edition=SSCI&journal=REV%20LAT%20AM%20INV%20MAT%20E>
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[4] Quoted from a final report sent to one of the journals evaluated, dated March 11, 2015.

[5] The GRIE was set up in 2006 by the educational research journals that formed part of the IRMICyT, with the intention of establishing joint positions on editorial policy and with regard to the policies of CONACyT. To date GRIE meets periodically at the National Educational Research Congress to discuss shared problems, share recommendations for referees, and editorial policies on plagiarism, duplicate deliveries for the group of journals, and other matters.

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