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GUEST ARTICLE

Among the editorial policies of different countries and contexts, what effects do we produce and what effects do we wish for the research in Mathematics Education?

Entre as políticas editoriais de diferentes países e contextos, que efeitos produzimos e quais desejamos produzir para a pesquisa em Educação Matemática?

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Abstract

The purpose of this text is to unpack the diversity of editorial policies adopted for the circulation of research in Mathematics Education and the effects they produce on researchers and their research. For this, collaborators of the *Bolema* from Brazil, Spain, Norway and India were invited to describe the scenario of the editorial policies of their countries guided by questions such as: what are the editorial policies in your region? How do scientific journals sustain themselves? How are journals evaluated? What is expected of a researcher regarding their publication? Then, a discussion with the authors of the scenarios was carried out with the aim of revealing the effects of these policies, without the intention of producing converging opinions or exhaustiveness, driven by the question: Among the editorial policies of different countries and contexts, what effects do we produce and what effects do we wish for research in Mathematics Education?. The article is concluded with reflections on potential directions for editorial policies in research in Mathematics Education

Keywords: Scientific Journals. Scientific Metrics. Systems of Classification. Web Qualis. Bolema.

Resumo

O propósito deste texto é explorar a diversidade das políticas editoriais adotadas na circulação de pesquisas em Educação Matemática e os efeitos que elas produzem nos pesquisadores e em suas pesquisas. Para isso, foram convidados colaboradores da revista *Bolema* do Brasil, Espanha, Noruega e Índia para descrever o cenário das políticas editoriais em seus países, guiados por perguntas como: quais são as políticas editoriais em sua região? Como as revistas científicas se sustentam? Como as revistas são avaliadas? O que se espera de um pesquisador em relação às suas publicações? Em seguida, foi realizada uma discussão com os autores dos cenários com o objetivo de revelar os efeitos dessas políticas, sem a intenção de produzir opiniões convergentes ou exaustivas, impulsionada pela pergunta: Entre as políticas editoriais de diferentes países e contextos, que efeitos produzimos e que efeitos desejamos para a pesquisa em Educação Matemática? O artigo é concluído com considerações sobre possíveis direções para as políticas editoriais na pesquisa em Educação Matemática.

Palavras-chave: Revistas Científicas. Métricas Científicas. Sistemas de Classificação. Web Qualis. Bolema.

1 Introduction

According to Valoyes-Chávez *et al.* (2021), the dissemination of research is one of the desired outcomes for most researchers for various reasons, including expanding fields of knowledge, promoting scientific dialogue, presenting theories and methodologies, etc. In addition to these reasons focused on scientific development, we could also include others related to the professional prestige of the researcher, institutional pressures, and ways to maintain or advance in one's career.

For this dissemination, scientific journals are widely used as devices, supported by

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strategies and policies for promotion, maintenance, and evaluation that vary depending on the field of knowledge and the country in which they are established. The purpose of this text is to unpack the diversity of editorial policies adopted for the circulation of research in Mathematics Education and the effects they produce on researchers and their research.

This text is divided into four parts: an introduction, four international scenarios of editorial policies, a joint discussion of these scenarios, and final considerations indicating possible directions. In pursuit of diversity in mechanisms and approach, the countries whose editorial policies are potentially governed by different elements were chosen, namely, Brazil, Spain, Norway, and India, due to their geographical position, political context, organizational diversity, and so on.

For each country, a collaborator from the Bolema Journal - Editor-in-Chief, Associate Editor, or Reviewer - was asked to produce a scenario for their country that would answer questions about Mathematics Education journals, such as: what are the editorial policies in your region? How do scientific journals sustain themselves? How are journals evaluated? What is expected of a researcher regarding their publication?

The third part was produced from a discussion with the authors of the scenarios with the aim of revealing the effects of these policies, without the intention of creating converging opinions or exhaustiveness, guided by the question, “Among the editorial policies of different countries and contexts, what effects do we produce and what effects do we wish for the research in Mathematics Education?”, which also names the article.

We conclude the article with considerations on possible directions for editorial policies in research in Mathematics Education.

2 Editorial Scenarios

With our proposal presented, we now proceed with each of our editorial scenarios by exploring responses to each of the above four questions, drawing from the four countries’ scenarios. The descriptions of these scenarios reflect diversity but also a commonality as we proceed with our comparative analysis.

2.1 Brazilian scenario

In Brazil, research is closely associated with postgraduate programs, which are almost exclusively found in universities. The publication of research results in this country primarily

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occurs through scientific journals and books, with evaluation overseen by the Coordination for the Improvement of Higher Education Personnel (CAPES), the government agency that regulates postgraduate programs in the country.

The Brazilian postgraduate programs are divided into 49 fields, with the domain of *Teaching* being the one that hosts most programs in Mathematics Education[1]. Every four years, the coordinators of postgraduate programs in all areas submit reports to CAPES that include the bibliographic output of their accredited professors. CAPES then analyzes these publications in journals, classifying them into nine distinct strata: A1 to A4, known as higher strata; B1 to B4, lower strata; and C, designated for publications that do not qualify as scientific journals or do not meet the minimum criteria established in each field for classification.

Each journal receives a single classification, known as *Reference Qualis*, determined by only one of the 49 CAPES fields, referred to as the *mother area*, the one in which the journal received the highest number of publications during the evaluation period.

In this classification process it is used a model that considers three bibliometric indicators, used either individually or in combination, depending on the area's profile: CiteScore from Scopus, Impact Factor[2] from the *Web of Science*, and the h-index[3] from *Google Scholar* (BRASIL, 2020). The Teaching domain, in its evaluation, pays attention to what is established in the Leiden Manifesto, which raises issues and emphasizes the importance of combining qualitative and quantitative aspects in assessing the impact of science (HICKS *et al.*, 2015). It also considers local elements of its academic culture, such as its relationship with Basic Education, the challenges of funding its journals, the role of scientific societies in structuring and consolidating journals in the field, the commitment to and appreciation of open-access journals, and the increasing efforts of editors to index journals in databases that facilitate visibility of research.

According to a report of the Teaching domain about its Qualis (BRASIL, 2019), the Teaching domain has established formal criteria such as publication time, ethical procedures, and the presence of journals in search engines, directories, and repositories. Qualitative and quantitative criteria related to indexing in databases, including *Web of Science* and *Scopus*, are

[1] There are some postgraduate programs in Mathematics Education in the Education area.
[2] The impact factor is calculated by dividing the total number of citations received by articles from a journal in a given year by the number of articles published in that same journal in the previous two years. (BUELA-CASAL, 2003, p. 25).
[3] The h-index was proposed by J.E. Hirsch in 2005 (HIRSH, 2005). It is calculated by counting the number of publications for which an author has been cited by other authors at least that same number of times. For instance, an h-index of 10 means that the researcher has published at least 10 papers that have each been cited at least 10 times.

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also considered. However, it does not limit itself to these databases and explicitly supports indexing through the Scientific Electronic Library Online (SciELO)[4] due to its commitment to the ideology of *open science*, supported by Latin American countries, in a perspective of internationalization that integrates Latin-speaking countries.

At the end of this process, CAPES publishes a list of *Reference Qualis* for all evaluated journals over the four-year period. It is important to highlight that, in this evaluation process, the Impact Factor and similar scores are not as relevant in Mathematics Education as it is in other fields in Brazil. These classifications are used to evaluate postgraduate programs, researcher admission and retention in postgraduate programs, public selections for careers in higher education, funding requests for projects, and more.

It is worth noting that the stratum of a journal is also used to obtain funding resources. A singular characteristic of Brazilian journals in the Teaching domain is that they typically do not charge submission or publication fees. The headquarters and editorial teams of many of these journals are in universities, and their funding primarily comes from the hosting university itself and from public research funding agencies.

In general, these resources are limited and are used for technical maintenance of the journal, such as payment for technical reviews and formatting. The work of the editor-in-chief, associate editors, and reviewers is all voluntary and it is often carried out in addition to their regular university duties.

2.2 Spanish Scenario

For over twenty years, bibliometric indices such as the impact factor have been used in various countries, both for assessing the production and quality of scientific research in various fields of knowledge. These indices are consequently used to evaluate researchers, research centers, universities, countries, and so on (BUELA-CASAL, 2002, 2003). In the Spanish context, it is not different.

In Spain, the editorial policy for assessing the quality and maintenance of publications is measured through different indicators, and it is conditioned by bibliometric impact indices,

[4] Founded in 1997, SciELO is a free and open-acess electronic library that accommodates an Ibero-American network of full-text open-access scientific journal collections, as well as producing and publishing indicators of its usage and impact, based on the development of a model methodology for the preparation, storage, dissemination, and evaluation of scientific publication in electronic form (PACKER, 1998).

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such as the impact factor or prestige factor[5], as well as relative quality indicators like *Journal Citation Reports* (JCR) or *Scimago Journal & Country Rank* (JSR). It also depends on the inclusion or indexing of journals in specific databases, such as *Web of Science* (WoS) and Scopus, and the journal's h-index (considering both the number of articles and the number of citations received). For the evaluation of books and book chapters, the most commonly used indicators are based on prestigious publishers, particularly those included in the *Book Citation Index - Social Science & Humanities* (2005 - Present) (WoS) and *Scholarly Publishers Indicators* (SPI).

In the case of Spanish journals, the *Spanish Foundation for Science and Technology* (FECYT) evaluates Spanish journals and awards the FECYT quality seal to journals that pass the evaluation. They also periodically present the results of their evaluations to *Thomson Reuters* and *Elsevier* with recommendations for possible inclusion of these journals in WoS and Scopus. Furthermore, both national and international journals are available on national platforms, such as the *Editorial Quality and Diffusion of Spanish Journals in Human and Social Sciences* (DICE), the *Information Matrix for Assessment of Journals* (MIAR), among others.

Just like in other contexts, in Spain, the majority of scientific production occurs in universities, whether through consolidated research groups, research and development projects, or graduate programs, especially in doctoral programs.

For this reason, the country has the *National Agency for Quality Assessment and Accreditation* (ANECA), an autonomous body linked to the *Ministry of Education* that carries out its functions through two main programs: The *Teacher Evaluation Program for Hiring* (PEP), which examines teaching and research activities and the academic qualifications of candidates for positions as contracted university professors (Assistant Professor, Associate Professor, and Private University Professor); and the *National Accreditation Program* for access to university teaching positions (ACADEMIA), which evaluates the profiles of candidates for access to civil servant university teaching positions (Full Professor and Associate Professor). In addition to these, there is also a program to evaluate research periods (every six years) recognized by university professors for their research activity merits. It is important to note that geographically, Spain is divided into autonomous communities, and each community has its own agency for evaluating university quality, which must be coordinated with the criteria

[5] The prestige factor is calculated by dividing the total number of citations received by original articles published in a journal in the same year and the two previous years, in one year, by the number of original articles published in the same journal in those three years. The prestige factor includes the equivalent impact factor, review factor, review index, percentile, interaction index, publication index, etc. However, directly or indirectly, all these indices are based on the number of citations (BUELA-CASAL, 2003, p. 25).

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proposed by ANECA. For example, the *Agency for the Quality* of the University System of Catalonia (AQU) in Catalonia or *the Agency for Scientific and University Quality in Andalusia* in Andalusia.

In addition to the specific criteria for accreditation of teaching through the evaluation of teaching and extension, there are criteria for evaluating scientific activity, which are directly related to scientific production published in indexed journals (WoS and/or Scopus) with an impact factor (JCR, SJR, and/or CiteScore) or books and book chapters cataloged in SPI. For example, to obtain permanent associate professor accreditation by AQU (2020) in the field of *Applied Social Sciences*, which includes the field of *Education and Teaching*, it is essential to have a minimum of 10 articles in three levels of quality (A, B, C), which roughly correspond to specific quartiles of the journals where the articles were published, as defined by international reference citation databases: specifically, a minimum of 5 articles in JCR Q1, JCR Q2; Scopus Q1 (SJR) (Level A); a maximum of 3 articles in JCR Q4; Scopus Q3 (SJR) (Level C); and the rest should be in JCR Q3; Scopus Q2 (SJR) (Level B) (ANECA, 2023).

The faculty accreditation system proposed by both ANECA and the autonomous community agencies encourages the university system to publish in journals or editorials indexed in the above-mentioned databases. This practice is also reflected in the doctoral programs of each university, which, through their regulations, allow thesis approval by compilation of articles as long as the articles are also published in the mentioned databases.

However, it is not enough to merely publish in the above-mentioned journals and editorials; it is essential for research to have a certain impact. In the Spanish context, this impact is primarily measured by the number of citations received by a work. In turn, the set of citations accumulated by different works signed by an author over their entire research career or during a specific period forms the total citations received by a researcher. By combining productivity and citations in the same indicator, the h-index and g-index are obtained. The citations and indices considered to measure the impact of a researcher's work can be found in WoS, Scopus, and, as a last resort, in Google Scholar.

2.3 Norwegian Scenario

Unlike many other countries in the world, Norway has its unique classification of scientific/academic journals carried out by the Norwegian Register for Scientific Journals, Series, and Publishers. From a global perspective, it is not so uncommon to hear about Scopus, JCR, or WoS-indexed journals and how they are differently categorized whether they fall within

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the top 25% (Q1), top 50% (Q2), top 75% (Q3) or the lower 25% (Q4). In the *Norwegian Journal Ranking System,* journals are by large classified into two different categories. They are known as Level 1 categories and Level 2 categories (NORWAY, 2023).

Publications in Level 1 journals are considered to satisfy the minimum requirement to be counted as scientific journals. This means that journals must undergo a thorough external peer review, scientific editorial board, and minimum national authorship. Furthermore, a publication in a Level 1 journal accounts for 80% of all indexed journals in Norway. On the other hand, a publication in a Level 2 journal accounts for the top 20% of all indexed journals in Norway. Therefore, Level 2 is perceived to be the highest level since it is with Q1 in Scopus or JCR indexations.

For a journal to be considered as Level 2, it must be nominated by scientific scholars which then will be decided by the scientific panels. The National Board of Scholarly Publication decides if a journal satisfies the criteria to be upgraded to Level 2 or, conversely be downgraded from Level 2 to Level 1. It is important to note that a journal must be perceived to be Level 1 before it can be nominated to be in Level 2. Furthermore, just because a journal is in Level 2, it does not mean that it automatically falls within the Q1 Scopus or WoS. For example, the very prestigious Journal of Nature Human Behaviour with an impact factor of 24 (in 2023) is perceived to be Level 1 in the Norwegian ranking system and not Level 2. Some examples of Level 2 journals in the field of Mathematics Education are JRME, Educational Studies in Mathematics, Journal of Mathematical Behavior, For the Learning of Mathematics, and Research in Mathematics Education. Again, it is important to note that a journal that is Q3 in WoS and/or Scopus indexation has the potential to be considered (and be) in Level 2 journals. Therefore, it is important to note that what is perceived to be in the top 20% of journals in Norway does not necessarily mean the top 20% in WoS and/or Scopus indexations.

For a journal to be included at level 1 and count as a scientific publication channel (journals, series and publishers) in the Norwegian financial system, the following requirements must be fulfilled:

- Be identified with a valid ISSN, confirmed by The International ISSN Register (demand from 2014)
- Have an academic editorial board (or an equivalent) primarily consisting of researchers from universities, institutes or organizations that do research
- Have established procedures for external peer review

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- Have a national or international authorship, meaning that maximum 2/3 of the authors can belong to the same institution

2.4 Indian Scenario

The Mathematics Education research community is still somewhat small in India compared to other research domains, as well as in other countries with similar issues and challenges. Nonetheless, there have been many efforts, initiatives, and interventions toward effective teaching and learning of mathematics by various governmental and non-governmental organizations for decades now. The outcomes of these initiatives and interventions often come out in the form of reports but do not lead to publication in international journals of Mathematics Education. Analysis of the outcomes as successful and not-so-successful is often anecdotal and not inferred by following any systematic evaluation or investigation (BANERJEE, 2012).

Interestingly, many of these efforts, initiatives, and interventions have had immense contributions to various fields of Mathematics Education in the country such as content, students' learning difficulties, classroom pedagogy and classroom practice, teacher professional development, assessment reforms, curriculum, and textbook reform and so on.

Much of the research in mathematics education happens during the master's and doctoral coursework and is undertaken by the students in the form of dissertation work. These efforts, some of which are good quality work, are often not published and remain unseen by the international community.

Mathematics Education as a domain of research and investigation is not offered in most universities and it is neither recognized as a separate branch of study. Consequently, there are only a handful of universities and research institutions where mathematics education is studied as a separate branch of study that constitutes the Mathematics Education research community in India.

As discussed before, there are no national or international journals on mathematics education published in India. There are, however, popular magazines and periodicals that a few universities bring out at regular intervals which occasionally contain articles on Mathematics Education too, but these are not research articles. There are journals on education research hosted and published by different research institutions, universities, different research societies, and different government bodies but not exclusively with a focus on Mathematics Education. Most universities in India, except universities offering technical courses and a few others, come

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under the University Grants Commission (UGC), which is the statutory organization of the Government of India "for the coordination, determination, and maintenance of standards of teaching, examination, and research in university education" (UGC, n.d.).

The Mathematics Education research community, even if small, aims to publish their work in international journals. UGC has a *Reference List of Quality Journals* that count higher when compared to other journals in determining the Academic Performance Index (API). This list is referred to as the Consortium for Academic and Research Ethics (CARE) list, or more commonly UGC-CARE list. UGC-CARE aims to maintain a "quality mandate for Indian academics" and "match global standards of high-quality research in all academic disciplines" (UGC-CARE, n.d.). The UGC-CARE website claims that

> The UGC-CARE List includes journals from all disciplines indexed in globally accepted databases, such as indexed in Scopus (Source list) or Web of Science (Arts and Humanities Citation Index Source Publication, Science Citation Index Expanded Source Publication, Social Science Citation Index Source Publication). Journals indexed in Scopus and/or Web of Science are part of UGC-CARE List Group II (UGC-CARE, n.d.).

Most journals have patronage under universities and various governmental bodies or ministries that help to maintain and sustain them. Researchers and academics in India are strongly encouraged to publish in different indexed journals. A similar policy governs academics and researchers working in the field of Mathematics Education. The UGC-CARE list has classified two groups of journals:

- UGC-CARE List Group I: Journals found qualified through UGC-CARE protocols
- UGC-CARE List Group II: Journals indexed in globally recognized databases

Researchers and academics in India are strongly encouraged to publish in various indexed journals, and similar policies also apply to academics and researchers working in the field of Mathematics Education. The academic performance of researchers and academics is evaluated based on their API score every academic year.

3 The Impact of Editorial Policies: effects and concerns

After presenting the scenarios of editorial policies in Brazil, Spain, Norway, and India, we proceed with a discussion on the effects that these policies can produce. With this discussion, we are not seeking to create an idealized editorial policy but rather to explore the diversity of effects generated. We also understand that the actions taken in each of these scenarios are context-specific and produce different effects, which are not inherently positive or negative but

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responses to their unique circumstances.

In this section, we do not expect to provide a comprehensive analysis of the topic but rather aim to understand a broader editorial landscape in which the Mathematics Education domain can position itself and invest in its strategic actions. To achieve this, we conducted a careful reading of the narratives, highlighting elements that could help us answer the question: Among the editorial policies of different countries and contexts, what effects are we producing, and what effects do we wish to produce for research in Mathematics Education? These narratives were accompanied by comments discussing their convergence, divergence, and effects. It is from this organization that the text of this section takes shape.

In all scenarios, it is notable that research in Mathematics Education takes place in postgraduate programs funded by universities themselves or government foundations. This, on the one hand, allows for a broader range of research topics but, on the other hand, has the disadvantage of relying on limited resources and being dependent on sometimes unstable public policies.

The dissemination of research is primarily done through articles published in scientific journals and in the form of books or book chapters, using established structures to share their findings. However, this approach may not always keep pace with emerging trends in open science or alternative modes of dissemination, potentially limiting access and visibility.

While Mathematics Education and the broader Humanities field have a history of impact through book publications, there is a trend towards valuing research results published in journal articles, often established within universities, with teams composed of their own researchers and students who typically work voluntarily, with technical costs funded by government foundations. This editorial structure allows for a diversity of scopes among journals but it also has the disadvantage of having teams that are not professionally trained in terms of editorial procedures, which may not keep up with technological advancements in the publishing industry, often overlapping with their routine university tasks.

All scenarios involve systematic evaluation that classifies scientific journals, a practice expected in a context that values this form of dissemination, carried out by several institutions to ensure quality control and guide researchers and institutions towards legitimizing their publications. In Spain, this evaluation is conducted by the foundation responsible for science and technology in the country, closely aligned with companies responsible for databases that produce international metrics, such as Thomson Reuters and Elsevier. In Brazil, it is carried out by committees related to postgraduate education; in Norway, by a federal institution; and in India, by a commission that provides financial resources for research. While alignment with

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internationally accepted criteria can improve the evaluation of journals in an international assessment context, metrics produced by these companies may not capture all aspects of journal quality, especially those related to local issues or specific missions.

The Spanish classification system has four levels and relies mainly on indexing in Scopus and WoS. The Brazilian system consists of 9 levels that considers bibliometric indices related to Scopus and WoS, combined with Google Scholar. The greater or lesser weight assigned to one index or another depends, to some extent, on the field of knowledge. The national reality and precautions listed in the Leiden Manifesto (HICKS *et al.*, 2015) are also taken into consideration, aiming to promote open science and stimulate research production in Latin America. The classification systems in Norway and India produce only two categories. The first includes all journals that meet minimum criteria to be considered scientific, while the second category represents a highlight in the field, determined by nominations and panel discussions in Norway and by indexing in major databases in India.

The two-level classifications appear to simplify the interpretation, aiming to ensure quality and scientific legitimacy on one level and journal prominence on another. The Brazilian system considers a larger number of elements, with the disadvantage of being more complex to navigate but promoting important editorial practices, such as open access and knowledge democratization.

The exclusive use of metrics associated with Scopus and WoS offers the transparency of a globally recognized system but it has the disadvantage of incentivizing artificial methods to improve a journal's ranking, such as mass citation and self-citation, as well as not taking into account specific elements of the Humanities.

A clear effect of hierarchical journal classification systems, as seen in the Brazilian and Spanish systems, is the tendency to make certain journals more desirable than others, as if they had different levels of quality, something not guaranteed by the classification structure, overburdening those journals and causing delays in publication. The impact of a journal, something often assessed by metrics using the "number of citations per number of published articles" quotient, overlooks other dimensions of journal impact, especially those related to local issues and journals operating in different languages.

When considering the uses of journal classification systems, we observe a convergence across all scenarios: evaluation of postgraduate programs, admission and retention of professors in academia, distribution of resources for research projects, and more.

The effects of this type of use of classification systems appear concerning to some extent. The lack of understanding of their structures can lead to misinterpretations, where the

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quality of a publication is judged solely by its classification in a specific tier. Encouraging universities to publish their results in specific strata leads to a concentration of submissions in few journals, often ill-equipped to handle the volume, while other journals with rigorous protocols but still emerging struggle to receive new articles and obtain funding.

Emphasizing journal classification systems can lead to a competitive environment among journals, researchers, and universities. Using these systems to evaluate researchers, whether for university admission or retention, is a mistake that reduces the quality of their scientific production to a simple number, disregarding the multidimensionality and complexity involved in research.

However, relying solely on internationally recognized systems that exclusively use metrics from WoS and Scopus appears particularly concerning. That is because such databases index journals operate almost exclusively in English. One of the major arguments for the use of English as a lingua franca is the potential for a common language to share research results. However, Meaney (2013) argues that this practice contributes to what she calls monocultural Mathematics Education, as it excludes a significant portion of the Mathematics Education research community, which is very active in other countries, such as Portuguese and Spanish-speaking countries. Consequently, their results are often published in their local languages due to the specificity of their topics, which may not necessarily have international interest.

Besides that, it is important to emphasize that metrics based solely on the number of citations in specific bases do not always reflect the real visibility of a journal, as revealed by Andrade-Molina, Montecino, and Aguilar (2020). That challenges the assumption that mainstream journal rankings are able to accurately reflect the quality, impact, and reputation of mathematics education journals by taking as *empirical data* the Ibero-American journals in the field of mathematics education. They also caution against their indiscriminate use, as it "not only exacerbates exclusion but also configures a point system that constitutes places for enjoyment and fetishistic disavowal within researchers" (ANDRADE-MOLINA; MONTECINO; AGUILAR, 2020, p.359).

To conclude this section, we would like to shed light on a particularly concerning effect we refer to as the *publishing industry*. In this industry, a capitalist logic becomes more explicit in highly rated international journals that charge high fees, sometimes for publication and access, where research results funded by universities are capitalized by dissemination mechanisms not placed in universities strategically and professionally aligned with existing classification systems. On the other hand, this capitalist industry operates silently at a micro-political level when it encourages researchers to produce multiple articles from a single research

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project exclusively published in top-ranked journals, and the optimization of the allocation of financial resources to research that simplistically associates its results and impact with the number of articles, as judged by classification systems.

Extreme examples of effects of this kind of capitalist logic are predatory journals and publishers, understood as

> […] entities that prioritize self-interest at the expense of scholarship and are characterized by false or misleading information, deviation from best editorial and publication practices, a lack of transparency, and/or the use of aggressive and indiscriminate solicitation practices. (AGNES *et al*., 2019, p.210)

With the overview of editorial policies that govern the production and dissemination of research in Mathematics Education, it is important for this domain to define its strategies accordingly with its mission.

4 What could be the future of Editorial Policies in Mathematics Education?

In this final section, we contemplate what the insights gleaned from editorial policies in four countries mean for the future of Mathematics Education. We emphasize the importance of recognizing the value of publications in non-English languages, as well as the role of journals catering to specific research communities. Furthermore, we discuss how we can strike a balance between the need for research evaluation and more holistic approaches that prioritize quality, diversity, and the real impact in the field.

We consider the utmost importance for universities, researchers, and public policies to be attentive to the meaning of different metrics so that they are not misused, as strongly emphasized by the Leiden Manifesto (HICKS *et al.*, 2015). In particular, we believe it is crucial to maintain an ongoing dialogue involving the entire community of mathematics education researchers regarding journal ranking practices, their updates, and their effects, as exemplified in a specific Symposium on this topic at the Eleventh International Mathematics Education and Society Conference (VALOYES-CHÁVEZ *et al.*, 2021).

We also explore how academic institutions and researchers can challenge the growing influence of the scientific publishing industry. It is important to consider that capitalist logic often associates the greatest impact of science with research that results in tangible products or articles widely cited by renowned authors. When taken to the extreme, this logic can lead to the commercialization of science, where research is seen as a resource accessible only to those with the financial means to acquire it. One way to combat this publication industry that we would like to emphasize is support for open science, where results of research are widely disseminated

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in a democratic and non-commercialized manner, as we realize that the greatest impact of Mathematics Education may lie in cultivating critical thinking in a broader audience and promoting the adoption of research as a criterion for making more informed and well-founded decisions.

Finally, we conclude with a call to action for Mathematics Education to continue promoting a critical approach to editorial policies, seeking a balance between academic rigor and accessibility, and prioritizing positive impact on education and society.

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