

Graduate Program in Physical Geography

FLG5127 – Methods and Techniques in Research and Scientific Writing

1

Bibliographical research: importance and current resources – Prof^a Dr^a Ligia Vizeu Barrozo

First class

Bibliographical research:
importance and current
resources

Approaches about the Universe

Approaches	Basic features			
Science	Temporary	Explanatory	Logical	Empirical
Philosophy	Temporary	Explanatory	Logical	
Religion	Definitive	Explanatory	Logical	
Art	Aesthetic			

Why we produce science?

THE IMPACT OF SCIENCE ON THE DEVELOPMENT OF A NATION

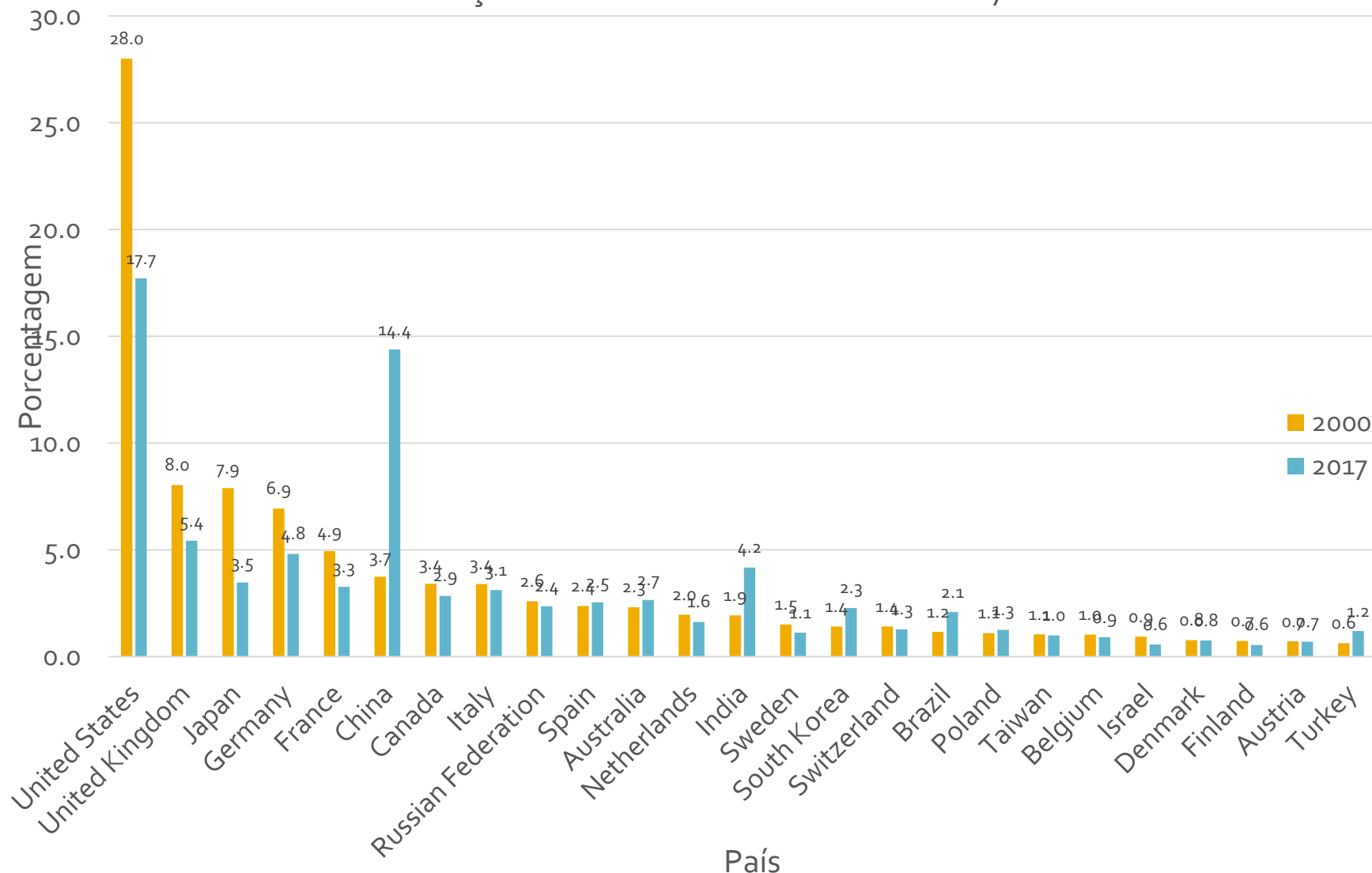
Social impact involves ideas that affect public policy.

The economic impact is relative to ideas that create companies, those that increase the competitiveness of companies, and those that create industrial sectors.

The intellectual impact of science is characterized by ideas that create ideas and are much cited in the literature.

One of the usual parameters for gauging the development of a nation's sciences and techniques is its international insertion in the production of articles in respected scientific journals.

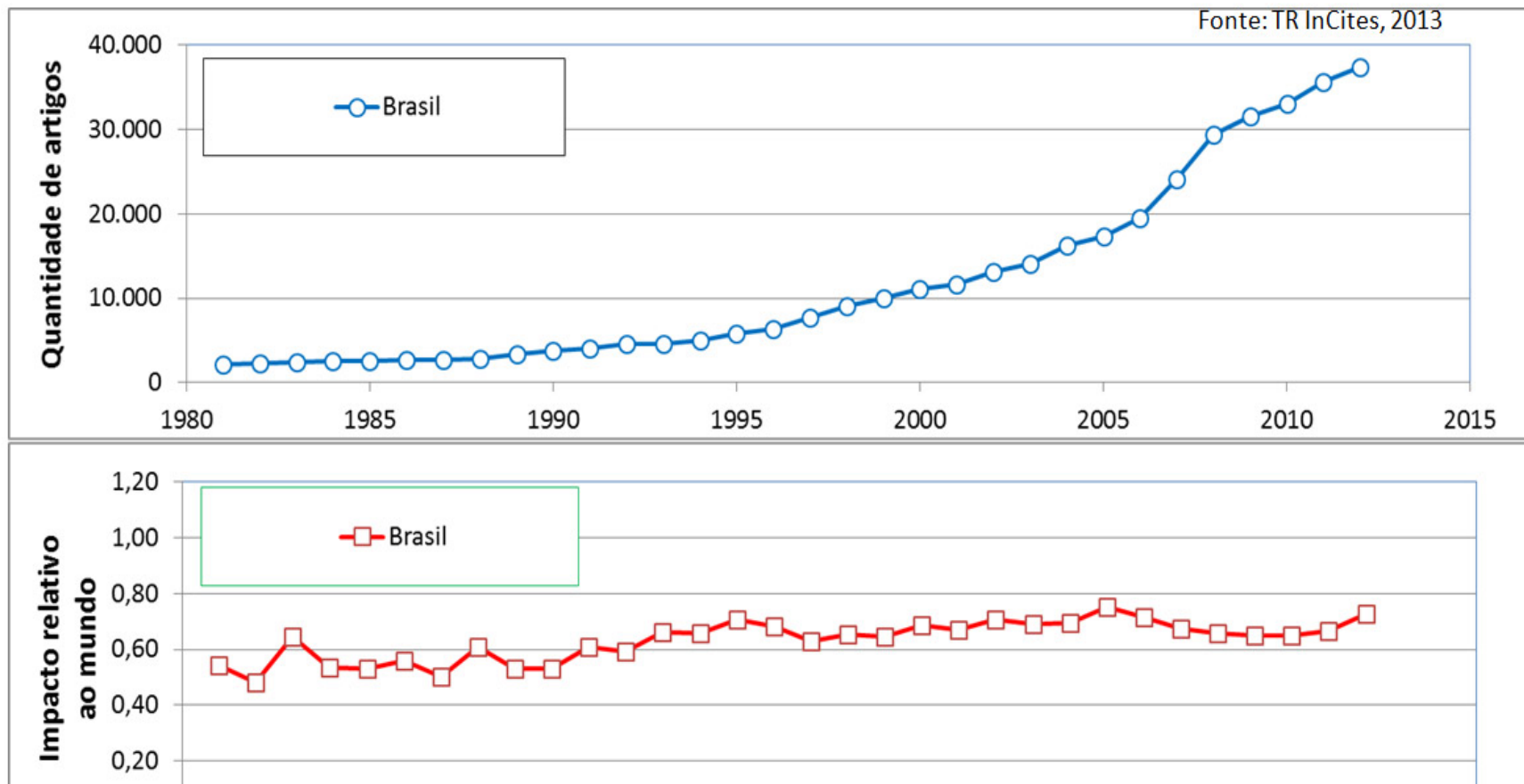
Produção científica indexada em 2000 e 2017



Without the production of knowledge and necessary conditions such as development, infrastructure and specialized human resources, a country can hardly overcome the barriers of economic and social underdevelopment.

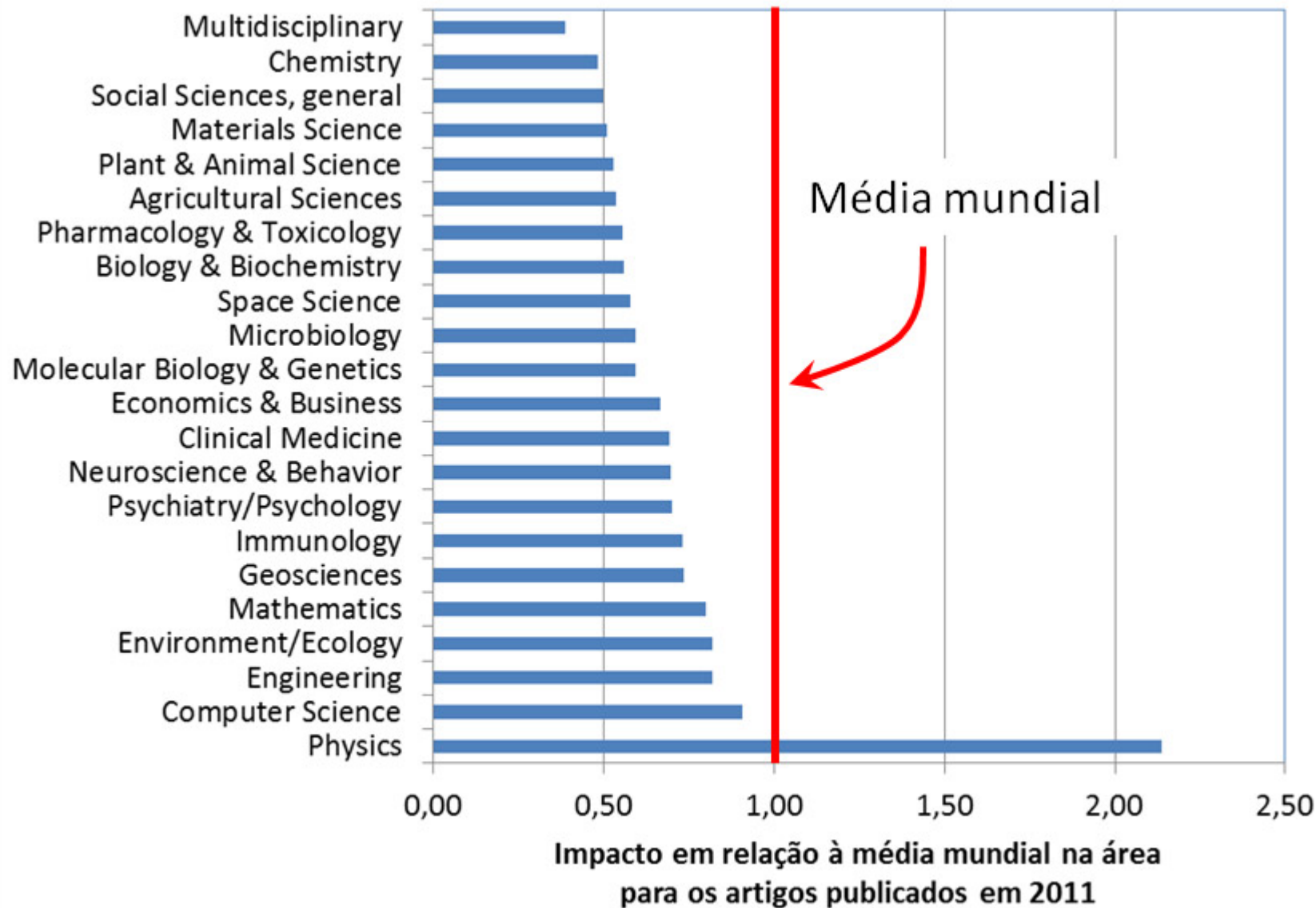
Evolução da Participação na Produção Científica Mundial, Brasil – 2002/2012 (%)				
Ciências	Brasil		Variação	Ranking Mundial/2012
	2002	2012		
Total da Produção	1,2	2,2	83%	13
Biologia	1,3	2,2	69,2%	13
Ciências Médicas	0,9	2,8	211,1%	11
Biologia aplicada a Ecologia	2,3	6,3	173,9%	3
Química	1,4	1,5	7,1%	15
Física	1,5	1,3	-13,3%	15
Ciências do Universo	1,1	1,6	45,5%	13
Engenharias	1	1,3	30,0%	18
Matemática	1,1	1,5	36,4%	16
Ciências Humanas	0,4	1,1	175,0%	13
Ciências Sociais	0,5	1,8	260,0%	13
Fonte: Observatoire des Sciences et Techniques. Elaboração nossa.				

Brazilian scientific production until 2013



fapesp14-20140824-UNESP.pptx; © C.H. Brito Cruz e Fapesp





“We Don't Ask Good Questions”

POLÍTICA CIENTÍFICA

29.novembro.2013 06:00:28

Ciência brasileira precisa ser mais ousada, diz editora-chefe da Science



FOTO: Marcia McNutt, no Fórum Mundial de Ciência. Crédito: ABC

Herton Escobar / O Estado de S. Paulo

Scientists are afraid to take a risk on more complex projects because, in the end, they are judged more by the number of works they publish than by the quality or relevance of their publications. And that's why Brazil has not won a Nobel Prize to date and has difficulty publishing papers in high impact magazines, etc...

<http://blogs.estadao.com.br/herton-escobar/ciencia-brasileira-precisa-ser-mais-ousada-diz-editora-chefe-da-science/>

Bibliographical research

When to do?

BIBLIOGRAPHIC RESEARCH

- IDENTIFY RELEVANT QUESTIONS IN YOUR AREA

a- Top magazine reading in the area;

b- Examine recent articles by looking at:

- the question of papers;
- the objectives of the papers;
- the conclusions of the papers.

Try to understand why certain topics are being investigated!

Try to talk to your peers!

Reference Manager

Download Mendeley Desktop x

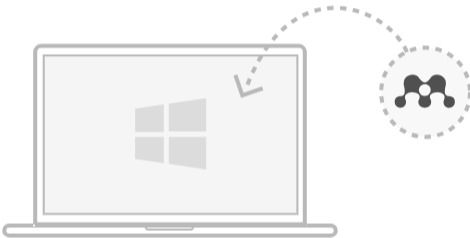
lifa@usp.br

Seguro | <https://www.mendeley.com/download-desktop/>

Mendeley What is Mendeley?



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Download Mendeley Desktop for Windows



[Download Mendeley Desktop for Windows](#)

Windows 7, 8.1 and 10. [See release notes.](#)

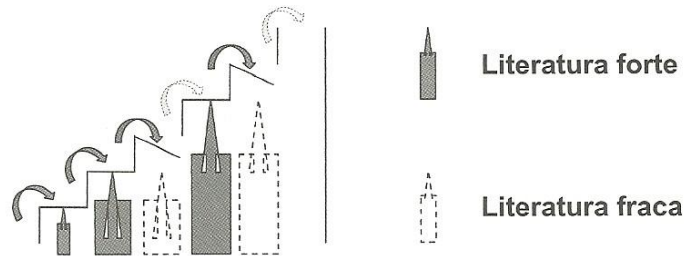
Other systems:  [Mendeley Desktop for Mac OS](#)  [Mendeley Desktop for Linux](#)

Get tools and add-ons to further enhance your research

Windows taskbar: Digite aqui para pesquisar, icons for File Explorer, Microsoft Store, Edge, Mail, Photos, PowerPoint, and a globe icon.

System tray: Network, volume, and battery icons; Location: POR PTB2; Time: 06:31 17/08/2018; Notification icon with '2'.

Literature quality



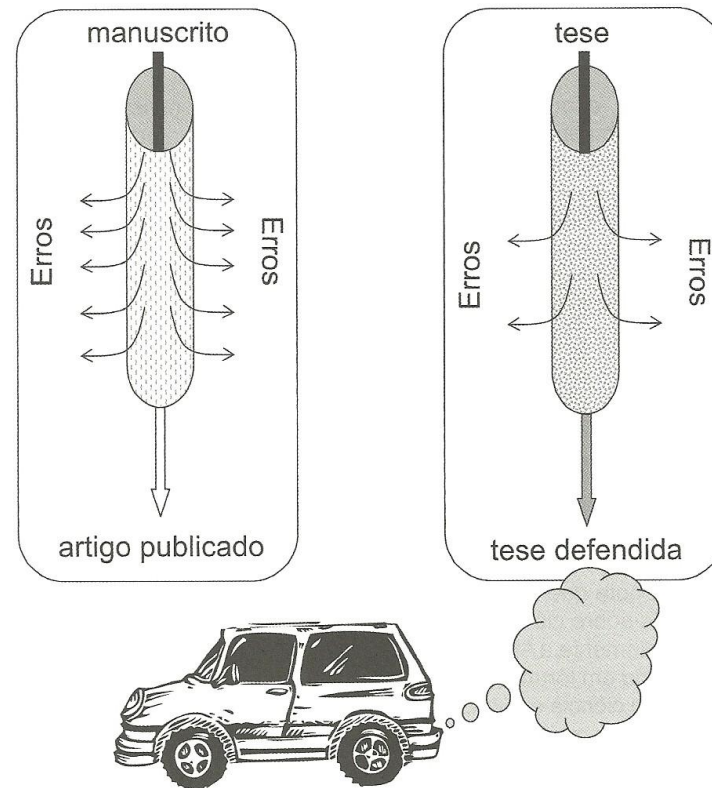
Literatura Fraca

Fonte não lida
Idioma regional
Resumo (expandido ou não)
Tese
Revistas fracas
Artigos escondidos

Literatura Forte

Fonte lida criticamente
Idioma internacional (inglês)
Artigo ou livro
Publicação resultante da Tese
Revistas fortes internacionalmente
Artigos visíveis

Publication of results




Evite a poluição de informações!

A publicação em revistas internacionais de bom nível é pré-requisito indispensável para que o cientista divulgue seus achados para a comunidade não científica. Do contrário, as chances de se divulgar equívocos aumentam.

Browser tabs: [Página inicial do Mozilla Firefox](#) | [USP Mail: Entrada \(78\)](#) | [CAPES - Coordenação de Ape...](#) | [Sistema WebQualis - Portal CAPES...](#) | [Ligia Vizeu Barrozo](#)

Address bar: qualis.capes.gov.br/webqualis/publico/pesquisaPublicaClassificacao.seam;jsessionid=4EA647C3D3F43D96DD1F81C50001D547.qualismodcluster-node-98?conver |

**SiCAPES**
SISTEMA INTEGRADO CAPES

WEBQUALIS

Login

Consultar ▾ | Contatar Coordenadores | Tela Inicial

Por ISSN do Periódico | Por Título do Periódico | Por Classificação / Área de Avaliação | **Lista Completa**

Exporta a lista completa de periódicos

[Exportar Lista Completa PDF](#) | [Exportar Lista Completa Excel](#)

Taskbar: Iniciar | | | | | | | | PT | | 11:47 AM 8/25/2015

The choice of the journal

Journal evaluation systems:

In Brazil: the different areas of CAPES define the criteria and compile the list of journals, which are classified in:

A1 (100),
A2 (85),
B1 (70),
B2 (55),
B3 (40),
B4 (25),
B5 (10).

LIST OF PERIODICS CLASSIFIED BY CAPES - AREA OF GEOGRAPHY

Pasta1 - Microsoft Excel uso não comercial					
Início Inserir Layout da Página Fórmulas Dados Revisão Exibição					
<div> <div> Colar </div> <div> Calibri 11 </div> <div> N <i>I</i> <u>S</u> </div> <div> Fonte </div> <div> Quebrar Texto Automaticamente </div> <div> Alinhamento </div> <div> Geral </div> <div> Número </div> <div> Formatar como Tabela </div> <div> Estilos de Célula </div> <div> Inserir Excluir Formatar </div> <div> Células </div> <div> AutoSoma </div> <div> Preencher </div> <div> Limpar </div> <div> Classificar e Filtrar </div> <div> Localizar e Selecionar </div> <div> Edição </div> </div>					
	A	B	C	D	E
1	ISSN	Título	Estrato	Área de Avaliação	Status
2	0001-706X	Acta Tropica	A1	GEOGRAFIA	Atualizado
3	0378-3774	Agricultural Water Management (Print)	A1	GEOGRAFIA	Atualizado
4	0167-8809	Agriculture, Ecosystems & Environment (Print)	A1	GEOGRAFIA	Atualizado
5	1042-0533	American Journal of Human Biology	A1	GEOGRAFIA	Atualizado
6	0275-2565	American Journal of Primatology (Print)	A1	GEOGRAFIA	Atualizado
7	0260-3055	Annals of Glaciology	A1	GEOGRAFIA	Atualizado
	0883-				



PT

3:17 PM
8/25/2015

Internationally, journals can be on a Thomson Reuters ranked list and receive an Impact Factor (FI)

The screenshot shows a web browser window with multiple tabs. The active tab is 'The Thomson Reuters ...'. The address bar shows 'wokinfo.com/essays/impact-factor/'. The page title is 'WEB OF SCIENCE™'. The navigation bar includes links for ABOUT, PRODUCTS & TOOLS, BENEFITS & RESOURCES, TRAINING & SUPPORT, NEWS & EVENTS, and CONTACT US. A search bar is present with the text 'Site Search' and a 'SEARCH' button. The main content area is titled 'THE THOMSON REUTERS IMPACT FACTOR'. On the left, there is a sidebar with links for 'SUBSCRIBER LOGIN >', 'PRODUCT ACCESS', 'MOST POPULAR', and 'SUPPORT'. The main text area contains the following content:

This essay was originally published in the Current Contents print editions June 20, 1994, when Thomson Reuters was known as The Institute for Scientific Information® (ISI®).

See also: ["The agony and the ecstasy: the history and meaning of the Journal Impact Factor"](#)

Librarians and information scientists have been evaluating journals for at least 75 years. Gross and Gross conducted a classic study of citation patterns in the '20s.¹ Others, including Estelle Brodman with her studies in the '40s of physiology journals and subsequent reviews of the process, followed this lead.² However, the advent of the Thomson Reuters citation indexes made it possible to do computer-compiled statistical reports not only on the output of journals but also in terms of citation frequency. And in the '60s we invented the journal "impact factor." After using journal statistical data in-house to compile the [Science Citation Index® \(SCI®\)](#) for many years, Thomson Reuters began to publish [Journal Citation Reports® \(JCR®\)](#)³ in 1975 as part of the [SCI](#) and the [Social Sciences Citation Index® \(SSCI®\)](#).

Informed and careful use of these impact data is essential. Users may be tempted to jump to ill-formed conclusions based on impact factor statistics unless several caveats are considered.

On the right side of the page, there is a promotional banner for '2015 JOURNAL CITATION REPORTS® JOURNALS RECEIVING THEIR FIRST IMPACT FACTOR' with a 'Available now >' button. Below this is a section titled 'SUBMITTING A JOURNAL?' with a 'Build bibliographies' button.

The bottom of the screen shows a Windows taskbar with various application icons and a system clock indicating 3:06 PM on 8/25/2015.

5.

 Listo, Fabrizio de Luiz Rosito ; **Carvalho Vieira, Bianca** . Mapping of risk and susceptibility of shallow-landslide in the city of São Paulo, Brazil. Geomorphology (Amsterdam) **JCR**, v. 169-170, p. 30-44, 2012.

Citações: **WEB OF SCIENCE**  5 | **SCOPUS** 5

GEOMORPHOLOGY (0169-555X)
Fator de impacto (JCR 2014): 2.785

The Impact Factor

The Impact Factor (IF) is a measure that reflects the average number of citations of scientific articles published in a given journal. It is often employed to evaluate the importance of a given journal in your area.

The FI was created by Eugene Garfield, the founder of the Institute for Scientific Information (ISI), today part of the Thomson Reuters Corporation. Since 1972 FIs have been calculated annually for ISI indexed journals and then published in the Thomson Reuters Journal of Citation Reports (JCR).

Impact Factor

- In mathematical terms, in a given year the IF of a journal is calculated as the average number of citations of articles that were published during the previous biennium. For example, the IF of a periodic data in 2009 can be calculated as follows:
- where A = the number of times articles published in 2007 and 2008 were cited by journals indexed during 2009
- where B = the total number of "citable items" published in 2007 and 2008 ("citable items": usually articles, reviews, conference abstracts, or notes, not including editorials or letters to the editor)
- so the impact factor of 2009 = A / B

Impact Factor

- Applying the equation, if in this journal 320 scientific articles were published in the 2007-2008 biennium, and if in the following year they received 920 citations, their IF in 2009 will be

$$920/320 = 2,875$$

The choice of the journal

- Good Brazilian journals not yet indexed in ISI
try to index them in the database.

SciELO (Scientific Electronic Library On-line)

www.scielo.org

SciELO (Scientific Electronic Library On-line)

- is an electronic library covering a selected collection of Brazilian scientific journals. SciELO is the result of a FAPESP research project in partnership with Bireme - Latin American and Caribbean Center for Health Sciences Information. Since 2002, the Project has been supported by CNPq.
- The project aims to develop a common methodology for the preparation, storage, dissemination and evaluation of scientific production in electronic format. The following countries currently participate in the SciELO network: South Africa, Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Spain, Mexico, Peru, Portugal, Venezuela; prepare to participate: Bolivia, Paraguay and Uruguay.

Remote access to bibliographic search bases

- Biblioteca Florestan Fernandes
- biblioteca.fflch.usp.br/
- Procurar por USP VPN (Virtual Private Network)
- Cadastro no site: <http://www.vpn.usp.br>

Bibliographic research bases

- ISI Web of Knowledge
- www.periodicos.capes.gov.br
- Science Direct
- www.sciencedirect.com
- PUBMED
- www.ncbi.nlm.nih.gov/pubmed
- GeoRef – American Geosciences Institute
- www.americangeosciences.org/georef/georef-information-services
- Resumos de Teses (Reino Unido e Irlanda)
- www.theses.com

Starting the bibliographic search:

- Build a list of terms (or keywords) into three categories: broad, related, and narrow or straightforward
- Conduct research on methods and techniques that interest research
- Save a “search journal” with the keywords you used, search date, most relevant references
- Identify review articles that can expose the state of the art of knowledge on that topic. Start from your references to identify what interests you
- Consider using a program to manage references (such as EndNote or Mendeley)

References

BRITO CRUZ, C.H. O desafio de aumentar o impacto da ciência brasileira. 2013. Disponível online:
<http://www.fapesp.br/eventos/2013/05/confap/desafio-impacto-confap.pdf>

HEALEY, M., HEALEY, R.L. How to conduct a literature search. In: CLIFFORD, N., FRENCH, S., VALENTINE, G. ***Key methods in Geography***. Londres: SAGE Publications, 2012. p.16-34.

VOLPATO, G.L. ***Método lógico para redação científica***. Botucatu: Best Writing, 2011. 320p.