

## Production of productivity scholarship researchers in Physical Education in the 2010-2012 triennium: “Top 30” journals with the highest number of publications

### *Produção dos bolsistas de produtividade em Educação Física no triênio 2010-2012: os “Top 30” periódicos com maior número de publicações*

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**Abstract** – Researchers receiving grant from the Brazilian National Council for Scientific and Technological Development (CNPq) are a reference group in Brazilian academia. Therefore, the aim of this study was to analyze the 30 journals with the highest number of publications of researchers in the Physical Education area who received grants in the 2010-2012 triennium. From this analysis, the relevance of journals in the Physical Education area was also evaluated. For the accounting of publications, the scriptLattes v8.07 software was used. The 88 researchers in Physical Education area published 2600 papers in 530 different journals in the 2010-2012 triennium. It was found that among the 30 journals with the highest number of publication, 19 are published in Brazil; from “Top 10”, eight journals are published in Brazil. Concerning journals that have publications of researchers who have received grants of all categories/levels, of the 11 journals that meet this requirement, seven are published in Brazil. It was concluded that, however Brazilian journals are minority in the upper stratum of Webqualis in the Physical Education area, they still stand as the main communication vehicle of elite researcher in the area.

**Key words:** Research personnel; Research support as topic; Scientific research and technological development.

**Resumo** – Os pesquisadores bolsistas de produtividade do Conselho Nacional de Desenvolvimento Científico e Tecnológico (CNPq) constituem um grupo de referência no meio acadêmico brasileiro. Objetiva-se, frente tal interpretação, analisar os 30 periódicos com maior número de publicações de pesquisadores bolsistas de produtividade da área da Educação Física no triênio 2010-2012. Com tal análise, intenta-se ainda, diagnosticar a relevância de tais periódicos para a referida área. Para a contabilização das publicações foi utilizado o software scriptLattes v8.07. Os 88 bolsistas de produtividade da área da Educação Física publicaram 2600 artigos em 530 periódicos distintos no triênio 2010-2012. Constata-se que dos 30 periódicos com maior número de publicações, 19 são editorados no Brasil; dos “Top 10”, oito periódicos são editorados no Brasil. Com relação aos periódicos que possuem publicações de bolsistas de produtividade de todas as categorias/níveis, dos 11 periódicos que atendem a essa condição, sete são editorados no Brasil. Conclui-se que, por mais que os periódicos brasileiros sejam minoria nos estratos superiores do Webqualis na área da Educação Física, estes ainda se apresentam como principal veículo de comunicação dos pesquisadores de referência na área.

**Palavras-chave:** Apoio à Pesquisa como Assunto; Pesquisa Científica e Desenvolvimento Tecnológico; Pesquisadores.

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**Received:** 04 June 2016  
**Accepted:** 18 December 2016



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## INTRODUCTION

Productivity grants are initiatives whose potential is considered promising. For Rocha and Ferreira<sup>1</sup>, "there is acknowledgment that science, technology and innovation are important factors for the social and economic development of countries and regions". This requires follow-up and encouragement from governments and funding agencies. Among the funding incentives offered by the National Council for Scientific and Technological Development (CNPq), scholarships for the development of researchers and researches stand out.

The requirements to reach the position of productivity researcher receiving grants from CNPq are quite high, and there are two types of productivity grant: research (PQ) and technological development and innovative extension (DT). In both modalities, there are three categories: Senior, 1 and 2.

Category 2 is the initial grant. The selection is based on the evaluation of productivity, emphasizing published works and advising activities in the last five years. In category 1, the evaluation is based on the last ten years and there are subdivisions into levels A, B, C and D, with level A being the highest. Category senior is reserved for researchers who have remained for at least 15 years in category 1, level A or B, who stand out among their peers as a leader and paradigm in their area of expertise<sup>2</sup>.

In addition to the general requirements of CNPq, such as having a defined research line, presenting a research project of scientific merit and achieving classification compatible with the quota of scholarships available for the category, there are also criteria for publications and specific guidelines for the granting of productivity scholarship in each area of knowledge for the different categories and levels<sup>2</sup>. The judgment criteria of the Physical Education, Speech, Physiotherapy and Occupational Therapy Advisory Committee are listed below.

Regarding the completion of doctorate degree, it is required for level 2 to have completed doctorate degree for at least three years; for level 1 to have completed doctorate degree for at least eight years.

With regard to publications, it is a requirement for level 2 to have published at least five papers in scientific journals with minimal indexing level LILACS, EMBASE or ERIC, and in at least three of these, the researcher must be the lead author or the advisor (second or last position); for level 1D, to have published at least 20 papers in scientific journals with minimum indexing level LILACS, EMBASE or ERIC, being required at least five of these to have minimum indexing level Scielo and, in at least ten of these, the researcher must be the lead author or advisor; for 1C, 1B and 1A levels, the author must have published at least 20 papers in scientific journals with minimal indexing level SCIELO, LILACS, EMBASE or ERIC, at least five of which indexing level MEDLINE or ISI and, in at least ten of them, the researcher must be the lead author or advisor.

As for advising activities, for level 2, it is a requirement to have com-

pleted the advising of at least one master and to be in the research and advising activity of master or doctoral students; for level 1D, to have completed the advising of at least three masters or doctors, and be in research and advising activity of at least three masters or doctoral students; for levels 1C, 1B and 1A, to have completed the advising of at least five masters or doctors, with at least two doctors and to be in the research and advising activities of at least three masters or doctoral students.

Considering this set of requirements, the understanding that these fellows constitute a reference group in the Brazilian academic environment is justified. However, the way methods are being used by funding agencies to measure the productivity of graduate programs and researchers or how they are being used in some areas makes the process degrading<sup>4</sup>, because it can insert the teacher into a cycle of writing and publishing instead of generating knowledge relevant to a certain area of knowledge.

Professor Rubens Alves, from the State University of Campinas (UNICAMP), claims to have simply become a “writer”, since, in view of the current system that evaluates graduate programs, there is no more teacher, there is only the researcher, who publishes articles in indexed journals that are later read by researchers themselves<sup>4</sup>. Although unconsciously, researchers and institutions are involved with excessive scientific production with the purpose of generating scores to help in the evaluation of graduate programs. In this context, scientific journals adapt to this current evaluation method of funding agencies, admitting new demands and needs of universities, increasing the number of reviewers, increasing the number of issues, striving for indexation, for impact factor and good concept in the Webqualis of the Coordination for the Improvement of Higher Education Personnel (CAPES).

Given the importance of this group to the academic community, the aim of the present research was to analyze the 30 journals with the highest number of publications of scholarship researchers in the Physical Education area in the 2010-2012 triennium. This analysis will be used to diagnose the relevance of such journals to this area of knowledge.

## **PRODUCTION OF SCHOLARSHIP RESEARCHERS IN THE PHYSICAL EDUCATION AREA IN THE 2010-2012 TRIENNIUM**

At the end of the 2010-2012 period of CAPES evaluation, the last three years of evaluation, the Physical Education area had 88 productivity scholarship researchers. Of these, 28 were in category 1 (five at level 1A, three at level 1B, seven at level 1C and 13 at level 1D) and 60 at category 2. There were no productivity scholarship researchers in the Senior category and in no category of technological development and innovative extension.

The list of productivity scholarship researchers in the Physical Education area was obtained through consultation on the CNPq website<sup>5</sup>. With this list, we searched for the researchers' Lattes curricula. At the end of

this stage, publications in journals of all Physical Education productivity fellows were counted through the scriptLattes v8. software 07<sup>6</sup>.

The total found was 2600 articles in 530 different journals in the 2010-2012 triennium. Fellows of 1A category published 189 articles in 91 different journals. Fellows of 1B category published 88 articles in 45 different journals. Fellows of 1C category published 215 articles in 123 different journals. Fellows of 1D category published 371 articles in 147 different journals. Fellows of category 2 published 1037 articles in 394 different journals.

The 30 journals with the highest number of publications in descending order are presented in Table 1, below:

Of the 30 journals that compose this list, 19 are published in Brazil. If the analysis is based on the Top 10, eight of these journals are published in Brazil. Furthermore, if the list is limited only to journals that include productivity publications of all categories / levels, of the 11 journals that meet this condition, seven are published in Brazil.

**Table 1.** Publications of productivity scholarship researchers in the Physical Education area in the 2010-2012 triennium

JOURNAL	1A	1B	1C	1D	2	Total	Qualis	JCR	I.F. Scielo
The Journal of Strength & Conditioning Research	8	9	3	25	81	126	A1	2.075	-
Revista Brasileira de Cineantropometria & Desempenho Humano	3	7		18	93	121	B1	-	0.1719
Revista Brasileira de Medicina do Esporte	9	2	4	19	71	105	A2	0.288	0.1375
Motriz: Revista de Educação Física	5	4	5	13	69	96	B1	-	0.0283
Revista Brasileira de Atividade Física & Saúde	1	1	12	3	67	84	B2	-	-
Revista Brasileira de Educação Física e Esporte	1	9	4	13	47	74	B1	-	0.0934
International Journal of Sports Medicine	10	4	8	11	33	66	A1	2.065	-
Revista da Educação Física / UEM	1	2	3	9	51	66	B1	-	0.1389
Arquivos Brasileiros de Cardiologia	18	1	2	6	36	63	B2	1.021	0.2773
Revista Brasileira de Ciência e Movimento	1	1		2	39	43	B2	-	-
European Journal of Applied Physiology	7	1	4	7	19	38	A1	2.187	-
Motricidade	2		1	4	31	38	B1	-	-
Revista Brasileira de Ciências do Esporte	1		2	3	30	36	B1	-	0.0824
Lecturas, Educación Física y Deportes		1	2	6	26	35	C	-	-
Cadernos de Saúde Pública				1	1	29	B1	0.976	0.6980
Journal of Physical Activity & Health				1		26	A1	2.090	-
Journal of Sports Sciences	2	1	3	5	15	26	A1	2.246	-
Revista Paulista de Pediatria	1		3	2	19	25	B2	-	0.3151
Perceptual and Motor Skills		2	2	7	13	24	A2	0.546	-
Revista de Saúde Pública				2		22	B1	0.733	0.8034
Brazilian Journal of Medical and Biological Research	4	2	4	6	6	22	B1	1.006	0.0782
Clinics	5		3	1	13	22	B1	1.185	-
Pensar a Prática				1	20	21	B2	-	-
Revista Mineira de Educação Física			1		20	21	B5	-	-
Applied Physiology, Nutrition and Metabolism	4		1	6	9	20	B1	2.239	-
Journal of Exercise Physiology Online		1	2	4	13	20	B1	-	-
Brazilian Journal of Sports and Exercise Research				4	15	19	C	-	-
Medicine & Science in Sports & Exercise	1			7	11	19	A1	3.983	-
Revista Brasileira de Epidemiologia			2		16	18	B2	-	0.4313
Revista Brasileira de Fisioterapia	3	3		3	9	18	A2	1.000	-
TOTAL						1348			

In the period under investigation, there were 1348 publications of productivity scholarship researchers in the Physical Education area in these 30 journals, 925 articles in journals published in Brazil and 423 in journals published abroad. Of this set of publications, 340 were directed to six Qualis A1 journals, all indexed on the Web of Science database, with impact factor between 2.065 and 3.983. In the Qualis A2, there were 147 publications in three journals, all indexed in the Web of Science database and with impact factor between 0.288 and 1.000, one indexed in Scielo and with impact factor over a three-year period of 0.1375. In Qualis B1, there were 594 publications in 12 journals, of which six are indexed on the Web of Science database, with impact factor between 0.288 and 2.239, and eight indexed on Scielo and with impact factor over a three-year period between 0.0283 and 0.8034. In Qualis B2, there were 254 publications in six journals, one indexed on the Web of Science database, with impact factor of 1.021, three indexed on Scielo and with impact factor over a three-year period between 0.2773 and 0.4313.

Four journals are not included in the 2014 Webqualis classification. Such journals have their classification highlighted in Table 1 and, for these, 2012 Webqualis was considered. Two of these journals were classified in the upper strata of Qualis: A1 and B1. This fact suggests a possible failure in 2014 Webqualis, as reported by CAPES, admitting the absence of some journals due to an inconsistency in the system, so that the due corrections will be made in the next Webqualis update<sup>7</sup>. As for the Brazilian Journal of Sports and Exercise Research, previously classified as Qualis C in the area (discontinued at the end of 2011, which justifies its exclusion in the 2014 WebQualis), it was found that in its four editions of existence, there is concentration of a considerable number of works of the same authors, so that its 19 publications from productivity scholarship researchers were carried out by only seven different researchers.

One of these four journals, however, represents an outlier, the *Lecturas, Educación Física y Deportes*, previously classified as Qualis C in the area, where 35 articles have been published. This high number of publications in a journal with such qualification suggests a possible inconsistency in the publications of elite researchers in the area. Such an occurrence suggests some considerations for the interpretation of such inconsistency. The first is related to the large number of articles published per year in this journal, a fact that suggests ease in the publication of articles in this journal. The second refers to the minor interstice between submission and publication, as it corroborates the understanding of ease of publication. Finally, there is suspicion that such researchers advise students of different levels, including undergraduate students, who submit articles to that journal in search of guarantee of publication. It should be argued, however, that such a context does not attenuate the incoherence described above.

## FINAL COMMENTS

Although journals published in Brazil are a minority in the upper strata

of Qualis in the Physical Education area, they are the main vehicle of communication of important researchers in the area. It is not possible to measure whether or not they are the first option of choice, but they are the main destination of studies conducted in this area.

Considering the qualification of journals inferred by CAPES and the impact factor attributed by the Web of Science database, it is possible to understand that this set of journals, with an interrogation in the atypical case of the set, denotes relevance for the Physical Education area.

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