

Poster-Session Abstracts: 2008 CSE Annual Meeting

In keeping with its increasing emphasis on science-editorial research, the Council of Science Editors featured a poster session at its 2008 annual meeting. Research for poster presentation was chosen on the basis of blinded review of abstracts by the session organizers: Margaret Winker (*JAMA: Journal of the American Medical Association*), Ana Marusic (*Croatian Medical Journal*), and Elizabeth Wager (Sideview, United Kingdom); people did not review abstracts that they or co-workers had produced. Presented below are the abstracts of the selected research, which addressed topics in authorship, readership, editorial management, and publication ethics. Forthcoming issues of *Science Editor* will include reports on plenary, concurrent, and other sessions of the annual meeting.

AUTHORSHIP

Am I Doing an Important Thing?

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Background: Perceived importance for authorship of different types of contributions to the preparation of a manuscript is associated with experience in scientific publishing and instruction on authorship criteria. We performed a cross-sectional study to assess whether there was an association between authors' perceived importance for authorship of different contributions and the degree of their participation in the contribution categories in the preparation of manuscripts submitted to the *Croatian Medical Journal (CMJ)*.

Design: All authors ($n = 1181$) who submitted manuscripts ($n = 265$) to the *CMJ* from July 2005 to March 2006 were randomly allocated into three groups. They were asked to rate their contributions to the submitted manuscript (0 = none to 4 = full) and to rate the importance of each of the 11 contribution categories as

a criterion for authorship (0 = none to 4 = full). The first group (manuscripts = 90, authors = 404) first received the contribution disclosure form and then the questionnaire on the importance of their contributions for authorship. The second group (manuscripts = 88, authors = 382) first received the questionnaire and then the contribution disclosure form, and the third group (manuscripts = 87, authors = 395) received the contribution disclosure form and the questionnaire at the same time. We calculated the Spearmanrho coefficient to test the association between authors' perceived importance of different contribution categories and the degree of their participation in given categories.

Results: Two hundred thirty-five manuscripts (1015 authors) were included in the analysis. For all contributions, associations were statistically significant (ranging between 0.39 for statistical expertise and 0.49 for guarantor of the study); this showed that the authors who reported a higher degree of contribution to a particular category also rated that category as more important. The analysis and interpretation of data were considered to be the most important contribution, with a mean value of 3.06 ± 1.05 . That was followed by critical revision of the article for important intellectual content (3.05 ± 1.09); conception and design of the study (3.00 ± 1.13); final approval of the article (2.91 ± 1.19); drafting of the article (2.73 ± 1.19); acquisition of data (2.56 ± 1.15); being guarantor of the study (2.35 ± 1.41); provision of study material or patients (2.15 ± 1.30); administrative, technical, or logistic support (2.14 ± 1.16); statistical expertise (2.09 ± 1.27); and obtaining of funding (1.57 ± 1.41).

Conclusions: Authors who contributed more to a specific category considered it more important for authorship than the categories to which they did not contribute.

READERSHIP

Reader Survey to Evaluate Journal's Value to British Columbia's Natural Resource Community

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Background: FORREX Forest Research Extension Partnership is a British Columbia-based society that links people to natural-resource management knowledge through extension programs, Web-based tools, and a suite of publications. A 1998 client survey informed the design of various complementary published products, including the peer-reviewed *BC Journal of Ecosystems and Management (JEM)*. To ensure that *JEM* continues to meet the evolving needs of our readers, we have conducted annual reader surveys for 4 years; in 2007, we conducted our first author and peer-reviewer survey.

Methods: On 28 February 2008, we used Zoomerang Web-based software to invite a total of 3188 print and online subscribers to respond to a Web-based survey; the survey was closed on 17 March 2008. To track trends, we asked a number of questions from past surveys and new questions designed to inform upcoming decisions about formats and services.

Results: Eighty-six people responded to 14 questions in the *JEM* section of the 2008 survey (response rate, 2.7%). Extensive data were gathered, and two key findings were

- Awareness that *JEM* is peer reviewed increased from 68% in 2004 to 82% in 2008.
- 94% said that *JEM* increases their access to science-based natural-resource management information "very much" or "somewhat", up from 89% in 2007.

Helpful information was also gained from

our peer-reviewer–author survey in March 2007, including these two confirming findings:

- 100% of authors who responded said that peer-reviewed content is important in their decision to submit to *JEM*.
- 77% of respondents supported an online tracking system.

Conclusion: In general, responses indicate that reader satisfaction continues to increase; readers have confirmed that *JEM* meets their needs. Through use of an annual survey, *JEM* continues to reflect, in its format and content, the changing needs of its readers. The journal has proved to be an effective tool in promoting science-based decision making and discussion in British Columbia.

What Do Medical Professionals Know and Think about National and International Journals? A Cross-sectional Study

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Background: The aim of this study was to explore how much medical professionals, both in academic institutions and in nonacademic general practices, read and what they know about two Croatian general medical journals. One is a national journal published in the local language, and the other is an international journal published in English. We also explored the opinions of medical professionals on how important Croatian national and international journals were in general, what importance should be attributed to reviewing for and publishing in these journals, and which types of articles should be given priority in the journals.

Methods: In this cross-sectional study, conducted from 2005 to 2007, 198 academic physicians and 262 nonacademic general practitioners in Croatia were surveyed about their knowledge of two medical journals: *Liječnički vjesnik (LV)*, published in Croatian, and *Croatian Medical Journal (CMJ)*, published in English. The respondents rated the importance of national

and international journals and the types of articles they publish.

Results: There was a significant difference in reading patterns among Croatian physicians. One-fourth of respondents spent more than 3 hours a week in reading medical journals (42.9% of academic physicians and 11.4% of nonacademic general practitioners, $P < 0.001$). More respondents read every print issue of the *LV* ($n = 176$, 40.1%) than of the *CMJ* ($n = 41$, 9.3%, $P < 0.001$, McNemar test). Linear-regression analysis showed that working in academic medicine was a significant predictor of knowledge about both journals (*LV* $\beta = 0.286$, *CMJ* $\beta = 0.557$, $P < 0.001$). More respondents rated national than international journals as very important for the medical profession ($n = 329$, 72.6% versus 275, 63.5%, $P < 0.001$, Wilcoxon test). Publishing in international journals was more often rated more important than publishing in national journals ($n = 184$, 42.5% versus $n = 125$, 27.8%, $P < 0.001$, Wilcoxon test). Guidelines for clinical practice were rated as the most important publication item in national journals and original scientific articles in international journals.

Conclusion: National and international journals are both valued by physicians—national journals for professional and educational development and international journals for scientific advancement.

Mountain Research and Development Surveys Its Constituency

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Background: *Mountain Research and Development (MRD)*, a journal featuring peer-reviewed research articles and development reports on mountain regions, conducted a survey of its global readership in 2006. The objective was to obtain feedback from *MRD*'s constituency on the status of the journal.

Methods: In a spirit of North–South cooperation, an online questionnaire was

devised by the journal's editorial staff in Switzerland. Responses were compiled and analyzed by experts at a partner organization, Mountain Forum, in Kathmandu, Nepal, using statistics and disaggregated frequency analysis.

Results: We received a total of 203 responses, for a response rate of about 20%. About half the responses came from countries in the South or transition countries and about half from countries in the North. Topics ranked as most important by scientists, development practitioners, and consultants included ecological and interdisciplinary topics for scientists and social and ecological topics for development practitioners. Among themes most relevant to sustainable development in mountains were sustainable land management, water, and biodiversity. We found that the journal's development section was rated as of "great importance" by 88% of the development practitioners and 74% of the scientists, whereas 86% of the development practitioners and 91% of the scientists found the journal's research section of "great importance". Scientists and development practitioners overwhelmingly found that the journal bridged the gap between research and development—an important part of the journal's mission.

Conclusion: The *MRD* editorial staff concluded that its constituency believes that the journal is fulfilling its main mission and purposes quite well. The staff continues to consider how to implement other conclusions and refine the journal accordingly (with online-only publication and open access).

EDITORIAL MANAGEMENT

Managing the Editorial Board and Policies of Journals Published by More than One Society

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Introduction: Scientific beliefs, politics, egos—many personal inputs influence the process of setting up a journal, especially if the journal is published by more than one society. On the basis of analysis of two cases and information on four others, the

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importance of well-defined editorial policies to avoid conflict among members of the editorial board is made clear. A set of rules is suggested.

Background: No published work could be found on the specific subject. A number of journals published by more than one society have been identified.

Methods: Editors of 32 journals, all of them published by more than one society, were contacted. They were asked to answer a questionnaire regarding their experience, especially in relation to conflict within the editorial board and to their editorial policies. The histories of two other journals, both published by more than one society and under the editorship of the author, were analyzed.

Results: Of the journals contacted, only eight responded. Their answers show that the better defined and broad editorial policies and rules are, the more harmonious the editorial process is. Only one respondent shared information about the establishment of his journal, probably because the other journals were older. This editor has reported high levels of conflict, especially when appointing the editorial board and when approving changes suggested by its members. Difficulty in establishing a pattern of quality was also a complaint. The same questions were answered by the author regarding the process of establishing the two journals cited. In these cases, early in the process, the author suggested rules that both balanced power between societies and supported the smooth functioning of editorial tasks. A comparison with other questionnaires showed that the level of conflict experienced in those two cases was low.

Conclusion: Especially in the case of journals published by more than one society, managers and editors must establish well-defined editorial rules and policies when seeking better relationships among members of the editorial board.

Going Global: Transforming Mayo Clinic Proceedings from In-House Publication to Global Forum via Web-Based Manuscript Submission and Peer-Review System

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Background: *Mayo Clinic Proceedings* was first published in 1926 as a four-page weekly newsletter that featured presentations by Mayo Clinic physicians at staff meetings. Manuscript submissions from non-Mayo authors were not accepted until 1992. To expedite transformation of the journal into a high-quality medical publication of global standing, leadership at *Mayo Clinic Proceedings* in 2005 implemented a Web-based manuscript-submission and peer-review system to attract high-caliber manuscripts written by non-Mayo authors, expand our reach to international authors and reviewers, and increase the overall number of submitted manuscripts.

Methods: We compared the numbers of submissions by non-Mayo authors, overall submissions, and international reviewers in the 3 years before (1 January 2002 to 31 December 2004) and after (1 January 2005 to 31 December 2007) implementation of the system. For the earlier records, we searched our former database by year and then by “internal” versus “external” authorship. For the more recent records, we used the “Manuscript Submissions Received” report of the Web-based system, sorted by country of submission and submitting author’s e-mail address (to exclude those with @mayo.edu addresses). Reviewer data were obtained from the reviewer-acknowledgment section printed in the December issue. Because of the limitations of the former database, we were unable to track the number of international submissions for 2002 to 2004, and we present international submission information only for 2005 to 2007.

Results: In the 3 years after implementation of the Web-based system, the number (percentage) of submissions by non-Mayo authors increased from 819 (56%) to 1594

(69%). Even more striking was the almost quadrupling of the number of international reviewers (from 35 reviewers in 21 countries to 130 reviewers in 61 countries). The overall number of submissions increased by 57% (from 1474 to 2318). From 2005 to 2007, the journal received 636 submissions from international authors, and the annual number of these submissions increased from 200 to 243.

Conclusion: Implementation of an electronic manuscript-submission and peer-review system has facilitated transformation of *Mayo Clinic Proceedings* from a house organ to a major contributor to the global market of journal publishing.

PLoS Medicine: Promoting and Publishing Open-Access Scientific Research

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Background: There is growing attention to the dissemination of research in open-access (OA) forums. *PLoS Medicine*, the Public Library of Science’s flagship general medical journal, was launched in October 2004. We recently conducted our first readership survey.

Methods: Readers were invited to participate via Web-site ads and e-mails to electronic-table-of-contents subscribers and to researchers in HIV, public health, pediatrics, and surgery.

Results: Of 44015 people invited, 3042 completed the survey. Most were well-educated North American or European medical academics. Among other journals read regularly were *Nature* (54%), *Science* (50%), *PLoS Biology* (51%), and the *New England Journal of Medicine* (48%). Most respondents reported that the balance of coverage between the basic sciences and public health in *PLoS Medicine* is adequate, but 28% and 24% said that we should publish more basic and clinical research, respectively. Among the extra features available with research articles, respondents felt that the most useful were abstracts (99%), editors’ summaries (86%), and perspectives

(67%). The magazine section was judged by more than 90% of respondents to be easy to understand, relevant, topical, and well presented. Only 34% found the reader responses useful; almost half were unaware of them. Most respondents were unaware of or had not read our blogs. When asked to identify the definition of OA, 70% got it right. Open-ended responses suggest that the OA nature of *PLoS Medicine* is its key strength.

Conclusions: The survey serves as a baseline for continuing evaluation. The profile of respondents is consistent with that of our authors—primarily more scientific than clinical—and the majority appear happy with the content that we publish. Approximately one-third were still unclear about the definition of OA. Reader interactivity and Web tools need to be enhanced. Gaps still exist with respect to the needs of our casual site visitors.

Editorial Rejections and Country of Origin in a Peer-Reviewed Medical Journal

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Background: In 2007, the editors of *Obstetrics & Gynecology* instituted a policy of rejecting without review (“editorially rejecting”) a select percentage of manuscripts that were deemed unacceptable for the journal. The objective of this study was to estimate the effect of country of origin and article type (case report or non-case report) on a manuscript’s chances of being editorially rejected.

Methods: Records of manuscripts submitted to *Obstetrics & Gynecology* in 2007 were retrieved from the journal’s online submission system and sorted by country of origin and final disposition (accepted, rejected, editorially rejected, withdrawn, or no decision). Countries were grouped into regions as defined by the United Nations. The rate of submission of case reports from each region was compared with the overall rate of case-report submissions. Editors’ observations regarding common reasons for editorial rejection were collected.

Results: In 2007, 1964 manuscripts (492 case reports and 1472 other manu-

scripts) from 71 countries were submitted to *Obstetrics & Gynecology*. About 9.1% (178), from 40 countries, were rejected without review. Editorial rejections were distributed by region as follows: Africa (29.2%, 7/24), Asia (21.5%, 73/339), Latin America (12.5%, 6/48), Europe (9.6%, 50/520), Oceania (9.5%, 2/21), and North America (4.0%, 40/1012). Case reports (17.9%, 88/492) were more likely than non-case reports (6.1%, 90/1472) to be editorially rejected. However, regions with the highest editorial-rejection rates were not more likely to submit case reports than all regions combined (overall, 25.1%, 492/1964; Africa, 20.8%, 5/24; Asia, 33.0%, 112/339). Editors’ observations revealed that most editorial rejections were due to poor writing, lack of new information, or topics that are of limited interest to the journal readership.

Conclusions: Manuscripts submitted from Africa and Asia were more often editorially rejected than those from other regions. Manuscripts from economically advantaged and “westernized” regions fared better on first examination and were more likely to proceed to peer review. Article type did not explain the difference in editorial-rejection rates by region. On the basis of editors’ observations on editorially rejected manuscripts, a possible explanation for the disparity is lack of access to English-language resources. Proposed solutions for narrowing the gap are welcomed from the scientific-publishing community.

PUBLICATION ETHICS

Editors’ Practices in Detection of Duplicate Publication, Plagiarism, and Manipulation of Data and Images

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Background: Duplicate publication (DP), plagiarism, data manipulation (DM), and image manipulation (IM) are important issues in biomedical publishing. However, editors of biomedical journals may not have the resources or training to detect

such problems.

Methods: The purpose of the survey was to determine whether editors report that they attempt to identify DP, plagiarism, DM, and IM in manuscripts submitted to their journals; if they do so, how; and their resources and training. I surveyed members of the World Association of Medical Editors from January to March 2008 by using an online survey questionnaire.

Results: Of 875 who were sent the e-mail request, 291 responded; of these, 240 (82.5%) were editors. A total of 71% of the editors reported that their journals attempted to detect DP. Most often, they considered the editors responsible for detecting DP, followed by reviewers; some reported relying on authors’ statements that their work was original. Resources used included MEDLINE, Google Scholar, Google, and such databases as Scopus; a few used free software, such as eTBlast. Sixty-six percent reported attempting to detect plagiarism and used methods of detection similar to those used to detect DM. Fifteen percent reported attempting to detect IM; of these, two reported checking image files for evidence of manipulation, and two reported asking for original images. Fifty-three percent reported attempting to detect DM; most relied on peer reviewers to do so, followed by statistical reviewers. Four explicitly mentioned requesting data from authors. When editors were asked what prevented them from doing more to detect these issues, lack of resources was cited by 71% (IM) to 91% (plagiarism), lack of training was cited by 47% (DP) to 75% (IM), and lack of organizational commitment was cited by 25% (DM) to 37% (DP). Eleven editors reported having received some formal training. Software and training were the resources that editors most commonly believed would help them improve their ability to detect the problems.

Conclusion: In this international survey, editors commonly reported attempting to detect DP and plagiarism, less so DM, and rarely IM. Editors and peer reviewers were most often expected to detect the problems. Software and training were identified as potential tools for improving editors’ ability to detect these problems. 🔍