

ISO STANDARDS FOR THE PRESENTATION OF SCIENTIFIC
PERIODICALS: LITTLE KNOWN AND LITTLE USED BY SPANISH
BIOMEDICAL JOURNALS

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Compliance with international standards for the presentation of periodical publications was evaluated in 221 Spanish biomedical journals. The objectives of the study were to determine the degree to which standards are actually used, and to develop recommendations for improving standards and increasing familiarity with them among authors, editors and publishers. Journals were identified from five printed and four electronic bibliographic databases. Compliance was assessed with the evaluation checklists developed by López-Cózar and Ruiz, based on 136 elements derived from standards for the presentation of periodical publications developed by the International Standardization Organization (ISO), and from recommendations published by UNESCO, the International Committee of Medical Journal Editors, the Council of Biology Editors and E.J. Huth. For most parameters three aspects were evaluated: presence, presentation and location. Compliance with publication standards by Spanish biomedical journals was generally low (34.3%). This reflected the complete absence of specific elements relating to the volume (cover, contents list, index) and abstract sheet, rather than a general neglect of a large number of standards. In contrast, items related to characteristics that specifically distinguish periodical publications from other types of documents generally showed good compliance. The poor degree of compliance with standards by Spanish biomedical journals can be explained in part by the lack of familiarity with standards on the part of authors, editors and publishers, and in part by the fact that these three actors in the publication process are rarely involved in the creation and development of standards. To improve compliance, I propose changes in the policies on how standards are disseminated and how proposals for new standards or revisions of existing ones can be made, and suggest changes in some parts of ISO standards 8: 1977 and 215: 1986.

1. INTRODUCTION

Adequate compliance with international publishing standards helps ensure the efficient transfer of scientific and technical information [1–10]. Research to determine how international standards for the presentation of scientific periodicals are used is needed before attempts can be made to improve standards. Such studies

can reveal the actual extent to which standards are implemented, and suggest ways in which the standards themselves can be improved. Without quantitative information on the use of standards, steps to develop new standards or to modify existing ones may be ineffective. In addition, evaluations of compliance with standards ('standardisation audits') can reveal areas of noncompliance or deficient compliance in a specific publication, and identify problems that require attention. Such measures make it possible to improve the effectiveness of scientific journals as instruments of information transfer.

Although many articles have examined the need for and the implications of standards, studies dealing with their application are much less common. Frase [11] noted the lack of evidence on the use of standards by libraries, information services and publishers. What few studies there are on compliance with standards by scientific journals have used different objectives and methods, and have yielded conflicting results [12].

The present study was designed to evaluate compliance with international standards for the presentation of periodical publications in a sample of Spanish biomedical journals.

2. MATERIAL AND METHODS

The sample consisted of 221 biomedical journals published in Spain. Periodicals that did not publish original articles (e.g. bulletins, newsletters, 'progress' and 'review' journals, and magazines for the general public) were excluded. Journals for study were identified from five printed [13–17] and four electronic bibliographic databases (*Índice Médico Español*, *ISSN Compact*, *CIRBIC-Revistas* and *Ulrich's Plus*).

Compliance with standards was evaluated with the checklists developed by López-Cózar and Ruiz [18], modified by the inclusion of ISO R/30 (bibliographic strip). Although this standard was abolished by the International Standardization Organization on 3 April 1992, I decided to include it for two reasons. Firstly, 32.8% of the issues in the sample were published during or before 1992, when the standard was still in effect or had only recently been revoked. Secondly, I hoped to discover whether implementation of this standard in Spanish journals was as rare as reported in other samples [19–21]. It should be noted that ISO 2014, which deals with the representation of dates and times, was replaced in 1988 with ISO 8601; however, the recommendations for presenting dates is not substantially different between the two standards. The evaluation was based on the English text of ISO standards, with the exception of those standards for the representation of dates and times and the codes for the representation of names of countries and their subdivisions, for which I used the French text.

Most (86%) of the 136 parameters evaluated in this study were based on elements included in the international standards for the presentation of periodical publications developed by ISO [22]. The remaining 14% of the parameters were based on recommendations from other organisations and researchers involved in science publishing, i.e. UNESCO [23], the International Committee of Medical Journal Editors [24], the Council of Biology Editors [25] and E.J. Huth [26]. For a detailed explanation of the items in the checklists, see Delgado López-Cózar and Ruiz Pérez [27].

The standards evaluated here were divided into three groups (Appendix 1) [28]. The first comprised two basic standards regarding the presentation of scientific periodicals: ISO 8, which deals with the journal itself as a whole, and ISO 215, which refers to single scientific articles and contributions. The second group consists of guidelines that elaborate upon the standards in the first group, and regulate specific aspects and parts of periodicals. For example, ISO 18 refers to the structure of the contents list, ISO 5122 stipulates the correct way to present abstract sheets in serial publications, ISO/R 30 and ISO 9115 deal with the bibliographic identification of serial publications and their contributions, ISO 3297 covers the use of the ISSN, and ISO 6357 regulates the information that appears on the spine. The third group comprises all standards regarding publication in general and scientific publications in particular. For example, ISO 690 covers bibliographic references, ISO 214 establishes rules for abstracts, ISO 2145 deals with numbering of divisions and subdivisions of written documents, and ISO 2014 and 3166 establish the correct use of dates and country codes respectively.

In this article the standards are grouped in different levels of organisation to reflect the structure of the journals and facilitate data acquisition and presentation. The first level distinguishes between information that refers to the journal itself (ISO 8) and that which refers to contributions (ISO 215). The second division reflects the two physical and temporal units that form a journal (issue and volume). The third division consists of eleven blocks (General features, Volume cover, Volume contents list, Volume index, Issue cover, Information about the journal, Issue contents list, Running title, Abstract sheet, Bibliographic information, and Main text of contributions) which reflect groups of items that are related by similarities in logical content (textual structures of contents), physical appearance (spatial organisation) or presentation in the published standard.

The checklist shown in Appendix 2 identifies ISO standards (86%), and distinguishes between prescriptive (72%), optional (16%) and unofficial rules (14%). Prescriptive standards are stated as characteristics that 'shall be' handled in a certain manner, and the number of the relevant standard is given. Optional standards, expressed with phrases such as 'is recommended', 'when possible', 'can appear' or 'should be', are indicated with a capital O. Elements not contained in any ISO standard are indicated with an asterisk. Three-quarters of the optional standards and half of the unofficial ones are included in the block 'Information about the Journal'. In contrast, the section headed 'Volume' and some blocks within the section headed 'Issue' (i.e. Contents list, Abstract sheet and Running title) consist entirely of prescriptive ISO standards.

Each parameter was evaluated for presence (P), presentation (R) and location (L); as a result a total of 342 parameters were analysed. If the item were not present, the other two conditions could not be satisfied. However, the presence of a given element did not guarantee that it was correctly presented or located. As an example of how complex the situation could be, consider the specifications regarding the abbreviated title of a journal. To be considered correct, the abbreviated title had to be present, abbreviated in accordance with the relevant standard for serial title words, and located correctly.

The samples for each of the three units selected for evaluation (volume, issue and contribution) were drawn from the most recent issues published, or the most

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recent issues available in the libraries I visited between September and December 1994. Journals were examined in Spanish university and hospital libraries in Granada, Madrid and Valencia. To check compliance with standards relevant to volumes, two complete volumes for each journal were examined. For issues, the sample was proportional to the frequency of publication. The number of contributions assessed for each journal was also proportional to the number of articles published in the issues analysed. In the latter two cases the sample comprised more than 50% of the universe. A parameter was scored as correct when compliance was found in more than 50% of the units making up the sample.

Items were scored as present or absent, correctly or incorrectly presented, and correctly or incorrectly located. The rate of compliance with standards was calculated for each item as a percentage. Compliance with items for presence (P) was calculated as P/T , where P is the total number of items that were present and T the total number of journals evaluated. The resulting number was not always equal to the total population studied ($N = 221$ journals), because some items could not be evaluated in certain journals, were not present in certain journals, or failed to satisfy minimal requirements for presentation. As a result, N varied depending on the item under evaluation. Compliance with items for presentation was calculated as R/P , where R is the number of items correctly presented and P the total number of items present. Compliance with items for location was calculated as L/P , where L is the number of items that were located correctly.

3. RESULTS

The mean rate of compliance with standards (P/T) in 221 Spanish biomedical journals was 34.4%. The distribution of the sample of journals in terms of their rate of compliance with standards showed that only five journals complied with more than 50% of the parameters analysed (Table 1). At the opposite extreme, sixteen journals complied with fewer than 20% of the parameters. The normal degree of compliance (mean \pm one standard deviation) was reached by 155 journals.

The main deficiencies in compliance were found in the blocks Volume cover (items 4–12), Abstract sheet (items 98–114), Volume contents list (items 13–26) and Bibliographical strip (items 45–51) (Appendix 2). The absence of these key items was especially serious because it meant that the relevant standard could not be satisfied.

Table 1. *Distribution of the Spanish biomedical journals in terms of their degree of compliance with standards*

<i>Rate of compliance (%)</i>	<i>Number of journals</i>
0–10	0
11–20	16
21–30	61
31–40	97
41–50	42
> 50	5
Total	221

Other items that were frequently missing were Place of publication (item 39), Abbreviated journal title (items 18, 46 and 82), Contents list of the article (item 129), Place and date of completion of the contribution and dates revised and accepted (items 122–124), and the codes for Bibliographic identification, e.g. ISSN (items 11, 22, 38, 88 and 101), CODEN (items 67 and 87), Biblid (item 125) and language (items 25, 91 and 111).

Among the standards that were correctly implemented most frequently were those pertaining to the nature of periodical publications: colour, size, typographical layout (item 2), Journal title (items 32 and 93), Volume and Issue numbers (items 34 and 35), Period covered by each issue (items 36 and 96), Section headings (item 79), Names of authors (items 89 and 117), Article title (items 90 and 115) and Page numbering (item 92). Other standards that might appear less obviously necessary but that scored highly in many journals were those pertaining to the identification of the Editor and Editorial secretariat (item 56), Legal deposit (item 66), Author's professional affiliation (item 118), Postal address (item 119), and those pertaining to the main text of the contributions: Illustrations and tables (item 134), Citation system used (item 135) and Bibliographic references (item 136).

The rate of compliance differed for different types of standards. The highest rate was found for unofficial standards (39.4%), and the lowest for ISO standards (33.8%). Among the latter, compliance was better for optional (44.1%) than for prescriptive standards (31.6%).

When an item to be standardised was present, it was often presented correctly (74.5%) and located correctly (79.3%).

4. DISCUSSION AND CONCLUSIONS

The mean rate of compliance with standards in this sample of 221 Spanish biomedical journals was worryingly low. However, the age of the sample of journals I analysed cannot strictly be taken to represent the current degree of compliance with standards by Spanish biomedical journals. Subsequent studies [29–31] have found that some of these journals have in fact begun to implement some of these standards.

The mean rate of compliance for all items (34.3%) disguises considerable differences between parameters, and significant deficiencies in specific blocks of items. Some of the blocks of items considered in the checklist developed to analyse compliance were entirely absent (e.g. Volume cover, Volume contents list, Bibliographic strip and Abstract sheet). These blocks, which accounted for forty-seven parameters (35% of the total number), attained an overall rate of compliance of only 4.5%.

The significance of these low figures becomes apparent when they are compared with the results of earlier studies [19–21]. However, comparisons with other studies are made difficult by the considerable differences in the methods used [12]. These differences affect not only the size and characteristics of the populations and samples, but also the assessment procedures, number and type of items analysed (Table 2). For example, the abstract sheet (items 98–114) was not included in the aforementioned studies, and with regard to the volume, the present study considered the volume cover as a scoreable item, whereas Hills and

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Kövendi analysed the presence of a title page. To bring some coherence to the comparisons discussed below I will refer only to those parameters and items that can be clearly defined (Table 2).

Most studies have concluded that compliance with publication standards by Spanish scientific journals is less than exemplary. Ruiz Pérez [32] noted that 'the delayed arrival of Spain on the international scientific scene' is one of the reasons for this situation. Dougherty [33] observed that in countries in which economic development has been delayed, interest in compliance with standards has been secondary; editors gave greater priority to survival, economic resources, distribution and continuity.

Despite the time between studies, and despite the differences in the subject of research and geographical setting, standardisation studies have found considerable similarities in the general patterns of compliance and noncompliance. Items that showed the best rates of compliance are those pertaining to features that characterise periodical publications, and can be considered indispensable: colour, size and typographic layout, journal title, volume and issue number, period covered by each issue, section headings, names of authors, article title and page numbering. In contrast, the lowest rates of compliance were found for standards regarding the bibliographic strip, place and date of completion of the contribution, dates of revision and acceptance of manuscripts, and bibliographic identifiers (CODEN and ISSN).

Why are so many key standards ignored, despite the fact that ISO standards and the national version (UNE in Spain) of these guidelines have existed for many years? As early as 1972, Hanson [34], in a commentary on Hills' study, asked this question:

Why do some editors and publishers neglect the recommendations of British Standards? Was it because they are not aware of the existence of the standards or because they disagree with some of the recommendations or consider them unnecessary? Was it because putting the recommendations into practice involves technical difficulties or extra cost, or was it primarily reluctance to interfere with an existing style or practice, or a desire to retain individuality even in these minutiae of presentation?

I believe that the principal cause for widespread noncompliance is that editors and publishers simply do not know that the standards exist, or if they do, they choose to ignore them. Rudolph and Brackstone [35] put their finger on the problem in their 1990 article entitled 'Too many scholars ignore the basic rules of documentation'. Amat and colleagues [36] showed that the problems with standardising journal title word abbreviations arose because of widespread ignorance that an international standard already existed. This hypothesis is supported by the present finding that among 221 Spanish biomedical journals examined, not a single mention of international (ISO) or Spanish standards (UNE) was found in the Instructions to Authors or in the information the journals provided about themselves. This may well account for the fact that compliance was better for unofficial recommendations than for 'official' ISO standards.

In contrast, I found constant mentions of the *Uniform requirements for manuscripts submitted to biomedical journals* [25]. The high rate of compliance (mean rate 80%) with parameters for the presentation of contributions (see items 132–136 in the checklist) can be explained by the widespread influence of the

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Table 2. Comparison of studies investigating compliance with standards in scientific journals

Study	Number of journals in sample	Number of items (presence)	Rate of compliance with items evaluated (%)	Number of items comparable across studies	Rate of compliance for comparable items (%)
British journals [19]	168	102	74	46	79.5
Documentation journals [20]	150	55	44	25	67.3
Brazilian science and technology journals [21]	224	33	66.1	23	65.7
Spanish medical journals	221	132	34.3	31*	53**

*Mean **Weighted mean

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'Vancouver guidelines', which serve as a *de facto* standard in biomedical publishing. Could it be that ISO standards are used less frequently than guidelines developed for specific scientific disciplines? Like Rigg [2], I assume that recommendations in style manuals for different disciplines [37–48] have a much greater influence on scientific publications than the standards issued by ISO [49]. This hypothesis is worthy of further investigation.

Another possible explanation for poor compliance is that ISO standards are written by and for information managers (librarians, information scientists and documentalists) with little input from information creators (authors, editors and publishers). The latter may perceive ISO standards to be abstruse, unwieldy or difficult and expensive to implement. A look at the affiliations of the members of ISO Technical Committee 46 and AENOR (Asociación Española de Normalización) Committee 50, responsible for publishing standards, shows that publishers and editorial associations are not represented. This means that the standards for the presentation of periodical publications are designed to fulfil a bibliographic function rather than to facilitate (for example) information transfer. A close analysis of these standards reveals that the presentation of contributions – that is, the elements that most interest authors, editors and publishers – is regulated by only two standards (ISO 215 and 9115), whereas stipulations for the general presentation of periodicals require five standards (ISO 8, 18, 999, 5122 and 6357). Moreover, the great majority of the recommendations in these five standards have to do with bibliographic identification. In contrast, half of the parameters in the checklist used for the present study (Appendix 2) deal with bibliographic matters (Table 3). Thus ISO standards appear to be intended to satisfy the needs of information managers rather than those of information producers or (paradoxically) publishers, who are, after all, the ones who must implement the standards.

In view of this situation, it is not surprising that standards for the presentation of periodicals are infrequently and inadequately used. A few specific examples of noncompliance are discussed below to illustrate this point.

Table 3. *Frequency of occurrence of bibliographic parameters in standards analysed in this study*

<i>Parameter</i>	<i>Frequency</i>
Title of journal	11
Period covered by volume or issue/Date of publication	9
Volume number	7
Title of contribution	6
Author name	5
ISSN	5
Issue number	4
Place of publication	3
Journal pagination	3
Article pagination	3
Publisher name	3
CODEN	2

1. The Volume cover, which increases the practical usefulness of bound sets of issues and is much appreciated by librarians, is rarely produced. The reason may be related with cost concerns (a constant factor in publishers' minds) combined with a lack of understanding by publishers of the practical usefulness of the volume cover.
2. The location of the Issue contents list (parameter 78 in the checklist), which was incorrect in many journals analysed for this study, illustrates the conflict between readers' needs and publishers' economic concerns. According to ISO standard 8, 12.1, the contents list should appear on the front cover or the first page after the cover. This standard seeks to ensure rapid, easy access to the table of contents, a reasonable goal from the standpoint of information retrieval. However, economic imperatives often force journals to reserve the most visible pages of an issue for advertising. This may mean that the contents list is relegated to the fourth, fifth or sixth page, and that the page number of the contents list may vary from one issue to the next.
3. A clear example of the conflict between the interests of publishers and information managers is seen in the consistent absence of the abstract sheet. Journal editors and publishers do not appreciate how the benefits offset the added effort and expense of composing and printing this complex element. As stated in the introduction to ISO 5122, the abstract sheet is 'essential for documentation work'. Consequently the beneficiaries of this element are those who work in the secondary circuit of information transfer (librarians, documentalists and analysts working with large databases). To implement this complex standard correctly, publishers require the services of professional information managers (which again increases costs) experienced in the use of the Universal Decimal Classification or other international classification systems (UNESCO, Dewey, etc).

These examples illustrate the gulf between what is recommended and what is often technically viable [2]. Publishers may understandably be reluctant to implement standards that are technically complex and increase costs, in the absence of evidence that compliance will generate increased income. As noted by Wood [5], conflicts between the needs and goals of different members of the bibliographic community lead to differing degrees of motivation to adopt common rules and practices.

I propose several measures to increase the awareness and implementation of ISO standards. Changes are needed in the international distribution policy of ISO, and the national policy of AENOR. Kövendi [20] concluded that standards needed to be more widely distributed. The European Association of Science Editors (EASE) has called for a change in ISO's marketing policy, and suggested that printed standards should be made cheaper. According to EASE, the price of standards discourages members of the scientific communication process from using them [50, 51].

The International Standardization Organization should realise that in contrast with other sectors in which standards are a prerequisite for production, this is not

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the case in publication and documentation. In these fields the implementation of standards is voluntary, and their correct use is often the result of efforts by persons who are convinced of their usefulness, rather than of systematic requirements imposed by production technicians. In view of the noncompulsory nature of these efforts, standardisation agencies should offer standards as cheaply as possible, and take steps to increase their diffusion in the pages of scientific journals.

The International Committee of Medical Journal Editors (ICMJE, also known as the Vancouver group) could serve as a useful model. Their *Uniform requirements for manuscripts submitted to biomedical journals* [25] are not copyrighted, and can be copied or reprinted without authorisation as long as there is no profit motive and the original source is cited. Indeed, the ICMJE explicitly encourages further distribution of the *Uniform requirements* through any medium, and requests journals that follow these recommendations to make this fact known in their own instructions to authors. As a result of this highly successful policy, more than 500 journals currently accept manuscripts prepared in accordance with the *Uniform requirements*, which are now widely used by researchers.

A number of authors and organisations have called for greater efforts in disseminating standards for scientific and technical information transfer as a way to improve the quality of journals [52]. *Serial Publications: guidelines for good practice in publishing printed journals and other serial publications*, published by the United Kingdom Serials Group (UKSG), is intended to serve this purpose [53]. In Spain, a first step in this direction was the publication of updated Spanish standards [54] for the presentation of periodical publications; unfortunately this publication is not cheap, and unauthorised reproduction is expressly prohibited.

Another way to increase compliance with standards is to obtain greater input from sectors responsible for the intellectual content and physical creation of journals. Paul and Givens [4] noted that the success of measures to improve standardisation depended on the participation of all persons and institutions that might be affected by standards. Editors and publishers are unlikely to feel bound by rules that regulate their work unless their input into the rules has been taken into account. Lima Martins [21] also proposed that 'editors should become members of the ABNT (Associação Brasileira da Normalização Técnica) in order to become better informed about existing standards and draft standards currently in the process of being refined and approved, and especially to participate actively in the development of new standards'. The guidelines of the UKSG [53] are aimed at achieving this goal. According to the working group that prepared these recommendations, 'It was thought to be important that all in the information chain from publisher to end user should be represented'. The justification for this approach was expressed in the following words:

It was considered that such guidelines, if they were to find wide acceptance and adherence among publishers in the United Kingdom (and elsewhere), should be established with the fullest possible involvement of the publishing industry. Accordingly the UKSG invited the Association of Learned and Professional Society Publishers (ALPSP) and the Serial Publishers Executive of the Publishers Association (SPE), many of whose members are also members of UKSG, to be represented on the working group If all those in the information chain were to be represented then an

essential link in that chain is the subscription agent as the great majority of institutional purchases of serials are made through subscription agents. Accordingly the Association of Subscription Agents (ASA) was invited to send a representative.

In addition, input was obtained from librarians, who are in a position to express not only their own views, but also the viewpoints of the end users.

It is also important not to forget the readers because, after all, journals are intended for them. It is therefore necessary to undertake studies of similar characteristics to those already done by Hartley and Sydes [55] on typographic layouts of structured abstracts in order to know readers' preferences on formal presentation.

Offering more frequent and more varied opportunities for interested parties to present suggestions for new standards would be a welcome measure. The gestation and birth of a standard is an excruciatingly slow and complex process [56]. The procedure is inflexible, and allows for little participation from those outside the official structures of ISO; moreover, new guidelines are proposed infrequently, and existing standards are revised or revoked only after prolonged reflection and debate. Revision, for example, can take five years or longer; in fact almost forty years elapsed before the standard on the bibliographic strip was revoked in 1992, although evidence that it was not being used appeared many years previously [20, 57–61]. In 1985, Wegelius [62] stated that 'the format of the bibliographic strip was already obsolete, both technically and stylistically, when the standard was published in 1956'. Another example is the biblid (ISO 9115), which was published in 1987 but rarely used, as several authors pointed out [28]. This standard was abolished in 1996.

These situations can be frustrating for producers and managers of systems that have an immediate need for standards. Private firms and companies are much more agile in their response to new needs; this accounts in part for the proliferation of *de facto* standards in other areas.

A universal system of standardisation agreed upon by all parties involved should be developed and managed with caution. However, standards need to be flexible and the revision process should be efficient, although a degree of stability is also needed. Standardisation institutions should continuously review the needs of those who use standards [63], and obtain accurate information on the use or nonuse of standards. Otherwise standards risk becoming an obstacle to innovation, rather than a stimulus; in other words, they tend to become conservative [2].

To end on a practical note, I propose the reorganisation of ISO 8: 1977 and ISO 215: 1986, two standards of fundamental importance for the presentation of periodical publications. Authors, editors and publishers might find them easier to implement if they were organised into sections similar to those in the checklist (Appendix 2) and in the UKSG guidelines [53], which more accurately reflect the structure of scientific contributions and journals.

ACKNOWLEDGEMENTS

I thank Rafael Ruiz Pérez for his advice on the design of the study, Evaristo Jiménez Contreras, María Jesús Martín Sempere and María Julia Osca Lluch for their comments and help with data collection and treatment, and Karen Shashok for translating the original manuscript into English.

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(Revised version received 23 October 1998)

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PERIODICALS STANDARDS

APPENDIX 1: ISO STANDARDS EVALUATED

- ISO 4:1984 Documentation. Rules for the abbreviation of title words and titles of publications
- ISO 8:1977 Documentation. Presentation of periodicals
- ISO 18:1981 Documentation. Contents list of periodicals
- ISO/R 30: 1956 Bibliographical strip
- ISO 31/0:1992 Quantities and units. Part 0: general principles
- ISO 214:1976 Documentation. Abstracts for publications and documentation
- ISO 215:1986 Documentation. Presentation of contributions to periodicals and other serials
- ISO 216:1975 Writing paper and certain classes of printed matter. Trimmed sizes A and B series
- ISO 639:1988 Codes for the representation of names of languages
- ISO 690:1987 Documentation. Bibliographical references. Content, form and structure
- ISO 832:1994 Information and documentation. Bibliographic description and references. Rules for the abbreviation of bibliographic terms
- ISO 999:1975 Documentation. Index of a publication
- ISO 1000: 1992 SI units and recommendations for the use of their multiples and of certain other units
- ISO 2014: 1976 Représentation numérique des dates
- ISO 2145:1978 Documentation. Numbering of divisions and subdivisions in written documents
- ISO 3166: 1988 Codes pour la représentation des noms de pays
- ISO 3297:1986 Documentation. International standard serial numbering (ISSN)
- ISO 5122:1979 Documentation. Abstract sheets in serial publications
- ISO 6357:1985 Documentation. Spine titles on books and other publications
- ISO 9115: 1987 Bibliographic identification (Biblid) of contributions in serials and books

APPENDIX 2: CHECKLIST: PRESENTATION OF THE JOURNAL

The column headed 'Standards' indicates the specific point or points of the text of the standard that deal with the items evaluated. The standards are identified by the acronym or abbreviation of the issuing body (for example, ISO), number (for example, ISO 8), section and subsection (for example, ISO 8:6.1, 13.1).

The column headed 'No.' defines the degree of strictness with which the standard should be followed. Prescriptive standards (blank cell) are those which are considered obligatory, and are described in the text of the standard as characteristics that 'shall be' presented in a certain way. Optional standards (capital O) are those which are explained in the text of the standards with phrases such as 'is recommended', 'when possible', 'can appear' or 'should be'. Unofficial rules (asterisk) are elements not contained in any current standard, but recommended by an author or organisation involved in science publishing.

Under the heading 'Score', the column headed 'Population' indicates the number of journals in which a given item was evaluated. 'Presence' was evaluated simply as the presence or absence of the item. 'Presentation' was evaluated as formal appearance of the content, order of elements, and/or typographic layout. 'Location' was evaluated as correct or incorrect depending on the recommended place where the item should appear within the issue or on the page.

If the item was not present, the other two conditions could obviously not be satisfied. However, the presence of an item did not guarantee that it was correctly presented or located. For example, item 93, 'Abbreviated journal title', was scored as correct only if the abbreviated journal title was present, was abbreviated and located in accordance with the relevant standard for serial title words.

An X in the cell for Presentation or Location indicates that the text of the standard gives no specific recommendations on these points, which were thus considered not applicable.

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PERIODICALS STANDARDS

<i>General Features</i>			<i>Score</i>						
			<i>Pop- ula- tion</i>	<i>Presence</i>		<i>Presentation</i>		<i>Location</i>	
<i>Standards</i>	<i>No.</i>	<i>Item</i>		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
<i>I. General features</i>									
	1	Regularity	206	147	71.3	X	X	X	X
ISO 8: 4.1, 8	2	Size, colour, typographic layout	209	205	98.1	X	X	X	X
Volume									
<i>II. Pagination and first page of cover</i>									
ISO 8: 10.1	3	Continuous pagination	212	184	86.8		90.8	X	X
ISO 8: 6.1	4	Presence of volume cover	199	0		X	X	X	X
ISO 8: 3, 6.3	5	Title of journal						X	X
ISO 8: 6.3	6	Name of organisation or people responsible for the work				X	X	X	X
ISO 8: 6.2, 6.3	7	Volume number						X	X
ISO 8: 6.3, 7.2	8	Year, part of a year or years covered by the volume						X	X
ISO 8: 6.3	9	Place(s) of publication						X	X
ISO 8: 6.3	10	Name and address of publisher						X	X
ISO 8: 6.3 ISO 3297: 4, 6	11	ISSN							
ISO 8: 4.6 ISO 6357: 3.1,3.3	12	Spine (content and layout)							
<i>III. Volume content list</i>									
General items									
	13	Title of journal	35	19	54.3	17	89.5	19	100
ISO 8: 6.1	14	Presence of contents list	195	35	17.9	34	97.1	34	97.1
	15	Layout	34	30	88.2	12	40	X	X
	16	Translation of contents list	35	1	2.9	0	0	X	X
Heading for table of contents of volume									
	17	Heading labelled 'Table of Contents'	35	32	91.4	32	100	31	96.9
	18	Abbreviated journal title	35	5	14.3	3	60	2	40
	19	Volume number and year	35	29	82.8	15	51.7	28	95.6
	20	Period covered by the volume	35	30	85.7	30	100	30	100
	21	Pagination of volume	35	1	2.9	1	100	1	100
	22	ISSN	35	1	2.9	1	100	1	100
Information on each contribution									
	23	Authors' names	35	34	97.1	29	88.2	8	23.6
	24	Title of article	35	35	100	35	100	0	0
	25	Original language, coded	5	0	–	–	–	–	–
	26	First and last page	35	35	100	0	0	34	97.1
<i>IV. Volume index</i>									
ISO 8: 6.1, 13.1 ISO 999: 7.1	27	Presence of index	195	88	45.1	86	97.7	X	X

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<i>General Features</i>			<i>Score</i>							
			<i>Pop- ula- tion</i>	<i>Presence</i>		<i>Presentation</i>		<i>Location</i>		
<i>Standards</i>	<i>No.</i>	<i>Item</i>			<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Index heading										
	28	Mention of 'Index'	88	88	100	87	98.9	88	98.9	
ISO 8: 3.4 ISO 999: 5.2	29	Title of journal	88	47	53.4	36	76.6	33	70.2	
ISO 8: 10.4 ISO 999: 5.2	30	Volume number	88	63	71.6	49	77.8	58	92.1	
ISO 8: 10.4 ISO 999: 5.2	31	Period covered by volume	88	54	61.4	53	98.1	49	90.7	
Issue										
<i>V. First page of cover of issue</i>										
ISO 8: 3, 4.2	32	Title of journal	221	220	99.6	199	90.4	X	X	
ISO 8: 3.5	33	Change in journal title	3	1	33.3	1	100	1	100	
ISO 8: 4.2	34	Volume number	219	181	82.6	127	70.2	180	99.4	
ISO 8: 4.2, 5.1	35	Issue number	221	209	94.6	160	76.5	207	99.1	
	36*	Period covered by issue	221	210	95.1	198	94.3	209	99.6	
ISO 8: 4.2, 7	37	Date of publication	46	11	23.9	10	91	11	100	
ISO 8: 4.2 ISO 3297: 6	38	ISSN	218	33	15.1	32	97	32	97	
PGL-79/WS/8	39*	Place of publication	218	5	2.3	3	60	X	X	
PGL-79/WS/8	40*	Publisher	218	145	66.5	4	2.7	X	X	
ISO 8: 4.5	41	Indication of volume summary in issue	31	10	32.2	10	100	10	100	
ISO 8: 5.4	42	Indication of end of volume in issue	180	3	1.7	3	100	3	100	
ISO 8: 13.2	43	Mention of index	84	24	28.6	X	X	24	100	
ISO 8: 4.6 ISO 6357 3.1,3.3	44	Spine (content and layout)	220	166	75.2	141	85	17	10.2	
Bibliographical strip										
ISO R30	45	Presence of bibliographical strip	212	20	9.4	20	100	11	55	
ISO R30	46	Abbreviated journal title	20	16	80	6	37.5	10	62.5	
ISO R30	47	Volume number	19	19	100	18	94.7	17	89.5	
ISO R30	48	Issue number	19	19	100	19	100	18	94.7	
ISO R30	49	First and last page of issue	19	17	89.5	17	100	16	94.1	
ISO R30	50	Place of publication	19	2	10.5	2	100	1	50	
ISO R30	51	Date of publication	18	17	94.4	16	94.1	14	82.3	
<i>VI. Information about the journal</i>										
ISO 8: 4.3	52 O	Frequency of publication	221	117	52.9	X	X	116	99.1	
	53*	Scope	221	115	52	X	X	115	100	
ISO 8: 4.3	54 O	Identification of editorial, administrative and distribution offices	221	104	47.5	X	X	104	100	

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<i>Issue</i>			<i>Score</i>						
			<i>Pop- ula- tion</i>	<i>Presence</i>		<i>Presentation</i>		<i>Location</i>	
<i>Standards</i>	<i>No.</i>	<i>Item</i>		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
ISO 8: 4.3	55 O	Postal addresses of editorial, administrative and distribution offices	221	98	44.3	98	100	97	99
ISO 8: 4.3	56 O	Identification of editor and editorial secretariat	220	212	96.4	X	X	212	100
ISO 8: 4.3	57 O	Affiliation of editor and editorial secretariat	220	21	9.5	18	85.7	21	100
ISO 8: 4.3	58 O	Identification of editorial board, and affiliation of each member	221	171	77.4	12	6.9	170	99.4
	59*	Identification of advisory committee, and affiliation of each member	221	165	74.7	17	10.3	163	98.8
ISO 8: 4.3	60 O	Information about subscriptions	221	118	53.4	X	X	102	86.4
ISO 8: 4.3	61 O	Price per issue	221	128	57.2	97	75.8	123	96.1
	62*	Information on postal delivery	221	19	8.6	X	X	19	100
	63*	Availability for exchanges	221	3	1.4	X	X	3	100
	64*	Opinion disclaimer	221	84	38	X	X	84	100
	65*	Authorisation to reproduce	221	133	60.2	X	X	133	100
	66*	Legal deposit	221	211	95.5	X	X	210	99.5
	67*	CODEN	221	5	2.3	X	X	5	100
	68*	Databases the journal is cited in	221	65	29.4	X	X	64	98.5
Instructions to authors									
ISO 215	69 O	Presence of instructions to authors	221	146	66.1	X	X	136	93.1
ISO 215: A.2	70 O	Types of media accepted (print, diskette)	146	123	84.3	X	X	122	99.2
ISO 215: A.3-4	71 O	Formal logical structure	146	120	82.2	X	X	118	98.3
ISO 215: A.3-4	72 O	Physical structure	146	13	8.9	X	X	12	92.3
ISO 215: A.5	73 O	Illustrations	146	133	91.2	X	X	132	99.2
ISO 215: A.6	74 O	Form of references	146	130	89.1	X	X	129	99.2
ISO 215: A.7	75 O	Forwarding of manuscript	146	114	78.2	X	X	113	99.1
ISO 215: A.8	76 O	Proof correction	145	35	24.1	X	X	35	100
VII. <i>Issue contents list</i>									
ISO 8: 3.4	77	Title of journal	220	170	77.3	153	90	168	98.8
ISO 8: 12.1 ISO 18: 4.1-3, 5	78	Presence of contents list	221	220	99.5	218	99.1	90	41
ISO 8: 12.3,12.4 ISO 18: 4.2, 5, 6.3, 6.4	79	Section headings	214	202	94.4	6	2.9	X	X
ISO 8: 12.5 ISO 18: 4.4 ISO 639	80 O	Translation of contents list	220	117	53.2	101	86.3	X	X
Heading of table of contents for issue									
ISO 18: 6.1	81	Heading labelled 'Table of Contents'	220	193	87.7	192	99.5	187	96.9
ISO 8: 4.4	82	Abbreviated journal title	218	10	4.6	3	30	2	20

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<i>Issue</i>			<i>Score</i>						
			<i>Pop- ula- tion</i>	<i>Presence</i>		<i>Presentation</i>		<i>Location</i>	
<i>Standards</i>	<i>No.</i>	<i>Item</i>		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
ISO 18: 6.1	83	Volume number	219	150	68.5	111	74	127	84.7
ISO 18: 6.1	84	Issue number	220	161	73.2	132	82	134	83.2
ISO 18: 6.1	85	Issue page numbers	217	11	5.1	10	90.9	5	45.5
ISO 18: 6.1	86	Period covered by issue	220	160	73	154	96.3	133	83.1
PGI 79/WS/8	87*	CODEN	220	5	2.3	5	100	3	60
ISO 8: 4.2	88	ISSN	220	31	14.4	31	100	8	25
Information on each contribution									
ISO 8: 12.2 ISO 18: 6.2	89	First and last names of author(s)	220	211	95.9	168	79.6	19	9
ISO 8: 12.2 ISO 18: 6.2	90	Title of article	220	219	99.5	216	98.6	24	10.9
ISO 18: 4.4.2 ISO 639	91	Original language, coded	27	1	3.7	0	0	1	100
ISO 8: 12.2 ISO 18: 6.2	92	First and last pages	219	208	95	9	4.3	198	95.2
VIII. Running title									
ISO 8: 9	93	Abbreviated journal title	221	199	90	85	42.7	77	38.7
ISO 8: 9	94	Volume number	220	158	71.8	133	84.2	44	27.8
ISO 8: 9	95	Issue number	221	166	75.1	140	84.3	53	31.9
ISO 8: 9	96	Period covered by issue	221	180	81.4	167	92.8	61	33.9
	97*	First and last page of article	220	3	1.4	3	100	0	0
IX. Abstract sheet for issue									
ISO 8: 12.6 ISO 5122: 5.2	98	Presence of abstract sheet	221	6	2.7	6	100	0	0
ISO 5122: 6	99	Translation of abstract sheet	6	0	–	–	–	–	–
Heading of abstract sheet									
ISO 5122: 4.1	100	Title of journal	6	6	100	5	83.3	4	66.7
ISO 5122: 4.1	101	ISSN	6	0	0	–	–	–	–
ISO 5122: 4.1	102	Date of publication	6	4	66.7	3	75	3	75
ISO 5122: 4.1	103	Source of classification	6	0	0	X	X	–	–
ISO 5122: 4.1	104	Source of descriptors used	6	0	0	X	X	–	–
ISO 5122: 4.1	105	Permission to reproduce abstract sheet	6	0	0	X	X	–	–
Information in each block									
ISO 5122: 4.2	106	Notation of classification of article	6	0	0	–	–	–	–
ISO 5122: 4.2	107	First and last names of author(s)	6	4	66.7	3	75	3	75
ISO 5122: 4.2	108	Author's professional affiliations and place of work	6	0	0	–	–	–	–
ISO 5122: 4.2	109	Title and subtitle in original language	5	5	100	5	100	3	60
ISO 5122: 4.2	110	Translation of title into language of the abstract sheet	5	0	0	–	–	–	–
ISO 5122: 4.2 ISO 639	111	Language in which the article was published, coded	1	0	0	–	–	–	–

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<i>Issue</i>			<i>Score</i>						
			<i>Pop- ula- tion</i>	<i>Presence</i>		<i>Presentation</i>		<i>Location</i>	
<i>Standards</i>	<i>No.</i>	<i>Item</i>		<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
ISO 5122: 4.2	112	Bibliographic reference, preceded by 'In'	5	0	0	-	-	-	-
ISO 5122: 4.2	113	Article abstract	6	6	100	X	X	6	100
ISO 5122: 4.2	114	Free terms	6	0	0	X	X	-	-
PRESENTATION OF CONTRIBUTIONS									
<i>Contributions</i>									
<i>X. Bibliographic information</i>									
ISO 215: 4.1	115	Content-appropriate title	221	221	100	X	X	220	99.5
	116*	English translation of title	211	56	26.5	7	12.5	52	92.9
ISO 215: 4.2 ISO 690: 7.1.2	117	First and last names of author(s)	221	220	99.6	17	7.7	220	100
	118*	Institutional or professional affiliation of authors	221	211	95.5	210	99.5	206	97.6
ISO 215: 4.2	119	Postal address	221	125	56.6	124	99.2	92	73.6
	120*	Area of expertise of author	220	2	0.9	X	X	2	100
PGL-79/WS/8	121*	Author responsible for correspondence	220	126	57.3	X	X	91	72.2
ISO 215: 4.4	122 O	Place and date of completion of the contribution	220	0	0	-	-	-	-
ISO 215: 4.4	123 O	Date of completion of the reviews of the contribution by the journal	221	9	4.1	0	0	8	88.9
ISO 215: 4.4	124 O	Date of acceptance of the final version	221	40	18.1	2	5	38	95
ISO 9115	125	Biblid	221	95	43	1	1	93	97.9
ISO 215: 4.3.1	126	Author's abstract	221	171	77.4	X	X	162	94.7
ISO 215: 4.3.2	127	Key words or descriptors	221	136	61.5	X	X	127	93.4
ISO 215: 4.3.1	128	Translation of the abstract and key words	219	142	64.8	X	X	130	91.5
ISO 215: 5.2	129 O	Contents list of the article	221	2	0.9	X	X	2	100
Running title									
ISO 8: 9	130	First and last names of author(s) or of first author	221	137	62	137	100	5	3.6
ISO 8: 9	131	Complete or abridged title of article	221	148	67	148	100	22	14.9
<i>XI. Main text of contributions</i>									
ISO 215: 5.1	132	Structure of scientific articles	221	X	X	160	72.1	X	X
ISO 215: 5.2 ISO 2145	133	Numbering of divisions and subdivisions	221	16	7.2	3	18.7	X	X
ISO 215: 7	134	Illustrations and tables	218	X	X	212	97.2	X	X
	135	Method of bibliographic citation	219	X	X	189	86.3	X	X
	136	Bibliographic references: content, form and structure	218	X	X	176	80.7	X	X