This paper proposes basic guidelines for the publishing and preparation of manuscripts, with the focus on the publication of empirical research in scientific journals. It is assumed that research is complete only when the results are shared. The guidelines serve as standards, and cover all stages of publishing from the first review of literature to the control of grammar and style. The addendum addresses the psychological aspects of rejection and the options available at that point. Time management, productivity, creativity, self-motivation techniques, and the rewards involved in publishing are also discussed. A three-page bibliography is appended. (Author/MAC)
Publish--Don't Perish!

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Publish--Don't Perish!

Most graduates of doctoral programs never publish. Of the 15% who do, approximately half publish only articles from their dissertation research (Berquist, 1983). As Jalongo (1985) reported, published research has long been a criterion used in the assessment of professional scholarship, particularly in institutions of higher learning. The reasoning behind this prevalent practice was advanced by McKenney (1973) who noted that "scholarship can be more accurately measured when published work is available for the scrutiny of the academic community" (p. 6). His advice--Publish: Don't Perish!

Considering the publish-or-perish ultimatum in many institutions as well as the intrinsic and extrinsic rewards associated with publishing, one might ask: Why is the percentage of professionals who publish research so low? A lack of understanding of the processes involved in research publication may be one answer. University faculty were asked to identify areas in which they needed professional improvement. Although teaching was the most frequently cited area of need, research manuscript preparation and publication was ranked second (Wheeler & Creswell, 1985).

Following are general guidelines for the preparation and publication of manuscripts which are offered not as exclusive and exhaustive dicta but rather as standards to which reference might be made. The focus is on the publication of empirical research in scientific journals with the assumption being that research is complete only when the results are shared.

Manuscript Preparation

Reports of empirical studies usually consist of sections which parallel the research process: review of the literature, development of problem, and statement of the problem; method of investigating the problem; results; and
At the outset in the manuscript, establish the framework for the problem studied. Summarize the related literature, citing only that which is most pertinent. Avoid nonessential details but instead focus on relevant findings and major conclusions. Although brevity is the goal, there should be sufficient breadth so that the context for the problem is understood by a wide range of readers.

Show that existing knowledge goes so far and no further. You may even want to note specific deficiencies in previous research and then show how your contribution extends knowledge: "This study makes a unique contribution to the literature by addressing these deficiencies. We present . . ." (Wheeler & Crisswell, 1985, p. 2).

To address the deficiencies and to fill voids in existing knowledge are the reasons for having done your research. In the statement of the problem, make clear exactly what it was you researched. Variables, measures, and subjects should be specified succinctly. At this point, hypotheses could also be stated.

The problem studied should have been a significant one if the probability of publication is to be high. One journal editor stated:

I suppose, first of all, I am looking for something which is a contribution to knowledge, even if it is a little one. Even if it is a replication of something that has been previously done, if it is well done and if it is something that obviously needs replication, that I would regard as an addition to knowledge. I hope it has some theoretical interest and importance because that would make it somehow more generally interesting and applicable and useful. (Ryan, 1979, p. 2)
Lack of contribution to the literature is one of the reasons research manuscripts are not accepted for publication (Elton, 1985).

Following the problem statement, describe in the Method section what was done with sufficient detail so that readers can evaluate your study and other researchers can replicate it. Subjects; Apparatus, Materials, or Measures; and Procedures may be subsections of the Methods section.

In the Subjects subsection, tell who participated in the study and how many participated altogether as well as in groups if applicable. Report the method of selecting and assigning subjects along with pertinent demographic data such as age, sex, race, and geographic location.

In the next subsection, describe the apparatus or materials employed, if the study was an experimental one. Also describe instruments used to measure the variables. A few sample items might be included. Certainly report reliability and validity data along with an explication of how scoring was done.

In the subsection on procedure describe the method utilized in conducting the research. Tell what you did and how you did it. Include information such as instructions to subjects, experimental manipulations, and testing procedures.

Delineate the statistical procedures used to analyze the resulting data in the concluding paragraph of this subsection. Be sure that the statistics applied are appropriate and correct. Problems with the statistical analyses and research design are at the top of the list of reasons manuscripts are not accepted for publication (Elton, 1985).

The next major section in the research manuscript is labeled Results. Here report the findings of the study. Tables and figures can be used but should be only if absolutely necessary. Generally, editors do not welcome
complex tables and figures—especially those which do not contain important or relevant material—because printing of such graphics is expensive. Also be sure to check carefully the accuracy of the data in your tables and figures and to compare the numbers reported therein with those in the text. Editors and reviewers check the Results section for internal accuracy. An otherwise acceptable manuscript is likely to be rejected if there are substantial inaccuracies in it (Ryan, 1979).

In the Discussion section, evaluate and interpret your findings in relation to your problem, indicating how they support/fail to support your hypotheses. Discuss your findings in conjunction with other studies. Draw conclusions but be sure that they are data based. Editors consider overgeneralization of research results a weakness too many authors have (Ryan, 1979).

Practical applications might be suggested if the manuscript is being submitted to an applied journal. Theoretical implications might be highlighted if theory is emphasized in the target journal. Suggestions for improvement on your research and proposals for needed future research could be given in a concluding paragraph.

At the end of the manuscript present a list of all references cited in the text. In a final check, compare the reference listings with the original sources, paying particular attention to the spelling of the names of the authors and all numerical entries lest errors go undetected. Also, compare the reference list with the reference citations in the text, making sure that the list and text citations are mutually inclusive as well as accurate.

And, of course, the manuscript needs a title. Some write the title and use it as a delimiting guide. Others supply a title after the manuscript is
written. Whether added first or last, the title should clearly and
clearly and convey to the reader what is being investigated. Actual variables
or theoretical issues may be identified, but excessive detail should be
avoided. [Elton (1985) noted tongue-in-cheek that a colon was
characteristic of most published articles, but feel free to caption your
manuscript sans the colon!]

Also on the title page appear the authorship and affiliation. The
affiliation is usually an institution where the study was conducted.
Authorship may be assigned to one or more persons. In general, the rule is
to include as an author anyone who made a major professional contribution to
the manuscript. Designing the study, planning and conducting the
statistical analysis, interpreting the results, and writing a substantial
portion of the manuscript are types of major professional contributions
(American Psychological Association, 1983).

For persons just beginning to publish research, collaboration with a
mentor/coauthor might be helpful (Benson, 1978; Wheeler & Creswell, 1985).
Mentors may be faculty in the graduate student's doctoral program or older,
established colleagues whose help may range from an encouraging prod to
active participation in the junior scholar's research. The mentor not only
serves as a role model but also may provide valuable guidance in the form
of: "Here is how we do research" (Hunter, 1985, p. 19). Take advantage of
all opportunities without delay because for research (Blackburn, Behymer, &
Hall, 1978; Cole & Cole, 1967; Lightfield, 1971; Reskin, 1979) has shown
that a key element in a productive research career is the establishment
early in one's career of the habit of publishing.

For publication in many research journals an abstract is required. The
abstract—usually 30 words or less—is a summary of the research which
should be self-contained, accurate, and nonevaluative. It should parallel the text and include a description of the problem being studied, the subjects, research procedures, and findings.

The abstract as well as the manuscript as a whole should be clear, coherent, and readable. Clarity can be achieved through the precise expression of ideas in an orderly manner. Using words which mean exactly what you intend them to mean, say only what needs to be said. Preferably: use short, simple sentences which form paragraphs never longer than one page. Avoid jargon, colloquial expressions, acronyms unfamiliar to readers, and approximations of quantity. Each word, each sentence, each paragraph should logically follow its respective predecessor and should advance the idea being developed (Murray, 1982).

Give careful attention to grammar and punctuation--observing especially the following rules--in order to avoid common errors. Systematically check for subject and verb agreement, for example, data are not data is. Generally use the active voice but not with an inanimate subject that cannot perform the action implied by the verb, for example, study investigated. Use past tense or present perfect tense when describing studies in the literature review and procedures and findings in your study. Use present tense in the discussion of your results with continuing applicability and in the presentation of your conclusions. Be sure that a pronoun agrees in number and in gender with the noun it replaces, for example, each child/his or her and not each child/their. (Note that nonsexist language should be used throughout.) Also make sure that the referent for the pronoun is obvious. Especially troublesome are this, that, these, and those when they refer to a previous sentence. Avoid this problem by writing, for example, this girl, that test, these subjects, or those schools.
A very common punctuation error is inconsistency in the use of the comma before the last item in a series. The use of a comma before and and or in a series of three or more items is generally recommended. Further, all items in a parallel series should be parallel in form, for example, instructed to read . . . , to ask . . . , and to write . . . rather than instructed to read . . . , to ask . . . , and that they would be told. . . .

With regard to other elements of style, follow the rules established for the journal to which you are submitting the manuscript. In the Instructions to Authors section in a recent issue of the journal the style being followed is often indicated, usually through reference to a particular style manual such as the Publication Manual of the American Psychological Association (American Psychological Association, 1983) or the Chicago Manual of Style (University of Chicago Press, 1982). A careful study of the recommended manual along with a review of sample articles should enable you to conform to the style established for that journal. This perusal of sample articles should also ensure a better manuscript-journal match.

Once you have completed a first draft of your manuscript, reread it carefully—preferably after a period of time—trying to critique it objectively. As Mayher (1983) noted, good writers edit their text extensively. In addition, you may even have a colleague who will critique your work for a reciprocal analysis of his or her manuscripts. Then rewrite, rewrite, rewrite if you wish to increase the probability that the manuscript will be accepted for publication (Henson, 1984). This rewriting should not be viewed as punishment but as an essential part of the process. All manuscripts evolve through a series of drafts before they are ever published (Murray, 1982). Plan to spend several weeks and maybe months on
the preparation of even a short article. Catroppa's (1984) observation with reference to publications is true: "They aren't just cranked out" (p. 841).

Manuscript Publication

After you have honed a piece to perfection, it is ready for submission to a journal which publishes manuscripts such as yours. Telephoning the editor to verify the suitability of your manuscript for his or her journal is probably a waste of time. So is a query letter. Most editors are reluctant to make a decision without having seen your work. They prefer to receive a completed manuscript at the time of first contact (Elton, 1985; Faas, 1982).

The form of the letter of submission of the manuscript to the editor may be varied. However, a simple letter of transmittal similar to the following has proven sufficient for us:

Dear (Editor):

Enclosed are (the required number of) copies of a manuscript entitled (exact title). Your consideration of it for publication in (name of journal) will be appreciated.

Sincerely,

(Author)

The editor of the journal may or may not acknowledge receipt of the manuscript depending upon journal policy. Most editors who plan to do so will respond within 2 to 3 weeks following submission. If you have not received acknowledgement after 2 to 3 months, you might contact the editor simply to determine if the manuscript has been received.

You can expect to wait for a longer period of time to receive notification of the publication decision. While you may wait only 3 months, a delay of 6 months is not atypical, and sometimes the review process may
take up to a year or even longer (Faas, 1982; Henson, 1984). Again, after a reasonable period of time (say 4 to 6 months), you may contact the editor. However, unless the delay is excessive, contacting the editor is not advisable for he or she is probably working diligently to expedite the review process. More than likely the manuscript is in the hands of a delinquent reviewer. Whatever the reason, if the delay is longer than you can tolerate, you probably should withdraw the manuscript from consideration rather than put pressure on the editor (Gouran, 1983).

Once the review process has been completed, one of four decisions will be made (Benson, 1978). One decision is that the manuscript will be accepted for publication as is with no revisions. This decision is exceedingly rare.

A second decision is that the manuscript will be rejected. This decision is very probable because the rejection rate in research journals is usually high, being for some journals as high as 80%-90%+ (Benson, 1978; Faas, 1982). For specific rejection rates as well as acceptance/rejection criteria, acceptance/rejection procedures, time required for editorial decision, and other information for 122 journals in which research-based articles are published, see the guide prepared by Arnold and Doyle (1975).

Fear of rejection is an expressed reason why many potential authors do not try to publish (Elton, 1985). However, rejections seem inevitable. Noting that an average of 63 articles were published yearly by the majority of the journals he reviewed, Faas (1982) concluded that over 7,900 professional journals would be needed if each of the faculty members in the nation's 500,000+ colleges and universities published one article yearly. Were there no other reasons, rejections are likely to continue due to a lack of journals in which to publish.
If an editor rejects your manuscript, accept that decision. There is little chance that the decision will be reversed and arguing with the editor is likely to create animosity that will make future interactions strained. Rather than quibbling with the editor, review the criticisms, make valid changes, and submit the manuscript for publication consideration to the editor of another journal (Gouran, 1983).

It just may be that the editor who rejected your manuscript should have accepted it. Editors, as do authors, sometimes have feet of clay. Further, depending upon the luck of the draw, a manuscript can be sent to reviewers who are unduly critical (Elton, 1985; Ryan, 1979). Thus, an article rejected for publication in one journal may be accepted for publication in another. Therefore, be persistent in sending your manuscript to a different journal, revising it to conform to the style of the journal, until it has been published (Benson, 1978). For every well-prepared manuscript reporting the results of well-designed research that makes a significant contribution to the literature, there is a journal in which it can be published.

The third and fourth decisions, respectively, are to accept with minor revisions or to return to the author with suggestions for extensive revisions and an expressed willingness to review the manuscript again if revisions are made. Benson (1978) found that some authors do not even make the minor revisions. A much larger percent do not follow through with the major revisions and resubmission. As an aspiring author, however, you should revise and resubmit.

Criticism is hardly ever pleasant, but, in most instances, even the most untactful of editors and manuscript reviewers are trying to be helpful. However biting or unflattering, ask whether or not there is any substance in what is being communicated (Gouran, 1983). If so, make the necessary
changes. If it appears that the reviewers might have misunderstood and what you did does not need to be revised, defend your position in a letter to the editor accompanying the resubmitted manuscript (Elton, 1985).

Your resubmitted manuscript may be rejected. You can expect rejections. There is no highly published researcher who has not had a manuscript rejected. Accept the inevitability of rejection, tolerate the frustration of revision, and resubmit your manuscript to another journal. Do not forget that happiness is a research manuscript accepted for publication!

Addendum

Publishing research will not necessarily be easy. One scholar polled by Hunter (1985) said that working on a manuscript hour after hour until it is of acceptable quality is "more difficult than running a marathon" (p. 30). The hardest part is getting started, and, even after you begin, progress may be only an inch an hour. You will need to be a self-starter with the self-discipline necessary to stick with a project after the love affair has gone cold as another of Hunter's scholars reported.

Other of his scholars noted that "a picky attention to detail, a compulsive approach to establishing order, obsessiveness, and intensity" are other traits conducive to high productivity (Hunter, 1985, p. 30). Adaptability or flexibility are also important. You are likely to be juggling several research projects at one time--Hargens (1978) found that researchers who worked on simultaneous projects published more. You are also likely to be playing several simultaneous roles such as researcher/writer and teacher--Johnson and Tuckman (1985) found research and instructional productivity to be highly related. Fortunately, teaching
excellence and scholarly productivity do coexist. Jalongo (1985) cited Teague's conclusion that:

Productive faculty, as evidenced by their writings, addresses, and external funding are among those identified both by their students and by their professional colleagues as proficient instructors. (p. 173)

Jalongo further noted that there is no evidence that researchers necessarily neglect their teaching and, in the classroom, teach worse than those who do not publish. Instead, a symbiotic relationship seems to exist between teaching and research with each becoming more excellent as the other is practiced. Thus, the myth that research subverts teaching should be discarded (Boice, 1984).

Where do you find the time to do it all? Hunter's (1985) productive scholars reported that they blocked periods of time to get the work done with deadlines apparently dictating priorities. Some said that they did their best writing early in the morning. Others escaped to the office at night or on the weekends to write. Still others said that they stayed home at least 1 day a week to write. Vacation periods were used by still others to catch up on their research and publications. Two even noted that they used for research the time that their less productive colleagues probably spent watching televisions! Therefore, it seems, as Jalong (1985) maintained, that of essence in the publication process are priorities rather than time.

Everyone has the same 24 hours in each day. Rather than using lack of time as a reason for not writing as low producers do (Elton, 1985), commit a substantial portion of your time to research and scholarly writing—become a researchaholic as Hunter (1985) called the highly productive scholars. Blackburn and Havighurst (1984) reported that the amount of time spent
writing was the best predictor of publication. Kellogg (1982) noted that productive scholars usually work 1 to 2 hours per session on their manuscripts. Boice (1985) observed that a long-standing, regular attentiveness to writing was the key to success. He referred to Jerome Bruner's conclusion that: "Writing is an experience that nourishes itself and that, with regular practice, establishes a sense of interconnectedness of its ideas and manufactures its own problem-solving mechanisms" (p. 473).

Instead of planning, pausing, and prewriting as persons with an aversion to writing tend to do (Rose, 1983), produce whether you want to or not. Few scholars wait for inspiration (Hunter, 1985). Good writing depends on practice, independent of the writer's mood.

Maintaining that productivity precedes creativity, Boice (1984, 1985) described a behavior modification program that has effected modest but stable levels of daily writing productivity. Subjects' situations and needs dictated the contingency management techniques employed, but typically an output goal (e.g., two typed manuscript pages in each day of a 5-day week) had to be reached before access to a more preferred activity (e.g., daily showering) was permitted or punishment (e.g., contribution to a despised organization such as the Ku Klux Klan) was avoided.

What is the payoff for publishing research? Exhaustion is one that has been mentioned. In the preparation of research manuscripts every ounce of mental and physical energy can be used up. One scholar admitted, "Every time I finish a manuscript, I swear that's the end" (the last one) (Hunter, 1985, p. 34).

Why, then, do scholars who publish persist in writing when the process is obviously one involving struggle and pain? Some do so because a clear expectation for performance is communicated at their institutions by
administrators and by colleagues, employed there. Others do so to produce a well-padded vita and to achieve the associated successes such as tenure, promotion, and raises. In tenure and promotion challenges is seen the importance of research publications. With regard to raises, however, Johnson and Tuckman (1985) found productivity unrelated to rewards. Instead, they noted a regression toward the mean at raise time.

Although the existence of a reward structure is an incentive for all to engage in scholarly research, Startup and Gruneberg (1976) observed that prolific scholars tend to be motivated intrinsically more so than by salary considerations. Accordingly, Levi and Grasha (1983) found that the lower productive writers to be motivated more by extrinsic, means-to-an-end rewards, and higher productive writers to be motivated more by a desire to achieve distinction and to enhance identity and autonomy. Likewise, McNiff (1977) reported that independence, mortality, and personal satisfaction are motives for productive writers.

Personal satisfaction and joy of acceptance by their peers motivated Hunter's (1985) scholars to continue their writing activities. Parental pride was used to describe the sensation of seeing ideas grow into a manuscript acceptable to professional peers. Their inquisitiveness and wide-ranging interests enabled them to generate ideas for additional research, and they had fun doing it. Part of their pleasure came from the independence associated with scholarly work. I did it myself was a repeated sentiment. They were working to make a contribution to society, to communicate with and impact on others, to leave a permanent record.

Your published scholarship will be your contribution, your record, your testimony. It will never fully pay in promotion or salary raises the hours
of labor involved. Much of the underlying motivation for research publications must be personal and communal.

Further, it is easier to say how to write than to write. However, as Murray (1982) commented, [w]riting . . . is not an art, but a craft; not a mystery, but a discipline which can be understood and learned if it is practiced" (p. 768). Do so. You may hate writing, but you will love having written.
References


